

Gender, Society & Development

Gender and ICTs for Development
A global sourcebook

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CRITICAL REVIEWS AND ANNOTATED

BIBLIOGRAPHIES SERIES

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Oxfam GB

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United Kingdom
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E-mail: publish@oxfam.org.uk
Website: www.oxfam.org.uk

© 2005 KIT (Royal Tropical Institute),
Amsterdam
First published by KIT Publishers and
Oxfam GB 2005
Series editors: Sarah Cummings, Henk van Dam,
and Minke Valk
Information and Library Services,
KIT (Royal Tropical Institute)

Design: Grafisch Ontwerpbureau Agaatsz BNO,
Meppel
Cover: Ad van Helmond, Amsterdam
Printing: Meester & de Jonge, Lochem
ISBN 90 6832 7283 (KIT Publishers edition)
available in the EC excluding UK and Ireland
ISBN 0 85598 ???? (Oxfam GB edition)
available in the rest of the world
Printed and bound in The Netherlands

Gender and ICTs for development.

A global sourcebook has been developed by KIT (Royal Tropical Institute) in The Netherlands. It is co-published with Oxfam GB to increase dissemination. KIT Publishers and the authors are responsible for its content.

Oxfam GB is a registered charity no. 202918, and is a member of Oxfam International.

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Acknowledgements

A major objective of this publication was to document the experiences of practitioners and experts in the South with respect to gender and ICTs in development. The Editorial Team is delighted that it has been possible to realize this objective.

Special thanks go to Helen Hambly Odame, guest editor of this volume, for the stimulating role she played by providing great support and by sharing her knowledge and experiences.

We would like to record our warm and deep appreciation of the authors – Li, Minori, Blythe, Nancy and Mercy – for their important contribution to this book.

We would also like to thank Theresa Stanton for her contribution to the bibliography, as well as our colleagues in KIT Information and Library Services, KIT Social Development & Gender Equity and KIT Publishers for their invaluable assistance.

Henk, Sarah and Minke
Editorial Team, Gender, Society & Development

Acronyms

ACP	African, Caribbean, Pacific countries
ADSL	Asymmetric Digital Subscriber Line
AEDEV	Association E-Development
AFS	Agriculture and Food Security
AFTIDEV	Africa, Technology, and Information for Development project
AIDS	Acquired immune deficiency syndrome
AKIS	Agricultural knowledge and information system
AID	Alternative for India Development
AMARC	Association Mondiale des Radiodiffuseurs Communauteres
APC	Association for Progressive Communications
APRTC	Asia Pacific Regional Technology Centre
ASAFE	Association pour le Soutien et l'Appui à la Femme Entrepreneur
AusAID	Australian Agency for International Development
AWID	Association for Women's Rights in Development
AWORC	Asian Women's Resource Exchange
AWN	Afghan Women's Network
BCC	Behaviour change communication
BDO	Building Digital Opportunities
BDS	Business development services
BOTSBOA	Botswana Textile and Small Business Association
CAC	Community access centre
CAREC	Caribbean Epidemiology Centre
CARICAD	Caribbean Centre for Development Administration
CARICOM	Caribbean Community
CCTV	China Central Television
CDC	Centres for Disease Control and Prevention, United States
CEDAW	Convention on the Elimination of All Forms of Discrimination against Women
CEE	Central and Eastern Europe
CI	Communication Initiative
CIDA	Canadian International Development Agency
CIS	Commonwealth of Independent States
CITO	Central IT Office, Ministry of Industry Commerce and Technology, Jamaica
CLI	Cisco Learning Institute
CMCs	Community multimedia centres
COL	Commonwealth of Learning
CORDE	Cooperation for Research, Development and Education

CTA	Technical Centre for Agricultural and Rural Cooperation
DAW	Division for the Advancement of Women
DDS	Deccan Development Society
DEVNET	Development Studies Network, New Zealand
DFID	Department for International Development
DIT	Department of Information and Technology, Royal Government of Bhutan
DTR	Development through radio (concept)
DTRP	Development through Radio project, Sierra Leone
EGAT	Economic Growth, Agriculture and Trade
ENDA	Environment and Development of the Third World, Senegal
FAO	Food and Agriculture Organization of the United Nations
EC	European Community
EJISDC	Electronic Journal of Information Systems in Developing Countries
FAMW	Federation of African Media Women
FAWEU	Forum for African Women Educationalists Uganda
FIRE	Feminist International Radio Endeavour
FOC	Forum of Conscience, Sierra Leone
GAD	Gender and Development
GCBS	Ghana Community Broadcasting Services
GEM	Gender Evaluation Methodology
GenARDIS	Gender for Agricultural and Rural Development in the Information Society
GKP	Global Knowledge Partnership
GM	Gender mainstreaming
GMS	Gender Management System
GRHF	Global Reproductive Health Forum
GS&T	Gender, Science & Technology
GSWG	Gender Strategies Working Group
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit
HASHI	Hifadhi Ardhi Shinyanga programme Tanzania
HIV	Human immune deficiency virus
IAALD	International Association of Agricultural Information Specialists
ICTD	Information and communication technologies for development
ICT4D	Information and communication technologies for development
ICTs	Information and communication technologies
IDRC	International Development Research Centre, Canada
IDS	Institute of Development Studies, UK
IEC	Information, Education and Communication
IIAV	International Information Centre and Archives for the Women's Movement, Netherlands
IICD	International Institute for Communication and Development
IILA	Istituto Italo-Latino Americano
ILO	International Labour Organization
INSTRAW	International Research and Training Institute for the Advancement of Women
ISNAR	International Service for National Agricultural Research
IT	Information technology

ITU	International Telecommunication Union
JWIDF	Japan Women in Development Fund
KIT	Royal Tropical Institute, Netherlands
KMVS	Kutch Mahila Vikas Sanghatan project, India
KVA	Kilo Volt Ampere
LEAP	Learning and Evaluation Action Program
MACTCS	Mutually Aided Co-operative Thrift and Credit Societies
MCT	Multipurpose community telecentre
MDGs	Millennium Development Goals
MMTK	Multimedia Training KIT
MSSRF	M.S. Swaminathan Research Foundation, India
MTI	Ministry of Trade and Industry, Bhutan
MWN	Muslim Women Network
NAC	National AIDS Committees
NFE	Non-formal education
NGO	Non-governmental organization
NWAB	National Women's Association for Bhutan
ODI	Overseas Development Institute
ODL	Open and distance learning
OECD	Organization for Economic Co-operation and Development
OHVN	Office de la Haute Valle de Niger
OKN	Open Knowledge Network
OMAK	Organization of Aymara Women of Kollasuyo
PAHO	Pan American Health Organization
PMF	Performance Measurement Framework
RDDH	Réseau de Développement Durable d'Haïti
RFD	Radio for Development
RUF	Revolutionary United Front, Sierra Leone
SADC	Southern African Development Community
SANGONeT	Southern African Non-Governmental Organization Network
SDC	Swiss Agency for Development and Cooperation
SERHA	South-East Regional Health Authority, Jamaica
SEWA	Self-Employed Women's Association
SIDS	Small islands development states
SL	Sustainable livelihoods
SLBS	Sierra Leone Broadcasting Service
SMEs	Small and medium-sized enterprises
STIs	Sexually transmitted infections
SYNFEV	Synergie Genre et Développement
TJTV	Tianjin Television
TWBI	Tianjin Women's Business Incubator
UN	United Nations
UNCSTD	United Nations Commission on Science and Technology for Development
UNDESA	United Nations Department of Economic and Social Affairs
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa

UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
UNIFEM	United Nations Fund for Women
UNITAR	United Nations Institute for Training and Research
UNTV	United Nations Television
UNV	United Nations volunteer
USAID	United States Agency for International Development
VERCON	Virtual Extension and Research Communication Network, Egypt
VPP	Village pay phone
WENT	Women's Electronic Network Training
WFHB	Women's Finance House Botswana
WGGI	Working Group on Gender Issues, ITU
WIDSAA	Women in Development Southern Africa Awareness
WIGSAT	Women in Global Science and Technology
WiLL	Wireless in local loop
WIN	Women Entrepreneurs' Information Network, Pakistan
WIN	Women's International Network, AMARC
WNSP	Women's Networking Support Programme
WOUGNET	Women of Uganda Network
WRI	World Resources Institute
WSIS	World Summit on the Information Society
ZWRCN	Zimbabwe Women's Resource Centre and Network

Introduction: Gender and ICTs for development: setting the context

Around the world new information and communication technologies (ICTs) have changed the lives of individuals, organizations and indeed, entire nations. No country and few communities are being left untouched by the ‘information society’ and, given the state of recent inter-governmental and multi-stakeholder policy debates, there is still a long way to go before civil rights are entrenched in this new society. This book is a collection of case studies about women and their communities in developing countries and how they have been influenced by ICTs. As this chapter and the following cases explain, ICTs and policies to encourage their development can have profound implications for women and men in terms of employment, education, health, environmental sustainability and community development. Policy is needed to ensure that investment in ICTs contributes to more equitable and sustainable development as these technologies are neither gender-neutral nor irrelevant to the lives of resource-poor women.

Women want information and to engage in communication that will improve their livelihoods and help them to achieve their human rights. This is a formidable challenge facing all societies in today’s world, and especially developing countries. Due to systemic gender biases in ICTs and their applications, women are far more likely than men to experience discrimination in the information society. Women are not giving up on ICTs. On the contrary, even resource-poor and non-literate women and their organizations are aware of the power of information technologies and communication processes and, if given the opportunity to do so, will use them to advance their basic needs and strategic interests.

This book is a contribution to the field of gender and ICTs for development and is unique for two reasons. First, the collection of papers in this volume builds on a wider initiative of the Royal Tropical Institute (KIT) in the Netherlands to compile state-of-the-art knowledge on Gender, Society and Development. Knowledge that informs policy and advocacy is critical to overcoming poverty which is directly linked to economic and social justice for all. At an alarming rate, women, relative to men, are experiencing higher rates of hunger and malnutrition, illiteracy, overwork and sexual violence with direct impacts on children, the sick and the elderly under their care (Kerr et al 2004).

ICTs are building new channels for social awareness, mobilizing resources for resource-poor women and networking women as well as men who are supportive of human rights goals. Therefore, a second motive for this book is the need to document new and emerging case studies in the field of gender, ICTs and development. In-depth

case studies offer insights into the implementation of relevant policies and programmes. Such documentation also informs the theoretical foundations on which analysis of gender, ICTs and development rest.

The scope of the ICTs addressed in this introductory paper and in those that follow, as well as in the annotated bibliography, include an array of technological products and processes that store unprecedented amounts of information and communicate rapidly and across vast distances. Microelectronics, computer hardware, and software, telecommunications and opto-electronics (e.g. semi-conductors and fibreoptics) are encompassed by the term ICTs. There are satellites, mobile telephones, wireless local loops and also, a range of applications such as internet, email, distance or open learning, teleworking, digital radio and video. With wireless technology, ICTs can be accessed almost anywhere but usually physical access to ICTs occurs in public spaces such as workplaces, libraries, schools, community information centres referred to as telecentres, privately owned cyber-cafes and to a lesser extent, in the context of developing countries, from private homes. Gender analysis of ICTs suggests that the existence of ICTs in public spaces does not entail access for all.

This introductory paper is an overview of the context of gender, ICTs and development in order to situate the five case studies and resources featured in this book. It identifies relevant past and present issues and seeks to examine the extent to which ICTs can contribute towards gender equity in development.

Gender and ICTs for development: a recent history

The roots of ICTs for development lie in the 1970s assertion that economies and societies were being revolutionized not by industry but by the information and knowledge that were critical to securing the means of production (McLuhan 1964; Bell 1973; Porat 1984). Policy debates on the 'information society' have often implied competition not collaboration between corporations or countries. The power of the media and potential of new telecommunications were expanding during an era where Western capitalist nations were suspicious of the countries like the Soviet Union as well as Japan and its auto and electronic industries. There was also immense distrust because the Cold War reinforced the peripheral position of a 'third world' of poor nations that could shift their allegiance both ways and in which militarism and authoritarianism were more common than democracy.

Arguments for a New World Information and Communication Order were made by the United Nations Education, Scientific and Communication Organization (UNESCO) to counter-act the increasing discourse of competition and control over information. In the 1980 multi-stakeholder report 'Many voices, one world' (UNESCO 1980) produced by the International Commission for the Study of Communication Problems (also known as the 'MacBride Report'), the imbalances between the industrialized and developing countries in terms of telecommunication and media were highlighted. Policymakers in developing countries were urged to recognize the gaps in the information society as linked to the lack of democracy. However, the Commission said very little about the role of women. This omission existed despite more than a decade

of scholarship and activism on gender issues which included the launch of the World Conference on Women in Mexico in 1975.

For feminists, the history of information and communication related development activity has been sensitive given the potential for manipulation of both specific messages (propaganda) and the male-dominance of media structures. Both during and after colonial rule in Africa and Asia, communication campaigns typically involved one-way social marketing of development messages on health, nutrition, agriculture and family planning, not two-way dialogue about development (Steeves 2002). Media and telecommunication were focused on larger, urban centres, not rural and remote areas. There were a few exceptions. In 1964, with UNESCO and Canadian development assistance the process of ‘farm radio forums’ or radio listening groups for farmers were introduced in 40 villages (Abell 1965). The forums were adopted on a regular basis and by 1973 involved some 400 groups in Ghana, Zambia, Malawi and Nigeria. It was not until the 1980s that Africa saw the emergence of more than a handful of community-based radio stations. One of the first of these, set up in 1982 in Homa Bay, in southwestern Kenya, closed only two years later following charges of sedition by the then authoritarian government.

