Investing in information and communication technologies to reach gender equality and empower rural women
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Sofie Isenberg
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## Abbreviations and acronyms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ComDev</td>
<td>communication for development</td>
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<tr>
<td>CoP</td>
<td>community of practice</td>
</tr>
<tr>
<td>CSW</td>
<td>Commission on the Status of Women</td>
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<tr>
<td>FAO</td>
<td>Food and Agriculture Organization of the United Nations</td>
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<tr>
<td>FAO-RAP</td>
<td>FAO Regional Office for Asia and the Pacific</td>
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<td>FRI</td>
<td>Farm Radio International</td>
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<td>GMMP</td>
<td>Global Media Monitoring Project</td>
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<td>GSMA</td>
<td>GSM Association</td>
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<tr>
<td>ICT</td>
<td>Information and Communication Technology</td>
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<tr>
<td>ICT4Ag</td>
<td>ICT for Agriculture</td>
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<tr>
<td>ICT4D</td>
<td>ICT for Development</td>
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<tr>
<td>ITU</td>
<td>International Telecommunication Union (United Nations)</td>
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<tr>
<td>LDCs</td>
<td>Least Developed Countries</td>
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<tr>
<td>NGO</td>
<td>non-governmental organization</td>
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<tr>
<td>PRC</td>
<td>participatory radio campaign</td>
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<tr>
<td>RCS</td>
<td>rural communication services</td>
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<tr>
<td>SDGs</td>
<td>Sustainable Development Goals</td>
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<tr>
<td>UNDAW</td>
<td>United Nations Division for the Advancement of Women</td>
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<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
</tr>
<tr>
<td>UN Women</td>
<td>United Nations Entity for Gender Equality and the Empowerment of Women</td>
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<tr>
<td>WSSIS</td>
<td>World Summit on the Information Society</td>
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Key terms and concepts

AGENCY
The ability to make autonomous choices and transform those choices into desired outcomes. Five “expressions” of agency are: freedom from the risk of violence; access to and control over property; freedom of movement; decision-making over family formation (e.g. family planning, divorce); ability to have voice and influence policy (FAO TERM, under ‘Women’s Agency’).

COMMUNICATION FOR DEVELOPMENT (COMDEV)
A social process based on dialogue using a broad range of tools and methods. It is also about seeking change at different levels including listening, building trust, sharing knowledge and skills, building policies, debating and learning or sustained and meaningful change. It is not public relations or corporate communication. (The Communication Initiative, FAO, and World Bank, 2007).

GENDER
The concept of gender needs to be understood clearly as a cross-cutting socio-cultural variable. It is an overarching variable in the sense that gender can also be applied to all other cross-cutting variables such as race, class, age, ethnic group, etc. Gender systems are established in different socio-cultural contexts which determine what is expected, allowed and valued in a woman/man and girl/boy in these specific contexts. Gender roles are learned through socialization processes; they are not fixed but are changeable. Gender systems are institutionalized through education systems, political and economic systems, legislation, and culture and traditions. In utilizing a gender approach the focus is not on individual women and men but on the system which determines gender roles / responsibilities, access to and control over resources, and decision-making potentials. It is also important to emphasize that the concept of gender is not interchangeable with women. Gender refers to both women and men, and the relations between them. Promotion of gender equality should concern and engage men as well as women. (OSAGI, 2001)

INFORMATION AND COMMUNICATION TECHNOLOGY (ICT)
ICT includes any device, tool, or application that permits the exchange or collection of data through interaction or transmission. ICT is an umbrella term that includes anything ranging from radio to satellite imagery to mobile phones or electronic money transfers. (World Bank, 2017).

1 The FAO TERM PORTAL is available at: fao.org/faoterm
Note for readers

INFORMATION SOCIETY
A concept that responds to the expansion and ubiquity of information. The term has been in use since the 1970s, but has gained in popularity and is now widely used in social and political policy. Sustained and accelerated growth of media, of education provision and participation, as well as computer communications technologies has led many to posit that the attendant information explosion distinguishes a new epoch. The information society is one in which information is the defining feature, unlike the industrial society where steam power and fossil fuels were distinguishing elements. (Oxford Reference, n.d.)

NEW ICTS
Term used in this paper to distinguish digital ICTs developed in recent decades (e.g. mobile phones, personal computers, the Internet) from the full range of ICTs.

WOMEN’S EMPOWERMENT
The empowerment of women concerns women gaining power and control over their own lives. It involves awareness-raising, building self-confidence, expansion of choices, increased access to and control over resources and actions to transform the structures and institutions which reinforce and perpetuate gender discrimination and inequality. The process of empowerment is as important as the goal. Empowerment comes from within; women empower themselves. Inputs to promote the empowerment of women should facilitate women’s articulation of their needs and priorities and a more active role in promoting these interests and needs. Empowerment of women cannot be achieved in a vacuum; men must be brought along in the process of change. (OSAGI, 2001)
Introduction

Why a paper on gender and ICTs?

Information and communication have always been central to people’s lives and livelihoods. However, the effects of accelerated technological progress in recent decades have led many to argue that the current age is now defined by information. Advances in information and communication technologies (ICTs) have made enormous quantities of information available to more people than ever before. These advances have also substantially increased the capacity of people all over the world to connect with each other in a continuously expanding number of ways. This has triggered an explosion in the production of new information and the proliferation of new modes of communication. Other leaps in technological capacities are leading to greater mechanisation and automation across many sectors, and are having a profound impact on the lives and livelihoods of people worldwide. ICTs are becoming increasingly central to social, cultural, economic and political life. The ability to access and make use of these resources often marks the difference between those who thrive and those who are left behind. For this reason, ICTs should be considered as an inherent need and even a right of all people living within the sphere of influence of the ‘information society’.

Rural women and men in developing and least developed countries (LDCs) have been deeply affected by the socio-economic and political shifts that have accompanied the global rise of information. However, they have the lowest levels of access to ICTs, and they mostly remain an afterthought in ICT policy and private sector outreach. Interventions that do target rural areas in the application of ICTs for development (ICT4D) rarely approach the issue from the perspective of rural people’s own priorities, needs and preferences.

Rural women in particular are currently (and have always been) last in line in terms of ICT access and use, even though women stand more to gain than most from active participation and engagement with these resources. In addition to the numerous material and social constraints they face to ICT adoption, they are also hindered from inclusion in the information society by environmental factors. Evidence suggests that the ICT sector is both urban- and male-centric, ranging from the design of ICTs to the gender of sector employees and decision-makers. Representation in the media is also predominantly male. Men both report and are at the centre of most news stories, especially those related to technology, agriculture and rural development, and economy.

The aim of this paper is to bring rural communities, and women and other marginalized groups in particular, back into the centre of conversations on ICTs and ICT4D. Part I reviews the available information on the nature and extent of the digital divide and highlights the perspectives of rural women and men on issues of importance to them (Chapters 2 and 3). Part I also provides a survey of relevant FAO work in support of rural women and men, and the key international agreements and events from recent decades that have set the context and provide the impetus for adopting inclusive approaches to ICT4D (Chapter 4). Part II focuses on the actions that need to be taken to ensure that the information society, and global development efforts in general, are inclusive and sustainable (Chapters 5 and 6).
PART I: OVERVIEW
Measuring the digital divide: where do rural women and men stand?

Due to the multifaceted and rapidly evolving nature of new ICTs, it can be difficult to gain a clear picture of the challenges and opportunities created by these technologies in rural development contexts. Internet and mobile technologies have seen unprecedented rates of adoption since their introduction (see Figure 1). The rapid pace of technological development in recent years makes for a constantly evolving landscape. According to the 2016 World Development Report:

*More households in developing countries own a mobile phone than have access to electricity or clean water, and nearly 70 percent of the bottom fifth of the population in developing countries own a mobile phone. The number of internet users has more than tripled in a decade—from 1 billion in 2005 to an estimated 3.2 billion at the end of 2015. (World Bank, 2016, p.2)*

![Figure 1: Digital technologies are spreading rapidly in developing countries](source: World Bank, 2016)

These figures suggest that the spread of new ICTs has been so fast that it has actually outpaced development in many countries. In fact, Internet use around the world is currently more evenly distributed than income (World Bank, 2016).

This state of affairs represents the crux of the current challenge in using ICTs to promote inclusive development. ICTs can serve as powerful tools to enable economic and social development, and they hold enormous potential to empower rural men and women. However, because these technologies are valuable resources in themselves, their level of adoption is likely to reflect (and may even exacerbate) existing inequities in society. Disadvantaged members of society are likely to face similar barriers in accessing and using ICTs to those they face in accessing other essential resources.

The global data reviewed throughout this chapter appear to confirm this hypothesis. The data suggest that greater attention needs to be paid to the role of sociocultural and economic inequalities in determining the spread and impact of ICTs. Section 2.1 provides quantitative information on the size and scope of the existing gap in the ability to access and make meaningful use of ICTs. The remaining sections review available data on global trends for a number of factors such as the design of ICTs, the relevant policy context, and the media environment, all of which play a significant role in reducing or reinforcing existing barriers.
“Probably the four most important characteristics contributing to radio’s success as a medium for development are: (1) its pervasiveness, (2) its local nature, (3) the fact that it is an oral medium, and (4) its ability to involve communities and individuals in an interactive social communication process.”

(FAO, 2003e, p. 8)

“Even when countries appear to have a small gender gap or no gender gap at all, deeper analysis can reveal higher gender gaps among certain areas of the country or age groups. In Morocco, for instance, the average country-wide gender gap of 4 per cent in mobile phone ownership is predominantly driven by rural areas, where women are 12 per cent less likely to own a mobile phone than men. In urban areas, men and women have a similar level of mobile ownership.”

(GSMA, 2016)
2.1 Who is accessing and using ICTs?

In the last five years, mobile broadband subscriptions have increased by more than 20 percent per year. Yet there are still half as many mobile broadband subscriptions in developing countries as there are in developed countries, while in LDCs, this proportion shrinks to one-quarter (ITU, 2017a). More than half of the world’s population is offline. Non-users reside overwhelmingly in the Global South. In 2016, three-quarters of Africa’s population was offline. In the Arab States and Asia and the Pacific, close to 60 percent of the population was not using the Internet (ITU, 2016a). Within countries, disparities in mobile phone usage have decreased between income categories and urban and rural populations, but the gap has actually increased with respect to Internet adoption (World Bank, 2016; ITU, 2016b). In 2016, mobile-broadband networks (3G or above) were reaching 84 percent of the global population, but only 67 percent of the rural population (ITU, 2016a).

Gender disparities in ICT adoption appear to reflect a similar pattern. With very few exceptions, women in developing countries and LDCs are less likely than men to use digital technologies, and are even less likely to own them (ITU, 2017a; World Bank, 2016; ITU, 2016b; GSMA, 2015). Worldwide, the gap between male and female Internet users is 12 percent. In less developed regions, this gap widens significantly, reaching 33 percent in LDCs (ITU, 2017a; See Figure 2).

The trend towards a larger gender gap in lower-income and less connected countries is also present for mobile phone ownership and use (ITU, 2016b). According to the 2015 report by the GSM Association (GSMA), “over 1.7 billion females in low- and middle-income countries do not own mobile phones”. The global gender gap for mobile phone ownership, which stands at 14 percent, varies significantly by region, rising to 38 percent in South Asia (GSMA, 2015). Even when women do own phones, they use them less often than men, and access fewer services beyond voice communication (e.g. messaging and mobile Internet). In India, rural women are 50 percent less likely than men to use IP messaging services, such as WhatsApp (GSMA, 2015, 2016). Borrowing and phone sharing is common in many lower-income areas, especially among women. This practice can provide certain benefits to women who cannot afford a phone, but it also limits their ability to develop technical literacy and use services that require a greater degree of privacy (GSMA, 2015). One study conducted in rural communities across India found that owning a mobile phone significantly increased the likelihood of users being capable of operating a mobile phone. Borrowers, on the other hand, frequently required assistance (Rathinam, 2015).

A note on radio

Radio is among the most ubiquitous ICTs. In 2012, at least 75 percent of households in developing countries had access to a radio (UNESCO, 2013). In developed countries, access to radio was close to 100 percent around the same time period (Partnership on Measuring ICT for Development, 2014). In some contexts, the advent of new ICTs has made access to radio less relevant, but in others it has maintained or even increased its importance.

In rural areas where there is no electricity and new ICTs remain unaffordable for most people, radio often remains the most relevant ICT (Partnership on Measuring ICT for Development, 2014). In the first half of the 2000s, for example, only 10 percent of rural households in sub-Saharan Africa had electricity, but 51 percent had radios (ITU, 2008). During the same time period, the region saw local commercial radio grow by approximately 360 percent and community radio grow by about 1 386 percent (UNESCO, 2013). Given that, in 2017, Africa remains the continent with the lowest proportion of households connected to the Internet and the highest gender gap in Internet access (ITU, 2017a), it is perhaps not surprising that radio has remained an important source of information and a key means of community engagement and empowerment for many rural women and men.²

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It is worth noting that radio and new ICTs are not mutually exclusive technologies, but rather potentially mutually reinforcing tools for development. Radio integrates well with other ICTs. Many mobile phone owners use their handsets to tune in to and interact with radio programmes. Community radio has successfully been used to introduce rural communities to the Internet and provide them with access to online content in local languages. In rural areas especially, community radio has been particularly effective in promoting inclusive dialogue and debate, particularly when used in combination with other media and traditional communication formats (FAO, 2014; UNESCO, 2013; Partnership on Measuring ICT for Development, 2014).

2.2 Who is designing new ICTs?

In 2017, the technology industry remains dominated by men. Figures from some of the top companies in the industry show that women make up around one-quarter to one-third of employees, and only 16 to 23 percent of technical staff. Globally, only 6 percent of the developers of applications are female. The percentage of Sector Members of the International Telecommunication Union (ITU) with female chief executive officers is around 8.7 percent, and the percentage with female chief technical officers/chief information officers is 6.2 percent (ITU, 2017b). At the regional level, there are some noteworthy deviations from broader industry trends. For example, only about 10 percent of the world’s internet entrepreneurs are women, but this figure may rise to as high as 35 percent in the Arab world (The Economist, 2013).

The overall lack of women working in technology sector remains a significant cause for concern. Devices and applications designed by men tend to be less responsive to women’s priorities and needs, and in some cases, can actually discourage women from using them or even raise safety issues. For example, early versions of voice recognition software were frequently unable to recognize female voices because none of the male developers had thought to perform tests with women users (Kleinman, 2016). One study conducted by the American Medical Association found that four of the most widely used virtual assistants were effective at providing help to address crises, such as a heart attack or even thoughts of suicide. These same assistants, however, failed to recognize sexual assault or domestic abuse, responding “I don’t know what that is” when prompted (Chemaly, 2016)⁴. A report by the United Nations Division for the Advancement of Women (UNDAW) and UNESCO based on research on gender and user experience (Schroeder, 2010) concluded that:

> The basic premises for developing advanced electronic products, like a TV, a hi-fi- system, a mobile phone or a GPS, seem to a large degree to be dominated by male thinking. The values that drive the basic specifications, features and the interaction design for these kinds of products […] scarcely reflect female values, preferences and life style. Therefore these products are not as attractive and useful for the female users as they could be. The value proposition of the technology which could enhance women’s lives does not fulfill its potential. (p. 2)

ICT development has so far been largely driven by urban perspectives and concerns. With few exceptions, little effort has been made to respond to the needs and priorities of people living in rural communities. As a result, rural women are even less likely than their urban counterparts to engage with ICT solutions designed with them in mind.

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3 Apple, Facebook, Google, Microsoft, Twitter
4 For more on the issues inherent to technology products designed for and by men, see; Swanson and Keller, 2000; Morrison, 2016. For information on how technology can be designed with women in mind, see Schroeder, 2010 and the Design-People web site at: www.design-people.com/inspired-by-women.
2.3 Are sector policies addressing the gender gap in ICT access and use?

Who is involved in relevant decision-making and regulatory processes?

Policies that take gender and other social dimensions of vulnerability into account are key to bridging the gap between rural women and men (and rural and urban communities) in the ability to benefit equally from ICTs (Broadband Commission for Digital Development, 2013, 2017; UNECA, 2010). However, the integration of gender, ICTs and rural development into sector policies and strategies remains a significant challenge.

