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Harnessing ICTs for Advancement of Rural Women: FAO Perspectives and Strategic Actions

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Abstract

Information and communication technologies can be effective instrument for increasing choices for rural women, for multifaceted empowerment. The ICTs can be effective tools to expand the knowledge among rural women and that can enhance their abilities to negotiate for their resource share and participation. But it would be important to review the potential for ICTs in two broad approaches namely, their application directed to rural women as primary users of this technology and their application directed to improve the quality of life in rural communities that would assist rural women to improve their lives. Most often the second category of application does not figure predominantly in the discourse on harnessing ICTs for the advancement of rural women. It would be important that in order to design ICTs applications to serve rural women, it would be necessary adopt a broader overview of rural life, rural community service and resource needs and rural women's role as stakeholder in rural enterprises and related service and resource needs. FAO with a multi-disciplinary expertise and broad technical mandate and commitment to gender mainstreaming promotes variety of ICTs based approaches to serve the agenda of advancement of rural women. But FAO also recognises that current impediments for achieving accelerated access to ICTs driven applications in rural areas and among rural women. Hence, the process is one of combining traditional modes with advanced information and communication technologies to transform the lives of rural women.

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Part I

Harnessing ICTs for Advancement of Rural Women: Possibilities and Barriers

1.1. Introduction

Development, as often stated, is about expanding choices people have to lead lives they value and the fundamental to enlarging choices is building human capabilities –both of men and women across the social and economic spectrum of a society[1]. It is also recognised that those technologies have the potential to enlarge people's choices including women in rural areas. FAO approach had been to improve rural women's choices in technologies and access to agriculture information, inputs and services to support them in their livelihood strategies and enhance their welfare. In its mission to achieve sustainable food security, FAO recognises the rural men and women as partners and the technology and information needs of farmers and rural producers are promoted.[2] In 2002, Declaration of the World Food Summit: *five years later* by heads of the states of assembled countries agreed to promote equal access for men and women to food, water, land, credit and technology which will also help in generating income and creating employment opportunities for the poor, thus contributing to reduction of poverty and hunger[3]. Yet, today in the context of globalisation, the emerging technologies in agriculture and information and communication arena present interesting possibilities and pose concerns in the area of advancement of rural women. Both adversities and opportunities should be carefully considered in harnessing the emerging technologies as the means to expand choices for rural women with an aim to improve their assets-both physical and knowledge and opportunities for improving their life and livelihood. Strategies for harnessing technologies for rural women should be constructed on the premises that, " If women are empowered with technological information and skills, all members of the family benefit[4]." ICTs can be instruments of empowering rural women with technological information and skills for economic and social participation and to achieve sustainable food security and livelihood.

1.2. Rural Women's Empowerment in Different Knowledge Systems

Rural women's empowerment process confronts certain contradiction when the new modes of information production and dissemination enter their world of work and life. In the traditional knowledge system the women had power of competence, as they possessed the local knowledge of crops, seeds, medicinal plant and health care that were respected. The producers of information and users of information lived as a close-knit community and the knowledge was based on experiment and experience. But as the modern knowledge system creates greater distance between producers of information and users of information. Most often information is developed and disseminated by outsiders with or most often without the participation of local community. Thus information may or may not reach rural women or rural women's knowledge system may become merely obscured and undervalued. Such a process was evident with the introduction of technical knowledge in the production systems that overlooked the rural women's work and local knowledge vested among rural women[5].

Rural women's illiteracy and lack of formal education was not an impediment to local knowledge based empowerment. But as they operate today information and communication technologies centred information development and dissemination process pose certain threats to empowerment. Yet, it can be argued as tools for processing and disseminating information, the ICTs also present possibilities to integrate rural women's knowledge and information needs to expand women's knowledge based choices. In the nexus of empowerment through knowledge, thus proper application of ICTs could close the knowledge divide among the traditional and local systems of knowledge and the modern and external knowledge system and foster connectivity between rural and rural population.

In the context of Africa it is observed that, women's needs with respect to ICTs, while should address access to education and training that will support their participation, there should be social and policy acknowledgement recognising what women already do is technology, appropriate and worthy of recognition, and an important resource for development. Hence, an important task for the new technologies is not only to allow women to gain information but to disseminate the information they already possess and generate[6]. An example of international connectivity in Africa is the " African Women Global Network' (AWOGNet) set up at Ohio State University by an African Woman based at the university, to support the needs and concerns of women and children in Africa. Among other information it includes issues and activities related to natural resource management and agricultural development and technical and support services including distance education"[7]. Though there are technological solutions to improve connectivity of rural people for sharing state of the art information, the political will, rural divide, rural illiteracy and cost consideration remain as obstacles.

1.2. ICTs to Serve the Rural Women: Promising Possibilities

The emerging trend in information and communication technologies presents opportunities to improve rural women's participation in information economy and knowledge society. The potential of information and communication technologies based approaches or ICTs as instruments for advancement of rural women is yet to be fully explored. At this moment the central theme of discussion on ICTs and women in general and rural women in particular focus on employment skills, participation, education and networking. These are important areas of concern and intervention to ensure rural women's social, political and economic participation. But the rural community development problems though inclusive of these concerns, have many other facets. Most often, these dialogues focus exclusively on women and/or rural women as primary users of ICTs, but not adequately on the potential of using these technologies to improve the lives of rural women in a broader development context.