ICTs are not unique in that women are disadvantaged relative to men in terms of their access to all types of modern technology (Stamp 1990; Cockburn and Ormrod 1993). On average women have less income, education, time, mobility and face religious or cultural constraints that restrict their access to and use of technology. More accurately, some groups of women (i.e. rural women) are more disadvantaged as compared to younger, more literate or wealthier urban women. Added to this, ‘totalizing theories’ of gender and technology risk ignoring the reality that women (and men) are indivisible from modern-day science (Haraway 1990). These issues make discussions of the gender gap in the ‘digital divide’ tremendously relevant.

Gender issues in ICTs policy: moving beyond the digital divide or digital opportunities debate

The term ‘digital divide’ was coined to refer to imbalances between developed and developing countries in terms of the inadequacy of telecommunication infrastructures and individual affordability of access to existing ICTs. Table 1 presents some illustrative data on the diffusion of internet.

Table 1: Diffusion of internet

	Internet Users/10,000 inhabitants	Internet Hosts*/10,000 inhabitants
Africa	111	3
Asia	585	37
America	2,444	1440
Europe	3,333	229

Source: Fair access to internet report (Jensen 2004)

* Computers permanently connected to the internet.

Some analysts have argued for a focus on 'digital opportunities' rather than a 'digital divide' which incorrectly assumes that, in general, developing countries are falling behind the industrialized nations in terms of ICTs per capita. The gap between 'haves' and 'have nots' is historically wide in *absolute* terms, but not in *relative* terms as developing countries show faster rates of growth in network development than developed countries (Fink and Kenny 2003). The measurement of number of users (computers, hosts, or mobile phones) per capita also makes counting computers or telephones risky because it makes shared use invisible. For example, as the average number of users per computer in the Netherlands is four, whereas in Nigeria the figure is 1,300 (Kirkman et al 2002). Similarly, generalizing across the vast array of ICTs should be avoided. The growth rates for radio sets, FM stations and televisions are higher in developing and transition countries than in developed countries.

According to Warschauer (2002), the concept of a 'digital divide' needs to be reconceptualized from a different standpoint where emphasis is placed on analysing technology access in terms of social inclusion to encompass the wide range of physical, digital, human and social resources that meaningful access to ICTs entails. Warschauer proposes that a better model for understanding access to ICTs is provided by the concept of literacy. He explains that there are many similarities between literacy and ICT access including association with advances in human communication and their role in the use of knowledge and technology as necessary means for production. Therefore, it is possible to speak of both a 'great literacy divide' and a 'digital divide'. The world has considerable experience in literacy acquisition that can also be brought to bear on ICT for development. Referring to the work of Brazilian social activist and educator Paulo Freire, Warschauer remarks that 'literacy instruction is most effective when it involves content that speaks to the needs and social conditions of the learners. And, as with ICT-related material, this content is often best developed by the learners themselves' (Warschauer 2002:11). In this context technology as an end in itself and social inclusion is of utmost importance for ICT policy.

Still other analysts like Modoux (2002) are convinced that there is a digital divide and it is a 'cyber ghetto' where even increasing growth rates in the adoption of ICTs is characterized by higher costs and often lower quality equipment and service. The 'digital divide' is widening if one also considers the increasing concentration and homogenization of the media (Pendakur and Harris 2002). Moreover, even in the community of practice committed to 'digital opportunities', there is a risk that the gender gap remains.¹ As Hafkin and Taggart (2001) have explained, this bias is evident in three ways: (1) women are rarely involved in the needs assessment of ICTs for development; (2) attitudes that high-end information technology 'is not for women' who are still being treated as passive recipients of information and not as active information users and communicators; and (3) there is considerable delay in addressing the limitations faced by women in accessing supposedly 'public' information spaces, or even private sector initiatives such as cyber-cafes. These biases are often reinforced in national and international policymaking and investment planning because women's organizations have had little or no real opportunity to play an active role in developing the ICT sector and removing its gender biases. This means that it is absolutely critical that the information society must have a gender-responsive policy and funding structure.

Policymaking for gender and ICTs for development or what might be referred to as 'engendering ICT policy' has been attempted from at least three different directions. The first approach has largely emerged from academics, the second from 'gender mainstreamers' within or close to the UN system and the third from developed and developing country feminists in civil society who have detached themselves from the UN system.

Academia provided one of the earliest lobbies for gender and ICTs through discussions of gender, science and technology (GS&T) and improved science education and careers for girls and women. In the early 1990s, under the auspices of the United Nations Commission on Science and Technology for Development (UNCSTD) and UNIFEM's (United Nations Fund for Women) preparation for the Fourth World Conference on Women in Beijing in 1995, the academic and professional lobby argued that women must have access to the education and technologies essential for development.² This GS&T platform encompassed university educators, professional groups such as women engineers and agencies like the International Development Research Centre (IDRC) in Canada, the American Academy of Applied Sciences, and the Third World Organization for Women in Science. Academic efforts did succeed in preparing some of the earliest action plans for gender and ICTs, and the issue of girls' science education has been sustained in the mainstream policy agenda without much controversy.³

The second approach to 'engendering' the information society came from large inter-governmental organizations, and specifically, within the group of eight wealthiest nations in the world known as the G8 and the UN system. The 'mainstreaming' approach to gender and ICTs builds on a wider effort to integrate gender as a cross cutting issue in all development policy, but it has had modest impact primarily because it is seldom well-resourced and non-compliance to gender policy is tolerated (Randriamaro 2004; Hambly Odame 2004). Therefore, gender mainstreaming is not so much elusive as it is ephemeral and in the context of gender and ICT policy this is especially evident in examples of policymaking in the UN ICT Task Force, the International Telecommunication Union (ITU) and the World Summit on the Information Society (WSIS).

In the case of the UN ICT Task Force, the 1998 recommendations of the G8 ICT 'Dot Force' committee reflect gender equality in its action plan. When the G8 collapsed its work into the activities of the UN ICT Task Force, their recent reporting has made gender issues invisible again.⁴ Also, efforts to mainstream gender in the major global and regional events and debates associated with the WSIS have been made largely through the tenacity of specific individuals and units within international organizations, drawing when possible from networks of support outside them.

The WSIS is being held in two phases: the first took place in Geneva hosted by the Government of Switzerland from 10 to 12 December 2003. It addressed the broad range of themes pertaining to the Information Society and adopted a Declaration of Principles and Plan of Action.⁵ Two issues were left unresolved during this first phase: the financing of ICTs for development and the thorny issue of internet governance. A Digital Solidarity Fund financed by voluntary donations from private

sector sales of ICTs was proposed by the President of Senegal but so far little support has been offered to this fund, primarily due to opposition within the United States and European Union which argued that no new funding mechanisms should be created and that private sector investment would sufficiently respond to the North/South 'digital divide'.⁶ Overall, many national delegations from the world's poorest developing countries departed from Geneva with low expectations of new digital opportunities being created as a result of the WSIS process. In November 2005, the second phase of WSIS will take place in Tunis hosted by the Government of Tunisia.

The leading role for the organization of the Summit is taken by the ITU, based in Geneva, Switzerland.⁷ The ITU was established in 1992 to address global telecommunications development. It holds regular World Telecommunications Development Conferences of its members with the next meeting to be held in March 2006. Within the structure of the WSIS process there are two major gender initiatives. Firstly, a cross-programme ITU committee known as the Working Group on Gender Issues (WGGI) established in 1998 and charged with reporting on gender mainstreaming and informing the work of the ITU's Youth and Gender Unit. Secondly, a WSIS Gender Caucus (a multi-stakeholder group of women and men from national governments, NGOs, civil society, the private sector, and the UN system) established in May 2002.

The WSIS Gender Caucus and the ITU WGGI seek to provide support to national delegates responsible for official debate and creation of ICT policy including decision making on governance and proprietary rights affecting media and information flows as well as special finance mechanisms to bridge the 'digital divide'. Since 1998, the WGGI has held three plenary meetings to report on ITU's gender mainstreaming efforts. It is apparent from these deliberations that progress has been slow and 'non-availability of funds' hindered implementation of WGGI activities and recommendations.⁸ The WSIS Gender Caucus, on which ITU is represented, has pursued gender advocacy for national programmes including lobbying briefs that influenced some sections of the WSIS Declaration of Principles and Action Plan (June 2004). With minimal resources from UNIFEM and a handful of Scandinavian countries, the Gender Caucus has convened regional consultations, supported research projects on gender and ICTs, provided a skills training session which focuses on 'Advocacy and Lobbying for Change' and produced a Sourcebook to inform National Gender WSIS Programmes.⁹ The Gender Caucus has collaborated with other global agencies such as the Gendernet programme of the World Bank to conduct on-line consultation on ICTs and gender equality.¹⁰ However, real achievements towards 'gender mainstreaming' by ITU are still pending: legal frameworks for universal ICTs access; regular collection of sex-disaggregated data and reporting against gender indicators; incentives for gender and ICTs policy compliance within ITU and among ITU national programmes; as well as sufficient and sustained funding for the ITU Youth and Gender Unit.

Finally, there is a third approach to gender and ICTs led by feminists active in civil society in developing and developed countries who are unenthusiastic about the mainstream policy agenda of WSIS and, in particular, the unwillingness of publicly funded institutions such as the UN and G8 to ensure that human rights, social justice,

poverty reduction and sustainable development are taken into account in shaping the global information society. In some cases, feminist organizations have initiated their own international meetings or included gender and ICTs as sessions within larger conferences. Examples include the first and second KnowHow conferences on gender and knowledge in 1998 hosted by the International Information Centre and Archives for the Women's Movement (IIAV) in the Netherlands and subsequently, in 2002 in Uganda.¹¹ Thematic sessions have been held at the World Rural Women's Congress (Spain, 2002) and civil society have engaged in the WSIS Gender Caucus regional consultations. Initiatives such as the Women's Networking Support Programme (WNSP) of the Association for Progressive Communication (APC) and ISIS International, a feminist information and documentation centre, have advocated Southern feminist positions at the WSIS and its parallel NGO events. Both APC and ISIS maintain significant databases of gender-related documentation and electronic discussion lists on follow up to the Beijing Fourth World Conference on Women in 1995 and the WSIS process pursuing capacity development for gender and ICT advocacy.¹²

WSIS has received vast criticism from many civil society organizations engaged in ICTs for development work. Stating that they would stop giving input to the inter-governmental documents because their inputs were compromised in negotiations, civil society withdrew from the official process just prior to the December 2003 Summit in Geneva. Immediately thereafter the civil society platform presented their own declaration entitled 'Shaping information societies for human needs civil society' to counterbalance the WSIS Geneva December 2003 Plan of Action.¹³

In no uncertain terms, international development policy is only as meaningful as the resources and political will that back it up and bring about effective implementation. Funding of the WSIS Plan of Action is therefore a key concern to the future and this process of negotiation between North and South will not end in Tunis in December 2005. It is also useful to recall that donors are already committed to funding and implementation of a common set of eight Millennium Development Goals (MDGs) adopted by much of the international development community in September 2000. Priority was given to the attainment of basic needs including the eradication of extreme poverty and hunger and two further goals related to the specific needs of education and empowerment of girls and women. In the eighth MDG goal, ICTs are mentioned in concert with building a global partnership for development, based on open trading and financial systems, and making available to all the benefits of new technologies, especially in information and communication. While the UN ICT Task Force proposed a framework to measure, monitor and report on ICT impacts for achieving the MDGs and contributed it to the WSIS process in 2005, the prerequisite is the political will to operationalize this evaluation matrix.¹⁴

The case studies

Experience from recent policy efforts at the international level suggests that gender biases in the information society will persist for the foreseeable future. However, consider reversing this statement from a feminist standpoint that privileges women as active agents of their own development. Gender imbalances in access to ICTs suggest that international policymaking in itself makes little immediate difference in

the lives of ordinary women in developing countries. Women are not ‘waiting’ for access to ICTs, but rather using ICTs when they are available to get around the constraints they face in politics, society and economy. There are case studies on gender and ICTs from around the world to highlight efforts by women and their organizations to negotiate the ‘digital divide’ regardless of policy caprice.

This situation is apparent from the case studies introduced in this book. The papers are based on experiences in gender and ICTs for development in Bhutan, China, Ghana, Sierra Leone and the Caribbean. The papers advance three key points with respect to gender and ICTs.

First of all, ICTs are clearly not ‘gender neutral’ because women know the importance of information and the power that these technologies hold in terms of *breaking out of systematic discrimination* and indeed even gender violence in the household, workplace and village, especially if women organize as producer groups. The case study written by Li Guihuan of the re-employment and venture creation by women older than 35 years of age in Tianjin following lay-offs and loss of jobs to younger women articulates this point. It does so from the premise that gender and ICTs not only imply a power relation between women and men, but among women themselves. Thus, ‘digital opportunities’ for women may involve a risk that new divides are created – in this case from China, a preference for younger female ICT operators over (displaced) older women workers.