A growing number of countries are integrating gender equality concerns into their agriculture sector policies. Very few of these countries have also worked out ICT priorities for the sector [although see Chapter 4 for information on recent FAO work in the Asia and the Pacific region on developing E-agriculture policies]. According to a 2017 report by the Broadband Commission for Sustainable Development Working Group on the Digital Gender Divide, gender-related policies and ICT policies have frequently remained completely disconnected from each other. Gender policies fail to acknowledge the relevance of ICTs as enabling tools, and ICT policies overlook the gender dimension of ICT access and use (Broadband Commission for Sustainable Development, 2017). Data from the World Wide Web Foundation’s 2014 Web Index confirms this:

Policy actions to assess and overcome the gender gap have been sluggish. Only 30 percent of the Web Index countries score higher than a five for implementing concrete targets for gender equity in ICT access and use (see Box 1 for scoring criteria). Almost all of them are high-income countries that have already achieved high levels of gender parity in other spheres of life (World Wide Web Foundation, 2014, p.14).

More recent data focusing exclusively on low- and middle-income countries paint an even bleaker picture. In 2016, an expert survey of 58 countries in Africa, Asia, and Latin America and the Caribbean revealed that countries across all three regions are failing to address the digital gender gap in their ICT policies. The average score for countries was 2.73 out of 10. Only six out of 58 countries scored as high as 5 (see Box 1). Not a single country scored higher than a five or had any measurable targets for improving women’s access and use as part of a national ICT policy or strategy (World Wide Web Foundation and A4AI, 2017).

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**Box 1: Web Index benchmark criteria for gender targets in ICT policy**

**Score of 10:** There is an official national policy or directive designed to encourage increased access, training and use of the Web for women and girls, with concrete targets for gender equity in this area. Specific and adequate resources and programmes are allocated and identified for that purpose and the programme is being clearly implemented, with evidence of success in some areas where the initiative is being implemented.

**Score of 5:** There may be subnational and/or national policies encouraging increased access, training and use of the Web by women and girls, but no official national concrete targets exist. In the absence of a national target, there may be public recognition from a senior government figure (e.g. Cabinet minister) and/or parliamentarians encouraging greater female access to the Web.

**Score of 0:** There is very little, if any, discussion at any level of government about the need to encourage greater access to and use of the Web by women and girls, or of increased training in how to use the Web for women and girls. There are no related concrete policy targets and budget allocations at all.


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5 “Stakeholders have often neglected to develop adequate or holistic strategies that ensure gender equality in ICTs. Gender-related policies, strategies and action plans frequently fail to acknowledge the importance of ICTs and broadband as enabling tools and are often disconnected from ICT-related policies. At the same time, strategies, policies and plans aimed at promoting broadband adoption and access often do not have a gender dimension and fail to address women’s needs, circumstances, capabilities and preferences.” (Broadband Commission for Sustainable Development, 2017, p.23).
The low proportion (and in some cases, near absence) of women in high-level ICT-related processes is equally worrying. Out of 193 ITU Member States, only 22 have female ICT ministers, and only 12 out of 164 independent regulators are headed by women. Current female participation in ITU world conferences and governing bodies has increased to 25 percent from 19 percent in 2015. However, the proportion of women who serve as chairs or vice-chairs of ITU study groups remains low, at 6 percent (ITU, 2017b).

2.4 Who is telling the story, and what story is being told?

Narrative matters. The stories that are told by and about women in the media play a significant role in creating the socio-cultural context that informs gender roles and helps to determine women’s access to and use of valuable resources, such as ICTs.

A 2015 report by the Global Media Monitoring Project (GMMP) found that women “make up only 24 percent of the persons heard, read about or seen in newspaper, television and radio news” (GMMP, 2015, p.8). An even smaller proportion (10 percent) are the focus of stories; a figure that has held steady since the year 2000. Women make up only one-fifth of the depictions of workers in the formal labour force. Among the different thematic areas of news reporting, economic news is the least likely to focus on women. Women are much likelier to be portrayed as stay-at-home parents (67 percent) or sex workers (50 percent) than as agricultural workers (14 percent) or technology-related professionals (10 percent).

Only 20 percent of stories on the topic of ‘rural economy, agriculture, farming, land rights’ and 25 percent of stories on the topic ‘science, technology, research, discoveries’ include women as subjects. Among stories on these topics, only 6 and 7 percent respectively actually include women as a central focus of the story or raise issues of gender equality/inequality. ‘Rural economy, agriculture, farming, land rights’ is also among the top ten types of stories that are least likely to be reported by women.

The report presented several noteworthy findings about female reporters’ voices on the radio and online. Women make up 41 percent of news reporters on the radio, a greater proportion than in other traditional media, and they report 42 percent of online news. Stories by female journalists are likelier to include female subjects than stories by male reporters. The gender difference in the selection of sources and subjects is even more pronounced online, with women included in 33 percent of stories by female reporters and only 23 percent of stories by male reporters (GMMP, 2015).

“From the beginning of time, technology has been a key element in the growth and development of societies... But technology is more than jets and computers; it is the combination of knowledge, techniques and concepts; it is tools and machines, farms and factories. It is organization, processes and people. The cultural, historical and organizational context in which technology is developed and applied is the key to its success or failure.”

(Smillie, 1991, p.3)
Understanding the digital divide: ICTs, communication and gender in the context of rural development

The issue of rural connectivity is often described in terms of the ‘special challenges’ it presents. This narrative belies an underlying but persistent habit of thinking about technology in rural contexts as ‘distinct from’ or ‘less than’ an imagined urban norm. FAO recognized this trend as early as 1998 in the publication, The First Mile of Connectivity (Richardson and Paisley, eds., 1998):

> For many years, people working to enhance telecommunication infrastructure and applications have referred to rural communities as being at the “last mile of connectivity.” The concept of the “last mile” carries a lot of negative connotations and compels us to assume the perspective of an urbanite looking down at the rural margins. (p.2)

> … from the perspective of someone living and working in a rural area, we must change our language to reflect the need for a more progressive and aggressive way of characterizing the need for improvements in rural telecommunication systems around the world. [Titus Moetsabi] was the first to coin the term “First Mile of Connectivity” to challenge the prevailing notions that rural people, rural communities and rural infrastructure are always backward and always last. (p. iii)

In the context of ‘first mile’ thinking, the true obstacle to achieving equitable access and meaningful use of ICTs for rural women and men “is not technical or financial, but political and ideological” (Richardson and Paisley, eds., 1998, p.2). The responsibility lies with urban-centric governments, as well as private sector and development actors, to shift their perspective in both discourse and practice to reflect the priorities and agency of rural people. The fact that almost twenty years later, many of the constraints to rural development and connectivity identified in The First Mile of Connectivity still persist suggests that the challenge remains to be fully taken up.

For rural women, the imperative to shift perspective when promoting equitable access to and use of ICTs is especially strong. Rural women face the same type of marginalization experienced by rural people in general. However, rural women are also usually an afterthought in the discourse, technical design and policies related to ICT and development (see Chapter 2). Like all other individuals, rural women have valuable information and knowledge to contribute. They have unique priorities that shape their decision-making processes, and context-specific constraints they must address. Like all other economic actors, rural women are consumers with preferences that influence their spending behaviour and choices. To close the digital divide, it is necessary for governments, development actors and the private sector to acknowledge rural women’s agency and begin viewing them as more than passive recipients of aid and/or consumer products.
This chapter aims to support the shift in perspective toward gender-sensitive, rural-centric thinking in rural development initiatives related to ICTs. Section 3.1 reviews several key ways in which the experiences and viewpoints of people living in rural areas may differ from those of urban populations. Section 3.2 uses a selection of qualitative studies from different regions to show how contextual information can provide a fuller understanding of how rural women and men are (or are not) engaging with ICTs. Both sections in this chapter should be read as starting points in a conversation rather than as a complete list of relevant factors to take into account in ICT4D interventions. It should be also be noted that the kind of ‘global’ information presented here cannot in any way replace localized information gathered through participatory processes in the design and implementation of interventions.

3.1 Specificities of the rural context in developing countries

In rural contexts, agriculture, income, food security and nutrition, family and community dynamics are all inextricably bound up with each other in shaping the character of daily life. The interaction among these factors influences all aspects of rural people’s decisions to engage (or not) with ICTs, ranging from whether to spend money on ICT ownership and access and how much, to who should be using ICTs and how. The sections below discuss three important aspects of life in rural areas that can affect decision-making and behaviour related to ICTs.

Smallholders in developing countries face major environmental and structural barriers

Agriculture is central to rural livelihoods. Approximately two-thirds of the developing world’s three billion rural people live in small farm households. Family farms make up the vast majority of farms worldwide (FAO, 2015b; Graeub et al., 2016). Smallholders are similar to other entrepreneurs in many senses:

They raise capital from multiple sources and invest in productive assets... They make decisions and take both risks and profits. And agriculture involves many decisions: What to plant, which inputs to use and how, when to plow, to seed, to harvest; how much to keep for consumption in the household and how much to sell to raise cash, or how much to store. (FAO, 2015b. p. 1)

On the other hand, smallholders also differ from other entrepreneurs in a number of important ways that affect both the functioning of the rural economy and the way rural people engage with ICTs.

Smallholders are generally the primary investors in their own farms. It could be argued that they are “the largest component of private sector investment in agriculture”, though they are rarely acknowledged as such (FAO, 2014). Yet as investors, smallholders operate under challenging conditions. They run their businesses and decide how to invest their resources in circumstances of high risks (e.g. market and weather instability) and usually in the face of enormous constraints (e.g. lack of services, limited infrastructure, and/or political instability). Perhaps most importantly, smallholders usually take on these challenges in the midst of poverty, which is overwhelmingly concentrated in rural areas. Over three-quarters of the world’s poor are rural people, and 65 percent of poor working adults earn a living through agriculture (Castaneda et al., 2016; FAO, 2017e). Due to limited resources, smallholders earn a smaller proportion of their income from agricultural production than larger farming households, and must rely on a combination of sources of income (e.g. agricultural labour, labour in the non-farm sector, transfers and remittances) (FAO, 2015b).

“In South Asia and the Philippines, family farmers spend more than 25 percent of their monthly household incomes on mobile telephony usage, while African family farmers spend between 11 and 27 percent. All of these rates far exceed the International Telecommunication Union’s widely accepted accessibility-cost benchmark of five percent of monthly income. These studies indicate that family farmers are diverting their limited household incomes away from basic needs, such as food and school expenses for their children.”

(FAO, 2014, p.39)
These constraints have a profound influence on the rural economy. Smallholder households spend a large proportion of their budget on food (e.g. up to 81 percent in the United Republic of Tanzania). Often, very little money is left for other expenditures. Decisions about how to allocate limited time and resources therefore involve high stakes and have important consequences for rural livelihoods (FAO, 2015b). As a result, expenditures related to ICTs end up competing with other basic needs, such as housing, utilities, or education. ICT-related expenditures can represent a threat to food security if over-prioritized. Several female respondents in the studies discussed in Section 3.2 mentioned that, for them, the choice often came down to spending on ICT-related products and services or food.

**Gender inequality is a significant constraint in rural areas**

Women make important contributions to the agricultural sector as labourers, farmers and entrepreneurs. In developing countries, they make up 43 percent of the agricultural labour force and produce 60 to 80 percent of the food (FAO, 2011a; World Bank, FAO and IFAD, 2009). However, rural women face systemic gender-based constraints that both inhibit their empowerment and negatively affect overall agricultural productivity and rural development. On the whole, rural women have less access to productive resources, services and opportunities, including education and agricultural information. They operate smaller farms, use fewer inputs, and keep fewer and smaller livestock than men. Women often work as unpaid family labourers, and when they are employed, they are more likely to have low-paying jobs and be paid lower wages for the same work as men. Furthermore, rural women disproportionately carry the burden of household work and time-consuming manual labour, which limits both their mobility and the free time they have available to pursue other activities, such as training or social networking (FAO, 2011a). These constraints limit women’s available income and their capacity, time and opportunities to access and actively engage with ICTs.

Cultural norms about gender roles both explicitly and implicitly inhibit rural women’s agency. In addition to establishing the material constraints discussed above, norms about appropriate behaviour and legitimate use of ICTs for women often limit their ability to access valuable ICT-based content and services (for examples of this, see Section 3.2). A widespread association between men and technology also means that technological solutions, including ICTs, are usually developed and marketed with men’s priorities and concerns in mind rather than with a focus on user-friendliness or labour-saving potential for women. Finally, although the power dynamics within rural households can vary greatly from region to region, and even from home to home, a gendered dimension to decision-making is almost always present. For example, ideas about men’s role as farmers and household heads tend to favour men in terms of bargaining power and control over other household members’ income. As a result, men often are the primary decision-makers with respect to important financial decisions, including purchases related to ICTs.

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6 The actual proportion of women doing agricultural work is likely much higher. Women’s roles as farmers and producers in many parts of the world remain largely unrecognized and underreported, including by women themselves, who frequently identify as “just housewives” even when they are performing the majority of agricultural work in a household. Furthermore, growing numbers of women in many regions are being left to shoulder the burden of agricultural work as men seek income-generating opportunities in other sectors, often migrating to cities for extended periods of time, a phenomenon known as the “feminization of agriculture”. (World Bank, FAO and IFAD 2009).
Local values and networks influence adoption of ICTs

Farmers conduct business and manage knowledge locally. They stimulate the rural economy (both farm and non-farm) by spending close to 80 percent of their income on local goods and services. They also create employment opportunities for landless neighbours when they hire agricultural labour (FAO, 2014). Smallholder producers usually rely upon family and exchange labour to ensure the viability of their farms. The most impoverished rural people are heavily dependent upon strong kinship ties and community support mechanisms for survival, especially in times of crisis. The high levels of interdependence among people living in rural areas often places a strong emphasis on collective values (see Box 2 for an example), which have an important influence on decision-making at all levels (individual, household, community) and on norms for appropriate behaviour.

In areas where institutions are weak or unreliable, trust and established relationships often take precedence for farmers in obtaining information and conducting important transactions (e.g., purchasing inputs, selling goods, or obtaining loans). For example, farmers frequently opt to borrow informally from known local lenders rather than from formal institutions, even though the terms of informal loans are rarely the most convenient financial option (World Bank, 2017). Younger actors in the agriculture sector are likelier to see the Internet as a place to find trusted information. Many older farmers may favour word-of-mouth or locally produced information from trusted sources over official information channels when gathering agricultural information, such as when and how to plant, or whom to sell to. This preference is also shaped by the fact that official channels are less likely to cater to farmers’ interests and needs with relevant local information that is presented in a format and language these farmers can understand. The tendency to gather information within existing networks also extends beyond agriculture into most other areas of rural life, including other opportunities for generating income, health information, and information relating to government benefits and programmes.

Factors such as trust, personal networks, and community values and norms are all likely to shape rural women and men’s engagement with ICTs. The studies reviewed in Section 3.2 below provide several examples of how the factors discussed throughout this section can influence rural users’ motivations for using ICTs, the type of content they choose to access, and the barriers they face in accessing, using and owning ICTs.
3.2 How are rural women and men engaging with new ICTs? What barriers to adoption do they face?

According to the GSMA (2015), the top five barriers preventing women from owning and using mobile phones are: cost; network quality and coverage; security and harassment; technical literacy and confidence; and operator and agent trust. The GSMA suggests that addressing these constraints would significantly reduce the gender gap in mobile phone ownership and usage, also acknowledging that the gender gap is “driven by a complex set of socio-economic and cultural barriers” (GSMA, 2015, p.7).

As discussed in Section 3.1, local gender norms and existing disparities between men and women and urban and rural people, can significantly influence the ways in which rural women and men engage with technologies and experience barriers to access and use. This section will explore aspects of ICT access and use in rural areas, and the gender digital divide and its consequences for rural women in Latin America, Africa and Asia. It will review qualitative information from four studies:

- **Development as freedom in a digital age: Experiences of the rural poor in Bolivia** by Björn-Sören Gigler. This 2015 publication, which is based on field research conducted by Gigler, explores the opportunities and challenges faced by rural indigenous communities in adopting ICTs. The sections below will focus especially on findings from Chapter 8 of the book, Enacting and Interpreting Technology: Experiences of Aymara women with ICTs, which focuses on the experiences of rural Aymara women who received ICT training from a local grassroots organization.

- **Internet use barriers and user strategies: Perspectives from Kenya, Nigeria, South Africa and Rwanda** by Chenai Chair. This 2017 study reviews the results of a multicountry study commissioned by the Mozilla Foundation on the challenges that must be met to overcome digital inequality. The results are based on focus group discussions conducted with men and women in urban, peri-urban, rural, and ‘deep rural’ areas of each of the four countries.

- **Use of mobile phones by the rural poor: Gender perspectives from selected Asian countries**. This 2016 report, published by FAO, the International Development Research Centre (IDRC) and LIRNEasia, reviews findings from two studies. The first is a 2011 study examining the digital gender divide among the poor in urban and rural areas in six countries: Bangladesh, India, Indonesia, Pakistan, Sri Lanka, and Thailand. The second study provides greater context to the results of the first study through focus group discussions conducted with men and women in Indonesia and Sri Lanka.