In the educational sector, distance education with ICTs aid it would be possible to reach rural women and women in remote areas to overcome gender disparity in access to education. As illustrated in the context of Pacific distance learning and research project-Sasamungga, the People First Network (PFnet) of the Rural Development Volunteers Association in partnership with USP Centre have launched a project which will help USP to deliver distance learning courses to remote areas using email. It is recorded that to date 40% of the learners re women[8].

Rural women as stakeholders in rural and agriculture development confront problems of crop production and management, animal production and animal health, fishing and acquaculture, natural resource crisis and disaster management. An unexplored potential exists for application of ICTs in these wide range of endeavours that women undertake in rural areas and thus to improve their livelihood.

An example in quality of life information access would be the Pondichery, India experiment where women access health information and men the sea tide information for their fishing purpose, from computer based information systems. The concept of providing rural health care through mobile system connected through ICTs to medical specialists in larger urban hospitals offers potential to serve rural women. In Ginnak, a remote island on the Gambia River, nurses use a digital camera to record patients' symptoms. The pictures are sent electronically to a near by town to be diagnosed by a local doctor, or sent to United Kingdom if a specialist's opinion is required[9]. In the similar way animal health services could also be improved through ICTs based consultation. In the context of health education the example is Helathinfo-Ethiopia is an institution that promotes ICTs among health professional as well as acquires and disseminate health–related information about Ethiopia/Africa to Ethiopians/Africans in the continent and Diaspora [10].

In Vanuatu, health radio programme the radio series, 'Famili Blong Serah' ("Sarah's Family"), is an example of the role of communication technologies in informing rural women[11]. Regional launch of Radio Programme---"Networking"- in Caribbean serves rural communities as a Network for Integrated Rural Development. The aim of this programme was putting "grassroots" communities in the region in touch via the medium of radio. In addition, it sought to help empower rural communities to design and chart their own development and promote integration. The radio programme captured a range of Caribbean voices and experiences focusing on issues such as food security and nutrition, youth, eco-tourism, Guyanese Indigenous peoples and alternative medicines. In 1997, 114 programmes were aired regionally. The programme has been aired on local radio stations in Carriacou, Dominica, Grenada, St. Vincent and the Grenadines and Trinidad and Tobago [12].

Radio Communication Project-Peru project established a radio station for women in Lima, and organises daily two-hour radio programmes for women in the provinces. The radio programmes are being developed on the basis of the local women's needs and interests with a variety of themes and issues concerning the lives of women, and the programmes give the women direct access to the microphone. In each of the provinces, a network of local correspondents has been established. These networks maintain a solid contact with the rural areas and contribute to an ongoing audience analysis [13].

In the context of HIV AIDS prevention, in many societies, cultural and social biases that enforce restrictive codes in access to public centres for information particularly for women, communications technologies offer opportunities to learn the information in privacy. In Thailand such approaches are found to be effective in informing women in taking precautions to prevent infection.

With the advances in information technology that has resulted in accurate assessment of vagaries of weather and using communications technologies to warn the rural coastal communities prevent human loss during disaster in countries across various regions. The

importance of appropriate application telecommunication technologies to advise and assist rural population in peril during natural disaster should be stressed.

The ability and quality of information of rural service providers can be improved through ICTs based learning and access to state of art technical information and advisory sources to facilitate advancement of rural women. The potential here is to improve and update the skills and knowledge of local health care providers and development workers to serve the women with adequate and current information and timely service. An example is UNDP-backed Technology Access Community Centres (TACCs), of which there are three in rural areas of Egypt. The TACCs seek to promote civil society, provide training for isolated communities, women and youth empowerment, and indigenous content creation. Similar to most other cybercafé projects, TACCs are equipped with PCs, fax machines, printers, Internet access, etc. However, unlike typical cybercafés, TACCs also offer community users with access to expert advice and services that caters to specific industries (e.g. health care, e-commerce)[14].

The telecentres are becoming important mode of information delivery. Telecottages in Hungary, a country that has over 3,000 small villages and where 7.8 per cent of the population lives in settlements with less than 1,000 people, Hungarian telecottages are a key source of access to the global information society. Inspired by the telecentre schemes in Denmark and Sweden, in 1990, a group of Hungarian librarians set out to provide marginalized groups with computer services and Internet access. The first telecottage, or "TeleHaz," in Hungary was established in a small mountain community called Czakbereny in 1994[15]. Another example is the Net Gains with Somos@telecentros-Latin that is a two-year-old Latin American and Caribbean co-operative that joins community Internet access centres, or telecentres, across the region stands at about 1,500 members and growing. Members use what organisers call 'open learning circles' to improve each telecentre's ability to learn from others' experiences and avoid common mistakes [16].

Additionally with the sophisticated computer software programs the quality of printed media improves and can be made appealing and updated periodically based on local needs and changing circumstances. Illustrative of enhancing the extension service is the Worldview Syria programme. It worked in close co-operation with the Ministry of Agriculture and Agrarian Reform (MAAR) since 1986, providing media support to address important national issues of agricultural, social and economic development. The communication capacity of the Extension Department of MAAR was enhanced through the introduction of innovative cost-effective communication technologies, TV spots, field radio programmes and travelling theatre.