Moreover, the chapter written by Minori Terada explains how rural women weavers in Bhutan seek to overcome exploitation by middlemen by developing weaving information and communication strategies for e-commerce in tourism. This includes careful formulation of business plans to manage supply and, potentially, use the internet to facilitate export by the women’s weaving project. In this case a second point regarding gender and ICTs is illuminated: women may use ICTs to transform omnipresent Women in Development projects involving low-tech initiatives such as handicrafts into more *strategic initiatives that address gender-based inequities* in the local and international markets.

A similar situation has arisen in a vastly different part of the world – in West Africa. Women are not waiting for policymaking to bridge the ‘digital divide’ but rather take action as *agents of their own opportunities* using conventional ICTs such as radio, to access information sources and communication processes to achieve their development goals, both for the good of their households and communities. In the papers written by Blythe McKay about the community radio station Radio Ada in south-eastern Ghana and by Mercy Wambui of radio listening group projects in post-war Sierra Leone, it is clear that the control of the ICTs and radio tenure or usufruct rights (radio programmes by and for women) are of central importance. This consideration must be emphasized in policy that calls for public access which in itself may not be sufficient to provide voice for rural, resource-poor women.

It is Nancy Muturi in her paper about ICTs in the Caribbean region who makes the link between the international policy arena and national implementation of policy. In fact, her work is an example of the knowledge generated on a regional level due to

small research grants provided by the Gender Caucus of the WSIS. Muturi's paper examines the role of ICTs in small island states and their economic impact on women. This topic is relevant in light of the 2005 South Asian Tsunami crisis where the existence of ICTs were critical for rapid communication and their absence meant that entire islands were cut off from the rest of the world. Feminist networks also used ICTs to get the stories from women and children out into the wider media, raising awareness of their vulnerability and the need for action to ensure safety during the post-crisis period and women's involvement in plans for reconstruction.

Finally, let us use the papers presented in this book to link the 'great literacy divide' with the 'digital divide' to progress on the most fundamental of human needs outlined in the MDGs. Across many different kinds of contexts highlighted in this book from e-commerce in Bhutan to entrepreneurship among older women workers in China to post-war communication in Sierra Leone to sustainable fisheries production in Ghana to HIV/AIDS information exchange in the Caribbean, there are ideas for change. It is therefore an imperative from the perspective of gender and ICTs for development that focus be placed on gender relations in communication and learning rather than simply women and technology. To this end, we may see that the information society is not an end in itself, but rather, the innovation of ordinary people.

Notes

- 1 For the two sided discussion of the 'digital divide' and 'digital opportunities' see the Benton Foundation <http://www.benton.org/initiatives/projects.html>
- 2 See the Gender, Science and Technology gateway: <http://gstgateway.wigsat.org/gw.html>
- 3 In the UN ICT Task Force 2005 report the only gender related recommendation is girls' science education. See: <http://www.unicttaskforce.org/index.html>
- 4 For more information on the G8 Dot Force and the Okinawa Charter see: <http://e-com.ic.gc.ca/epic/internet/inecic-ceac.nsf/en/gv00133e.html> and for a progressive stance of the DOT Force on gender and ICTs see the Genoa report at: <http://www.g8.utoronto.ca/summit/2001genoa/dotforce1.html> For the gender-blind January 2005 report of the UN ICT Task Force Global Forum on "Promoting Enabling Environment for Digital Development", 19-20 November 2004 in Berlin see: <http://www.unicttaskforce.org/perl/documents.pl>
- 5 The Plan of Action with highlighted sections relating to gender is available on the ITU Gender Working Group June 2004, Third Meeting site: <http://www.itu.int/ITU-D/gender/events/3rdAnnualWGGIMeeting/documents/3-18.pdf>
- 6 Some cities like Bilbao, Paris and New York did pledge support to the Digital Solidarity Fund (DSF). Cities have been active in WSIS through the ICT4All platform of local authorities in the information society see: <http://www.it4all-regions.org/> The business platform Coordinating Committee of Business Interlocutors has not agreed to support the DSF: <http://www.businessatwsis.net/realindex.php>
- 7 The official website for WSIS is on the ITU website: <http://www.itu.int/wsisis/>

- 8 See http://www.itu.int/ITU-D/gender/events/3rdAnnualWGGIMeeting/documents/final_report_3rd_meeting.pdf
- 9 WSIS Sourcebook: <http://www.genderwsis.org/sourcebook.0.html>
- 10 The electronic forum Gender-ICT was held 10 May to 10 June 2004:
http://www.dgroups.org/groups/worldbank/Gender-ICT/index.cfm?op=dsp_info
- 11 KnowHow Conference site: <http://www.iiav.nl/knowhow/>
- 12 See: <http://www.isisinternational.org>
- 13 A description of the civil society declaration is available at:
<http://www.itu.int/wsis/docs/geneva/civil-society-declaration.pdf> / The WSIS Plan of Action is available at: <http://www.wsis2005.org/wsis/documents/summit/WSIS-CS-Decl-25-2-04-en.pdf>
- 14 See: <http://www.unicttaskforce.org/index.html> and also the World Bank position paper on ICTs and MDGs: http://info.worldbank.org/ict/assets/docs/mdg_Complete.pdf

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1 The effect of ICT on women's enterprise creation: a practical example from China

The Tianjin Women's Re-employment and Venture Creation Network System is one of the important outcomes of the Project 'Assisting Tianjin Laid-off Women Workers in Venture Creation and Re-employment', supported by the United Nations Development Programme (UNDP), Australian Agency for International Development (AusAID) and the Chinese Government. Two outcomes of the project include the provision of microcredit for urban woman and the Tianjin Women's Business Incubator (TWBI). These pilot projects address the issue of employment via enterprise creation. They have set up an operational model which has become a best practice in China in the field of re-employment and enterprise creation. Scientific data have been derived from this project to assist government authorities in the development of related policies and regulations.

Tianjin women entrepreneurs and ICTs

Tianjin is an old industrial city, close to Beijing and adjacent to Bohai Bay. The problem of unemployed workers became serious in the city as a result of the structural reforms in China. In early 1990s, unemployed women workers accounted for 60% of total unemployment in Tianjin. Women over 35 are disadvantaged in the employment market when compared with the male workers, but they are not disadvantaged in enterprise creation. There are many cases of successful, women-run businesses which made higher profits than those managed by men. Through support to women in enterprise creation, the TWBI has enhanced the level of entrepreneurship and changed the subsidy model of poverty alleviation to the model of independent enterprise creation. While enhancing business development and helping unemployed workers shake off poverty, job opportunities were generated, promoting the development of the local economy.

Over the past few years, TWBI has successfully nurtured more than 50 enterprises. Women's microcredit has helped women to start up more than 2000 small firms, helped 6000 women find jobs, and offered training and consultation to over 20,000 women. TWBI has received considerable interest from the leaders of the Communist Party, Government and women's federations. Leaders, including Zhang Lichang, Gu Xiulian and Peng Peiyun, came to inspect the TWBI centre many times and also held meetings on the spot. Various media have also shown interest in the centre: CCTV (China Central Television), Xinhua News Agency, 'People's Daily', 'Economic Daily', 'China Women', 'Hong Kong Daily', TJTV (Tianjin Television), Radio Tianjin, Night Paper, CNN, VOA (Voice of America), and UNTV (UN Television).

With the conclusion of the UNDP project, TWBI realized that only with the traditional face-to-face and one-to-one approach to the new businesses would it be possible to satisfy growing demands. Therefore, it became important to further enlarge the incubator's function, to lead women entrepreneurs onto the internet, and to offer urban women the 'start-up' advice, training, financial loans and other kinds of supportive services by way of ICTs. In early 2003, under the direct leadership of the Tianjin Women's Federation and with the support of the All China Women's Federation, Tianjin Municipal Government, Tianjin Municipal Information Office and the Tianjin Communication Corporation, TWBI produced the project tender 'To enhance TWBI's function and effect by using ICT' that was submitted to the World Bank InfoDev ICT project. After fierce competition with 81 other incubators from developing countries, TWBI won the grant support of the InfoDev Incubator ICT Initiative. The project aimed:

- to enhance the business incubator's ICT infrastructures and its application of ICTs;
- to improve and strengthen the incubator's business incubation capacity and function;
- to quicken the pace of facilitating the electronic and information service of the centre;
- to raise the awareness of the incubator and small and medium-sized enterprises (SMEs) in using ICTs to develop business through the integration of internet, Communication-net and TV-net; and
- to stimulate the employment and economic development of Tianjin.

The first target groups of the Tianjin Women ICT Network are the women who wish to get support from the network. The TWBI strives to integrate women's training with project development, venture creation, employment and social services, to make it a systematic service project for venture creation. Based on the practical experience of incubation, TWBI will establish an ICT service network including hardware facilities and software support; the Women's Pioneering Fund; an ICT venture creation business plan competition; a training package for women entrepreneurs on ICT skill, venture creation, management and finance software; and also improvements to the China Women Business Incubation website, making it a virtual platform for small business incubation.

The present state of ICT facilities and technical support

During the first stage of the TWBI from October 2000 to October 2002, there were no tenants using ICTs, the infrastructure was poor, and there was no access to internet. Through implementing the UNDP project, the TWBI has been equipped with some basic network installations. The team of professionals and experienced management was capable of fulfilling the preliminary technology-support service for businesses. This was followed by three phases of infrastructure construction.

In phase one of infrastructure construction from October 2002 to March 2003, some 10 tenants used Dial mode for the internet. During this phase, the professional network centre was established; the ICT technology and early implementation of the project were planned; the early website www.twedc.com was built. From March 2003 to March 2004, assisted by national and international institutions, the network centre

facilitated appropriate digital local area network equipment, 10M fibre internet access, 144 bts (base transceiver station), to guarantee the incubated business the basic condition for internet access. There were 16 workshops using fibre internet access. In phase three from March 2004 to August 2004, based on the Tianjin Women's Enterprise Development Corporation, TWBI set up the China Women Business Incubation website with the support of e-North, containing databank systems and two forum systems. At the same time, TWBI invited experts in ICTs and small business management to become consultants to provide employment, enterprise creation and business incubation service advice and to provide advice on provision of microcredit for ICT.

To further strengthen the awareness of women entrepreneurs in using ICT, TWBI will develop some new measures, such as offering free access to internet for the tenants for a three month period, and providing network and e-commerce training, also free of charge. After five training classes in September 2005, TWBI expect to establish additional new users.

Concrete measures to serve Tianjin women's re-employment and enterprise creation using ICT

ICTs are used as a means, not an aim in themselves, and are a tool for information modernization. The objective is to help more women undertake successful business creation, thus creating more jobs.

The ICT pioneering business plan competition and the Women Venture Creation Fund

This activity aims to raise the awareness of entrepreneurs to start businesses in a systematic way. To better serve the target group of women entrepreneurs in their use of ICTs and to further extend the social effect of the World Bank ICT project, TWBI called for pioneering business plans via the spotlights of 3 March International Women's Day. The call went out to women entrepreneurs, including some female students, and to entrepreneurs who provide jobs for women. Media coverage was provided by TJTV and e-North. After the assessment by the expert panel, feasible business plans were identified on 1 September 2004. The seven winners will become tenants of TWBI and key businesses to be incubated, and will feature as real examples for the TWBI World Bank InfoDev ICT project. They will be fostered and analysed. TWBI will consequently summarize and disseminate the business model.

The winners will not be awarded a grant but varied loans from the Women Venture Creation Fund. They will be tenants of TWBI, rent free for some months. This is a good way for the entrepreneurs to be encouraged and stimulated, raising the possibility of success. Meanwhile, the capital can be maintained in the fund for continuous use and sustainable development. This activity will take place every one or two years to assist more entrepreneurs and to develop the role of Women Venture Creation Fund to the largest extent.

The website

The development of China Women Business Incubation is a further activity of the TWBI's InfoDev Project. It was started in June 2004 and was planned for completion on 1 August 2004. The former website www.twedc.com has not been kept up-to-date. It will be replaced by the new website 'China Women Business Incubation'. The previous website will be retained as www.tjwbi.com and www.twedc.com.

The website will provide services to potential and new entrepreneurs and to unemployed women looking for jobs. The services for entrepreneurs will include:

- Online consulting and training in venture creation.
- Online services: information on government authorities' policies and regulations for the private sector, microcredit and capital collection, project recommendations, and business.
- A tool kit covering venture creation remote classes, the writing of business plans, business and legal contracts, and sample agreements.
- Business creation seminar: online consultation by experts on marketing, policy and law, business authorization, incubation, management, finance and ICTs.
- Online operation and credit platform for microcredit and capital collection.
- Business incubation: yellow pages, introduction to products, and a new window for businesses to display themselves and to search for more cooperation.
- Linkages to government authorities dealing with business creation; to related websites to exchange views with different organs and regions; and to related international websites to disseminate the approach, increase cooperation and exchange views between nations.

The services for unemployed women include:

- Online employment instruction and information announcement.
- Skill training at off-line classes. So far in 2004, TBWI has held 12 training classes including in gardening and floral arts, home care and services, venture creation, networking, e-commerce, and international authentication. Some 600 people have benefited from them. The off-line courses are shown selectively online in order to display the cross-regional and interactive advantages of internet.

Three case studies

Case 1

Qiu Hong, a trainee of the venture creation training class, opened the High Sense Decoration Designing Company Limited. Initially, she had only 2-3 customers every month but customers increased to 10 per month after she took part in the training class, remaining at that level during April-July 2004. Based on her company's condition and following expert advice, she employed 3 designers. The market for her company grew quickly. Qiu Hong found that the venture creation training helps small companies like her own one.