- **Mobile phones, gendered poverty and inequality: Experiences from four districts in rural India** by Usharani Rathinam. This PhD dissertation from 2015 documents the experiences of women and men with mobile phones rural India. It includes case studies conducted in four districts: Jhansi (Uttar Pradesh) and Tikamgarh (Madhya Pradesh) in the northern part of the country, and Anantapur (Andhra Pradesh) and Cuddalore (Tamil Nadu) in the south.

**Box 3: The gender gap is context-sensitive**

Research suggests that the extent and nature of the gender gap in access to and use of ICTs is significantly influenced by local contextual factors. For example, a well-known study of 12 Latin American and 13 African countries found that unfavourable income, education, and employment conditions were the primary cause for women’s lower levels of ICT use. Once these variables were controlled for, women turned out to be more active users of ICTs than men (Hilbert, 2011). However, a similar study on mobile phone adoption by “Bottom of the Pyramid” women and men across countries in Asia found that gender disparities in access and use persisted even after controlling for these variables (de Silva et al., 2011).

These findings suggest that common constraints to ICT adoption vary in significance depending upon local conditions, and that context-specific approaches are necessary to effectively address issues of unequal access for rural women and men at the local level.
These studies focus on the ways in which users experience and engage with ICTs. Their findings can provide a greater understanding of the complex dynamics surrounding rural women and men’s adoption of ICTs, and can contribute to policy and programmatic interventions that more effectively address the digital divide. Each study presents important context-specific differences relevant to local decision-makers and practitioners (see Box 3). This section focuses primarily on discussing the commonalities that were identified in the studies.

Motivations for using ICTs
In all four studies, private communication and social networking for non-economic purposes was by far the most important driver for adoption and use of new ICTs. The use of mobile phones and the Internet for gathering information or generating income was also reported. However, overall, these activities were far less common motivators of ICT usage, and almost never the primary reason for adopting a new technology. While this finding might initially seem irrelevant to development practitioners, it is significant for two important reasons:

1. Understanding users’ interests and priorities is central to ensuring that the design of ICT solutions feels relevant to target users (see Box 4). ICT use for economic activities often grows out of social use. For example, Rathinam finds that although respondents in India rarely made use of mobile phones for economic purposes, those who did chiefly used existing networks of family and friends to gain information on availability of off-season work, weather conditions for fishing, or the status of hard-to-reach farmlands. Almost no information was obtained through mobile contact with government institutions (Rathinam, 2015).

2. The fact that women and men primarily engage with new ICTs for social purposes means that overall constraints to ICT access and use may also emerge from this type of use. Jealousy and the fear of extramarital affairs was frequently cited as a source of tension around mobile phone and Internet use. Rathinam even documents one case in which a woman who was using the phone for economic purposes, as part of her active involvement in a local self-help group7, was eventually forbidden from using it by her increasingly suspicious husband (Rathinam, 2015).

Several of the studies found differences in the frequency and type of ICT use by men and women. In the six Asian countries studied by FAO, rural women tended to use mobile phones primarily for coordination. Men used the phone more for livelihood activities and social connections. Women, who considered the household as their main responsibility, dedicated a sizable portion of their phone use to household matters (FAO, IDRC and LIRNEasia, 2016). Male and female Internet users in Africa were found to access different types of online content (Chair, 2017). In the Plurinational State of Bolivia, rural women

7 The group in question was part of the government programme Development of Women and Children in Rural Areas (DWCRW), which promoted the economic empowerment of rural women through collective action. For more information, see: http://agropedia.iitk.ac.in/content/development-women-and-children-rural-areas-dwcrw

Box 4: Relevance is a key determinant of ICT use
Studies consistently show that users interact with ICTs in ways that reflect their existing interests and priorities. Users tend not to develop new priorities after a new technology is introduced. This can help to explain why rural Aymara women in the Plurinational State of Bolivia who received computer training to access the Internet valued the basic skills they acquired (e.g. word processing, Excel) more than the ability to navigate online (Gigler, 2015).

This also suggests that the likelihood of an ICT solution being adopted by target users is highly dependent on how well that solution responds to users’ needs. For example, a GSMA case study on the successful mobile money application M-Pesa emphasizes that in addition to boosting financial inclusion for users in Kenya, the application actually had a significant impact in bridging the gender gap in mobile phone ownership in the country. As of 2015, the gap is down to 7 percent. The application was of such value to users that it was deemed beneficial enough to justify the costs of owning mobile phone ownership. As a result, the application served as a catalyst for increasing women’s ownership of phones (GSMA, 2015).

“The concerns, needs, and benefits ascribed to the mobile phone are more a reflection of people’s existing societal, familial, and gender norms prevalent in their environments, rather than having been elicited by the mobile phone. From the perception of the study participants, the phone is an enabler of extant human need and desire.”

(FAO, IDRC and LIRNEasia, 2016, p. xii)
and men reported different reasons for their interest in the Internet: “Women are much more concerned about how the Internet can promote the social good, such as health, child care, education, literacy, and malnutrition, while men are much more interested in how the Internet can expand productive and economic activities.” (Gigler, 2015, p.xxxiii).

Mobile phone ownership was considered to be essential by rural people in Asia. Both male and female viewed phones as key instruments for connecting to infrastructure and services. Their strong motivations for use, combined with limited service options, meant that they tended to be less cost-conscious than urban users. Rural people also used the phones for much more than connectivity. The phones were used for a variety of purposes, including alarms, clocks, flashlights and entertainment for children (FAO, IDRC and LIRNEasia, 2016).

Barriers to access and use of ICTs
A review of the four studies revealed three predominant types of constraint to meaningful use of new ICTs for rural women: Cost of ICTs and rural infrastructure; gender roles; and lack of education and ‘information poverty’.

A. Cost of ICTs and rural infrastructure
The cost of purchasing a device and maintaining credit was identified as a major barrier for respondents in all categories. Rural people, and rural women in particular experience this constraint to a greater degree. Access costs in rural areas tend to be higher. There are also usually fewer service providers. Users are often less aware of potential options for reducing costs, and in some cases, the availability of these options is more limited (Chair, 2017). Due to limited cash availability, rural users often opt for short-term, pre-paid options when purchasing credit, even though these options are significantly more expensive in the long run than bundle deals or post-paid options. These constraints are compounded by difficulties related to rural infrastructure, such as low access to sources of electricity for charging devices, or the long distances that must be travelled to purchase credit (Chair, 2017; FAO, IDRC and LIRNEasia, 2016).

For rural women, the choice often comes down to spending limited income on credit or on basic necessities, such as food (Chair, 2017; FAO, IDRC and LIRNEasia, 2016; Rathinam, 2015). This situation is partly a reflection of the fact that rural women usually have a lower income (or less

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Box 5: Women value mobile phone ownership

‘Lack of perceived value’ was once a top barrier to mobile phone ownership for women. Recent research suggests that the enormous developments in ICT in the last decade have led to a significant shift in perception. In 2015, the GSMA interviewed thousands of women (both owners and non–owners) on the value of mobile phones. The findings from 11 low- and middle- income countries indicate that:

- at least 89 percent feel that mobile phones help them (or would help them) stay in touch with friends and family;
- at least 74 percent feel that having a phone saves time (or would save them time);
- at least 68 percent feel safer (or would feel safer) with a mobile phone;
- at least 58 percent feel more (or would feel more) autonomous and independent; and
- at least 60 percent of women feel that a mobile phone helps (or would help) make running errands either more convenient or less expensive.

Adapted from: GSMA, 2015
control over income) than rural men and urban people. It also reflects the ways prevailing gender norms influence spending priorities within the household. In focus group discussions in Sri Lanka, several female respondents, who had worked abroad in the Middle East and had purchased the devices used by family members, reported being the first to give up their own phones when the household faced financial strain (FAO, IDRC and LIRNEasia, 2016).

B. Gender roles and communication patterns

In all of the studies, the way rural women and men engage with ICTs reflects an extension of existing gender norms and communication patterns. In India, for example, the network of contacts for male participants tended to extend beyond family and extended family contacts. This was not the case for female participants. This difference can be attributed to the fact that men are viewed as the primary decision-makers and income earners, and consequently their use of phones for these purposes is seen as justified. On the other hand, women are primarily responsible for household duties and their communications are expected to be related to household activities (Rathinam, 2015).

In the Asian countries that were studied, both rural women and men felt that women should have a phone to help them fulfil their household responsibilities. Men tended to think that women used the phone too much, despite the fact that women used the phone less than men. This finding indicates that men’s use of the phone was viewed as legitimate, while women’s was not. Men’s role as decision-makers also meant that women were often expected to consult with their husbands, brothers, or even sons about phone use or phone-related purchases (FAO, IDRC and LIRNEasia, 2016). It is perhaps not surprising, then, that in India, increased income resulted in increased mobile phone ownership only for men. Female ownership remained low in all income categories (Rathinam, 2015).

In all studies, engagement with ICTs was viewed as a threat to rural women’s ability to fulfil their reproductive roles. Time spent online or on the phone was seen as taking them away from looking after their partners and family (Chair, 2017; FAO, IDRC and LIRNEasia, 2016; Gigler, 2015). In Kenya, a peri-urban female internet user describes how the social pressure to fulfil household responsibilities ultimately takes precedence over individual priorities:

For instance a woman in the village even if she wanted to use a cyber she will not do that. Imagine being in the cyber at 7pm and you are expected to be at home cooking, taking care of cows etc. Even if you have a child abroad and you want to communicate with them, it becomes very difficult... (Chair, 2017, p. 34.)

The perceived threat of women ‘straying away’ from household responsibilities to go online or use the phone is likely to also be connected to the strong association between new ICTs and romantic relationships.
Women and men in all countries perceived social media and phone use as a threat to relationships, but power dynamics in rural households led to a disproportionate negative impact on women’s use of ICTs. Women often reported that they avoided engaging with ICTs for fear of displeasing their partners. In several cases, women were explicitly forbidden by their partners from going online or owning a phone (Chair, 2017; Rathinam 2015). In the Plurinational State of Bolivia, Aymara women were only able to avoid questioning from their families about their internet and computer use because it took place in a space that was considered ‘legitimate’ since it was part of ICT training sessions conducted by a well-known and trusted local organization (Gigler, 2015).

C. Lack of education and ‘information poverty’

Education has been found to be an important factor influencing users’ ability to engage with ICTs in a meaningful way (Deen-Swarray et al., 2012; FAO, IDRC and LIRNEasia, 2016). Gigler (2015) finds that lack of schooling and the consequent lack of skills required to navigate the internet was an issue that was especially pronounced in rural areas of the Plurinational State of Bolivia, particularly among women, who were often non-users before receiving ICT training. Aymara women were often hindered by fears of breaking computers or making a mistake. Their lower educational attainment also meant that they lacked essential information literacy skills. The fact that training occurred in a ‘safe space’ and integrated information technology and literacy skills was an essential factor for ensuring women participants adopted ICTs (Gigler, 2015).

Rural respondents in Africa and Asia confirmed the association between education and ICT capabilities. They frequently cited low educational attainment as a primary constraint to mobile phone and internet use (Chair, 2017; Rathinam, 2015). Rathinam also points out that the inability to operate mobile phones was further reinforced by gender disparities in ownership and use. Men were more likely to own a phone, and therefore to have had opportunities to develop their skills. Women, who mostly borrowed from family members and neighbours, had acquired less technological know-how and usually relied on the lenders for help (Rathinam, 2015).

Uneven control over the means of communication also limits women’s ability to socialize and gather information, which reduces their decision-making capabilities. Men’s greater freedom to develop their personal networks leads to an imbalance in access to information that puts women at a disadvantage, a constraint that Gigler (2015) calls ‘lack of information as poverty’. He reports that men in the villages often acted as the keepers of information. Less burdened by household responsibilities, men had more free time to gather and talk. As a result, they had more access to (and power over) valuable information, which they could choose to withhold as convenient. The exercise of control over information was especially common among male community leaders (Gigler, 2015). Rathinam notes that this dynamic is also present in the relationship between government institutions and rural populations, and argues that exploitation of the poor through lack of information is an important reason for ‘capability poverty’ among rural women and men (Rathinam, 2015).

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8 Rathinam (2015) defines capability poverty (in reference to Amartya Sen’s capability approach) as “the inability to perform certain basic activities which are considered to be necessary and worth aspiring for in life.” Both Rathinam (2015) and Gigler (2015) make the point that access to and use of ICTs now falls within the realm of basic activities that determine human capabilities and the experience of poverty.
According to a forthcoming study by the University of Reading, the University of Nairobi, Makerere University, and Ahfad University for Women, household structure can be a significant factor in determining women’s access to information. In Uganda, women in female-headed households with a separate piece of land were found to have greater access to information than their counterparts in male-headed households. (S. Cardey, personal communication, 2017).

Finally, it is worth noting that disparities in educational levels and information literacy may also affect the type of online information accessed by users. In the African countries that were studied, rural users were found to access less diverse content than their urban counterparts (Chair, 2017).
4 Gender and ICTs in the work of FAO

4.1 Current activities

Research and knowledge-sharing on rural women

Following the 1999 High-Level Consultation on Rural Women and Information and the subsequent FAO publication, Gender and Food Security: The role of Information - Strategy for Action (FAO, 2000), the Organization has intensified efforts to achieve gender equality for rural women through the production of sex-disaggregated data and gender-specific information about agriculture and rural livelihoods. In recognition of the fact that “[the] image of women that is portrayed in the media is very often limited to their traditional reproductive role” (FAO, 2000, p. 2), FAO works to increase the visibility of rural women’s contribution to food security and nutrition. The Organization supports the production of relevant, sex-disaggregated information to better identify women’s needs and enable rural development actors to allocate and manage resources more equitably. The FAO Gender web site provides a wide selection of publications and resources, including links to sources of sex-disaggregated statistics. The site is available at: fao.org/gender/gender-home/gender-resources/gender-statistics.

In the 2000 Strategy for Action, FAO also recognizes the need to “identify and meet the information and communication needs of the rural population, in particular those of women” and work to improve women’s access and ability to make meaningful use of ICTs (FAO, 2000). Over the past two decades, the FAO Regional Office for Asia and the Pacific (FAO-RAP) has been especially active in taking up this call, gathering knowledge on the constraints faced by rural women to participation in the information society, and advocating for improved, gender-equitable agricultural extension and technology transfer. More recently, FAO-RAP has begun looking specifically into the nature of gender and ICT adoption in rural contexts. This work includes research in a number of areas, such as the study on gender and mobile phone use among the rural poor (FAO, IDRC and LIRNEasia, 2016), which was considered in Chapter 3.

FAO also collaborates with academic institutions to build evidence on the impact of rural communication policies and services on rural development. In 2017, FAO and the University of Queensland, Australia published Inclusive Rural Communication Services: Building Evidence, Informing Policy (FAO, 2017c). The publication, which reviews 19 case studies of communication mechanisms in rural development initiatives from Africa, Asia and the Pacific, Latin America and the Caribbean, draws special attention to ICT-based initiatives that demonstrated evidence of a positive impact on rural development. Included among the selected case studies are interventions with an explicitly identified gender dimension and/or focus on women’s empowerment.

9 The publication Meeting our goals: FAO’s programme for gender equality in agriculture and rural development (FAO, 2016c) also contains detailed accounts of FAO’s many efforts to enhance rural women’s visibility and promote the production of gender-sensitive information on agriculture and rural contexts. The FAO Gender web site provides a wide selection of publications and resources, including links to sources of sex-disaggregated statistics. The site is available at: fao.org/gender/gender-home/gender-resources/gender-statistics.

e-Agriculture
Following the participation of FAO in the World Summit on the Information Society (WSIS) in 2003 and 2005, the Organization was assigned responsibility for the facilitation role of Action Line C7 on e-Agriculture in the Geneva Plan of Action. This laid the ground for FAO and a group of founding partners to launch in 2007 the e-Agriculture Community of Practice (CoP)\(^1\). Recognizing that inefficient information exchange is one of the major obstacles to sustainable rural development, the e-Agriculture CoP provides an online space that facilitates the exchange of knowledge and experiences related to the use of ICTs for agriculture and rural development. The e-Agriculture platform is one of the most successful CoPs that FAO manages. As of May 2017, the community has over 12,000 registered members from more than 170 countries, 42,000 Twitter followers and 9,300 LinkedIn group members (see Figure 4).