The information on rural women, specifically gender differentiated information on various aspects of rural production ranging from multi-sphere activities, access to economic and social resources can be effectively organised on ICTs based information systems for policy advice and program development. The database both at national level as well as at the local governance level can have far reaching impact in developing gender responsive development in rural communities.

The potential also exists within the countries to set up information technology based data management system in the gender mainstreaming machineries and other relevant technical line ministries on the projects and programs that serve rural women. The IT based data base on rural women's programs including that of NGOs could lead to efficiency in programme delivery to rural women through improved co-ordination among diverse agencies and dispersed service delivery.

In the UNIFEM-CISCO SYSTEMS project in Jordan UNIFEM has signed a two-year agreement with Cisco Foundation/Cisco Systems in June to provide Jordanian women with opportunities to increase their skills and incomes in using new Information, Communication Technologies (ICTs). As a first step, ten "Gender Academies" will be established-based on the Cisco Networking Programme model--at universities, community colleges and high schools. The curriculum will be designed to empower young women students with training in ICTs and networking skills to improve their employment opportunities in a growing job market. Research on the status of women in the Jordanian ICT sector will also be conducted[17].

ICTs also produce economic opportunities directly by jobs created in IT sector, support services and telemarketing opportunities that can create market for the local crafts and products of rural communities. In the formal ICT sector employment opportunities for rural women are non-existent, indicating classes divide in opportunities. But there are opportunities to assist rural population and rural women in their economic enterprises through ICTs based approaches. In Guatemala, the Internet services offered by Mayan Women Communicators helps Mayan women living in isolated communities to sell their products by accessing alternative markets, thus keeping their traditional crafts and artwork alive. Another model of assisting producers and traders in remote communities is found in Mongolia in which both information technology and radio are used to keep the rural communities informed of market outlets and prices for the products.[18]

Though, within the rural context of developing countries often blamed for cultural contamination in the local culture television serves as a means to break the social isolation and entertainment needs of rural women. The community radio approaches serve the purpose of entertainment, and information sharing as well as in the mobilisation of rural and remote communities. With the increasing access to radios and the batteries to power them, the potential for community radio as a means to inform and educate rural women and women in isolated communities with information will be possible. With the access to VCDs and VCD players in a cost-effective range CD based entertainment has penetrated rural communities. Here lies a potential to use the VCD based approach for learning and information sharing.

Hence, the narrow approach as rural women as primary users and focus on primary impact among rural women by ICTs for development is a limited one in exploring its potential for outreach, and role of ICTs to improve the quality of life in the rural context. Rural women need not be always the primary users of ICTs in many situations but can obtain primary gains from ICTs based development and service approaches. But it would demand a comprehensive and broader vision to analyse the entire production and living circumstances of rural women and their efforts to improve their livelihood and their need for associated service, input and information needs to devise ICTs as instruments for their advancement.

1.3. Barriers to Harness ICTs for the Advancement of Rural Women

As historically witnessed with every technological advancement, that ushered in the economic and social development, information communication technology also brings with it urban-rural and gender divide in access to opportunities. "In the developing countries, gender digital divide displays yet another facet: while women in urban areas are more likely to take advantage of ICTs, women in rural areas continue to have little or no access to such opportunities. Increasing the access to and use of ICTs for the purpose of empowering rural women in developing countries remains a big challenge"[19]. Disparity among various classes of women in gaining the benefits identified in the Progress of World's Women Report-2000 [20]. Though a computer hit may produce surprisingly large number of citations of rural women and ICTs, illustrating the opportunities being generated by information and communication technologies, it does not mean that vast majority of rural women are active participants in information economy and knowledge society and hitting the keyboards or browsing the website.

The constraints to harness ICTs for the advancement of rural women can be grouped under five broad categories such as: a) policy environment to support rural ICT programme particularly those directed to rural women; b) inadequate physical and service infrastructure to support connectivity and the capacity building for ICT based interventions in rural locations; c) economic affordability of IT hardware and soft ware among the rural population ; d) relevance of language and appropriateness of content, particularly for rural women and e) gender specific constraints to access, adopt and apply ICTs based information systems.

Policy environment to support ICT Centred programs in rural areas present constraints to rural communities as whole and the gender insensitive policies present particular constraints to rural women venturing into ICTs based economic and social participation. There is an increasing effort in the countries to formulate ICT policies with an objective to take advantage trade and commerce opportunities. Among others, the need for policy objectives that promote access to all, create interest in serving the poor and rural areas and optimise the environment for service promotion in marginal areas are considered important to close the ICT access gap [21]. In addition IT and communication technologies related regulatory measures also restrict popular access and use of these technologies in many countries.