Case 2

Tang Huiqin made contact with the Qin Qin Labour Service Corporation, the graduate-focused tenant of TWBI, and received training. With General Manager Fang Na's

help, Tang Huiqin formed the first Labour Service Company in the newly established BaoDi District. The District Women's Federation found a shop front for her and the local labour bureau supported her with 3000 Yuan opening fees from the re-employment fund. She acted as an example to others. In her own words:

I got to know about the centre serving the laid-off workers from newspaper and I listened to the lecture 'Successful people's venture creation', where I met Fang Na. She had been laid off from a textile factory and I had been laid off from a socks factory. We have similar experience and personality: honest and warm. I am not looking to make a big fortune; my company is named Qin Qin, meaning diligent, industrious and hard working, just out of warm heart. After my first business transaction, I said that I am 40 years old and today is a most meaningful day. Although I am tired, I am happy, because I realized the value of my life through creating my own company. I am working hard, and feel tired, but I am happy.

Case 3

Duan Yanfen, the woman entrepreneur in TWBI, once did lots of different jobs. In 2002, she started the Zhang Ke JianYe Network Company Limited. After receiving training from TWBI, she realized that the SMEs are not fully aware of the potential of utilizing ICTs, primarily due to a capital problem. Duan Yanfen designed a web page for TWBI, free of charge, and co-developed the internet business with TWBI. This company and the network centre share common resources and search for common development.

Experiences and lessons learned

Many of the TWBI tenants know little about ICTs and did not realize the importance of it. At the incubator's early stage, tenants were assisted to re-employ women workers who had lost their jobs. As a result, many tenant business were labour intensive with low science and technology components. These businesses thought of ICTs as expensive and unnecessary. TWBI is working hard to help them understand the benefits of ICTs by using the basic ICT facilities like mobile phone and electronic mail. TWBI has also absorbed some new clients who are able to use ICTs.

Some tenants have signed long-term agreements with Dial service and ADSL (Asymmetric Digital Subscriber Line) suppliers, and were unable to use the outlets of TWBI. To encourage them to use the broadband unit, TWBI decided that tenants could get free ICT training and enjoy 3-months service, free of charge. TWBI were fortunate to have the China Tianjin Communication Corporation investing in the preliminary hardware installation. It is estimated that the service charge will not cover the costs to the supplier for the first 3-5 years.

When using ICT, the tenants tend to get quick feedback. In reality, it takes time to improve production efficiency and profits of any business. In the short-term, when the business applies ICTs to production operation, the production efficiency and profit tend to decrease. This is a serious problem. TWBI is striving for broader technological support to help them overcome these difficulties. For example, the ICT training class is now underway.

At an early stage, support from the government authority of information and communication is indispensable, particularly when ICTs are new to the business. TWBI regard its promotion of ICTs as win-win approach: the government company gains access to a greater client base to compensate for the preliminary wiring expense and other inputs.

Information has a positive effect on employment quantity and structure, subject to continuous training and skill upgrading of the workers. TWBI understands that new technologies can lead to job losses but that new jobs will be created in related fields. According to the 1990s data of the International Labour Organization (ILO) (2001), there are greater job opportunities in countries where ICTs are applied most extensively. The use of ICTs is not limited to the hi-tech field only but it can also be applied to basic industries, such as providing basic services, information collection, recording and editing. In response to this, TWBI started training classes for recording, e-commerce and networking for unemployed women; and training courses on venture creation to provide instruction to women on the possibilities of ICTs for venture creation.

Training should be focused on practice, effectiveness and operation. Unemployed people should be provided with training courses focusing on successful re-employment and venture creation. Studies show that skill training alone cannot ultimately resolve unemployment. ILO argues that trade discrimination should be eliminated while, at the same time, gender awareness should be increased. To respond to this, a training package was produced, focusing on venture creation, re-employment and basic skills of starting a business. In the training, gender awareness was increased and understanding of credit was increased. Over the past six months, 300 people attended the training courses.

TWBI is the only women's institution in China to be qualified in venture creation training. TWBI attended the Start Your Business training of trainers course in order to apply the ILO training model to TWBI's own. During the training, TWBI provide channels through which women can receive loans from the Tianjin Women's Federation, Tianjin Municipal Labour and Social Security Bureau, and the Tianjin Financial Bureau.

Follow-up to the project

As an employment-related incubator, TWBI should have different approaches to different target groups. Female students may, for example, have some knowledge of ICTs but have less understanding of venture creation and market mechanisms. Business women who know little about ICTs should have this knowledge nurtured.

According to the existing timetable, the project will be completed in February 2005. TWBI's experience has shown its approach to be feasible. Follow-up actions should include:

- Publicizing the use of ICT among women entrepreneurs.
- Continued venture creation and small business creation.
- Bringing new businesses online.

- Creating an initiative for 'East-West Cooperation for Common Development', specifically cooperating with Gansu Province to establish a women's business incubator in the western poverty-stricken area. This incubator is expected to help 5000 women from poor families find jobs through labour transform and venture creation within five years.
- Cooperation with the French company, Planet Finance, to apply for microcredit and ICTs projects from the European Union, in order to benefit directly and indirectly 6000 small business owners.
- TWBI's study of venture creation by women using ICTs aims to obtain equal rights and opportunity for women in employment and venture creation, increase women's sense of self-esteem, raise gender awareness in economic policy making, enhance women's capacity for starting their own businesses, and increase awareness of this project at home and abroad.

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2 E-business piloting and readiness for rural women weavers in Bhutan: lessons learned

The Kingdom of Bhutan has some inherent constraints for both domestic and foreign trade. For example, Bhutan is mountainous with a highest point of more than 7,000 m and lowest point of less than 200 m above sea-level, and only 20% of the surface area of the country of 47,000 square km is used for agriculture, horticulture, pasture, and human settlement. This makes domestic travel time-consuming and difficult. For example, it takes more than 2 days by car to travel from the capital city of Thimphu, located in the west, to Trashigang, the eastern district which is less than 300 km away as the crow flies. Another important geo-political feature of Bhutan is that the country is sandwiched between China to the north with a border of approximately 470 km, and India to the south, east and west with a border of approximately 605 km in length. Compared to these countries (India with 1,048 million population and a surface area of 3,287,000 square km; China with 1,281 million population and a surface area of 9,598,000 square km), the scale of the economy in Bhutan, with its population of approximately 730,000 (Royal Government of Bhutan 2004), is very small to compete against neighbouring countries.

The potential of ICTs has been emphasized as a possible means to overcome these constraints. The current development Five Year Plan 2002-2007 explicitly mentions that the development of ICTs 'presents vast potential for Bhutan to overcome the constraints arising from landlockedness, the mountainous terrain and associated difficulties' (Royal Government of Bhutan 2002c). It continues:

Furthermore, a rapidly expanding educated workforce with proficiency in the English language, and a well functioning telecommunication infrastructure confers numerous advantages in harnessing this potential.

In fact, formal education is provided in English in Bhutan, and the Gross Primary Enrolment Ratio improved from 55% in 1990 to 72% in 2000 (Royal Government of Bhutan 2002b). The number of telephone sets in use increased from 11,776 in 1999 to 20,168 in 2002 (Royal Government of Bhutan 2004). In line with this development plan, various follow-up actions are being taken to exploit the potential of ICTs (Department of Information and Technology (DIT) website), which includes e-business and e-commerce. For example, the ICT Development Master Plan for Bhutan states that the government will 'promote the introduction of e-business concepts in the private sector' (Royal Government of Bhutan 2001d, pp. 38), and 'will explore the possibilities of developing e-commerce applications in Bhutan.'

Among these actions, the E-business Piloting and Readiness for Rural Women Artisans and Entrepreneurs project in Bhutan is distinctive in explicitly addressing the challenge for Bhutanese women in development. As stated by Gillian Marcelle, Founding Convenor of the World Summit on the Information Society (WSIS) Gender Caucus, 'women are agents of development and must be active in defining and leading development in the Information Society' (2002b). While the project is still ongoing, lessons from interim findings may provide useful insights into use of ICTs for the empowerment of women in other countries. With this in mind, the paper extracts lessons from the project.

This paper first outlines challenges for women in Bhutan. In the next section, the development philosophy of the Japan Women in Development Fund (JWIDF), which supports the project, is described. After that, the project design at the initial stage, challenges encountered by the project, and the response to these challenges are explained. In conclusion, the paper extracts lessons learned from the project which may be applicable in other countries.

For the purposes of this paper, e-commerce is defined as 'the use of electronic communications and digital information processing technology in business transactions to create, transform, and redefine relationships for value creation between or among organizations, and between organizations and individuals', and e-business is defined as 'the transformation of an organization's processes to deliver additional customer value through the application of technologies, philosophies and computing paradigm of the new economy' (UNDP 2003, pp. 6-7).

Challenges facing women in Bhutan

Women constitute 49.5% of the population in Bhutan. The country report of the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) in Bhutan mentions that 'Bhutanese women enjoy freedom and equality in many spheres of life with a relatively high status, in contrast to situations found in many other developing countries' (Royal Government of Bhutan 2002a). However, more surveys have been conducted and, gradually, gender issues have been more clearly recognized in Bhutan. For example, in terms of education, the number of girls in primary, secondary, and tertiary schools for every 100 boys in 2000 were 82, 78, and 41 respectively (Royal Government of Bhutan 2002b). Given the disparity between boys and girls at all levels since 1990, the targets of Millennium Development Goal 3: 'Promote gender equality and empower women to eliminate gender disparity in primary and secondary education preferably by 2005 and at all levels of education no later than 2015', are unlikely to be achieved, in particular at tertiary level. In terms of literacy, the rate in 2002 is estimated at 54% (Royal Government of Bhutan 2002b). Gender-disaggregated official statistics are largely unavailable, but it is believed that the total female literacy rate is only about half that of men. The CEDAW report estimates that the female literacy rate may be perhaps as low as 13%.

Women in rural areas receive less education and have a lower level of literacy compared to women in urban areas. The gender pilot study in 2001 shows that 75% of the women in the age group 20-40 in the rural areas were illiterate, while in urban

areas the figure was 46%. Only 4% of rural women respondents had received a formal education. Out of these, 85% dropped out after grade six.

In rural areas, where 79% of the population in Bhutan resides (Royal Government of Bhutan 2001a), agriculture is the primary economic activity with the other dominant activities being horticulture and livestock. Generally, rural women are not only engaged in main economic activities but are also main workers for the supplementary activities (Royal Government of Bhutan 2001c). The positive aspect is that the head of a household is not a gender-specific domain either. Accordingly, little distinct division of roles is apparent between the majority of rural women and men. While nearly half of the respondents in rural areas (both men and women) to the gender pilot study in 2001 did not receive adequate information for enterprise development, when training was available, men had better access to training opportunities than women due to disparities in education and literacy, together with lower mobility of women. Nuzhat Ehsan also found this in 1992.

Meanwhile, women in some rural areas acquire distinctive skills to earn cash income. For example, women in the eastern rural area of Bhutan are well known as professional weavers. Unlike other types of work, weaving is considered to be an activity carried out specifically by women. While a significant percentage of the male population migrates to urban areas as seasonal workers, weaving by women remaining in eastern rural areas has become an important source of income for households. One of their challenges is the lack of access to market and market information.

Japan Women in Development Fund (JWIDF)

The Government of Japan and UNDP established the JWIDF in 1995 to promote jointly their shared goal of achieving gender equality for sustainable human development. JWIDF supports results-oriented, innovative and catalytic projects which have the potential for replication, especially in the context of South-South cooperation. From 1995 to end 2002, JWIDF had supported more than 50 projects around the world (UNDP 2003).

The priority areas of support are identified, based on priorities of the Government of Japan in the area of support to women in development and UNDP's comparative advantage. These priority areas include political empowerment and participation, economic empowerment of women, post-conflict development and information technology for development (UNDP 2002). The importance of the gender equality perspective, together with empowerment of women, is increasingly highlighted as national actions to attain the Millennium Development Goals (MDGs) are initiated. Support by JWIDF has potential implications not only for Goal 3: 'Promote gender equality and empower women', but for engendering all of the MDGs. In particular, economic empowerment of women must have an impact on eradication of extreme poverty.

JWIDF pays attention to the potential of ICTs, particularly e-commerce, to address both economic empowerment of women and information technology for development.

UNDP states that ICTs are ‘an increasingly powerful tool for participating in global markets; promoting political accountability; improving the delivery of basic services; and enhancing local development opportunities’ (UNDP website at <http://sdnhq.undp.org/it4dev/>). Internationally, there is an argument that ICTs offer developing countries the opportunity to ‘leapfrog’ hindrances to development (ID21 website at: <http://www.id21.org/education/InsightsEdu1Editorial.html>). This leapfrogging thesis asserts that developing countries can bypass the initial stages of development. On the other hand, this view can also be questioned. For example, the Food and Agriculture Organization (FAO) (2000) states that:

It should be noted that some of the discussion about the potential of ICTs for ‘leapfrogging’ development processes, especially at the community level, has been wildly optimistic.

FAO continues that ICTs ‘can just as easily serve to further isolate rural people, because of the complex infrastructure, cost and skill base involved in their utilization’. Sonia Nunes Jorge (2002) detailed challenges of the use of ICTs for women’s economic empowerment and outlined practical strategies:

- Providing community access to ICTs;
- Being familiar with and taking advantage of Telecommunication Development Funds and other universal access policies;
- Advocating and developing government funded training programmes;
- Developing special interest content in local languages; and
- Developing and utilizing gender-aware participatory methods to assess the ICT needs and demands of women.