The e-Agriculture platform includes a wealth of information on gender-transformative rural development through ICTs. It encourages contributing members to consider the gendered impacts of the experiences and good practices, which they share through guided questions in forum discussions and a gender-sensitive good practice template. Through the platform, FAO and the e-Agriculture Community document achievements and promising practices on an ongoing basis and contribute to the annual Reports on the WSIS Stocktaking and other outcome documents produced by ITU.\(^2\)

FAO and the e-Agriculture Community also supported the organization of the 2013 ICT for Agriculture (ICT4Ag) Conference in Rwanda.

FAO recognizes that for ICTs to fulfil their potential to contribute to agricultural development, relevant actors must be guided by a coherent national strategy that provides standards, norms and methodologies, and fosters the development of individual and institutional capacities where gaps exist. Since 2013, FAO and ITU have been collaborating to provide assistance to countries in formulating ‘e-agriculture strategies’, which provide a roadmap for the coordination and implementation of ICT4Ag efforts based on each country’s specific priorities.

Figure 4: e-Agriculture CoP Membership

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\(^1\) The e-Agriculture CoP website: www.e-agriculture.org

\(^2\) The ITU reports are available at: www.itu.int/pub/S-POL-WSIS
FAO and ITU supported the development of the world’s first e-agriculture strategies through a multistakeholder process in two pilot countries (Bhutan and Sri Lanka). They subsequently produced an E-Agriculture Strategy Guide (FAO and ITU, 2016), which is now being used to replicate the process in several other countries in the Asia and Pacific region. The experience has been so successful that the two agencies are now working to scale up the initiative at the global level. To effectively address key challenges and achieve agricultural goals, ICT strategies must be responsive to local realities. The e-agriculture strategy places significant emphasis on incorporating context-specific information, including local gender dynamics, into the process of formulating a national e-agriculture vision and plan of action.13

Communication for development
FAO has long been a major actor and pioneer in the field of communication for development (ComDev). The Organization was one of the organizers of the first World Congress on Communication for Development, which was held in Rome in 2006. ComDev work at FAO uses participatory communication methods to ensure that projects are relevant and accountable, access to information is equitable, communications are properly targeted, and decision-making processes include farmers and rural communities. Key elements of this approach include: designing interventions and ICT solutions to respond to local needs and capabilities; fostering dialogue and mediation; and strengthening local knowledge and communication processes to empower and engage local stakeholders.

FAO supports the institutionalization of ComDev through rural communication services (RCS). RCS do not view ComDev as a collection of isolated initiatives. They frame these experiences as components of a broader, holistic approach to development (FAO, 2016e). FAO defines RCS as:

[A] wide range of demand-led communication processes, activities, media applications and institutional arrangements to answer to the need of the rural population in a sustained manner. It provides a framework to promote policy dialogue on the role of communication understood as a public good – to foster inclusion in decision-making, the appropriation of ICTs by rural people and stronger links between rural institutions, farmer organizations and communities. (FAO, 2017g)

Viewing ComDev through the lens of RCS creates the possibility for the approach to be mainstreamed throughout rural development policies and programmes, which gives rural populations greater ownership over local communication processes and decision-making.

FAO promotes RCS at the local, national and international level through technical support and a wide-ranging portfolio of interventions. At the local level, the Organization assists rural institutions and producer

“Setting in place a national e-agriculture strategy is an essential first step for any country planning on using ICTs for agriculture (ICT4Ag). Experience shows that committing piecemeal resources to ICT4Ag on an ad hoc basis results in higher costs and lower impacts. Any effective roadmap for e-agriculture will require a holistic, multi-stakeholder approach as ICTs are also driving other sectors critical for agriculture, namely banking, weather monitoring, insurance, logistics and e-governance.”

(FAO and ITU, 2017, p. 1)
Box 6: Inclusive ComDev strategy development

The national government of Guatemala, with the support of FAO’s Integrated Country Approach Programme, has highlighted the need for more efficient youth–oriented services in the country, especially for expanding access to decent jobs and entrepreneurship opportunities. The FAO ComDev team was tasked to facilitate the design and implementation of ChispaRural.GT, a communication service to provide younger generations of Guatemalan family farmers and rural entrepreneurs with access to up-to-date information on opportunities and resources, practical tools, training materials, best practices and success stories of young agricultural entrepreneurs in a single virtual space.

To guide the design of an effective communication service, including the selection of appropriate communication channels, contents, and material, the FAO ComDev team developed a participatory communication appraisal in the San Marcos department. The assessment highlighted that young Guatemalans, including the ones living in isolated rural villages, are ‘digital natives’ who are used to interactions mediated by new ICTs. For example, 90 percent of the interviewees owned a mobile phone and considered social networks as the most appropriate channel to receive and exchange information on agricultural or labour issues.

Nevertheless, the assessment also showed that women between 18 and 29 years old struggled to access job orientation services and agricultural advisory services. Their only source of information was their family (i.e. husband, parents, and siblings). Only 20 percent of these women owned a smartphone. Their main channels for external information were radio and basic mobile phones. These findings were used to design a truly inclusive multichannel digital solution, which included an SMS–based information service among ChispaRural.GT’s communication channels. This service has made it possible for young women to receive information of interest and engage in dialogue with institutional and private advisory service providers.

Source: FAO ComDev team, personal communication, 2017

organizations in the development of ComDev strategies and plans, and community-centred ICT applications. At the national level, FAO advocates for inclusive RCS as part of family farming and poverty reduction policies. To support this process, the Organization fosters multistakeholder dialogue among key global and regional partners and evidence-based approaches to aid the development of appropriate policy options for inclusive RCS. Finally, FAO works with several partners to enhance capacities on RCS through training and knowledge sharing. In addition to conducting regional training on RCS, the Organization has also been instrumental in the development of three regional communication platforms (OndaRural, ComDevAsia and Yenkasa Africa) and one global knowledge platform on ComDev and RCS (CCComDev) (FAO, 2017g).

Figure 5: The Rural Communication Services Framework

Source: (FAO, 2017g)
Dimitra Clubs - Community mobilization and collective action

FAO endorses a rights-based approach to rural development that uses participatory communication and community mobilization for improving livelihoods and promoting the empowerment of rural women and men living in underserved, often isolated, communities (See Box 6 below). This approach, called FAO-Dimitra Clubs approach, which has been implemented by the Organization in sub-Saharan countries for a decade, puts special attention on small-scale farmers and family farmers, youth, women, indigenous peoples and other vulnerable groups.

Due to the holistic nature of the FAO-Dimitra Clubs methodology, the approach has not only succeeded in achieving its central goal of enhancing gender equality and improving rural people’s livelihoods in a sustainable way, it has also triggered a broader range of impacts. Some of these impacts include improvements in social cohesion and civic engagement, health and sanitation, infrastructure, education, and natural resource management. The FAO-Dimitra Club approach is among FAO’s best practices and serves as an excellent example of the immense potential of gender-sensitive participatory approaches that use communication and ICTs to enhance the reach and sustainability of rural development initiatives (FAO, 2016c; ONG, AEDL and APEBA, 2015).

Box 7: The Dimitra Clubs combine social mobilization, communication and gender-sensitive approaches to foster rural transformation

At the community level, FAO supports the implementation of the gender-transformative approach of the FAO-Dimitra Clubs. These clubs provide opportunities for groups of rural women, men and young people to meet regularly to discuss their needs, priorities and challenges, and take collective action to solve problems using their own ideas and resources. To facilitate the replication of good practices that emerge from this process, the experiences of the Dimitra Clubs are shared through community radio stations, using devices, such as mobile phones and solar radio sets. Some 2,000 Dimitra Clubs (January 2018) are active in six sub-Saharan countries (Burundi, the Democratic Republic of the Congo, Ghana, Mali, Niger and Senegal). The Clubs have 60,000 members (two-thirds of whom are women) and have had a positive impact on 1.5 million people.

The Dimitra Clubs approach has the advantage of being highly adaptable to local needs. The dynamic nature of the Clubs has stimulated significant changes in gender relations and roles at the individual, household and community levels. In all of the countries in which the approach has been implemented, the organizational capacities, participation and bargaining power of the most vulnerable people have improved. The promotion of dialogue and collective action in the Clubs has increased women’s self-confidence and strengthened social cohesion. As a result, many communities have seen a number of benefits, including reductions in gender-based violence, food taboos, and local conflicts. In Niger, the Dimitra Clubs’ empowering process has also led women club members to become candidates in local elections and be elected. This has resulted in women having greater influence over local processes that regulate access to land and influence economic opportunities. In the Democratic Republic of the Congo, when men imposed their farming preference on land that was usually cultivated by women (e.g. the cultivation of sugarcane instead of food crops), the women were able to file complaints with the traditional authorities through their Clubs. The authorities decided to increase taxes on sugar cane, which resulted in 70 percent of the land being converted back to fruit and vegetable cultivation, and becoming accessible to women again.

ICTs are used in the capacity development process facilitated by the Dimitra Clubs, but they are not a development objective in itself. In rural areas, they are enablers for social inclusion, self-confidence and improved dialogue. By making use of ICTs in support of an empowerment process led by rural communities, the Dimitra Clubs ensure inclusive participation and ownership of the actions undertaken and strengthen the sustainability of these actions.

Many stories from the field show how the Dimitra Clubs use ICTs as enablers for collective action, improved food security and enhanced resilience. In a remote village in Niger (Mallam Koïra), a women’s Dimitra Club noticed that some insects were damaging the millet fields. After discussions, the club decided to take action by sending a mobile phone picture to the regional agricultural inspector who was able to promptly advise on actions to stop the infestation. Three days later, the agricultural inspector sent the pest control agents who had seen the picture and were able to provide the adequate treatment in time. In another commune in Niger (Falwel), youth Dimitra Clubs have created a larger network through the WhatsApp application.

Source: FAO, 2016c
As part of the new FAO Digital Strategy, the Organization’s Information and Technology Division is developing a portfolio of digital services to address the needs of poor rural households in Africa. Currently, the digital services pilot project is focusing on the development of four mobile applications (see Box 7) to improve agricultural services and local content in Senegal and Rwanda. The project is designed to be adaptable and scalable for use in other countries. Particular emphasis is placed on the inclusion of young people, self-employed entrepreneurs and female-headed households. As part of the project’s focus on user-centred design, the applications provide adapted content in local languages. The applications also help to mitigate potential barriers to use that are related to illiteracy by including features, such as video and voice services (FAO, 2017a, 2017b).

E-learning

FAO has begun to incorporate e-learning as a flexible capacity development tool in development projects and programmes. An example is the Organization’s work with the International Indigenous Women’s Forum on the Programme on Human Rights, Advocacy, Food Security and Nutrition. The programme, which is implemented under the umbrella of the Indigenous Women’s Global Leadership School, works to empower indigenous women through a combination of e-learning, intensive on-site training and longer-term monitoring and support to the implementation of advocacy plans developed by participants to improve food security and nutrition in their communities. The structure of the programme has evolved over time to better meet participants’ learning needs. A review of the programme’s first phase of implementation in 2015-2016 revealed that many women had difficulties accessing and understanding the e-learning content. Consequently, the structure was revised to include an additional face-to-face training before the e-learning course. The addition of this initial phase allowed trainers to assess learning needs, levels of internet access and modalities of ICT use in each location, and develop a learning strategy accordingly. As a result, learning outcomes have significantly improved and women have become more engaged and taken greater ownership over the learning process. To date, over 100 women in the India, Peru, the Philippines and the Plurinational State of Bolivia have become empowered through the programme. Training activities have been added in El Salvador, Panama and Paraguay (FAO, 2016d; FAO, 2017f; E. Mcghe, personal communication, 2017).

In partnership with like-minded institutions and experts, FAO has also developed and continues to update a broad selection of e-learning courses to support agriculture and food security professionals in acquiring and enhancing key skills. The courses, which are available free of charge,
are designed to be flexible. They include options for self-paced learning, materials for trainers and additional online resources. The Organization’s e-learning portfolio currently includes courses in several thematic areas, including both Gender and Communication. The portfolio also includes practice-oriented learning categories, such as Information Management and Knowledge Sharing; Social Analysis; Capacity Development; and Monitoring, Evaluation and Impact Assessment. These different categories offer tools and methods to help practitioners successfully integrate the principles of inclusivity and context-sensitive design at the project level.14

ICTs across FAO

ICTs are deployed throughout FAO to enhance the ability of the Organization to meet its goals. Common uses for information and communication technologies in FAO projects include data collection and mapping; services that enable improved market access and financial inclusion; and agricultural information for production systems management. FAO has also worked with its partners to develop country-level and regional-level early warning systems on food and nutrition; extreme weather events such as drought and flooding; and pests and diseases affecting important cash crops. An example is SATCAFÉ (Sistema de Alerta Temprana para Café), which was developed to monitor outbreaks of coffee leaf rust and help coffee farmers in Mesoamerica make informed farm management decisions.15 Due to the frequently unreliable nature of public funding for field data collection, SATCAFÉ ensures timely and reliable data by crowdsourcing information on outbreaks. This allows all actors in the coffee sector to register and contribute to the system through a specially developed mobile application. The platform has been so successful that it has evolved beyond its function as an early warning system to become an interactive resource for agro-ecological farm management. SATCAFÉ helps farmers to measure their farms, provides answers to questions about coffee management for which there is often no literature, and creates links to new markets and certification processes (e.g. Organic, bird friendly) (FAO, 2017h; Dyer, 2014).

4.2 Partnerships

FAO’s partners include many United Nations agencies, private sector, and civil society entities. This section presents a selection of key partnerships that focus on the application of ICTs to rural development. Not all of these partnerships make explicit mention of gender equality among their goals. However, all of them have the potential to make a significant impact in fostering inclusive rural development and achieving equal access and participation in rural areas, if gender is made a priority.

International Telecommunication Union (ITU)

In September 2017, FAO and ITU formed a new partnership to leverage the synergies in the work of the two agencies and provide better support for the implementation of the Sustainable Development Goals (SDGs) through the use of ICTs. The Memorandum of Understanding between the two organizations scales up the existing collaboration on e-agriculture strategies. It also focuses on facilitating the development of e-Agriculture policies and regulations, fostering ICT-based innovation in agriculture at the national and regional level, and “enhancing the capacity of rural communities to adopt and use ICTs in agriculture, climate change monitoring and disaster-prevention”. According to ITU Secretary-General Houlin Zhao, “A priority will be the fostering of digital skills among women and youth in the agriculture sector” (FAO, 2017d).

14 The FAO e-learning catalogue is available at: fao.org/elearning/#/elc/en/courseCategories
15 SATCAFÉ web site: http://siatma.org/satcafe.php
Google
FAO and Google Maps are working together to foster inclusive innovation and expertise in agricultural development, natural resource management and the fight against climate change. The partnership is broadening the scope of satellite data to include the monitoring of drylands and agricultural productivity. It is also making geospatial tracking and mapping products more accessible to enhance the capacity of actors at all levels to collect, analyse and disseminate data (FAO, 2015d). For example, FAO’s Open Foris Initiative has developed a suite of tools that combine open source software and Google technology. The tools are free to use and allow governments, non-governmental organizations (NGOs), research institutions, and private sector entities to carry out monitoring activities in a broad range of areas that pertain to the FAO mandate.

Grameen Foundation
FAO and the Grameen Foundation have been collaborating since 2011, when the organizations signed an agreement that allowed the Grameen Foundation to access the information in the Technologies for Agriculture (TECA) database. The focus of the partnership is currently on enhancing smallholders’ “access to knowledge and technologies for sustainable production and food security through the use of mobile agriculture supported services” and on “improving farming innovation exchange, strengthening small-holder households to gain better access to agricultural and rural financial services and competitive value chains” (FAO, 2013a).

The Grameen Foundation brings to the partnership its wealth of experience developing and implementing ICT-based solutions for improving access to information and financial services. The Foundation played a pioneering role in the field of microfinance, and innovative, pro-poor approaches to mobile agriculture, mobile health, and mobile credit and savings applications (see Box 8). The two organizations share a commitment to developing solutions that respond to farmers’ actual needs and address context-specific constraints, and achieving substantive behavioural change and progress out of poverty (FAO, 2013b).