In Asia many national policies though may address ICTs as macro concerns to prevent lagging behind in information technologies based economic revolution and due share in the prosperity, an explicit policy approach to ICTs based development with gender perspective is not a common occurrence[22]. Similarly in Africa ICT and Gender policy concerns are yet in an advocacy phase. It is stated that, "ICTs have enormous potential to benefit girls and women in terms of enhanced income-generation opportunities, employment, and improved quality of life, but because technologies are not gender neutral, it is important to advocate for ICT strategies to manage the potential for ICTs to create economic and social exclusion and reinforce existing social disparities"[23]. It is observed that the inclusion of the gender dimension into national ICT policies has been the missing element in ICT policy formulation in the past. Similar ICTs based public administration and Gender divide in policy arena is

identified by in Latin America based on research in e-governance, e-government and e-democracy in Cuba and Nicaragua.[24]"

In many developing countries the situation as observed is "Meeting basic needs naturally becomes first priority, and few countries of poor countries, which are facing more or less permanent crisis situations feel telecommunications development in rural areas is something they can afford to worry about".[25] There is growing trend toward experimenting in ICTs for agriculture and rural development supported by donors and development banks. But these are in experimental phase, rather examples of ICTs for rural development but not a general trend in ICTs reaching rural communities, particularly rural women.

In the UN General Assembly Session in year 2000 there were actions identified on women's access to communication infrastructure, education and training in ICTS towards enhancing employability and empowerment that reflected Beijing Platform for Action[26]. But these actions were not directed to address the issue information and communication technologies as instrument of advancement of rural women.

Inadequate telecommunication and service infrastructure in the rural areas pose constraints for penetration of ICTs based interventions in rural areas. "The opportunities offered by information and communication technologies (ICTs) - telephone, radio, video and Internet - are unevenly distributed. Barely 6 percent of the world's population is linked to the Internet, and many people on the planet have never made a telephone call. There is growing disparity between those who have access to information and those who do not. The latter are the majority, and most of them live in rural areas of developing countries" [27]. More than 70 percent of the world's Internet users live in Europe or North America, where over 90 percent of the data on Africa are stored. Similar discrepancies exist between the urban and rural zones, and between men and women, and this is particularly true in the developing countries.

In China and in South Africa, for example, women only account for 7 percent and 17 percent, respectively, of the total Internet users[28]. In addition language used in ICTs applications continue be predominantly western languages and rural communities face language barriers in using these applications. In many developing countries where women are illiterate without ability to use formal reading skills, these applications become useless. Equally important is the content relevance of the ICTs based communication and programs. Most are not directly relevant to the situation of rural women and address their resource and technical information needs. In progress are technological research to overcome these barriers and down the road perhaps these could be affordable and available to rural women.

The system that broke the infrastructure and gender barrier is the Grameen telecommunication in Bangladesh where women have become users of hand-held telephone and make an economic enterprise out of their communication technology assets. Yet most often service support and capacity in rural communities in this sector are not adequate to serve the public effectively. Though power supply situation is also an impediment to ICTs based intervention in rural communities. But new generation technologies powered by solar energy are under the experimental phase and may hold promise for the rural communities. The inter-net connectivity in developing countries is limited compared a few developed

countries and rural connectivity is much less. In such IT resource poor environment, rural women's share is negligible or non-existent.

Economic affordability of information technologies among rural population is a major concern in adopting IT based interventions in rural communities. Though the prices are falling in IT technology, it should be recognised they are not within income range of most people in developing countries, even among the urban population. In the rural areas investment in IT hardware is not among the first priorities. Hence, information centres, cyber cafes and telecentres would be a trend in years to come. Increasingly communication hardware such as radio and television are becoming affordable even in rural areas. Family ownership of these media technology could improve rural women's access to information if contents can be developed and investment is made in human capacity building to support the delivery of information.

Gender specific constraints to access and use ICTs for social and economic participation among rural women have many facets. First and foremost impediment is rural women's lack of formal education and thus limited skills to operate information technology and use IT based systems. In almost all-global regions rural female literacy is far less than rural male literacy gains. The social conditioning or gender role socialisation is such that creates inherent technology fear among women in general and rural women are no exception. The assumption that men are more technology oriented as compared to women could operate in capacity building for accessing and using IT technologies. Investment in rural female education is limited and such asymmetry is carried out to capacity building in the ICTs use and application in rural communities. Even public access ICT centres such as cyber cafes and telecentres could present user constraints to rural women due to lack of economic means, capacity and physical access to these group centres. The very social and transport barriers manifested as lack of mobility in reaching training centres, would pose problems in reaching cyber cafes and telecentres.

Part. 2.

FAO in Development Communications and ICTs for Gender Responsive Development

2.1. FAO Links Development Communication to ICTs for Development

In the past decades the approach has been development communication, which focused on taking information to rural communities and agriculture and rural producers[29]. The rural extension service adopted wide range of approaches such as personal communication with rural clients, field visits, farmer fairs to exhibit technologies, and farmers' achievements, printed media and displays of posters and use of communication technologies namely audio tapes radio and television. FAO has undisputed track record in development communication and assisting member countries in this area. But to day in recognition of the potential of information and communication technologies to reach large and diverse audience, including those in remote locations at an accelerated time frame, the approach is termed as ICTs for development. FAO is making the transition effectively within development communication framework linking traditional telecommunication approach to ICTs for development, while

recognising the social and service infrastructure constraints in rural communities to adopt, and assimilate advanced information technologies.

FAO plan of work both in the areas of development communication and agricultural education and gender and development identify various activities that explicitly focus on development interventions through information and communication based programmes. An interdivisional area of activity focuses on harnessing ICTs for the advancement of rural women.