Given both the positive and negative potential of ICTs on development, international communities aim to take stock of lessons learned from all over the world (Marcelle 2002a). JWIDF also aims to accumulate the experiences of different e-business schemes. As such, the underlying motive for JWIDF to support the E-business Piloting and Readiness for Rural Women Artisans and Entrepreneurs project in Bhutan is to accumulate knowledge on how economic empowerment of rural women can be linked with ICTs; how the efforts by developing countries to develop enabling policy frameworks and environment for e-business can be supported by donors; and how to address accessibility of ICTs by rural women.

The initial project design

The E-business Piloting and Readiness for Rural Women Artisans and Entrepreneurs project in Bhutan started in 2003 for a duration of 2 years. By piloting e-business, the project aims at enhancing the economic empowerment of eastern rural women through expanded economic opportunities.

At the initial stage, the project was designed to serve three target beneficiaries: rural handicraft producing women who earn a lower income yet are already weaving for intermediaries to supplement their income; entrepreneurs; and the Ministry of Trade and Industry (MTI). Capacity development was planned for these three target beneficiaries respectively, and seed capital was to be provided to entrepreneurs

based on a public tender to pilot e-business. Overall experience of the project was planned to be monitored to extract lessons learned. Training for rural handicraft producing women and entrepreneurs was planned to be developed based on a training needs assessment of each target group. Capacity development for MTI mainly focused on supporting staff in creating an enabling environment for e-business, such as studies to assess readiness of e-business in Bhutan; review of policy, regulation and legal frameworks relating to e-business; learning good practices abroad; and support in establishing a regional office in the eastern district of Trashigang in collaboration with another UNDP programme (Rural Enterprise Development Programme) and MTI. An international UN volunteer was planned to be brought to Bhutan to provide technical support to MTI and assist in conducting training and assessments.

The project aimed to explore the potential of e-business for foreign trade. As such, it sought possibilities of making partnerships to access foreign markets such as the European Union and Japan. Within the country, the project sought partnerships with:

- the National Women's Association for Bhutan (NWAB), a national NGO for women to reach eastern rural women;
- the Ministry of Information and Communications with a view to creating an enabling e-business environment;
- the Bhutan Postal Service which was initiating the e-post initiative in rural areas; and
- the Bhutan Development Finance Cooperation to address the access to microcredit.

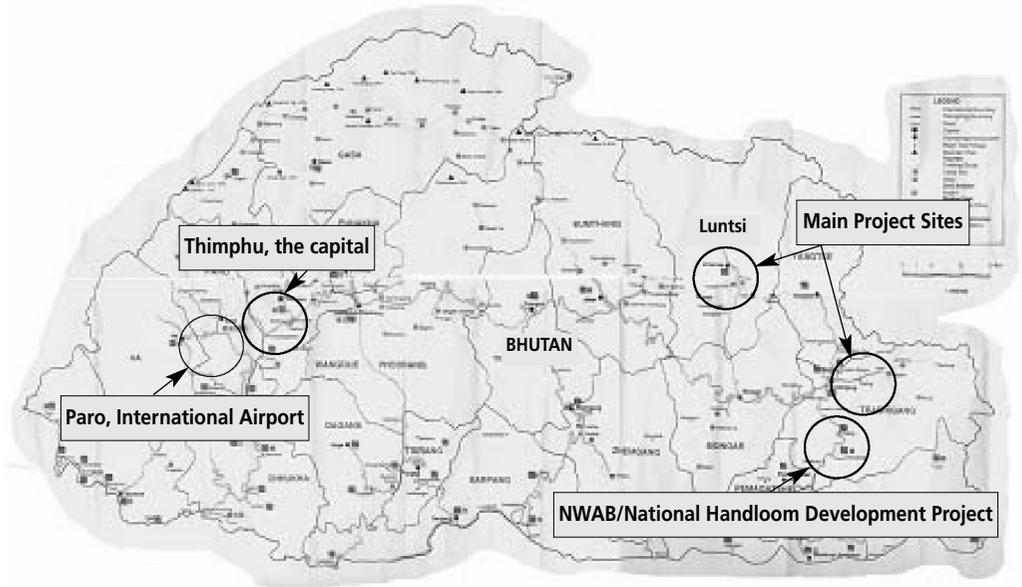
The unique aspect of this project was the combination of assistance towards upstream policy advice and downstream grassroots interventions, connecting the regulators and end users, for the common goal of creating an enabling environment for e-commerce and e-business of which rural women can take advantage.

Challenges

Weavers in eastern rural areas tend to use chemically dyed raw materials imported from India, so that the final products have less traditional value and the colour soon fades (UNDP Bhutan website). Besides, since they do not have access to information on market demand, they design their products based on their own inspiration without timely feedback from the market, and take the high risk of travelling all the way to the capital, Thimphu, without sufficient knowledge, in order to sell their products at a lower price than desirable after a year's effort. The CEDAW report states that ensuring that rural women have access to knowledge and information – broadcast, electric, print and popular – also is essential to bring them into the mainstream of the technological world.

An international UN volunteer, an ICT/e-business specialist, was recruited and a training needs assessment for rural women weavers was conducted. Also, readiness of e-business in Bhutan was examined through reviewing the policies, regulations and legal framework relating to e-business in Bhutan, and reviewing experience from past e-commerce initiatives.

Figure 1: Map of the project site



The training needs assessment for women in eastern rural districts confirmed the challenges for women weavers, particularly products with low cost-effectiveness and lack of market information, resulting in low profits. Information on how to add value to the products was also not available. For example, most Bhutanese women can easily tell where in Bhutan a material was made and with what kind of techniques and materials, just by looking at the final product. Thus, they can judge the value of the product without much explanation. However, this is not the case for foreign tourists in Bhutan. When the products are displayed in the shop for foreign tourists, none of this information is clearly attached since the shopkeepers take such information for granted. Therefore, the value of the products is difficult to demonstrate. The lack of basic infrastructure for domestic trade is crucial.

The example of Khoma

The project site of Khoma exemplifies the constraints outlined above. This block, comprising roughly 100 households, is located 1.5 hours trek up the mountainside from the nearest road in Luntsi. It is classified as one of the most vulnerable blocks according to the Bhutan poverty assessment and analysis report 2000 (Royal Government of Bhutan 2001b). Each household has at least one or two weavers but, due to low literacy rates and inaccessibility, few have access to a bank account. The physical distribution system for producing woven handicrafts is not industrialized due to lack of basic infrastructure for transport and financial transactions. Even the subsidized postal service is often found to be too expensive.

Some women with advanced weaving skills voluntarily visit the capital city of Thimphu to sell products entrusted by other weavers in their village. It can take them

several months to sell their products due, largely, to different expectations from shops. Given the time taken to weave a textile (at least several months to create a set of materials for a traditional Bhutanese woman's dress) and transport problems, they manage to contact the market in Thimphu only once or twice a year. Accordingly, without the use of e-business, doing business on a large scale with the capital city of Thimphu (and the international market beyond) does not seem to be economically viable.

Assessment of readiness for e-business in Bhutan revealed that the basic legal and regulatory framework not only for e-business but also for private business in general does not yet exist. The ICT Act was drafted but is yet to be enacted so there is no e-signature policy in force. Also, since there is no contract law, there is no dispute resolution mechanism. In these circumstances, few profitable online shops by Bhutanese are actively in use (Wangdi 2004). Some who tried to establish an online catalogue of products with a telegraphic remittance in the past closed the website since it is not profitable given few hits by customers, despite the high cost of maintaining the website without professional web design skills.

The original project design took a relatively market-oriented approach. In other words, in the original project design there was an assumption that a potential e-business market already existed and that actors needed to be boosted, so that the project intended to stimulate the market with supplementary trainings and seed capital to target groups. However, both the training needs assessment for women in eastern rural areas and the examination of e-business readiness revealed that neither feasible e-business markets nor actors yet exist.

Furthermore, research revealed a potential conflict of interest between rural women weavers and intermediaries, including entrepreneurs, retail dealers (e.g. shops), distribution industries (e.g. shipping agencies) and, to some extent, financial transaction partners (e.g. banks). There is a potential danger that intermediaries exploit producers unless a properly coordinated business plan is formulated to prioritize the benefit to rural women weavers.

Accordingly, the following challenges were revealed:

- Handicrafts produced by rural women weavers involve the use of imported raw materials, making their products less cost-effective;
- Rural women weavers do not have access to market information access, resulting in lower profitability for their products;
- Lack of basic infrastructure for trade;
- Potential conflict of interest between rural women weavers and intermediaries; and
- Lack of a legal and regulatory framework for both e-business and business in general.

Responding to the challenges

The challenges made it necessary to revisit the original project design. The project, together with UNDP, initiated an informal learning session to share these findings with a wide range of resource persons in Bhutan who were working in the area of ICT

for development in general. Based on discussions from the learning session and further analysis by the project, MTI, the Royal Government of Bhutan, the UN volunteer, NWAB and UNDP agreed on the guiding principle that the primary beneficiaries of the project must be vulnerable rural women weavers, focusing on their critical needs.

The training needs assessment for rural women showed that the primary concern for rural women weavers is not the lack of accessibility to ICTs but the lack of information and means to expand market opportunities. It was established that it would be impossible to provide basic ICT infrastructure to all the women, and that such women could not afford to operate and maintain ICTs either. For this reason, the project does not primarily focus on ICT access. Instead, the challenge of low cost-effective products was approached through training by the NWAB/National Handloom Development Project in Khaling, Trashigang District. This project runs handloom training on a non-profit basis, demonstrating the vegetable dying technique to women weavers at the project sites. This traditional technique, using locally available dying materials, has the potential to reduce the costs of raw materials, raise the price of the final product as a result of the value-added by using traditional techniques, and make the final product colourfast.

The project also decided in the short-term not to seek foreign markets which cannot be handled by women weavers in the project sites. Instead, the project decided to identify tourists from abroad in Bhutan as a target group for marketing. Also, the project decided to formulate a core group to develop a business plan and pilot the plan to extract lessons, instead of organising a publicly tendered seed capital provision and training to intermediaries. The core group consists of rural women community leaders among women weavers at the project sites, NWAB/National Handloom Development Project, the UN volunteer, and an international consultant recruited to develop new high-quality, high-value hand-woven products made from vegetable dyed raw materials. The NWAB/National Handloom Development Project is subsidised by the Handicraft Emporium in Thimphu. When their products are distributed to the emporium, they are not threatened by potential exploitation. Also, it is possible to minimize the risk of loss by piloting a new business plan.

While the plan is still in the process of development, the NWAB/National Handloom Development Project is supposed to function as an information hub on the use of computers, internet access and telephone lines. Visual images are to be used to share design and colour of popular products in Thimphu with rural women community leaders via the NWAB/National Handloom Development Project in a timely manner and before rural women start on a new production. In addition, some written information, attached to products from rural communities in the project sites, will be available when products are displayed in the market in Thimphu.

For the purpose of branding the products, well-known weavers with weaving skills are very helpful. The first and second prize-winners of the 3rd national textile festival held in Thimphu from 27 to 29 October 2003 are identified at the project sites which has a positive impact. In addition, it is important to bring in the view from foreign tourists which may sometimes be beyond the imagination of the producers.

That will be supplemented by input from a newly recruited international consultant and an interactive process to develop a new product within the core group.

In order to improve the legal and regulatory framework for both e-business and business in general, the Ministry of Information and Communication has launched a series of initiatives to formulate ICT policy and strategy. An informal information exchange between MTI and the Ministry of Information and Communication has been initiated to formulate ICT policy and strategy with regard to e-business in Bhutan.

As such, the project design has now been modified to focus more on the critical needs and benefit for weavers. A core group has been formulated to develop a business plan to pilot e-business and to coordinate efforts by MTI with other sectors to address the legal and regulatory framework for both e-business and business in general.

Lessons learned

As the project is still ongoing, it is still premature to make a post-evaluation of the project. Yet, at this moment, the following can be preliminary findings.

Firstly, ICT has the potential to contribute to the economic empowerment of rural women. However, the experience of the project tells us that the importance of ICTs lies in their ability to facilitate the distribution of useful information and to support communication. Thus, the transfer of skills and high technology equipment to rural women may not be a primary step. Rather, the important primary step is to identify both critical information and a small group of target group members who will help them enhance their economic activities. This step will lead to identification of the appropriate technology.

Putting the critical needs and benefits for women first, and making ICT work for them, is also in line with current UNDP policy. Under the most updated framework of UNDP assistance, ICTs were identified as a means to contribute to poverty reduction rather than as an independent objective (UNDP 2004).

Secondly, when developing enabling policy frameworks and an environment for e-business, donors can facilitate coordination of relevant stakeholders. The unique aspect of this project is the combination of assistance towards upstream policy advice and downstream grass-roots interventions, connecting the regulators and end users, for the common goal of creating an enabling environment for e-commerce and e-business of which rural women can take advantage. Connecting the regulators and end users has proven to be crucial so that regulators can understand the needs of the vulnerable women. If the project had been implemented as initially planned, different stakeholders (rural women weavers, intermediaries, and policy makers) would have tended to work independently so that neither the needs of the rural women weavers nor the potential conflict of interest between rural women weavers and intermediaries would have been properly addressed.