Box 9: Grameen Foundation’s farmer-friendly ICT4D model
“The Grameen Foundation’s Community Knowledge Worker projects in Uganda and Colombia exemplify the importance of farmer-to-farmer social networks within ICT-based applications. The initiative has developed a database and smartphone applications that are used by trained ‘community knowledge workers,’ or local farmers, both men and women, who are chosen by their communities to serve as information liaisons. The workers travel from farmer to farmer with their smartphones through which they can access, disseminate and discuss the information requested by that farmer. The database contains more than 40 000 real-time tips on 46 crops and 10 livestock animals as well as weather forecasts, market prices, transportation directories, buyer contact information, and mobile-money agency locations. In 2013, 1 200 community knowledge workers in Uganda regularly visited about 186 000 family farmers and fielded about 8 000 information queries every week. The service is popular with women farmers […]” (FAO, 2014, p. 31–31)

16 Open Foris web site: www.openforis.org/home.html
17 TECA web site: teca.fao.org
Rabobank Foundation
Since 2013, FAO and the Rabobank Foundation have been working together to increase the incomes of farmers, improve their access to financial tools, and strengthen their ability to invest in improved crop production. The collaboration, which began with three pilot projects in Ethiopia, Kenya and the United Republic of Tanzania, has been scaled up to include other countries in Africa, Latin America and Asia. Increased focus has been placed on initiatives aimed at increasing purchases from family farmer cooperatives that represent women. The two organizations have also agreed to explore ways to make use of mobile technology to increase the sharing of data and information, and generally improve young farmers’ access to technology (FAO, 2015c).

World Association of Community Radio Broadcasters (AMARC)
FAO and AMARC collaborate in the field of radio and the media. The partnership uses a ComDev approach to carry out advocacy and capacity-building activities that promote community media as a driver for social change and development in rural areas, especially among family farmers. This partnership has succeeded in launching regional ComDev platforms in Africa, Asia and Latin America. The two organizations also collaborated to convene the international Forum on Communication for Development & Community Media for Family Farming in 2014, during the International Year of Family Farming (FAO, 2016e).

Self-Employed Women’s Association (SEWA)
SEWA is an Indian membership organization of 1.9 million poor self-employed women workers. Most of these women are rural farmers or work in the informal sector. The well-established collaboration between FAO and SEWA covers a very broad range of activities, including generating evidence and identifying innovative experiences that can contribute to the inclusion of marginalized women and young people in the rural economy. Another shared objective involves “strengthening the capacities of poor rural people to organize themselves and put in place sound governance practices, gender equality measures and to use these to engage in lobbying and advocacy to help bring about policy change” (FAO, 2016b). A number of tools are used to achieve these objectives, including the participatory use of traditional media, such as radio and video. The two organizations have also committed to leverage their knowledge and experiences to benefit countries facing similar development challenges by generating online tools and technical materials for use by actors outside the areas in which the partnership operates (FAO, 2016a).
4.3 Timeline: Milestones in gender equality and ICT that set the context for the work of FAO

1995

The Fourth World Conference on Women: Action for Equality, Development and Peace

The Conference produced the **Beijing Declaration** and the **Beijing Platform for Action**\(^\text{18}\). One of the key areas of concern highlighted at the Conference was the emerging gender divide in access to, control over, and ability to benefit from developments in ICT. Research carried out by the United Nations Commission on Science and Technology for Development (UNCSTD) in advance of the Conference indicated that the “information revolution appeared to be bypassing women”, and that ICT-related research and projects were failing to address the specific circumstances of women (UNDAW, 2005). As a result, the issue was included as a critical area of concern to be addressed in Section J of the Beijing Platform for Action (see Annex 2 for full text).

At the Conference, FAO organized an ‘Emphasis Day’ on rural women’s livelihoods together with other United Nations agencies and NGOs and announced the introduction of a revised Plan of Action for FAO and its membership to work toward implementing the Beijing Platform for Action in the Organization’s areas of expertise (United Nations, 1995).

**Beijing Platform for Action, Section J: “Women and the Media”**

- Strategic Objective J1: Increase the participation and access of women to expression and decision-making in and through the media and new technologies of communication
- Strategic Objective J2: Promote a balanced and non-stereotyped portrayal of women in the media.

1998

The First Mile of Connectivity

FAO was among the first to highlight the urban-rural digital divide in its seminal publication, **The First Mile of Connectivity**\(^\text{19}\). The collection of articles highlights issues surrounding the introduction of ICTs in rural areas and advocates for a focus on people rather than technologies in ICT-related development interventions. Despite being almost two decades old, many of the issues raised by this publication remain relevant (see Chapter 3).

1999

High-level Consultation on Rural Women and Information

The Consultation, which was held in Rome, was convened by FAO. The objective of the Consultation was to improve the generation and dissemination of information about rural women to better identify and respond to women’s needs and priorities\(^\text{20}\). The major outcome of the Consultation was the **2000 Strategy for Action**, which served to guide much of FAO’s subsequent work on gender.\(^\text{21}\)

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\(^\text{18}\) The texts of the Beijing Declaration and Platform for Action are available at: www.unwomen.org/en/digital-library/publications/2015/01/beijing-declaration

\(^\text{19}\) The First Mile of Connectivity is available at: fao.org/docrep/x0295e/x0295e00.htm

\(^\text{20}\) The proceedings of the High-level Consultation on Rural Women and Information are available at: fao.org/docrep/X3803E/x3803e00.htm

\(^\text{21}\) The Strategy for Action is available at: fao.org/docrep/x4745e/x4745e00.htm
2002

Task Force on Gender and ICTs of the Inter-Agency Network on Women and Gender Equality

This task force was formed to ensure that a gender perspective was included in the preparations for and outcome of the WSIS. The task force, which was managed by ITU and included FAO in its membership, produced information and advocacy materials on gender and ICT for phase I of WSIS in 2003.

2003

47th session of the Commission on the Status of Women (CSW 47)

The thematic issue of focus for the CSW 47 was: ‘Participation and access of women to the media, and information and communication technologies and their impact on and use as an instrument for the advancement and empowerment of women’. This was the first time that the CSW had directly focused on the issue of ICT and the empowerment of women. The session produced agreed conclusions that acknowledged the global digital divide, highlighted the double-edged potential of ICTs to either perpetuate existing inequalities or become central tools for empowerment and the promotion of gender equality, and called on all relevant actors to implement a set of 24 recommended actions. Though none of the recommended actions specifically focused on rural women and girls, several are highly relevant to the work of FAO, including: the need to integrate gender perspectives and measurable gender-specific targets in all ICT-related programmes and projects; support research into all aspects of the impact of ICTs and the media on women and girls; foster increased access and ability to make meaningful use of ICTs for women and girls; and promote local content production and knowledge systems (see Annex 3 for full text).

“Bridging the Rural Digital Divide”

The activities of the FAO Bridging the Rural Digital Divide Programme served as a platform for the Organization’s participation in the 2003 and 2005 WSIS. Through the programme, FAO was one of the main actors in the WSIS process and became a founding partner of the e-Agriculture community (FAO, 2014; FAO, 2015a). The programme, which included an emphasis on rural women, highlighted synergies between information management and ComDev and emphasized innovative approaches to exchanging knowledge using both new and traditional ICTs (FAO, 2002).

2003 and 2005

World Summit on the Information Society (WSIS)

FAO was a member of the High-level Summit Organization Committee that assisted ITU in the organization of WSIS. The first phase of the Summit took place in Geneva in December 2003 and produced the Geneva Declaration of Principles and Geneva Plan of Action. The outcomes of the second phase, which was held in Tunis in November 2005, were the Tunis Commitment and Tunis Agenda for the Information Society. All four documents acknowledge the digital divide and

22 The agreed conclusions of CSW 47 are available in English at: www.unwomen.org/-/media/headquarters/attachments/sections/csw/47/csw47_e_final.pdf?la=en&vs=1.436
The agreed conclusions of CSW sessions are available in all United Nations languages at: www.unwomen.org/en/csw/outcomes
23 An overview of the Bridging the Rural Digital Divide Programme is available at: www.e-agriculture.org/bridging-rural-digital-divide-programme-overview
contain commitment to eliminating it. The documents include specific provisions for women and girls, the rural poor and other marginalized or underserved groups. Under action line C7 of the Geneva Plan of Action, FAO was assigned the responsibility for organizing activities related to the application of ICTs in the area of e-agriculture. Among other things, this led to the creation of the e-Agriculture CoP.

**Geneva Plan of Action**

**Action line C7. ICT Applications: E-agriculture**

a. Ensure the systematic dissemination of information using ICTs on agriculture, animal husbandry, fisheries, forestry and food, in order to provide ready access to comprehensive, up-to-date and detailed knowledge and information, particularly in rural areas.

b. Public-private partnerships should seek to maximize the use of ICTs as an instrument to improve production (quantity and quality).

The Geneva Declaration and Tunis Commitment also reaffirmed commitments to key principles of free speech and the right to information for all, including the principles outlined in Articles 19 and 29 of the Universal Declaration of Human Rights.

**From the Geneva Declaration of Principles:**

"4. **We reaffirm**, as an essential foundation of the Information Society, and as outlined in Article 19 of the Universal Declaration of Human Rights, that everyone has the right to freedom of opinion and expression; that this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers. Communication is a fundamental social process, a basic human need and the foundation of all social organization. It is central to the Information Society. Everyone, everywhere should have the opportunity to participate and no one should be excluded from the benefits the Information Society offers.

5. **We further reaffirm** our commitment to the provisions of Article 29 of the Universal Declaration of Human Rights, that everyone has duties to the community in which alone the free and full development of their personality is possible, and that, in the exercise of their rights and freedoms, everyone shall be subject only to such limitations as are determined by law solely for the purpose of securing due recognition and respect for the rights and freedoms of others and of meeting the just requirements of morality, public order and the general welfare in a democratic society. These rights and freedoms may in no case be exercised contrary to the purposes and principles of the United Nations. In this way, we shall promote an Information Society where human dignity is respected […]

55. We reaffirm our commitment to the principles of freedom of the press and freedom of information, as well as those of the independence, pluralism and diversity of media, which are essential to the Information Society. Freedom to seek, receive, impart and use information for the creation, accumulation and dissemination of knowledge are important to the Information Society. We call for the responsible use and treatment of information by the media in accordance with the highest ethical and professional standards. Traditional media in all their forms have an important role in the Information Society and ICTs should play a supportive role in this regard. Diversity of media ownership should be encouraged, in conformity with national law, and taking into account the information needs of marginalized groups.

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24 The Geneva Declaration of Principles, The Geneva Plan of Action, the Tunis Commitment and the Tunis Agenda for the Information Society are available in all United Nations languages at: https://www.itu.int/net/wws/index.html
account relevant international conventions. We reaffirm the necessity of reducing international imbalances affecting the media, particularly as regards infrastructure, technical resources and the development of human skills.”

2006

The First World Congress on Communication for Development

The Congress, which was organized by the World Bank, FAO, and the Communication Initiative, promoted ComDev as necessary to the achievement of the overall development agenda. The event, which was held at FAO headquarters, attracted over 900 participants and about 200 journalists and representatives of media outlets. One of the outcomes of the Congress was the Rome Consensus, which produced a commonly agreed upon definition of ComDev as:

[A] social process based on dialogue using a broad range of tools and methods. It is also about seeking change at different levels including listening, building trust, sharing knowledge and skills, building policies, debating and learning or sustained and meaningful change. It is not public relations or corporate communication. (The Communication Initiative, FAO, and World Bank, 2007, p. xxxiii)

The Rome Consensus outlines strategic requirements and key recommendations for development actors to enable them to better prioritize and integrate ComDev in their efforts.

At the Congress, specific recommendations were also formulated for the application of ICTs. In these recommendations, it was agreed that capacity development was key to ensuring meaningful adoption of ICTs by users, and that a “focus on addressing gender and other forms of social discrimination” would be an essential part of this process (The Communication Initiative, FAO, and World Bank, 2007).

The Rome Consensus, Strategic Requirements:

“Development organizations must assign a much higher priority to the essential elements of Communication for Development process, as shown by research and practice:

- The right and opportunity people have to participate in the decision-making processes that affect their lives
- Creating opportunities for sharing knowledge and skills
- Ensuring that people have access to communication tools so that they can themselves communicate within their communities and with the people making the decisions that affect them—for example community radio and other community media
- The process of dialogue, debate, and engagement that builds public policies that are relevant, helpful and which have committed constituencies willing to implement them—for example on responding to preserving the environment
- Recognizing and harnessing the communication trends that are taking place at local, national, and international levels for improved development action—from new media regulations and ICT trends to popular and traditional music
- Adopting an approach that is contextualized within cultures
- Related to all of the above, assigning priority to supporting the people most affected by the development issues in their communities and countries to have their say, to voice their
perspectives, and to contribute and act on their ideas for improving their situation—for example indigenous peoples and people living with HIV/AIDS” (The Communication Initiative, FAO, and World Bank, 2007, p. xxxiv).

2013

**FAO Gender Policy**

The FAO Policy on Gender Equality: Attaining Food Security Goals in Agriculture and Rural Development calls on the entire Organization to contribute to its overall goal of “[achieving] equality between women and men in sustainable agricultural production and rural development for the elimination of hunger and poverty” (FAO, 2013c, p.6). The policy, which provides a framework for guiding the Organization’s efforts to achieve gender equality, outlines an accountability structure to assess and ensure the achievement of results.

**Information and Communication Technologies for Agriculture (ICT4Ag) Conference**

FAO and the e-Agriculture Community supported the organization of the ICT4Ag Conference in Rwanda. The conference, which brought together over 400 practitioners, donors and policymakers, represented a milestone for the promotion of ICT in the development of the agriculture sector. A session on gender and ICTs was held at the conference. Included among the recommendations put forth at the conference was the need to strengthen youth’s and women’s involvement in ICT4Ag initiatives.

2014

**WSIS+10 Vision for WSIS Beyond 2015**

As part of the review of progress and developments in the first ten years since the original WSIS, a new vision was defined for the application of ICTs in development beyond 2015. In this new vision, the mandate for the e-agriculture Action Line and the role of FAO as its facilitator was extended significantly.

WSIS+10 Vision for WSIS Beyond 2015: e-agriculture

- As part of national ICT strategies, foster the development and implementation of national e-agriculture strategies focusing on providing reliable and affordable connectivity and integrating ICTs in rural development to support food security and hunger eradication.

- Foster collaboration and knowledge sharing in agriculture via electronic communities of practice, including the e-Agriculture Community, in order to showcase and promote models, methodologies, good practices and the adoption of Open Access and interoperability standards, for effective and equitable use of ICTs for sustainable agriculture and rural development.

- Promote the creation and adaptation of content including in local languages and contexts from reliable and trusted sources, including, to ensure equitable and timely access to agricultural knowledge by resource-poor men and women farmers, foresters and fisher folk in rural areas.

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25 The ICT4Ag Conference web site: www.ict4ag.org
26 WSIS+10 Statement on Implementation of WSIS Outcomes and the WSIS+10 Vision for WSIS Beyond 2015 are available in all United Nations languages at: https://www.itu.int/net/WSIS/documents/HLE.html
f. Foster digital literacy of institutions and communities in rural and remote areas taking into consideration local needs and constraints by providing appropriate learning opportunities for all which will enhance individual and collective decision-making skills.

g. Promote the use of ICTs to reinforce the resilience capacity of states, communities and individuals to mitigate and adapt to natural and man-made disasters, food chain challenges, socio-economic and other crises, conflicts and transboundary threats, diseases, and environmental damages.

h. Promote Public-Private Partnerships in cooperation with relevant CSOs/NGOs, cooperatives, farmer organizations, academia, research institutions in the agricultural sector (which also includes forestry and fishery) for inclusive, efficient, affordable and sustainable ICT services and initiatives in agriculture and rural development which will promote the wide scale use of ICT and foster sustainable agri-business models.”

2015

The Sustainable Development Goals (SDGs)
The 17 SDGs are outlined in transforming our world: the 2030 Agenda for Sustainable Development. The 2030 Agenda, which was agreed upon by the 193 countries of the United Nations General Assembly, is centred on the pledge to “leave no one behind”. Several SDGs and their targets directly relate to the achievement of both gender equality and equitable access to information and communication. SDG5, which is dedicated to the achievement of gender equality and the empowerment of all women and girls, includes a specific target on enhancing the use of ICTs to promote women’s empowerment. According to UN Women, “digital solutions can contribute directly to all the [SDGs] and to over half of the 169 targets through the potential of these solutions to improve people’s quality of life, foster equitable growth and protect the environment” (UN Women, 2016, p.1). The 2030 Agenda calls for the mainstreaming of a gender perspective across all of the goals, stating that “[the] achievement of full human potential and of sustainable development is not possible if one half of humanity continues to be denied its full human rights and opportunities.”