As identified in the on-line conference discussion organised by DAW/ ITU/UN (June-July, 2002) on ICT and their impact on and use as a tool for the advancement of women there are older technologies and state of the technologies that would allow different levels of access and user control[30]. FAO distinguishes communication technologies and the information technologies as two distinct but complimentary components of the ICTs for development. In the future advances in IC technologies hold potential for integrated system that could be used in rural communities. But as relevant to rural women's advancement in the today's ICTs driven development environment communication media technologies such as radio and television still hold greater promise for reaching rural women. FAO's experience in development communication will serve well by adopting and adapting ICTs for Development approach to serve the rural communities more effectively. FAO's parallel approach and commitment to reach rural communities is demonstrated in their technical support activities to both development of extension media centres and service and telecentres in developing countries. FAO collaborates in telecentre initiatives with the International Telecommunication Union (ITU) in countries in the various regions of the world [31].

Sharing a common agenda with many UN agencies FAO's emphases are also on gender differentiated and sex segregated database in all the regions using computer based data management systems. FAO efforts in the area of gender sensitive agricultural statistics that uses information technologies extensively for data management is certainly a means to serve the purpose of information on rural women for policy and advocacy purposes. The CDs developed on invisibility of rural women in agricultural statistics and the gender information in agriculture statistics are illustrative of ICTs coming to aid gender analysis and gender statistics to support recognition of rural women's work for policy formulation and programme development.

FAO has also a historical commitment to and technical linkages with member countries in the area of agriculture education. More recently the focus had been to explore distance education for developing countries[32]. In the Latin America and Asia Pacific region distance education approach for learning in gender planning and for rural women are promoted[3334]. The views held by FAO on distance education are that it can reach groups, such as rural learners and women, not adequately served by conventional education and the lower costs associated with distance education make possible a wider and more democratic reach for educational systems. The FAO's distance education sees a critical role for information and communication technologies. ICTs offer distance education clear advantages with regards to the quality of course materials delivery, interaction with learners, and student support. Telecentres are seen as an appropriate strategy to overcome many barriers to ITC use in distance education.

In Chile and Mexico, FAO projects have applied computer technology to establish information networks for agricultural producers and farmers' associations. The Networks have provided essential data on topics such as crops, markets, prices, weather, social services, and credit facilities[35]. Another example is the Agro-Industries and Post Harvest Management Service manages and facilitates the information network on Post–harvest Operations (INPhO)[36]. Many of these farmer-centred approaches are not necessarily gender sensitive and do not explicitly address rural women's specific needs for information and constraints to access technology and information.

In the context of information exchange based on electronic source FAO maintains websites in Rome, Regional offices and where appropriate in country offices to inform and support policy makers and national government agencies and wide spectrum of development professionals on gender consideration in agriculture and rural development. These sources of IT based publications on issues related to rural women in the key technical areas of FAO along with WAICENT that includes agriculture publications, serve the clients with information on rural women. But the dominant language is English and hence there could be linguistic barriers for wider use and also access to computers and Internet services to search websites in many developing countries also present a constraint.

Within FAO the challenge confronted by gender and development programme is to develop rural women/ gender responsive approaches in the various ICTs centred initiatives promoted within FAO. Hence, within the nexus of globalisation marked by complex economic and social integration and interaction driven by information and communication technologies, FAO has explicit program concentration on gender considerations and advancement of rural women. Such a technical thrust is evident through the Gender and Population Division's program emphasis on information on rural women for policy advice, information for the empowerment of rural women and harnessing ICTs for the advancement of rural women.

2.2. FAO Approach and Actions for Harnessing ICTs for Advancement of Rural Women

This section reviews various approaches and actions undertaken by FAO from policy to field activities across the global regions as related to ICTs and development and gender responsive ICTs application approaches. The specific reference to various documents and websites are included as annex 1.

The participants present at the Second Consultation on Agricultural Information management t, held in Rome, Italy, from 23 to 25 September, 2002, recommended that FAO:

1. Works with Member Countries to mobilise human and financial resources for the development of the following activities: production, adoption and dissemination of gender-disaggregated data (GDD), training materials and guidelines; creation of demand for GDD; development of a dissemination strategy; retabulation of existing data; and integration of a gender perspective in new data;

2. Works with Member Countries to mobilise financial resources for the integration of cross cutting issues like **gender, information and communication** as well as **ICTs in all** policies and to uundertake concrete measures to set up appropriate infrastructure, applications and capacity building for sustainable models in order to produce, access, and share appropriate and relevant information to rural communities (men and women).

These recommendations reflect the Kampala Declaration that were accepted by FAO.

a. Policy on ICTs, Gender and Rural Women

Food and Agriculture Organisation as a technical agency has the primary function of serving the agenda on information development and exchange as well as implementing field activities to provide direct assistance. The organisation has a commitment to take advantage of ICTs to serve the cause of agriculture and rural development with due attention to gender mainstreaming in organisation wide activities. According to FAO "with agriculture in the 21st century moving rapidly away from an artisanal, labour extensive, traditional activity towards a sophisticated, information intensive sector of the global economy, access to information and modern communication technologies has become a necessity for the world's farmers, especially in developing countries"[37].