The project revealed not only the importance of coordination between the regulators and end users but also the importance of coordination between the regulators of

different sectors. Since e-business is a cross-sectoral issue, related to both private sector development and ICT development, interaction between the MTI and the Ministry of Information and Communication was useful.

Thirdly, while the project decided not to focus on ICT access by rural women weavers, ICTs will still play a vital role in the forthcoming pilot e-business plan. Here, ICTs will be used to facilitate interactive communication between potential consumers and producers by establishing an information hub in rural areas. This strategy seems effective, given the low literacy rate of rural women, lack of infrastructure, and lack of available operation and maintenance facilities which the project cannot resolve within its scope. The ICTs can be useful to exchange visual images in a timely manner which may help compensate for the low literacy rate in rural areas.

International experience shows that women have been empowered by running ICT-related businesses such as telecentres, and by using ICTs as a means to facilitate better businesses of their own. An example of this in Zambia is to be found in Gerster and Zimmerman's synthesis of the role of ICTs on poverty reduction in Africa (2003).

Based on these findings and the overall experience of the project, the following lessons may be useful for e-commerce projects in other developing countries. Firstly, in designing a project, priority may be put on the critical needs and benefit of the most vulnerable. Secondly, making maximum use of locally available resources and actors will contribute to efficient management. Also, this process can ensure the national ownership of the project. Having said that, a view from outside can be useful in finding hidden values which might have been taken for granted by local communities. Thirdly, it is important to bring in the perspective of private sector development before introducing e-business or e-commerce. Lack of a legal and regulatory framework for the private sector will be a hindrance to making maximum use of e-business or e-commerce to outreach a wider market opportunity by overcoming the lack of a physical infrastructure. The ICTs are more effective when being used to add value to an already high-value product and active market, rather than relying on ICT to create a new market.

Fourthly, while ICTs can provide a wider market opportunity by overcoming lack of a physical infrastructure, this will bring new demand from new business partners when e-commerce is introduced. Accordingly, starting on a small scale is helpful for people who began to use e-commerce to gradually expand their capacities. Fifthly, coordination both between regulators and end users, and between different sectors is vitally important to promote e-commerce and e-business. This will ensure the smooth implementation of e-commerce and e-business operation, and pro-poor policymaking in promoting e-commerce and e-business. Lastly, computers and internet can create new value by transferring visual images and information in a timely manner. Innovative use of this feature, according to the local context, can boost productivity of the existing market.

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3 Fishers and radios: a case study of Radio Ada in Ghana

I hear her when she speaks on the radio but not when she's in her home.
(An Anyakpor fisherman in 2002)

Ghana's airwaves are coming alive with local voices speaking in local languages previously ignored by traditional broadcast media. The community radio phenomenon is creating the opportunity for rural women to participate in radio programming, which is enabling them to exchange information about their livelihoods, have a voice within their villages and learn how to enhance their communities.

Community radio in Ghana is a recent phenomenon, with the first independent community radio station, Radio Ada, going on air in 1998 after the government liberalized the airwaves in 1996 by offering licenses to non-governmental, commercial and community non-profit FM stations. The deregulation occurred as a result of pressure from libertarian press interests rather than from organized community radio activists (Quarmyne 2001). As the airwaves opened-up, the number of radios per capita increased. In 2001 there were 710 radios for every 1000 Ghanaians, compared with only 231 radios in 1995 (World Bank 2003). There are currently four community radio stations on air in Ghana with several others waiting to be assigned frequencies in order to begin broadcasting.

Radio Ada and fishers' radio programmes

Radio Ada's approach to broadcasting is participatory and grounded in the needs and identities of its Dangme-speaking audience. It is located in Ada in the Dangme East District, southeastern Ghana. The radio station broadcasts to four Dangme-speaking districts which cover a population of approximately 600,000 people of whom 60% are non-literate (Quarmyne and Quarmyne 2001). The radio staff is comprised of approximately 50 full-time and part-time volunteers, all of whom come from the four Dangme districts. A core group of full-time staff are seconded to Radio Ada by their employer, for instance several individuals working with non-formal education and the community development office.

Radio Ada uses a broadcasting technique called 'narrowcasting' to reach the different occupation-based groups within the four Dangme Districts. The occupation-based groups comprise farmers, fishermen, fishmongers who are exclusively women, beadmakers, taxi drivers, and tailors. Each week a 30-minute radio programme is recorded with the specific occupation-based group and then re-broadcast later in the week. For instance, the fishmonger programme producer will visit a different fishing community each week, gather together the fishmongers from that community to ask them questions about their fish smoking work, and facilitate a discussion on issues of

importance to them. A 30-minute version of the discussion is later broadcast on Radio Ada.

The fishermen's radio programme was originally broadcast on Tuesday evening, and the fishmongers' programme on Friday evening. Several fishmongers from different communities lobbied for Radio Ada to move their programme so that it would air directly after the fishermen's programme on Tuesday evening, so that the men would hear what the women had to say. In their radio programmes, the fishmongers would often address a message to the men of their community, for instance pleading with them to lower the prices of fish.

Anyakpor fishing community

The village of Anyakpor is a two-hour drive east of the capital, Accra. It is situated in the Dangme East District of Ghana. In 2000, the population of the Dangme East District was 93,112 (Ghana Statistical Service 2002). Anyakpor is west of and near the mouth of the Volta River as it empties into the Atlantic Ocean. Anyakpor is one of 19 fishing communities in the Dangme East District, and is one of 21 fishing communities engaged in fishermen and fishmonger programmes with Radio Ada. There are two fishing communities in Dangme West.

Anyakpor itself consists of two groups of people, fishers and farmers, and although there is some integration, the inhabitants usually identify themselves with either the farming or the fishing community. The fishers live along the coast while the farmers live inland. According to the recent Dangme East Survey for Health (2003), sponsored by the Japan International Cooperation Agency, the population of Anyakpor community is 1458. Volunteers from the community are trained to gather census information on a household basis. There are 684 men and 774 women in Anyakpor. Nearly 43% of the population are children. Of the adults, 181 (83 men and 98 women) are farmers; 92 women are traders; and 371 adults rely on fishing for their livelihoods (198 men fish and 173 women are fishmongers) (K. Larweh, personal communication, November 2003).

In addition to the fishers from Anyakpor, there is also a migrant population of fishers from the village of Anyamam, one hour drive west from Anyakpor, who live in Anyakpor for ten and a half months of every year. The migrant community is referred to by Anyakpor inhabitants as Anyamamkope.

These fishers make use of different types of fishing. In local waters, fishers rely on dragnet fishing from the shore, while deep-sea fishing requires a wooden canoe fitted with an outboard motor. Fishmongers buy the fish from fishermen, often their husbands, at the shore and then smoke the fish before taking it to market to sell.

In Anyakpor, many of the fishmongers belong to the Anyakpor fishmongers' cooperative which is organized to lobby for material and loans from the government. The Chief Fisherman belongs to the Ghanaian National Canoe Fisherman's Council.

Fishermen, fishmongers and Radio Ada

Adult men and women of all ages listen to Radio Ada. Of the 50 people interviewed, 46 consider Radio Ada to be their favourite station. There are between one and 12 radios in their households. The household with the most radio sets was the chief fisherman's.

Two-thirds own their own radio while others borrow a radio from another household member or friend. Women were three times more likely than men not to own their own personal radio receiver. Nearly half of all respondents said they acquired a radio after Radio Ada went on air which suggests that a relevant supply of information can, in fact, drive its own further demand. Eight respondents (six men and two women) have been on air through the fishermen and fishmonger programmes. Popular programmes include counselling and advice, funeral announcements/messages, news, and fishermen and fishmonger programmes.

Several of the people interviewed did not have enough money for batteries during the lean season in which fishers have reduced catches, fishmongers have less fish to market and overall household income is reduced. Of 39 people asked about batteries, 19 reported that they would go from between one week to three months without batteries during the lean season.

Learning about livelihoods from each other

Fishers use the radio to speak about different topics useful to their work that they had learned from each other within their community and from fishers from other communities. There were examples of fishermen learning from other fishermen about their work, as well as fishmongers learning from other fishmongers. The younger generation were learning from older fishers about traditional ways of fishing and fish smoking, as well as learning to respect their elders. Fishermen were even learning through the fishmongers' programme about how women smoke fish. One fisherman stated:

I like the women's programme better because as a fisherman, I know something about fishing, so I concentrate most on the women's programme.... Anyakpor women, when they've finished smoking, use a certain grass named lale giving colour to the fish here. With a programme from another community along the coast here I learned that there's another grass which is called zue which is used in giving the fish colour and it is better than the lale the Anyakpor fishmongers are using. So the women here are changing to use zue.

Through the fishmonger programmes on Radio Ada, Anyakpor fishmongers indicated they were learning from other fishmongers how to store fish so that they can sell it at a later date for higher prices when supply of fish is low and demand is high. This exchange of marketing advice among women was considered by them to be positive and cooperative, not competitive.

Promoting culture, identity and community

Radio Ada is promoting culture, identity and community in Anyakpor by broadcasting in the local language of Dangme; by challenging old traditions that promote inequity amongst family members, particularly women; by discussing marriage advice; and by enabling community members to use the radio to announce communal activities. When Radio Ada first went on air in 1998, many people understood for the first time what was being said on the radio. People no longer had to feel that their lack of formal

education and exposure to the English language or main Ghanaian languages was something that barred them from the radio. There was a definite sense of empowerment that arose as a result of understanding everything that was being said, and not having to rely on others to translate. People were using the radio to listen to many more programmes other than music, because they could comprehend the topics being discussed and find meaning in them. Four and a half years after going on air, it was evident that Radio Ada's use of the Dangme language was invaluable to the fishers of Anyakpor. According to one fishmonger:

The first one we bought [radio] was 16 years ago. Back then we tuned to the radio a little but we mainly played cassettes. My husband is educated so he liked tuning to where they spoke English but if my husband was not in the house then we put the cassette in the tape player and played gospel songs. Now we listen to Radio Ada, because of the Dangme being spoken.

Some of the programmes and topics discussed on Radio Ada challenge traditional cultural practices that promote inequity amongst family and community members. According to one fishmonger, she had learned that women and children have rights to their husband's and father's belongings should he die, rather than waiting to see whether or not his family members will allow them access or ownership of his possessions:

First [before Radio Ada] we don't hear of many things, like one is for example, how you and your husband have to get along, so if you die or the husband dies the properties are only for the woman and the children, not the family, and if the woman too dies the properties are for the man and the children, not the family. First we've not been hearing of these things, but now through Radio Ada we hear and learned how those things are done.

An important finding was that through Radio Ada's advice programme, husbands and wives in Anyakpor are learning how to communicate and respect each other which is helping to reduce household quarrelling and abuse. Men are learning to share money with their wives and how to explain to their wives that they have no money to share with them. Men are realizing that they should discuss problems with their wives rather than becoming angry and resorting to abuse. Women are learning how to respect their husbands, yet offer critical advice or approach them for help.

Fishers have attributed several communal activities in Anyakpor to Radio Ada. As a result of hearing their community members speak on the radio, Anyakpor fishers have become engaged in such communal activities as sweeping and community net pulling to raise money for development priorities and, as a result, more people are coming to join community-wide efforts. The effect of Radio Ada was expressed thus by one woman:

At first we don't sweep the whole community. If you wake up you just sweep your house, that's all. When Radio Ada came, the sanitation programme on Radio Ada helped us. Now we have been sweeping weekly, the beach and everything. At times

when we are sweeping the men will dig for us, then we bury the rubbish. Our women's leader took charge of the sweeping.

Opportunities for voice and dialogue amongst fishermen and fishmongers

The fishermen and fishmongers who were interviewed kept mentioning how Radio Ada had created opportunities for them to voice their opinions in order to effect change. These instances for communicating with others were mainly linked to the fishermen and fishmonger programmes aired by Radio Ada. For instance, fishmongers were using Radio Ada to communicate with fishermen, and fishers were using the radio to encourage community cooperation. Central to the theme of voice and dialogue is access, namely which fishers are using Radio Ada to communicate, and who are being left out and why.

In their programmes, the women would often address a message to the men of their community, for instance pleading with them to lower the prices of fish. Mixed responses were heard from both men and women about the impact of the women's requests regarding fish prices. Most of the women and men acknowledged that the women had been listened to and that the fishermen had changed their ways to some extent. Several fishers indicated that there were other factors preventing the men from agreeing to what the women wanted, such as increasing input prices for the fishermen, but that they respected the women's voices. However, there were a few men and women who were not pleased with the fishmongers' programme because they believed the women kept repeating the same requests to the men, and the men were not changing their behaviour.

It may depend on the topic as to whether or not fishermen will act on what the women request. According to one fisherman:

I have been hearing one fish smoker's voice [on Radio Ada].... She say about how they smoke the fish, how they bargain with the men at the shore over the fish, and other things. I like listening to her on the radio because on the radio when you tune it then you hear what she is saying, but if she is speaking in her home there I can't hear her. First when the dragnet comes out it brings polythene bags and plastic things. And we, the fishermen, don't take them out; we leave it with the fish we share for the women. But when this woman raised that topic on the air, we've now been taking it before selling the fish for them.

In June 2003, a group of fishmongers confirmed that fishers were able to follow up on the removal of plastic bags from the piles of fish. One fisherman from their community had mentioned that he was able to hear them on Radio Ada and that he had listened and changed his behaviour, but without the radio he would not have been able to listen to that woman's opinion. The women confirmed that what the man had said was true, namely that the radio was providing a space for them to be heard.