Sustainable Development Goals: selected goals and targets

SDG 5: Achieve gender equality and empower all women and girls

- Target 5.B: Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women

SDG 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

- Target 9.C: Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020

SDG 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

- Target 16.7: Ensure responsive, inclusive, participatory and representative decision-making at all levels

27 Transforming our world: the 2030 Agenda for Sustainable Development is available in all United Nations languages at: https://sustainabledevelopment.un.org/post2015/transformingourworld
• Target 16.10: Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements

2015: Principles for Digital Development
The Principles for Digital Development were developed to help reduce the occurrence of predictable and preventable failures in digitally enabled development projects and programmes. The set of nine principles, which were developed by the Principles for Digital Development Working Group, are intended as a living guidance to enable practitioners to successfully apply digital technologies to development programmes. They place special emphasis on the need to design solutions with users rather than for them. This strategy is key to ensuring that the needs of women and other marginalized groups are addressed. The Principles are currently endorsed by a number of private sector and non-profit actors, and several United Nations agencies.

Principles for Digital Development

• Design With the User
• Understand the existing ecosystem
• Design for Scale
• Build for Sustainability
• Be Data Driven
• Use Open Standards, Open Data, Open Source, and Open Innovation
• Reuse and Improve
• Address Privacy & Security
• Be Collaborative

2017

FAO IT/Digital Strategy
The FAO IT/Digital Strategy recognizes the increasing importance of digital technologies to the Organization’s ability to deliver its services effectively and remain relevant. The strategy, which outlines the proposed approach FAO should take to digital transformation, proposes improvements to both internal processes and the field-level solutions offered by the Organization. At the field level, the strategy addresses the challenge of managing and scaling up individual projects’ successful innovations in ways that avoid wasteful duplication of efforts across the Organization. It proposes a tripartite approach to innovation management that involves information technology projects led by divisions; enhanced partnerships with key private sector actors and United Nations agencies; and the establishment of an innovation fund (FAO, 2017).

2018

62nd session of the CSW
In March 2018, CSW 62 was held at United Nations Headquarters in New York. The priority theme for the session was: Challenges and opportunities in achieving gender equality and the empowerment of rural women and girls. The Commission also reviewed the priority theme from CSW 47.

28 The Principles for Digital Development are available at: https://digitalprinciples.org/principles
29 The agreed conclusions of CSW 62 are available in all United Nations languages at: www.unwomen.org/en/csw/csw62-2018
PART II: THE FUTURE
Much of the discourse around ICTs and rural development focuses on the potential of these technologies to accelerate development and stimulate positive change. However, it should be noted that ICTs are already affecting rural areas for better and for worse, in areas where they are in use and areas where they are absent. The increasingly knowledge-based global economy and the rapidly expanding influence of ICTs, mechanisation and automation on almost all aspects of people’s lives has consequences for everyone, not only those living near technology hubs. The sooner rural development actors come to terms with this fact, the better equipped they will be to respond appropriately to the challenges related to ICTs.

In practice, determining the best way to incorporate ICTs into development efforts is a complex endeavour. On one hand, the information society is a reality that institutions and individual practitioners ignore at their own risk. Practitioners who continue to view ICTs as something that concerns only information technology specialists will both miss opportunities for enhancing the effectiveness of project and programme delivery, and ensure that their work becomes increasingly irrelevant. On the other hand, it is important to remember that ICTs are not self-determining forces of nature. They are tools for communication and information exchange that society is constantly developing, interacting with and learning to understand. ICTs tend to reproduce existing social dynamics, but they can also be shaped to reflect the highest ideals and serve common goals.

The application of ICTs to rural development holds enormous potential for fostering major improvements in agriculture, rural livelihoods, food security and nutrition. They also create space for empowerment, improved quality of life, and a culture of inclusion to flourish among rural people. However, as of yet there is no unified approach to guide practitioners as they navigate the complexities inherent to working with ICTs in development contexts. The final two chapters of this paper argue that developing and implementing such a unified approach should be a priority for FAO and its partners. These chapters introduce the idea of inclusive ICT4D as a possible conceptual foundation to guide future efforts in this area.

“FAO has a massive opportunity to exploit digital transformation to further its mission and not only to maintain its competitive advantage but also to extend it. Conversely, FAO cannot ignore the digital trend – it is not going to go away. FAO’s future impact will increasingly depend on its ability to leverage digital technologies rapidly. If FAO does not take this opportunity then others will, creating the risk of FAO’s products and services becoming increasingly irrelevant.”

(FAO, 2017)
The case for an inclusive approach to ICT4D in rural development interventions

The main conclusion of this paper, and the argument put forth in this chapter, is that a new approach is needed to ensure equitable, sustainable, ICT-enabled development in rural areas. This argument is based on a review of the current state of ICT access and use by rural men and women, and the strengths and gaps related to the application of ICTs in rural development practice.

Inclusive ICT4D is the idea that people-centred approaches, such as ComDev and other gender sensitive initiatives, should be integrated with the strategic application of ICTs throughout efforts to promote development and equal rights for all. Conceptually, it brings focus to two important points:

- ICTs are not the exclusive purview of information technology specialists. They pertain to almost all aspects of socio-economic life, and consequently, to development. Development actors have a responsibility to at least be familiar with the ‘ICT toolbox’ if they are to select the most effective strategies for achieving results.
- Top-down approaches to development are rarely effective or sustainable. Perhaps more importantly, they fail to acknowledge the ‘recipients’ of aid as active participants in their own development. These approaches increase the risk of interventions creating new problems or worsening inequality in communities.

Inclusive ICT4D is born of the recognition that the primary focus of a project or programme should always be on identifying the most effective way to achieve positive impact for the people targeted by the intervention. An intervention’s impact cannot be considered positive if those it affects do not consent to and endorse the action, or if it benefits some to the detriment of others.

A conceptual framework and methodology are necessary to translate this idea into practice. This chapter attempts to make the case for FAO and its partners to develop an inclusive ICT4D approach and implement it throughout their work. Section 5.1 reviews a selection of potential ways in which ICTs can help to foster gender equality and empower rural women and other vulnerable groups. Section 5.2 examines the contribution that people-centred approaches that consider gender issues and ComDev, can make to ICT4D efforts. Section 5.3, which looks at the complementary aspects of gender- and communication-based approaches, proposes that a harmonized approach would contribute to enhanced effectiveness.
5.1 How can ICTs enhance efforts to achieve gender equality and empower rural women?

As discussed in Chapter 3, the nature of rural women and men’s engagement with ICTs often differs significantly from the development goals and objectives that practitioners have in mind when designing interventions that include ICT-related components. However, this disparity need not be an obstacle. Accounting for the interests and priorities of stakeholders can serve to strengthen intervention design, and increase the probability of uptake and active engagement from beneficiaries. This section discusses six major areas in which ICT-based solutions can support gender equality and women’s empowerment if participatory principles are properly applied:

1. Greater access to services
Rural women face many barriers in accessing services, including health, education, and financial services. When women do gain access to these services, the potential benefits are great. Mobile financial services, for example, can help women to overcome mobility restrictions and save women significant amounts of time and money on transportation. These services increase women’s ability to open a bank account and access credit, and free up income to invest in their businesses and/or improve family food security. In addition to lowering transaction costs for providers and clients, mobile finance has made it easier for rural women to receive remittances from contacts overseas. It has also created new opportunities for them to participate in the labour force, including through remote work. Perhaps most importantly, evidence suggests that mobile finance allows women to gain greater control over their income by making it easier for them to save money and make their own decisions about how to spend it (World Bank, 2017).

2. Increased opportunities for learning and accessing information
A growing body of evidence suggests that ICT-based solutions may be key to bridging education and knowledge gaps for the most disadvantaged populations. These solutions can create opportunities for people who live in isolated areas or face time constraints to engage with content in ways that are flexible and best suit their needs. In addition to improving the physical accessibility of materials, ICTs can help to overcome the obstacle of illiteracy by making use of video, radio, and talking books (see Box 9) to produce information in local languages. Participatory radio has proven to be an especially effective tool for increasing rural people’s knowledge on agricultural practices, natural resource management, nutrition and other issues that affect their livelihoods.

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Box 10: How the Talking Book Technology Works

“The Talking Book is a small portable recording device (12 cm x 12 cm x 6.5 cm, weighing 225 g without batteries), built to withstand dry dust storms and tropical rain, and storing 140 hours of audio content. It is affordable, simple to use, and runs on batteries. The device features indented touch buttons, to facilitate use by visually impaired people and by all users at night. With a simple audio menu offered in a range of local languages and dialects, users can select the information that interests them. The audio content can be replayed as needed, played for family and friends, and easily loaned to third parties.

The Talking Book disseminates information created and recorded by local experts for rural communities. Recordings may feature agricultural extension agents describing farming techniques—such as fertilizer preparation, seed spacing, and livestock care—or microfinance institutions offering business guidance and explaining topics such as credit and rotating savings plans.”

(World Bank, 2017, pp. 83-84)
ICT-based resources can also improve learner retention and engagement when they complement face-to-face learning. They can also facilitate the creation of interactive networks, in which users can consult with their peers and with experts on matters of interest to them. (FAO, 2011b; FRI, 2014a and 2014b; UNESCO, 2012; World Bank, 2017).

Figure 6: Potential contributions of ICTs to gender equality and women’s empowerment

3. Empowered rural organizations and social movements
New and traditional ICTs can greatly strengthen social networks, informal groups and rural organizations, which are central to the livelihoods and resilience of poor rural women and men. ICTs can enhance connectivity among family, friends and business contacts. New ICTs can also enable rural organizations to better serve a widely dispersed or isolated membership and provide new opportunities for training and adding value to local products so they can reach more lucrative markets. Online networks, radio and other media also make it possible for rural organizations and social movements to organize and share information more effectively, and amplify the voice of constituencies that normally remain unheard. GMMP (2015) points to a growing number of women who are turning their backs on traditional media and ‘doing it for themselves’, with an increasing proliferation of self-made online stations and podcasts, particularly aimed at women in rural communities that might otherwise be isolated. (p.53).

4. More responsive and transparent governance
In addition to giving rural women and men a voice, ICTs create the possibility for them to demand accountability and engage in dialogue with local and national decision-makers. Digital technologies in particular can facilitate the implementation of measures to make governance and administrative processes more efficient and transparent. This could include, for example, making it easier for marginalized individuals and communities to record tenure rights. According to the World Bank (2017):

more accurate and transparent recordkeeping can identify the gender gaps in land administration and provide information to advocacy groups supporting women’s land rights. For women traders and entrepreneurs, increasing the efficiency of registering a business and conducting customs transactions can ease time burdens and may also reduce opportunities for corruption (p.82).
5. Enhanced capacity to fill key information gaps
The amount and types of data that can be gathered on the lives of rural women and men has greatly expanded with the advent of new ICTs, particularly mobile and satellite technologies. Perhaps more importantly, digital technologies have the capacity to process and analyse enormous quantities of highly detailed information. It is now possible to gain a far more nuanced understanding of the dynamics influencing major development challenges. A recent paper on the potential of ‘big data’ to help measure the well-being of women and girls considers several exciting prospects. For example, the use of satellite imagery could significantly improve the spatial resolution of country-level sex-disaggregated data, which would make it possible to more effectively support the targeting of local policies and programmes within countries. The correlation of geospatial data to social and health indicators, such as literacy and stunting, also allows for predictions to be made about areas for which data is not available. (Data2X, 2017).

6. Improved productivity, efficiency and resilience along agricultural value chains
For rural women and men, the application of ICTs to agriculture represents one of the broadest and most significant areas of the potential impact these technologies will have on their livelihoods. The versatile nature of ICTs makes them especially well-suited to addressing the complex challenges faced by women at all stages of agricultural value chains. Depending upon context, a variety of different solutions, which may include a combination of ICTs, can be used to address a given issue (e.g. increasing women’s access to production-related information). A single solution can also address several constraints at once, including constraints that cross several nodes of a value chain. For example, Farmerline’s Women Advancing Agriculture initiative uses voice-messaging technology to provide information on farming practices, weather, market prices, financial management and women’s health. Esoko’s mobile market information service provides commodity market prices, connects users with potential buyers and sellers of produce, and enables agricultural institutions to reach out to farmers. In addition to addressing visible bottlenecks, ICTs can also simultaneously address underlying constraints that negatively affect value chain functioning. For example, the potential of ICT applications to provide a necessary service and at the same time reduce gender-based constraints, such as time poverty and limited mobility, can represent an efficient and cost-effective way to promote sustainable and gender-equitable value chain development. (FAO, 2016f; World Bank, 2017).

5.2 How can gender and communication contribute to ICT4D?
ICT projects are complex and highly risky to implement. They have high failure rates in both the public and private sector. In a 2011 evaluation of all of its ICT-related work, the World Bank acknowledged the ‘high-risk/high-reward profile’ of ICTs (IEG, 2011). The evaluation noted that despite the significant potential benefits offered by ICT applications, almost half of the World Bank’s projects with ICT components had design shortcomings that could affect outcomes. The report also found that modest project results were often due to a failure to “take a holistic view of linkages between sector and IT components” (p.xvi). It is worth noting that of the 11 recurring design and ‘linkage’ problems identified in the evaluation, at least eight might have been mitigated (or even eliminated) by incorporating a gender-sensitive, communication-focused approach to design and implementation. These are discussed in Table 1.
Table 1: The value of people-centred approaches in ICT projects

<table>
<thead>
<tr>
<th>Common issues affecting ICT project outcomes (IEG, 2011)</th>
<th>What Gender and Communication have to offer</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Excessive complexity and number of components</td>
<td>By focusing on the needs, priorities and preferences of stakeholders, the analytical tools used in development communication and gender-based approaches help to ensure the relevance and effectiveness of project design. The use of participatory methods to analyse local gender and power dynamics or assess capacity levels and communication needs can provide project managers with the necessary information to determine the most appropriate project strategy, activities, and modalities of implementation. In-depth knowledge of the local context allows practitioners to assess risks and identify solutions early on rather than attempting to take corrective action later.</td>
</tr>
<tr>
<td>• Insufficient readiness of client for implementation</td>
<td></td>
</tr>
<tr>
<td>• Failure to account for capabilities and needs</td>
<td></td>
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<tr>
<td>• Inappropriate capacity building</td>
<td></td>
</tr>
<tr>
<td>• Neglecting country, social, economic and cultural context</td>
<td></td>
</tr>
<tr>
<td>• Absence of a clear ICT strategy and policy</td>
<td></td>
</tr>
<tr>
<td>• Poor ownership and commitment</td>
<td>Ample evidence suggests that appropriate, gender-sensitive targeting and the adoption of inclusive, two-way communication methods is key to ensuring mutual understanding and building consensus among all stakeholders, which in turn enhances the likelihood that stakeholders will be engaged and committed to achieving project objectives. A strong sense of ownership among everyone involved is central to the success of any change process, and also helps to ensure sustainability beyond the end of the intervention.</td>
</tr>
<tr>
<td>• Lack of attention to change management processes</td>
<td></td>
</tr>
<tr>
<td>• Procurement delays</td>
<td>Some implementation bottlenecks relate more to the machinery of development interventions than they do to local context and stakeholders, and as such require solutions of a different nature.</td>
</tr>
<tr>
<td>• Cumbersome processes and procurement in a rapidly evolving sector</td>
<td>However, it is also worth remembering that both gender and communication are fundamentally about people, and as such, their relevance extends beyond the realm of beneficiaries and development targets to include all actors involved in the practice of development. The functioning of organizational procurement and human resource processes is not only sensitive to cultures of inequality and inefficient communication, it also reproduces these at the level of project and programme delivery. A lack of attention to these issues not only affects the ability of a project to achieve planned outcomes, it also creates the risk of causing or exacerbating inequality beyond the scope of the project.a</td>
</tr>
<tr>
<td>• Limited information technology sector skills</td>
<td></td>
</tr>
</tbody>
</table>


In theory, gender and communication are often mainstreamed into ICT projects. However, there is often a limited understanding of these concepts and a lack of political will to implement the needed measures so that they are fully integrated into proposed activities. This often means that gender and communication remain present only at the most superficial level. They are simply ‘buzz words’ to be mentioned from time to time. However, considerable evidence suggests that ignoring the specificities of local contexts and adopting a one-way or top-down approach to communication increases the likelihood of project failure and/or unintended consequences for affected communities.
ICT initiatives that do not take measures to capture women’s voices are likelier to reflect men’s needs and priorities. This strengthens the association between men and technology, reinforces men’s control over information, and potentially accentuates existing inequalities in access to ICTs and other vital resources. Even initiatives aimed specifically at rural women run the risk of being co-opted by men or thwarted entirely if local power dynamics, norms and values are not accounted for, and community members are not adequately engaged throughout the implementation process. As Mefalopulos (2008) points out, “When not involved from the beginning, stakeholders tend to be more suspicious of project activities and less prone to support them” (p.9). Mefalopulos also highlights several sources that confirm a causal relationship between lack of stakeholder involvement and project and programme failure, and other studies that suggest that top-down management approaches to development are less effective than participatory ones.