Gender and Development Plan of Action–2002-2007 demonstrates institutional efforts for systematic and system wide participation in gender mainstreaming. The programme of work of FAO in sustainable development department specifically address the elements of both information and communication technologies for development communication and gender considerations and integration rural women as partners to agriculture and rural development. In its Gender and Development Plan of Action, FAO has recognised that globalisation and new information technologies are transforming the way that production is organised and information shared around the world. These changes could accelerate progress toward gender equality but unless policy makers, practitioners and communities themselves give attention to gender when considering the opportunities and risks, and unless women have a voice in how these new technologies are developed and deployed, these new technologies could very well exacerbate existing inequalities.[38]

In 1999, at the High-Level Consultation on Rural Women and Information, FAO drafted a strategy for action entitled "Gender and Food Security – the Role of Information" which stressed the importance of the role of the media in bridging the gap between the rural world and the urban world[39]. Under this strategy, a more accurate picture of the respective contributions made by rural women and men to agriculture and the rural economy should be disseminated. Access by the rural populations to information and communication technologies should also be facilitated.

A. <u>Gender and ICTs</u>

a) FAO gender Plan of Action 2002-2007 promotes gender mainstreaming as a cross cutting consideration and advocates the integration of gender considerations across the technical work of FAO. In order to share the experiences gained and lessons learnt in implementing Gender Plan of Action an internal Electronic Newsletter has been established called Gender and Development e-news.

b) The following key points of the Kampala Declaration be endorsed by FAO:
   - An enabling environment for gender-sensitive information policy is created through sensitisation of policy-makers and legislators;
   - Concrete measures are undertaken to set up appropriate infrastructure and applications and capacity building for sustainable models for producing, accessing, and sharing information appropriate and relevant to rural communities;
   - Gender is clearly integrated in all themes to be addressed at the World Summit on Information Society 2003 and 2005.

c) Funding for cross cutting issues like **gender, information and communication** as well as **ICTs** be mobilised (specifically for policy formulation; research, case studies, publications, training manuals and guidelines, workshops and networking; support of offline communities with rural radio, listening groups and traditional media).

d) **Gender, information and communication** as well as **ICTs,** be integrated across all policies.

B. Gender and Disaggregated Data

FAO's *Strategic Framework* (2000-2015), *World Food Summit Plan of Action* and successive FAO *Gender Plans of Action* have recognised the importance of gender-disaggregated data (GDD) in food security policy and planning. However, FAO recently observed that nearly all member countries face various difficulties in producing and using gender-disaggregated data and statistics.

Therefore it is recommended that Adequate human and financial resources be mobilised for the realisation of the following activities:

- GDD training materials and guidelines be produced, adapted and disseminated;
- Demand for GDD be created;
- Dissemination strategy be developed;
- Existing data be retabulated;
- Gender perspective is considered in new data.

B. Distance Education in Gender Planning and Education for Rural Women

Latin America:

- Distance learning on gender concepts REDCAPA aimed to train extension professionals.

Asia-Pacific

- Regional expert consultation on distance learning resources for rural women, Bangkok, Thailand
- Regional expert consultation on rural women and distance learning-Regional Strategies. Publication under review. Beijing, China
- Key Informants workshops on integration of gender responsive agriculture and rural development courses and integration of women in development courses in Open University offering in Sri Lanka, Philippines and India.

The objective of these consultations is to create working partnerships among agriculture education systems and open university systems in the selected countries in Asia –Pacific region to use open university approaches, course offerings and delivery mechanism to provide courses and programs to address gender concerns and women's issues in agriculture and rural development.

C. Communication Media and Information Net Work

i. Rural Radio and other media
FAO has been an active partner of local, rural and/or community radio networks spanning 30 years. For the 2 billion men and women living in rural areas of developing countries, radio is still the most popular, the most economic and the most accessible means of communication. Most people are aware of the success that has been achieved by rural radio in Africa communicating on vital subjects such as; agriculture and public health; educating people about new practices; allowing the actors in rural development to express themselves in local languages; building social consciousness and mobilising and accelerating change.

FAO activities include:

- Organising a workshop on Farm Radio broadcasting with specific emphasis on the role of farm radio broadcasting and its convergence with new information and communication technologies.
- Helping to close the digital divide in rural areas by connecting community radio stations to the Internet and training broadcasters to collect and adapt information for improved agriculture and food security.
- The production of technical fact sheets on food security issues; agro-metrology, post harvest operations, early warning systems, forestry and food security and nutrition to be used by rural radio broadcasters in order to produce audio scripts and radio programs.

ii. FAO assists to create and strengthen collaborative networks that enable information to flow to and from rural men and women and to facilitate dialogue between communities, governments and development organisations.

Example: DIMITRA

The project has collected **detailed information** on organisations and projects concerning rural women in Europe, Africa and in the Near East and worked closely with **eight local partners** located in Africa and the Near East. Dimitra uses both **traditional and new** communication methods and tools to distribute information. The Dimitra on-line database is regularly updated, and accessible free of charge on the FAO website at the following address : http://www.fao.org/sd/dimitra/. This database contains profiles on organisations based in Europe, Africa and the Near East which have projects or programmes involving or concerning rural women and development (in English and French). Dimitra's publications include a guidebook on European organisations (NGOs, information centres and research institutes) working with/for rural women in the South; a guidebook on African and Near Eastern organisations; bi-annual **Newsletters** (in English and French) which provide information about the activities of the project and its partner organisations and which are

disseminated worldwide as well as various other information materials. A CD-ROM will also be produced in the near future. To date Dimitra has gathered information on 844 organisations, among which 796 in Africa and the Near East, 1909 project descriptions, 830 publications, and has an ever-expanding worldwide mailing list .