Who speaks on air?

The issue of gender access to Radio Ada emerged from interviews with several of the fishers. It was possible to observe some of the social dynamics amongst the

fishmongers and fishermen of Anyakpor, and to discuss with the programme producer of the fishmonger programme who the spokespeople for the community were. Those individuals or groups who are able to have their views broadcast are the ones who are exercising their right to be heard and to communicate. For the fishmonger programme in Anyakpor, the fishmonger producer would usually meet with a similar group of women on each occasion. They were respected women within the community, holding leadership positions within the fishmongers' cooperative. One woman revealed that while she was able to send people messages through Radio Ada, she had not been interviewed by the fishmonger programme producer when she visited Anyakpor to record a programme with the fishmongers. One reason for this, she thought, was that she was not one of the elders belonging to the cooperative, 'When they come they normally speak with the elder people in the cooperative, but I if I had any message to send to anybody, I write it to them.'

For the fishermen programme, it was not only the elders in the cooperative who were interviewed. For example, when the programme producer visited Anyakpor to meet with fishermen from one boat on a Tuesday (a non-fishing day), he spoke with younger as well as senior people, and those without a main position in the boat were given the chance to speak on the programme.

Conclusions

The research highlights the use of community radio for multiple purposes and indicates that radio can be used in two-way communication to identify and address gender issues. In particular, fishmongers are listening to Radio Ada to learn about their livelihoods and fish smoking from each other; information to which even fishermen are listening. Radio Ada is also promoting culture, identity and community by broadcasting in the local language, addressing family and marriage issues, and creating a forum for community members to announce communal activities. Finally, Radio Ada is creating opportunities for voice and dialogue amongst fishermen and fishmongers. Fishmongers are communicating with the men in their community, and the men in turn are listening to the women over the airwaves.

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4 Development through radio: a case study from Sierra Leone

The rural populations, the urban poor, the illiterate and the marginalized are at the greatest risk of being left out of the information and knowledge revolution. This, therefore, means that such communication technologies cannot be accessed by rural communities and thus puts radio on centre stage. In Africa, radio is and will continue for a long time to be the most appropriate communications technology that is available to the majority of people in developing countries, particularly the disenfranchised communities, women, children and the youth.

(Jennifer Sibanda 2001¹)

During 1991 and 2002, civil war between the government and the Revolutionary United Front (RUF) in Sierra Leone resulted in tens of thousands of deaths and the displacement of more than 2 million people, more than one-third of the population. National elections were held in May 2002 and the government continues to slowly re-establish its authority.

In the post-reconstruction period, development partners have embarked on a concentrated effort to restore both the devastated infrastructure and the cultural heritage. In addition to the progress made in physical reconstruction, especially in urban areas, there is no doubt that the greater challenge lies in restoring the human spirit. The long conflict has had devastating physical and psychological consequences for the people of Sierra Leone at every level of society: community, family and individual. There are three issues that will have widespread and long-term consequences for the rehabilitation of the country: the history of sexual violence, HIV/AIDS, and lasting psychological trauma.²

This article provides a case study of the Development through Radio Project (DTRP) in Sierra Leone. The project uses radio and ICTs to give women's groups a voice in national post-war reconstruction efforts. It has been supported by the Digital Vision Fellowship Programme at Stanford University, USA, and by, among others, the Reuters Foundation.

Media and development in Africa

Radio broadcasting has functioned as the machinery of African government propaganda to citizens. This top-down approach came under heavy challenge during the wave of calls for democracy witnessed in the 1990s. Discussions on media reform, liberalization of the airwaves and deregulation of telecommunications fuelled civil society interest in media for development. Community media became a *bona fide* third sector, setting itself apart from mainstream media and offering alternative content created and produced by community groups through collective efforts. In East Africa, for instance, community media projects began to mushroom in the mid-to-late 1990s, largely due to efforts of the World Association of Community Radio Broadcasters (AMARC) and the Community Media Network of Eastern and Southern Africa. Communities begun to set up radio stations and determine the broadcast

content, based on development priorities agreed upon through participatory processes. Despite the growth of television and the internet in Africa, radio remains the most advantageous medium of communication due to affordability, widespread use and coverage for the majority of Africans.

New ICTs have the potential to contribute to democracy, particularly in development processes. Although not a panacea to the enormous development challenges facing Africa, the ability of new technologies to revolutionize information flows, health care, education and market opportunities means that Africa has an unprecedented opportunity to address poverty and inequity. The range of tools and applications available today however, remain in the domain of a few, and despite the many inroads in access to new technologies by many African countries, the details and methods on how these applications can re-engineer Africa's economic growth in a globalizing world is still an issue of much debate. Opinions are diverse, starting with well-meaning sceptics who opine that poverty reduction and access to basic needs are far more important than access to ICTs. Not a single ICTs-based forum in Africa fails to emphasize that Africa stands to remain marginalized and excluded from the global economy if it does not partake of the digital revolution.

Though largely considered anecdotal, the examples offered by various studies on the impact of ICTs do give credence to the value and the empowerment potential of linking the tools and the applications to various development sectors. Thanks to the advocacy efforts by organizations such as the United Nations Economic Commission for Africa, national information and communication infrastructure policies are contributing to greater demand for reform of the sector and the introduction of appropriate technological applications in development projects. One of the emerging issues in the information revolution experienced by Africa is whether or not women are able to access and utilize ICTs. This debate simply reflects the microcosm of existing gender relations, whereby women are socialized towards non-technological roles and career choices.

Development through radio

Popularly known as radio listening clubs, the concept of development through radio (DTR) has been applied in Southern Africa for well over 10 years. While community radio stations generally meet the communication needs of most communities, the audience typically remains those living within the vicinity of the radio station. DTR, on the other hand, is a community-based initiative that seeks an audience much broader than its own. In the absence of media ownership, the DTR concept gives marginalized groups the opportunity to form partnerships with existing community and/or mainstream radio to get their voices heard on issues pertinent to their development. DTR goes a step 'deeper' than traditional community radio operations and attempts to bring on board those with no access to community radio. Although DTR clubs may broadcast to local community radio stations, they mainly target policymakers and development actors with whom it would not typically be easy to interact. DTR seeks to take local voices and perspectives further, and creates a sense of media ownership somewhat by proxy. The issues aired on weekly broadcasts are

first discussed, determined and agreed upon by the communities, and not by the radio station producers and executives.

One radio set can, for instance, easily serve the needs of DTR clubs with 10-80 members. In rural Africa, a DTR club goes a long way to bring women to the bargaining table of development processes and serves as the space for collective discussion and interaction on development perspectives. DTR helps to resolve the problem of isolation faced by many living in rural areas. Further, it serves both the literate and non-literate.

The DTRP in Sierra Leone

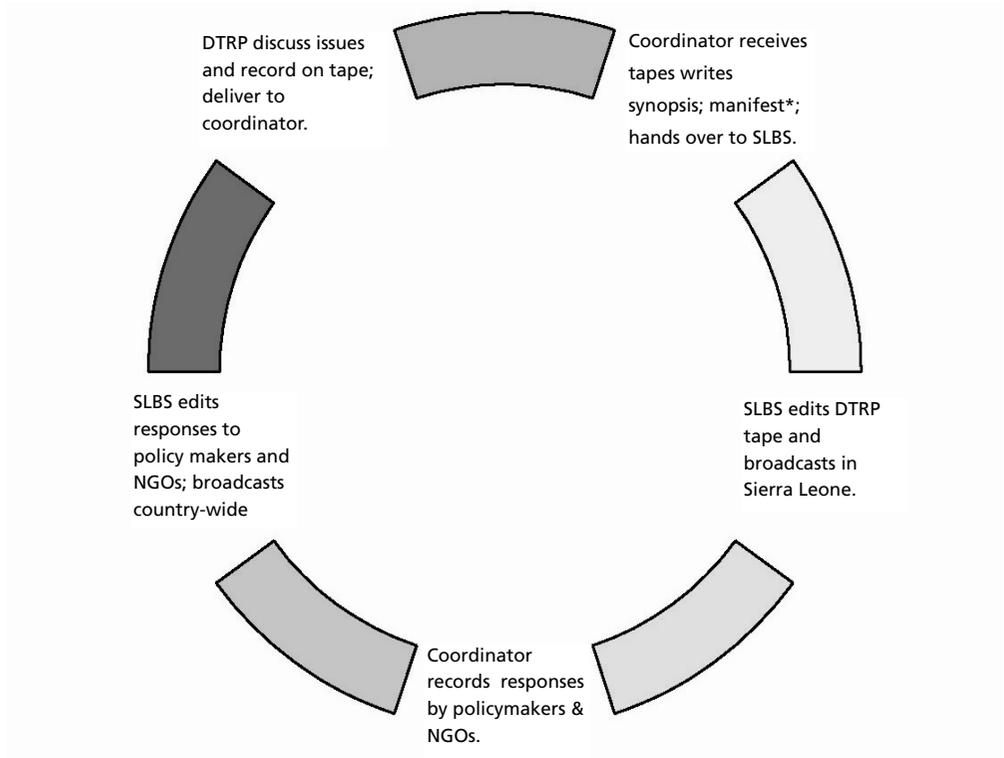
As a result of the success of DTR in Southern Africa, the Forum for African Media Women (FAMW) identified the Forum of Conscience (FOC), a human rights NGO, as the best partner to help set up a DTR project in Sierra Leone, run for and by women. In light of the efforts to bring about lasting peace, the project set out to focus on reconstruction efforts. It aims to provide a channel through which women would voice their views on the Truth and Reconciliation Commission process and bring gender issues to the fore of the process.³ After a feasibility study, in-depth consultations with selected communities and a training-of-trainers workshop, FAMW and FOC agreed to use the DTRP to encourage communities to undertake projects that promote sustainable development.⁴

The DTRP in Sierra Leone is currently active in 30 communities in the North, the South and the Eastern Provinces. The community groups range in size from 30 to 80 members, aged 14-60 years. The club members include widows, some amputees and others affected by the war by bereavement and enslavement. The effects of the civil war on women have been well documented by FAMW and FOC. This documentation also served as the basis for selecting the groups that would participate in the DTRP. The project offers a space for interaction and healing of wounds inflicted by the war. The women find strength in being part of a group and they collectively focus on poverty alleviation priorities. It provides a forum that helps them feel heard and empowered to find solutions to their problems.⁵

Starting the project

The process of starting a DTR project in a community generally varies, although in Sierra Leone a uniform format has been followed. As shown on Figure 1, FOC acts as the overall facilitator and serves the DTR groups through a DTR Coordinator. She receives the recorded audiotapes from the groups and provides a manifest containing basic information including the date on which the recording took place, composition of the group, and a summary of the discussions. She then hands this to the Sierra Leone Broadcasting Service (SLBS) for editing and broadcasting. In some cases, both responses and issues from the women are edited into one 22-minute broadcast.

Figure 1: The DTRP workflow process



Source: Mercy Wambui (author).

* Manifest – technical term denoting basic information on the content of the audio, such as name of the group, date of recording, and summary of content.

Needs assessment

The focus of the Reuters Digital Vision Fellowship was to explore the potential for new technologies in expanding the concept of DTR to a wider audience. If the voices of rural women can be heard on a national policymaking table, could new technologies provide a channel beyond national borders to a global audience? Can content generated by women in the provinces of Sierra Leone be shared with other global communities? Consultations with the FOC led the author to a visit in December 2002 to carry out a needs assessment.

The main objectives of the needs assessment were:

- to visit the community groups in the South, East and Northern Provinces to gather first hand information about their views on the DTRP;
- to assess their information and other emerging concerns on reconstruction; and
- to assess the ICT infrastructure environment and establish how best the Digital Vision Programme could be of assistance to the DTRP.

A visit to 12 representative communities was organized by the FOC. All the sessions were taped on both video and audio by the FOC team. These sessions were also recording sessions that could be edited and broadcasted by SLBS. Introductions were made, and the purpose of the meetings explained. The members were free to express their views on pressing issues. They were asked to consider whether the DTRP has been meaningful and in what way. The women spoke of the benefits of being members of the DTRP, as well as their frustrations. In particular, the younger members were encouraged to express their views.

Summary of observations from the group meetings

The extent of the loss and trauma experienced by the DTRP women participants was extreme. The visits established that the DTRP has brought many changes to the lives of the members. By having a voice on SLBS, they have been assisted in implementing a number of major priority areas, such as establishing market centres; training and sensitization on HIV/AIDS and other health concerns; discussions on human rights issues; police brutality; and gender-based violence. A number of the groups are implementing a skills enhancement programme for textile design, soap making etc. Some are marketing their products in the larger towns. Other groups have an adult literacy programme in progress.

The groups visited are generally very well organized, meet on average weekly, and have a positive relationship with their chairperson. They also have vice-chairpersons who step in for the chair when she is not available. There is also a great deal of appreciation for the work done by the FOC to ensure the tapes are broadcast by SLBS, and also that the FOC team make frequent visits to the communities. The equipment is handled well and the members are protective of the radios.