**5.3 Gender analysis and communication for development?**

The core principle in social and anthropological theory is that it is not just what people say that is relevant, but also what they do and how their environment influences their range of choices. Gender analysis brings focus to the importance of understanding context to ensure appropriate project design and implementation. Gender analysis helps practitioners obtain information on the
risks and opportunities an intervention is likely to face. It considers a range of factors including the
division of productive, reproductive, and community labour; access to and control over resources
and income; distribution of decision-making power; and local norms and customs. Gathering this
type of information also helps to uncover constraints and vulnerabilities (both gender-related and
non) that may lead to the exclusion of some stakeholders if not addressed.

There are well-established methods for conducting gender analysis to identify stakeholder needs
and constraints. However, the process of developing and implementing solutions to address
these constraints remains a major challenge for practitioners working to empower rural women
and achieve gender equality. The identification of solutions tends to be left up to the ingenuity
of practitioners. This frequently leads to ‘cookie-cutter approaches’ that attempt to replicate
documented good practices, often with mixed results. The locus of the problem lies in the fact that
most gender-based constraints relate to complex and deeply entrenched social norms, values
and power dynamics, which by nature are difficult to tackle and highly resistant to change.

As a discipline centred on the process of effecting change, development communication provides
a useful methodology and tools to address this gap. ComDev initiatives tend to focus on fostering
inclusive dialogue and exchanges, developing two-way communication, and promoting collaboration
among stakeholders rather than implementing top-down training sessions or information dissemination
campaigns. Instead of attempting to ‘sell’ a predetermined message to stakeholders, the approach
encourages them to participate actively in the process of questioning the status quo, gathering
and exchanging information, determining priorities and formulating solutions. Evidence suggests
that adopting this approach leads to more profound and long-lasting transformation. For example,
communities with active Dimitra Clubs have implemented changes that address some of the most
intractable issues faced by rural women today, including insecure access to land, information and
education, uneven distribution of decision-making power, and harmful practices such as gender-
based violence and female genital mutilation (FAO, 2016c; ONG AEDL & APEBA, 2015).

**Box 11: Gender analysis and communication**

Gender analysis can uncover key differences in communication behaviour that may affect stakeholders’ ability to
participate and benefit from an intervention. The following questions can serve to shed light on local patterns and
inequalities:

- Who is allowed to speak in public and how does this happen?
- How literate are men/women?
- Where do people meet and interact? To whom are these places accessible?
- How do men and women acquire information and communicate?
- When do people meet and interact? Who takes part in such meetings?
- What mass media are used? By whom? How?

Source: FAO, 2011b

**Box 12: Areas of influence of communication actions**

- Social norms and values: by encouraging the questioning of such norms and values with a view to changing
  them.
- Social and power relations: by questioning roles and responsibilities in order to bring about greater equality
  and sharing.
- Communication methods: by innovating so that men and women exchange their respective knowledge and
  expertise.
- Places of communication: by opening up forums for the exchange of ideas and opinions to ensure that ‘silent’
  voices are heard and taken into account.

Source: FAO, 2011b
Recommendations: implementing inclusive ICT4D

FAO has a major opportunity to be at the forefront of efforts to apply ICTs to rural development and bridge the gender and rural-urban divide in the information society. The Organization’s experience in the area of hunger reduction and rural development, its pioneering contributions to the field of development communication, and its long-standing role as a champion of equality and the rights of rural women and other vulnerable groups put it in a unique position to lead the process of developing and implementing a more inclusive, effective and sustainable approach to ICT4D.

This chapter proposes a series of recommended actions for FAO and its partners to harmonize their efforts in the area of ICT4D. Section 6.1 focuses on building the necessary knowledge base to inform the development of a more equitable approach to ICT4D. Section 6.2 outlines key actions for implementing and institutionalizing such an approach.

“Access to the internet is critical, but not sufficient. The digital economy also requires a strong analog foundation, consisting of regulations that create a vibrant business climate and let firms leverage digital technologies to compete and innovate; skills that allow workers, entrepreneurs, and public servants to seize opportunities in the digital world; and accountable institutions that use the internet to empower citizens […] [These factors] are the foundation of economic development. But digital technologies add two important dimensions. First, they raise the opportunity cost of not undertaking the necessary reforms. They amplify the impact of good (and bad) policies, so any failure to reform means falling farther behind those who do reform. With digital technologies, the stakes have risen for developing countries, which have more to gain than high-income countries, but also more to lose. Second, while digital technologies are no shortcut to development, they can be an enabler and perhaps an accelerator by raising the quality of the complements.”

(World Bank, 2016. p. 4)

6.1 Increasing knowledge on gender and ICTs in rural development

FAO is a global hub for knowledge and information about rural development. It is ideally placed to promote ‘first mile’ thinking and advocate for the inclusion of rural women and men’s perspectives, priorities, and needs in the conversation about ICT4D. The first step in achieving this is to address the scarcity of available evidence on rural women and men’s adoption and use of ICTs, and the impact of ICT-related development interventions in rural contexts.
Build evidence on existing patterns of ICT access and use among rural women and men

FAO can step up efforts to expand the knowledge base on the role of ICTs in rural areas and support the design of projects and programmes in a number of ways.

- **Multicountry studies** like the one carried out by FAO on mobile phone use among poor rural women and men in Asia (FAO, IDRC and LIRNEasia, 2016) should be replicated in other regions and expanded to include information on the use of other ICTs.

- **Individual projects and programmes** can produce detailed information on gender and ICTs at the local level in a number of ways. By carrying out surveys on gender and ICT from the early stages of implementation, practitioners can create a baseline to measure impact against in later stages and gather valuable contextual information to inform project design. In 2017, the United States Agency for International Development (USAID) published the Gender and ICT Survey Toolkit, which provides guidance on survey preparation, data collection and data analysis, and a suite of quantitative and qualitative tools for exploring a variety of thematic areas. Practitioners should also keep in mind that ICTs are not just for information dissemination. New ICTs lend themselves to two-way information exchange. ICT projects and programmes that incorporate a data collection aspect will be able to respond and adapt to identified issues throughout implementation, and have the potential to capture valuable information about the context in which they are operating (World Bank, 2017).

- **National Statistics Offices** and other partners at the country level should be supported to incorporate data collection on indicators related to gender and ICT in rural areas. FAO can also advocate for the inclusion of rural women and men in data collection on ICT and contribute to efforts to improve the availability and quality of ICT indicators and data in developing countries by joining the Partnership on Measuring ICT for Development.

- **FAO can also leverage existing partnerships with media** to increase the visibility of rural women in conversations about the digital divide.

Take stock of FAO’s work related to ICT

There is currently no centralized mechanism guiding and tracking work related to ICT4D within FAO. Interventions with ICT components can be found throughout the work of the Organization in all regions. FAO should take stock of existing projects and programmes with ICT components to get a better sense of the current state of ICT4D within the Organization, highlight ongoing efforts, promote knowledge exchange, and streamline future efforts in this area.

Box 13: The case of Hydro-Quebec

[Hydro-Quebec, a leading Canadian firm in the energy sector,] has estimated that the cost of inadequate communication with indigenous peoples regarding their hydropower scheme in North Quebec led to controversies that caused project delays of more than 20 years. The company’s cost estimate for these delays is USD 278 million. Currently Hydro-Quebec and indigenous people in Canada have developed a working partnership that allows a dialog aimed at addressing issues from both perspectives and that has eliminated most of the past problems and conflicts. (Mefalopulos, 2008, p. 136)


A future step will be to evaluate the impact of these interventions, both in terms of the success and sustainability of the intervention, and in terms of the positive or negative impacts felt by the community in which the intervention took place. There is no established theoretical model for assessing the gendered impact of ICTs in communities (S. Cardey, personal communication, 2017). It may be of special interest to develop and test out such a model as part of this investigation. An attempt should also be made to capture local values and priorities in measuring the success or failure of each intervention. As discussed in Chapter 3, community measures of success often differ significantly from the individualistic development standards applied by practitioners.

**Put together a business case for inclusive ICT4D**

Chapter 5 outlines a number of sound reasons for mainstreaming gender and communication into projects with ICT components. However, the most effective way to convince decision-makers to invest in making systemic changes is to provide concrete information on the costs and benefits involved in implementing such an approach. A strong business case will:

- compare implementation costs to achieved outcomes in projects that do implement the approach; and
- compare the results achieved by these interventions with those attained by similar projects that do not include gender or communication components.

The strength of gender-transformative and development communication approaches rests largely on the prevention of negative impacts and on the achievement of ‘intangible’ results, such as empowerment and social cohesion. For this reason, it is essential that the business case contain both of the analytical dimensions listed above. Mefalopulos (2008) suggests that:

> The impact of communication becomes more apparent when reviewing the significant body of evidence about the cost of non-communication, indicating how much time and money have been wasted because of problems that could have been avoided if communication approaches had been applied from the beginning of the initiative (p. 136.).

Decision-makers can be more effectively motivated to implement substantive changes if they are helped to see not only the moral imperative and development potential for mainstreaming gender and communication, but also the costs that are already being sustained through inaction on these issues.

"Without data there is no visibility; without visibility there is no priority. The paucity of sex-disaggregated ICT data, particularly from developing countries, makes it difficult, if not impossible, to make the case to policymakers for their consideration of gender-related issues in ICT policies, plans and strategies."  
(UNCTAD, 2014, p.3.)
6.2 Harmonizing efforts and promoting inclusion throughout ICT-related work

The complex and rapidly evolving nature of ICTs has left most practitioners without a solid theoretical base or institutional approach to guide the design of ICT-related interventions. As a result, the implementation of ICT4D interventions across most sectors tends to occur in a disjointed and uneven manner. Providing a methodological and institutional foundation to guide ICT4D efforts and ensure their inclusivity is essential to enhancing capacity on all sides and scaling up this area of work throughout FAO.

Develop evidence-based guidelines on inclusive ICT4D

To mainstream an inclusive ICT4D approach throughout ICT-related rural development interventions, the first step is to provide a conceptual framework, methodology and tools that FAO practitioners and rural development partners can refer to for guidance. A useful set of guidelines on inclusive ICT4D could be developed by:

- **Building upon existing conceptual foundations**: It should be kept in mind that much of the conceptual work on the requirements for inclusive ICT4D in rural development has already been done. A literature review of existing resources, including several seminal FAO publications and good practices collected by the e-Agriculture community, can provide a selection of guiding principles and recommended methods to refine and update as necessary.

- **Incorporating up-to-date evidence**: To be effective, an inclusive ICT4D approach needs to be based on solid core principles and at the same time remain responsive to rapid changes in the field of ICT. The guidelines should be formulated based on the types of information discussed in Section 6.1. The guidelines would address current realities and challenges and then be updated at least once every 5 years to reflect social and technological developments.

- **Working with key development partners and experts**: Several of the partners FAO works with in the United Nation system, the research community and academia partners have extensive ICT4D knowledge and experience that can complement the Organization’s rural development expertise. They can make a significant methodological contribution to the process of converting a broad collection of principles, methods and information into a coherent approach.

Institutionalize inclusive ICT4D in the work of FAO

The FAO IT/Digital Strategy mentions harnessing new ICTs to enhance rural development efforts. However, **the Organization does not yet have a comprehensive policy covering all aspects of ICT4D** and all types of ICTs, including non-digital ICTs, such as radio. Such a policy would do much to harmonize ICT4D efforts, permit effective monitoring and enhance the overall impact of the Organization’s work, especially if it is based on the principles of inclusive ICT4D.

- Relevant international commitments made by FAO should form the basis for the policy. These include, but are not limited to: the Beijing Platform for Action, the Geneva Declaration of Principles and Tunis Commitment, the Rome Consensus, the WSIS +10 vision for WSIS beyond 2015, and the SDGs.

- The Principles for Digital Development should be endorsed by FAO. Together with the guidelines for inclusive ICT4D, these can be used to inform the implementation strategy and monitoring plan that accompany the policy.

It is also recommended that future updates or new iterations of existing sector-specific policies...
within FAO take the opportunity to integrate the principles of inclusive ICT4D. These include, but are not limited to:

- **The FAO Policy on Gender Equality.** The policy currently does not address directly technical issues, but it does outline a number of objectives and minimum standards that are related to achieving improvements in this area. To effectively work toward inclusive ICT4D, both this policy and the 2000 Strategy for Action on the role of information for gender and food security (see Chapter 4) would need to be combined with auxiliary policy commitments to address issues of ICT access and use or rural women’s representation in the media.

- **The FAO IT/Digital Strategy:** The strategy currently does not elaborate a plan for ensuring the inclusiveness of its proposed activities. Mainstreaming people-centred approaches, such as gender-sensitive initiatives and development communication, into the process of scaling up innovation and sustainable ICT-based solutions throughout the Organization’s work is essential. This could be achieved by either updating the current strategy or integrating it with the proposed overall policy on ICT4D.

>“ICTs enable the production of different experiences of being human, and consequently new and different knowledge about ourselves and the nature of gender. They expand the possibilities of human identity.”

(UNDAW and ITU, 2002. p. 18.)
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# Annex 1: Gender and channels of communication in rural areas

## Mass media (commercial, private, public)

**Radio**
- One of the most powerful and accessible means for reaching isolated rural areas; a channel for education, awareness-raising and knowledge acquisition; a tool for influencing the dynamics of social relations and addressing gender inequalities; close to listeners in the case of rural and community-based radio.
- Issues to consider: many women do not own a radio and/or have no access to one; languages in which programmes are broadcast; need to choose topics of interest to women or young people (male and female); can be combined with other channels of communication to enable interaction (e.g. listeners' clubs).

**Television**
- Channel for propaganda, great impact (positive or negative) on young people; awareness-raising and source of knowledge; a persuasive and attractive method for drawing policymakers' attention to issues relating to rural populations, especially women.
- Issues to consider: absence of coverage and electricity in rural areas, and hence lack of accessibility; expensive to produce/receive; rural and agricultural issues (and rural women in particular) not covered; often monopolised by powerful interests; no interaction with viewers.

**Press**
- Dissemination of news; possible role in a democratic context with a critical or opposition press.
- Issues to consider: illiteracy, especially among women; print media not distributed in rural areas; cost.

## Traditional media

**Song, dance, music, stories, poetry, masks, proverbs, puppets, etc.**
- For generations, rural populations, both men and women, have relied on oral traditions and other traditional forms of communication as a means of sharing knowledge and information and providing entertainment. They are important channels for promoting learning, behavioural change and participation. Traditional communicators are respected and influential.
- Issues to consider: traditional channels of communication may lack prestige compared with modern media; they require close collaboration between development practitioners and traditional folk artists and, above all, a great deal of skill to incorporate development messages advocating change (in gender roles, for example).

## Audio–visual and written tools (support materials)

- Valuable for motivating and assisting in training and working groups, as well as promoting self-confidence and empowerment; cheap; persuasive; enable interaction; equipment now more affordable, lighter and more suitable for use with women and men in rural areas.
- Issues to consider: to be used at the most convenient times and places for community members, particularly women, who often have less free time; cost of the equipment; training needed for participatory use of these media; men and women must be able to identify with the images and topics chosen.

**Film screenings Video forums**
- Generate enthusiasm because seen as an ‘event’; used to relay information and stimulate debate; can be used to discuss problems and as the first step to raising awareness; separate screenings and debates for men and women, depending on the topics discussed.

**Photographs Picture boxes Participatory video**
- A range of uses for various purposes: picture box for technical illustration, to visualise a situation (photos, photo novels, illustrations). These materials can be produced by the populations themselves. Rapid developments in small-format technology mean that participatory video or photography is a powerful means of communication which can help communities take ownership of their own development; it can also help to enhance women’s status within their communities and organisations.

**Posters, leaflets**
- Allow a simple message to be conveyed in multiple locations simultaneously; can be made visually appealing through balanced use of text (kept to a minimum) and illustration (as many photos and pictures as possible).
**Communication methods**

- Communication methods and knowledge-sharing tools boost self-confidence and enable interaction, exchange, debate, collaboration, participation, etc.

- Issues to consider: these methods and tools often require a high level of gender awareness and sensitivity to group and interpersonal dynamics. Women are often subject to various kinds of constraints that prevent them from travelling outside their village for visits, training or events. Speaking in front of mixed groups may be problematic. These constraints must be addressed in order to foster active participation by women and young people. The language of communication must be the everyday language of the community.