Example: LINKS

The Links project on gender, biodiversity and local knowledge uses ICTs to communicate among the various members based in several African countries. E-mail, website, multimedia presentation (video, flash presentation, PowerPoint, etc.) support the project electronically and poster, leaflet, meetings, gatherings are the other means of communicating.

D. FAO 'S Role in Knowledge Sharing and Advocacy

FAO undertakes research and publishes technical documents related to application of ICTs for development in agriculture and rural development and gender responsive development in these sectors. These are included in various websites hosted by FAO in Rome in the Regional Offices.

a) Documentation: Publications and Virtual Libraries

- The Internet and Rural and Agricultural Development: An integrated Approach (FAO 1997)
- Knowledge and Food Security in Africa: from traditional media to the Internet (FAO 1998).
- The *First* Mile of Connectivity (FAO 1999)
  FAO were the first to highlight the rural digital-divide and other normative work such as studies undertaken to assess
- Voices for Change: Rural Women and Communication (FAO 1999)
- Community Radio for Rural Women RAP Publication: 1999/8
- Gender and Food security, Strategy for Action - The Role of Information (FAO 1999)
- The role of information and communication technologies in rural development and food security (FAO 2000)
- Discovering the Magic Box: Local Appropriation of Information and communication Technologies (ICTs) (FAO 2001)
- WAICENT: World Agricultural Information Centre

b) Methodologies and Field Studies

- Participatory Rural Communication Appraisal (PRCA)
- Agriculture Information and Knowledge Systems (AKIS)
  Whose knowledge and information needs are considered with extension services
  How communication methodologies have to be adjusted to take into account of different gender needs and preferences.
- Participatory communication to assess the role of women in natural resource management
- Women's Indigenous Knowledge and Communication

- Developing Agricultural Technologies with Women in Jamaica (using participatory video)
- Socio-economic and gender analysis (SEAGA)
- Agency Working Group on FIVIMS (Food Insecurity and Vulnerability Information and Mapping Systems) in strengthening national and international monitoring of food security.

c) Expert Consultations and Workshops -- Advocacy Role

In order to promote the use ICTs for development and create access to ICTs based knowledge and information system FAO organises, expert consultations and workshop. Such meetings create a support to this agenda for harnessing ICTs for rural women's advancement among member countries.

- 1999: High-Level Consultation on Rural Women and Information
- 2000 : Role of ICTs in Agriculture and Food Security
- 2000: Electronic forum on "The appropriation of traditional and new media for development - whose reality counts?"
- 2000 and 2001: The FAO regional office in Bangkok organised 2 expert consultations on distance learning resources for rural women and formulated a regional strategy on rural women and distance learning.
- 2001: Connecting Rural Radio to the Internet
- 2001: International Workshop on Farm Radio Broadcasting[1], entitled "*Information and Communication Technologies Servicing Rural Radio: New Contents, New Partnerships*" with specific emphasis on the role of farm radio broadcasting and its convergence with new information and communication technologies
- 2002: The Second Consultation on Agricultural Information Management will be held in Rome, Italy on 23-25 September.

The meeting took place in an international policy context in which multilateral initiatives and agreements on information and communication technologies complement FAO efforts to address Member Countries needs and strategies on agricultural information management and as a means to promote food security and sustainable development. The main goal of the meeting was to review ways and mechanisms to improve the capacities of decision-makers, professionals and the public at large in FAO Member Countries to access and use agricultural information.

Several side events were organised during this Consultation. One of them will focus more specifically on Gender and Information. At this occasion, the final recommendations of Know How Conference was presented.

- 2002: Asian Regional Consultation on "Rural Women in Knowledge Society". Jointly organised by FAO regional office for Asia and the Pacific and ICRISAT : December 2002 (Forthcoming)

This consultation is designed to address two of the most critical components of the digital divide, namely the rural and the women, and to explore with partners, processes, designs and models that can have a positive bearing on these issues. The consultation will bring

together key actors in some of the ICT for Development projects in Asia, eminent academics analysing impact of ICTs among rural communities, partners from the corporate sector in ICTs and agri-business sectors, experts in open/distance learning, and CGIAR experts based in Asia in training and information sciences and impact evaluation, innovators of applying ICTS for rural development, and the regional and global representatives from the FAO.

The consultation will be held in two parts. First section will be an electronic forum on "Rural Women in Knowledge Society". The second section will be on site consultation in ICRISAT Campus, Hyderabad, India. The case studies and conference proceedings will be presented as a publication to feed into WSIS.

7. Conclusion

Information and communication technologies can be effective instrument for increasing choices for rural women, for multifaceted empowerment. The ICTs can be effective tools to expand the knowledge among rural women and that can enhance their abilities to negotiate for their resource share and participation. But it would be important to review the potential for ICTs in two broad approaches namely, their application directed to rural women as primary users of this technology and their application directed to improve the quality of life in rural communities that would assist rural women to improve their lives. Most often the second category of application does not figure predominantly in the discourse on harnessing ICTs for the advancement of rural women. It would be important that in order to design ICTs applications to serve rural women, it would be necessary adopt a broader overview of rural life, rural community service and resource needs and rural women's role as stakeholder in rural enterprises and related service and resource needs. FAO with a multi-disciplinary expertise and broad technical mandate and commitment to gender mainstreaming has variety of ICTs based approaches to serve the agenda of advancement of rural women. But FAO also recognises that current impediments for achieving accelerated access to ICTs driven applications in rural areas. Hence, the process is one of combining traditional modes with advanced information and communication technologies to transform the lives of rural women.