<table>
<thead>
<tr>
<th>Group discussions, debate</th>
<th>Opportunities to get people together (large or small groups, mixed or single–sex). Issues to consider: risk of the discussion being monopolised and the “powerless” (often young people and women) having no say; some subjects are off–limits.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theatre–debate</td>
<td>Can be produced and acted by the population with the help of a drama team and followed up with fruitful discussions. Possibility of forming separate groups.</td>
</tr>
<tr>
<td>Exchange visits, training</td>
<td>Help to raise awareness and enable exchange of experiences and solutions; participants feel comfortable about speaking because they are familiar with the subject matter; widens horizons; unlocks potential.</td>
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<tr>
<td>Fairs, events</td>
<td>Opportunity to highlight experiences and reach a large audience (through advertising); boost self–confidence and self–esteem. Issues to consider: mobility issues for some groups within the population; offering guidance and assistance at the fair/event to make it easier for everyone to participate, using tools such as the World Café, the carrousel, peer assist, proverbs, knowledge tree, etc. (see tools at <a href="http://www.kstoolkit.org">www.kstoolkit.org</a>).</td>
</tr>
</tbody>
</table>

**New Information and Communication Technologies (new ICTs)**

- Mobile telephones, telecentres, networks, Internet, etc.
  - Used effectively, new ICTs can help to combat isolation, forge alliances, create platforms, promote knowledge of the world and boost empowerment.
  - Issues to consider: cost, inaccessibility in rural areas, illiteracy (particularly among women), lack of user training and infrastructure, languages used.

Source: FAO, 2011b
Annex 2: Section J of the Beijing Plan of Action

J. Women and the media

234. During the past decade, advances in information technology have facilitated a global communications network that transcends national boundaries and has an impact on public policy, private attitudes and behaviour, especially of children and young adults. Everywhere the potential exists for the media to make a far greater contribution to the advancement of women.

235. More women are involved in careers in the communications sector, but few have attained positions at the decision-making level or serve on governing boards and bodies that influence media policy. The lack of gender sensitivity in the media is evidenced by the failure to eliminate the gender-based stereotyping that can be found in public and private local, national and international media organizations.

236. The continued projection of negative and degrading images of women in media communications - electronic, print, visual and audio - must be changed. Print and electronic media in most countries do not provide a balanced picture of women’s diverse lives and contributions to society in a changing world. In addition, violent and degrading or pornographic media products are also negatively affecting women and their participation in society. Programming that reinforces women’s traditional roles can be equally limiting. The world-wide trend towards consumerism has created a climate in which advertisements and commercial messages often portray women primarily as consumers and target girls and women of all ages inappropriately.

237. Women should be empowered by enhancing their skills, knowledge and access to information technology. This will strengthen their ability to combat negative portrayals of women internationally and to challenge instances of abuse of the power of an increasingly important industry. Self-regulatory mechanisms for the media need to be created and strengthened and approaches developed to eliminate gender-biased programming. Most women, especially in developing countries, are not able to access effectively the expanding electronic information highways and therefore cannot establish networks that will provide them with alternative sources of information. Women therefore need to be involved in decision-making regarding the development of the new technologies in order to participate fully in their growth and impact.

238. In addressing the issue of the mobilization of the media, Governments and other actors should promote an active and visible policy of mainstreaming a gender perspective in policies and programmes.

Strategic objective J.1. Increase the participation and access of women to expression and decisionmaking in and through the media and new technologies of communication

Actions to be taken

239. By Governments:

a. Support women’s education, training and employment to promote and ensure women’s equal access to all areas and levels of the media:
b. Support research into all aspects of women and the media so as to define areas needing attention and action and review existing media policies with a view to integrating a gender perspective;

c. Promote women’s full and equal participation in the media, including management, programming, education, training and research;

d. Aim at gender balance in the appointment of women and men to all advisory, management, regulatory or monitoring bodies, including those connected to the private and State or public media;

e. Encourage, to the extent consistent with freedom of expression, these bodies to increase the number of programmes for and by women to see to it that women’s needs and concerns are properly addressed;

f. Encourage and recognize women’s media networks, including electronic networks and other new technologies of communication, as a means for the dissemination of information and the exchange of views, including at the international level, and support women’s groups active in all media work and systems of communications to that end;

g. Encourage and provide the means or incentives for the creative use of programmes in the national media for the dissemination of information on various cultural forms of indigenous people and the development of social and educational issues in this regard within the framework of national law;

h. Guarantee the freedom of the media and its subsequent protection within the framework of national law and encourage, consistent with freedom of expression, the positive involvement of the media in development and social issues.

240. By national and international media systems:

Develop, consistent with freedom of expression, regulatory mechanisms, including voluntary ones, that promote balanced and diverse portrayals of women by the media and international communication systems and that promote increased participation by women and men in production and decision-making.

241. By Governments, as appropriate, or national machinery for the advancement of women:

a. Encourage the development of educational and training programmes for women in order to produce information for the mass media, including funding of experimental efforts, and the use of the new technologies of communication, cybernetics space and satellite, whether public or private;

b. Encourage the use of communication systems, including new technologies, as a means of strengthening women’s participation in democratic processes;

c. Facilitate the compilation of a directory of women media experts;

d. Encourage the participation of women in the development of professional guidelines and codes of conduct or other appropriate self-regulatory mechanisms to promote balanced and non-stereotyped portrayals of women by the media.
242. By non-governmental organizations and media professional associations:

a. Encourage the establishment of media watch groups that can monitor the media and consult with the media to ensure that women’s needs and concerns are properly reflected;

b. Train women to make greater use of information technology for communication and the media, including at the international level;

c. Create networks among and develop information programmes for non-governmental organizations, women’s organizations and professional media organizations in order to recognize the specific needs of women in the media, and facilitate the increased participation of women in communication, in particular at the international level, in support of South-South and North-South dialogue among and between these organizations, inter alia, to promote the human rights of women and equality between women and men;

d. Encourage the media industry and education and media training institutions to develop, in appropriate languages, traditional, indigenous and other ethnic forms of media, such as story-telling, drama, poetry and song, reflecting their cultures, and utilize these forms of communication to disseminate information on development and social issues.

Strategic objective J.2. Promote a balanced and non-stereotyped portrayal of women in the media

**Actions to be taken**

243. By Governments and international organizations, to the extent consistent with freedom of expression:

a. Promote research and implementation of a strategy of information, education and communication aimed at promoting a balanced portrayal of women and girls and their multiple roles;

b. Encourage the media and advertising agencies to develop specific programmes to raise awareness of the Platform for Action;

c. Encourage gender-sensitive training for media professionals, including media owners and managers, to encourage the creation and use of non-stereotyped, balanced and diverse images of women in the media;

d. Encourage the media to refrain from presenting women as inferior beings and exploiting them as sexual objects and commodities, rather than presenting them as creative human beings, key actors and contributors to and beneficiaries of the process of development;

e. Promote the concept that the sexist stereotypes displayed in the media are gender discriminatory, degrading in nature and offensive;

f. Take effective measures or institute such measures, including appropriate legislation against pornography and the projection of violence against women and children in the media.

244. By the mass media and advertising organizations:
a. Develop, consistent with freedom of expression, professional guidelines and codes of conduct and other forms of self-regulation to promote the presentation of non-stereotyped images of women;

b. Establish, consistent with freedom of expression, professional guidelines and codes of conduct that address violent, degrading or pornographic materials concerning women in the media, including advertising;

c. Develop a gender perspective on all issues of concern to communities, consumers and civil society;

d. Increase women’s participation in decision-making at all levels of the media.

245. By the media, non-governmental organizations and the private sector, in collaboration, as appropriate, with national machinery for the advancement of women:

a. Promote the equal sharing of family responsibilities through media campaigns that emphasize gender equality and non-stereotyped gender roles of women and men within the family and that disseminate information aimed at eliminating spousal and child abuse and all forms of violence against women, including domestic violence;

b. Produce and/or disseminate media materials on women leaders, inter alia, as leaders who bring to their positions of leadership many different life experiences, including but not limited to their experiences in balancing work and family responsibilities, as mothers, as professionals, as managers and as entrepreneurs, to provide role models, particularly to young women;

c. Promote extensive campaigns, making use of public and private educational programmes, to disseminate information about and increase awareness of the human rights of women;

d. Support the development of and finance, as appropriate, alternative media and the use of all means of communication to disseminate information to and about women and their concerns;

e. Develop approaches and train experts to apply gender analysis with regard to media programmes.

Source: United Nations, 1996
Annex 3: CSW 47 Agreed Conclusions

Priority Theme: “Participation in and access of women to the media, and information and communication technologies and their impact on and use as an instrument for the advancement and empowerment of women”

1. The Commission on the Status of Women recalls and reiterates the strategic objectives and actions of the Beijing Declaration and Platform for Action and the outcome document adopted at the twenty-third special session of the General Assembly entitled “Gender equality, development and peace in the twenty-first century”, on the potential of the media and of information and communications technologies to contribute to the advancement and empowerment of women. It also recalls the United Nations Millennium Declaration and its Development Goals to promote gender equality and the empowerment of women as effective ways to combat poverty, hunger and disease, to stimulate development that is truly sustainable and to ensure that the benefits of new technologies, especially information and communications technologies, are available to all.

2. The Commission notes that, globally, there are substantial differences in participation in, access to and use of media and information and communications technologies, their content and production. Such differences have important implications for policy development at national, regional and international levels. A focus on the gender dimensions of information and communications technologies is essential in order to prevent and combat any adverse impact of the digital revolution on gender equality and the perpetuation of existing inequalities and discrimination, including the sexual exploitation of women both through the traditional media and new technologies. The media and information and communication technologies also offer tools for enhancing women’s full access to the benefits of information and new technologies and can become central tools for women’s empowerment and the promotion of gender equality. Efforts are therefore necessary to increase women’s access to and participation in the media and information and communication technologies, including in their decision-making processes and new opportunities created through information and communication technologies.

3. The Commission welcomes the convening of the World Summit on the Information Society, which is to be held in Geneva in December 2003 and in Tunis in 2005, and urges all participants to take the following recommendations into account and to integrate gender perspectives in every facet of the Summit. It further encourages the participation of women in the Summit, to include significant numbers of gender equality experts and women experts in the field of information and communication technology as members of national delegations, organizations of civil society and the business community.

4. The Commission urges Governments and, as appropriate, the relevant funds and programmes, organizations and specialized agencies of the United Nations system, the international financial institutions, civil society, including the private sector and non-governmental organizations, and other stakeholders, to take the following actions:

   a. Prioritize the integration of gender perspectives and ensure women’s early and full participation in the development and implementation of national policies, legislation, programmes, projects, strategies and regulatory and technical instruments in the field of information and communication technologies (ICT) and media and communications, and create monitoring and accountability mechanisms to ensure implementation of gender-sensitive policies and
regulations as well as to analyse the gender impact of such policies in consultation and collaboration with women information technology specialists, women’s organizations and gender equality advocates;

b. Encourage regulatory bodies, where they exist, to promote full participation of women in the ownership, control and management in the ICT and media sectors;

c. Include gender perspectives and measurable gender-specific targets in all programmes and projects on ICT for development, as well as specific activities, as appropriate, for women and girls as active users of information;

d. Remove ICT-related infrastructural barriers that disproportionately affect women and girls and promote the establishment of affordable and accessible ICT-related infrastructure for all women and girls, bearing in mind the specific needs and interests of women and girls living in countries in the process of peace-building and reconstruction;

e. Invite, as appropriate, through partnerships, or through the use of self-regulatory gender-sensitive guidelines and self-regulatory gender-sensitive guidelines for media coverage and representation, public and community media to work in support of gender equality, bearing in mind the importance of providing financial resources and other support;

f. Support research into all aspects of the impact of the media and ICT on women and girls, in particular into their information needs and interests, review existing media and ICT policies and find ways to adapt ICT to the needs of poor and, in particular, illiterate women, in order to overcome barriers and support women’s empowerment;

g. Make education, formal and non-formal, a priority in particular for the development of ICT and take measures to promote girls’ education so as to enable girls and women to gain access to ICT;

h. Include, at appropriate levels of government, ICT education for girls and women in curricula at all educational levels, from early childhood to tertiary level, as well as in continuing education, in order to promote and ensure women’s full participation in the information society;

i. Take concrete steps to increase the number of female students at all educational levels in media- and ICT-related subjects, including science, mathematics and technology, including through such methods as distance- and e-learning;

j. Establish or, where they already exist, expand skills training, vocational and employment training and capacity-building programmes for women and girls and women’s non-governmental organizations on the use, design and production of ICT, including preparing them to take on leadership roles and promote their participation in the political process, and integrate a gender perspective in ICT training programmes for teachers and in training programmes for media professionals;

k. Enable equal access for women to ICT-based economic activities, such as small business and home-based employment, to information systems and improved technologies and to new employment opportunities in this area, and consider developing tele-centres, information centres, community access points and business incubators;

l. Strengthen partnerships among all stakeholders to build the capacity of women to fully
participate in, and enjoy the benefits of, the information society, including e-governance, where it exists and as it is developed, and participatory approaches;

m. Ensure equal opportunities for women and monitor gender representation in different categories and levels of work, education and training in the media and ICT areas, with a view to increasing women’s participation in decision-making at all levels of ICT and the media;

n. Provide management, negotiation and leadership training for women, as well as mentoring systems and other support strategies and programmes to enhance women’s capabilities and potential for advancement in the media and ICT sectors;

o. Take effective measures, to the extent consistent with freedom of expression, to combat the growing sexualization and use of pornography in media content, in terms of the rapid development of ICT, encourage the media to refrain from presenting women as inferior beings and exploiting them as sexual objects and commodities, combat ICT- and media-based violence against women, including criminal misuse of ICT for sexual harassment, sexual exploitation and trafficking in women and girls, and support the development and use of ICT as a resource for the empowerment of women and girls, including those affected by violence, abuse and other forms of sexual exploitation;

p. Respect the value of different and local languages and promote and encourage local knowledge systems and locally produced content in media and communications, support the development of a wide range of ICT-based programmes in local languages, as appropriate, with content relevant to different groups of women, and build the capacity of girls and women to develop ICT content;

q. Encourage South-South cooperation to facilitate transfer and exchange of low-cost technologies and appropriate ICT content between developing countries for the benefit of women and girls;

r. Strengthen and encourage the use of existing information and communication technologies, such as radio, television, telecommunications and print, in parallel in order to enhance the use of new technologies for gender equality and the economic, political and social empowerment of women as leaders, participants and consumers and recognize that women and girls are potentially large-scale consumers, users and producers of ICT and media;

s. Collect, share, positively recognize and widely publicize good practices to counter gender stereotyping, negative portrayals and exploitation of women in all forms of the media and ICT as part of their efforts to eliminate discrimination and violence against women;

t. Increase efforts to compile, and disaggregate by sex and age, statistics on ICT use, in order to develop gender-specific indicators on ICT use and needs and to collect gender-specific data on employment and education patterns in the media and in ICT professions;

u. Provide adequate and appropriate resources for innovative, affordable, accessible and sustainable media and ICT programmes, projects and products that support gender equality and gender mainstreaming, are relevant to the concerns of women and girls and provide support to women’s online communities and networks that promote gender equality;

v. Prioritize the allocation of resources to support programmes, projects and strategies that aim at increasing women’s participation in, and equal access to, the information society,
including vocational, scientific and technical training, literacy training and capacity-building programmes;

w. Enhance, for the benefit of women and girls, international cooperation in support of national efforts to create an enabling environment to reduce the digital and information divide between developed and developing countries and promote, develop and enhance access to ICT, including the Internet infrastructure by facilitating access to, and transfer of, knowledge and technology on concessional, preferential and favourable terms to the developing countries, as mutually agreed, taking into account the need to protect intellectual property rights and the special needs of developing countries;

x. Strengthen the capacity of national machineries for the advancement of women, including through the allocation of adequate and appropriate resources and the provision of technical expertise, to take a lead advocacy role with respect to media and ICT and gender equality, support their involvement in national, regional and international processes related to media and ICT issues and enhance coordination among ministries responsible for ICT, national machineries for the advancement of women, the private sector and national nongovernmental organizations working in the field of gender advocacy."

Source: CSW, 2003
Advances in information and communication technologies (ICTs) have made information available to more people than ever before. These advances have also substantially increased their capacity to connect with each other in a continuously expanding number of ways.

Rural women are currently (and have always been) last in line in terms of ICT access and use, even though women stand more to gain than most from active participation and engagement with these resources.

Evidence suggests that the ICT sector is both urban- and male-centric, ranging from the design of ICTs to the gender of sector employees and decision-makers. Representation in the media is also predominantly male.

The aim of this paper is to bring rural communities, and women and other marginalized groups in particular, back into the centre of conversations on ICTs and ICT4D.