Annex.1.
FAO Publications and Websites on ICTs for Development and Gender Responsive Approaches for Harnessing for Advancement of Rural Women[ii]

- The Internet and Rural and Agricultural Development: An integrated Approach (FAO 1997)
  www.fao.org/docrep/W6840E/W6840E00.htm

- Knowledge and Food Security in Africa: from traditional media to the Internet (FAO 1998).
  www.fao.org/sd/CDdirect/CDan0017.htm

- The *First* Mile of Connectivity (FAO 1999)
  FAO were the first to highlight the rural digital-divide and other normative work such as studies undertaken to assess
  www.fao.org/sd/cddirect/cdre0031.htm

- Voices for Change: Rural Women and Communication (FAO 1999)
  www.fao.org/docrep/X2550E/X2550E00.htm

- Community Radio for Rural Women RAP Publication: 1999/8

- Gender and Food security, Strategy for Action - The Role of Information (FAO 1999)
  www.fao.org/docrep/x4745e/x4745e00.htm

- The role of information and communication technologies in rural development and food security (FAO 2000)
  www.fao.org/sd/cddirect/cdre0055.htm

- Discovering the Magic Box: Local Appropriation of Information and communication Technologies (ICTs) (FAO 2001)
  www.fao.org/sd/2001/kn0602a_en.htm

b) Methodologies and field studies

- Participatory Rural Communication Appraisal (PRCA)
  www.fao.org/sd/CDdirect/CDan0015.htm

- Agriculture Information and Knowledge Systems (AKIS)
  www.fao.org/sd/exdirect/exre0027.htm
  Whose knowledge and information needs are considered with extension services
  How communication methodologies have to be adjusted to take into account of different gender needs and preferences.

[ii] The information for this annex was complied by Clare OFarrell, (SDRE) and Sophie Treinen (SDWW) of FAO Rome.

- Participatory communication to assess the role of women in natural resource management

- Women's Indigenous Knowledge and Communication

- Developing Agricultural Technologies with Women in Jamaica (using participatory video)

- Socio-economic and gender analysis (SEAGA)
  www.fao.org/sd/seaga

c. Workshop Consultations -- Advocacy role

- 1999: High-Level Consultation on Rural Women and Information
  www.fao.org/Gender/highlcon/default.htm

- 2000 : Role of ICTs in Agriculture and Food Security
  www.fao.org/sd/cddirect/cdre0055.htm

- 2000: Electronic forum on "The appropriation of traditional and new media for development - whose reality counts?"
  www.fao.org/sd/CDdirect/CDre0056.htm

- 2000 and 2001: The FAO regional office in Bangkok organised 2 expert consultations on distance learning resources for rural women and formulated a regional strategy on rural women and distance learning.

- 2001: Connecting Rural Radio to the Internet
  www.fao.org/sd/2001/kn1006_en.htm

- 2001: International Workshop on Farm Radio Broadcasting, entitled "*Information and Communication Technologies Servicing Rural Radio: New Contents, New Partnerships*" with specific emphasis on the role of farm radio broadcasting and its convergence with new information and communication technologies
  www.fao.org/sd/2001/radio/index_en.htm

- 2002: Asian Regional Consultation on "Rural Women in Knowledge Society". Jointly organised by FAO regional office for Asia and the Pacific and ICRISAT
  ruralwomen-KS Moderator [SMTP:ruralwomen-KS-owner@yahoogroups.com]

- 2002: The Second Consultation on Agricultural Information Management will be held in Rome, Italy on 23-25 September.
  www.fao.org/coaim/coaim2002_en.htm

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[2] FAO (1996). Rome Declaration on World Food Security and World Food Summit Plan of Action. Rome: FAO.
[3] http://www.fao.org/DOCREP/MEETING/005/Y7106E/Y7106E09.htm#TopOfPage
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[7] Ibid
[8] http://www.peoplefirst.net.sb/General/Distance_Learning.htm
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[11] http://www.oxfam.org.nz/field.htm
[12] http://www.cnird.org/activities.htm
[13] http://www.fao.org/dimitra/query/DETAPRJ.IDC?PrjID=152&OrgID=87&Template=Detaprj
[14] http://www.itu.int/osg/spu/wsis-themes/ict_stories/MidEastICTinitiatives.html
[15] http://www.itu.int/osg/spu/wsis-themes/ict_stories/Connectingremotecommunities.html
[16] http://www.idrc.ca/reports/read_article_english.cfm?article_num=1017
[17] http://www.worldbank.org/gender/digitaldivide/interventionmena.htm
[18] ibid
[19] INSTRAW Gains: Gender and ICT-Virtual Seminar Series. Empowering Women Using ICTs. http:// www.un-instraw.org/en/research/gender_and_ict/vss/vss_4.html
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[27] FAO (2002). Bridging the rural digital divide. http://www.fao.org/english/newsroom/news/2002/9209-en.html
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