Broadcast content

The content of the audios is easy to follow. The issues are clearly articulated by the women, the needs are well specified and the addressees are also clearly named. The range of issues include:

- access to education: primary/tertiary education; and vocational training and skills;
- general health care issues: medical care, hospitals, and availability and affordability of medication; knowledge of HIV/AIDS; water wells, clean water and sanitation;
- reproductive health: safe child birth, maternal health and HIV/AIDS;
- entrepreneurship: establishing structured market centres, knowledge of small-scale business management and skills, access to markets for products, packaging, and small and medium enterprise potential;
- infrastructure: roads, communication issues such as radio boosters; electricity;
- democratization issues: access to information, voting and taxation issues, human rights, leadership and paramount chief issues;
- input into the Truth and Reconciliation Commission; healing and reconciliation; and
- relationship of the Truth and Reconciliation Commission to the Special Court.

Northern groups

Although well-organized and taking the club activities seriously, the group in Kabala was disappointed by the lack of a radio transmitter in the area. They reported that the only way they know their regular recordings have been aired is through their friends in other towns who let them know what they think of the broadcast. This group expressed many areas requiring attention, including gender discrimination in court, no property rights, and lack of access to education. They also spoke about the HIV/AIDs orphans who are being forced into prostitution due to lack of means to support themselves. They note two positive aspects: the fact that they are able to come together and talk; and that the Catholic Relief Services provided them with seedlings as a result of a broadcast. The installation of a radio transmitter in the locality would provide additional motivation as they would be able to hear themselves.

The community groups in Domadina and Rorinka were new to the project. The Rorinka group, in particular, differed culturally from the Kabala group. They did not feel comfortable expressing themselves in the presence of male members of the community and they felt abandoned by the government. They were still in the early stages of mobilizing themselves and self-organization. The young people in the community were discouraged by the lack of access to education. In addition to gaping water, shelter and sanitation needs, the one primary school in the area is in dire need of books, chalk and basic amenities.

The Makeni Community was much more positive and self-motivated, possibly because Makeni is a fairly urbanized area. The community was interested in businesses and subsistence farming. The recent return of a newly trained teacher is an added source of motivation and, as a member of the DTRP, is a positive influence on the community.

Southern groups

The groups in the south have been in existence for a longer period, and are better coordinated and self-motivated than the northern groups. For instance, the war affected girls and adults in Bo are involved in counselling and skills enhancement for victims of rape and torture during the war. They are enhancing a range of skills: crafts, weaving, catering (home economics), counselling and dress-making. As a result of the DTR broadcasts, the group reported receiving assistance from World Vision that provided sewing machines for their training programme. They have received additional assistance from other supporters, including a building facility that serves as the training centre. They have enough skills to start small businesses but lack start-up experience.

The Koribondo-Muloma group is also very clear about the activities in which they would like to engage, such as establishing a community radio station for the area. They have advanced in tie-dyeing and plan to establish a showroom in Freetown for their textiles. This group has also received assistance from World Vision. The local chief provided the land on which the DTR group conducts its activities.

Eastern groups

In the Eastern Province, the groups are generally well-organized and actively broadcast their views, but face the same challenges faced by the other DTR groups. As a result of the DTRP, the Kombiowoma-Bodesia and Tegloma Women's groups in Kenema have established a rudimentary Home Economics Institution where they conduct training and literacy classes, and also operate a child care centre. Among the challenges they face are the lack of shelter, and poor health and education facilities. Unfortunately the skills gained do not relate to job opportunities as there are none in the area. As a result, although they have made great strides by participating in the project, the general feeling is that a lot of unmet promises are being made. The same issues regarding access to shelter, literacy, and textbooks afflict this community. The area needs a radio transmitter. This particular group feels that no NGO or government assistance has come their way.

ICTs and the DTRP

The ICT infrastructure in Sierra Leone is in dire need of reform. One of the biggest hurdles facing both the FOC team and the DTR communities is the lack of communication facilities. Mobile telephony has begun to take root and, although available in the bigger towns, is yet to reach the rural areas. The most efficient form of communication between FOC and the DTR communities might remain radio broadcasts for a long while yet. At the time of the visit, internet access for the majority was through private internet cafes that are widely available in Freetown. There is, however, only one Internet Service Provider, Sierratel. The connection was generally excruciatingly slow and expensive, prohibitive to the majority of would be users. Frequent power cuts also made computer use prohibitive as well. FOC has computers in all its offices, but suffers from lack of internet access and frequent power cuts.

Based on the needs expressed by the DTR women and further discussions with FOC, areas for collaboration and intervention by the Digital Vision Programme were agreed. These included digitization of the audio and video content broadcasted by the women and the testimonies for archiving and for dissemination. Further, a website would be developed to reflect the work of the DTRP and FOC, and to host the digitized audios. Content was gathered on various aspects of the DTR and the FOC. Additional information was couriered for retyping and reformatting for web dissemination. This includes various images and graphics, samples of the DTRP broadcasts, Truth Bulletin, and the Report to Urgent Action Fund on the Human Rights Abuses Perpetrated on Women and Girls during the Civil War. A web developer was identified and later switched to Mulumedia, a company based in Washington DC with an interest in development content. The audio tapes were digitized in a fairly straightforward process as follows: recording from the sound card into a file; burning the file onto a CD-ROM; recording levels have to be set about right, so that the signal is not too quiet or too loud; sampling rate and format to match that of CD players being used; and uploading to a local server.

Discussions on the content for the various pages were conducted by e-mail, Instant Messenger and intermittent phone calls. The basic website was developed over a

period of 2–3 weeks and registered as <http://www.dtronline.org>. Registration with OneWorld International’s online dissemination of radio content was undertaken. Modest finances were transferred to Sierra Leone to support internet access for the FOC and additional fieldwork to collect testimonies to the Truth and Reconciliation Commission.

Arrangements towards supporting shipping of finalized tapes for digitization to an agreed-upon destination were made with DHL Freetown through the assistance of the Digital Vision programme.

By enabling the women’s voices to go beyond traditional radio, the project is expected to link the concerns, hopes and aspirations of the DTR community to the wider media and development aid community that may want to partner with the women. An online record of their survival and progress will be available and updated constantly to reflect the changes and impact of DTR on their lives.

Lessons learned

Consultation

Without constant consultation with local partners on the ground who interact with the communities on an ongoing basis, there is always the risk of misinterpreting the dynamic at the level of the communities.

Definition and interpretation of terms

Labels defined in the women’s movement, such as women’s rights, may mean something completely different on the ground. It is very important to understand the cultural sensitivities surrounding roles and relationships, particularly in women’s empowerment projects. In the DTRP, for instance, women clearly interpret women’s rights as completely different from human rights. They are also far more comfortable with the notion of human rights as opposed to women’s rights.

Respect for existing processes

The existing set up must either remain undisrupted or only modified with minimal technology and in small doses. The process in place (taping audios, transmission to coordinator and SLBS) may sound complicated and chaotic, but the process in place nevertheless works perfectly for the DTR groups.

Introducing new technologies

Introduction of new technologies, even with the intermediary NGO, should be done in phases through constant consultation and clarity. The end-user needs to be comfortable enough with the concept, and be prepared to use it. Connectivity is absolutely vital for the future of sustaining the online component of the DTRP. The future of the digitization process depends on the relationship between FOC and the broadcasting stations based on agreements regarding whether the FOC/DTRP Co-ordinator digitizes the tapes herself, or whether it is an additional process in the editing of the tapes. On the other hand, empowering a few DTRP members with the skills needed to digitize and upload the content directly is the ideal and appropriate way forward.

Conclusions and recommendations

DTR outreach to a larger, global audience

Sierra Leone is in a unique situation as it is emerging from a decade of civil war. As a result, the challenges may seem insurmountable. A lot of progress has been made, particularly in resettling people back to their communities. Although NGOs and the international community have contributed to the current progress in advancing reconstruction efforts, a great deal more outreach is required to get the wider global community involved in making a difference in the lives of the DTR women in Sierra Leone. Without access to education and basic health care, Sierra Leone stands to lose another generation of those affected, not directly by the war, but by the shortcomings in reconstruction.

The need for additional funding

The needs in the South are immense. Donor fatigue has had a negative impact on the livelihoods of the groups in the South because donors tend to focus on the North and the extreme East. Funding is needed to meet the most urgent priorities specified by the communities, especially in the area of micro-financing and literacy.

Capacity building and strengthening of FOC

The success of the DTRP with respect to the empowerment of members is undoubted. However, the demands on the FOC and the DTRP Co-ordinator are overwhelming. Lack of adequate transport and poor rural infrastructure are a strain on the limited resources of the FOC. Despite this, frequent visits to the communities are necessary as these visits serve as sensitization sessions on some of the issues mentioned previously. In addition, the FOC is dependent on the goodwill and understanding of a highly skilled and motivated small team, often volunteers. Additional funding is needed to sustain the team.

The intervention made by the Digital Vision Programme has been very well received. Although digital media may not be fully understood by the beneficiaries, constant consultations are still necessary. The appreciation of the website was evident, as reported by the FOC director recently:

They [women] looked at the website, and know that their voices will go to a much larger audience beyond the borders of Sierra Leone.

It is expected that the website will be a source of information on the challenges facing the DTRP, as well as the successes that have been witnessed. It will also serve as a useful reporting mechanism on the activities carried out in partnership with the donor and NGO community in Sierra Leone. Building the technical capacity of FOC to build an information and knowledge management process will be key to eventually carrying out the digitization of the tapes, as the digitization process is a continuous operation which has only just begun.

A lot more needs to be done to establish an ongoing assessment of impact through consistent follow-up, rotation of coordination and management within the clubs in

order to create a pool of shared technical and facilitation skills. This challenge is not unique to DTR clubs: it is a constant thorn in the flesh of development initiatives.

Notes

- 1 Sibanda, J., 'Improving access to rural radio by 'hard-to-reach' women audiences'. Presented at the First International Workshop on Farm Radio Broadcasting, 19-22 February 2001, Rome, Italy, on 'Information & Communication Technologies (ICTs) servicing farm radio: new contents, new partnerships'. 2001.
http://www.fao.org/documents/show_cdr.asp?url_file=/docrep/003/x6721e/x6721e00.HTM
- 2 http://www.phrusa.org/campaigns/sierra_leone/background.html
- 3 More information on the Truth and Reconciliation Commission by the National Commission for Democracy and Human Rights, Sierra Leone, Series no. 7 (2001) is available at <http://www.sierra-leone.org/trcataglance.html>
- 4 Report submitted by the Federation of African Media Women (FAMW) and Forum of Conscience (FOC) to the Urgent Action Fund. 'Human rights abuses perpetrated on women and the girl child during the civil war in Sierra Leone', 2002. The report documents selected cases of women and girl-children who suffered in the hands of the RUF rebels.
- 5 Comments from video-taped discussions during a visit by the author hosted by FOC in the DTRP communities in December 2002.

5 Gender, ICTs and health in the Caribbean

This chapter explores access and use of ICTs in the Caribbean, paying special attention to their role in the promotion of gender and health issues in the region, and specifically in Jamaica. In Jamaica progress in the use of ICTs is visibly more advanced than in the other countries. The Jamaican government has fully supported this progress financially and technically, implementing policies to support the application and use of ICTs in national development. Jamaica has set the tone for the other Caribbean countries, particularly Trinidad and Tobago, Barbados and Guyana where ICT policies and IT strategic plans are currently in place. The chapter largely focuses on the internet because of its widespread influence.

Adoption of ICTs in the Caribbean

The Caribbean is faced with several development challenges among them public health epidemics, environmental degradation, vulnerability of small size, poverty, geopolitical climate, expanding education and social services, debt burden and limited trade competitiveness. More seriously, the nations in the Caribbean are subject to a wide range of natural hazards – hurricanes, landslide, earthquakes, tsunamis and volcanoes. The value of ICTs particularly in addressing these challenges, as well as improving access to information required for decision making, research and production, is now well recognized as governments continue supporting them as powerful change agents throughout the Caribbean region. Marcelle (2003) sees a great potential for ICT applications in social sectors, education, health, and political participation.

The adoption of ICTs and their role in development in the Caribbean has been debatable with two different views: as movers of development, dealing directly with various development issues, and as contributors to the existing unequal development at the individual and societal levels. This disparity is partially linked to modernization and the industrial economy where large companies create and own the new technologies primarily for the benefit of shareholders. These companies are not overly impressed with ‘development speak’ like building ‘a people-centred, inclusive and development oriented information society’ (Robinson 2003) that is emphasized by the international community, particularly the UNDP.

ICTs have been adapted in the Caribbean to a great extent within the government ministries, a trend that was strengthened by the World Summit on the Information Society (WSIS) in 2003. The summit facilitated the creation of an environment through which the full power of ICT can be brought to bear on the issue of Development, to the benefit of all. Following the summit, a number of Caribbean

government ministries, industry and non-profit organizations, as well as academic institutions, are working diligently to establish ICTs as an important tool for information transfer, performing transactions, and capacity building.

The Caribbean governments have been desirous to bridge the digital divide and this has contributed to a variety of efforts that focus on the goal. This desire is also associated with the Millennium Declaration of the UN that called for urgent action to address the 'digital divide'. This call is addressed to governments, public and private sector, and to multilateral organizations to give high priority to the matter of access to ICTs for developing countries. Efforts have been made to create forums where government in the region meet to exchange experiences and expertise across the Caribbean region, so that that *lessons of best practices* can be derived and shared by means of capacity building. In this regard, the Government of Italy through the United Nations Department of Economic and Social Affairs (UNDESA) in collaboration with the Caribbean Centre for Development Administration (CARICAD), a specialized institution of the Caribbean Community (CARICOM), has supported two ministerial consultations and high level workshops on capacity building in public administration and governance. The International Institute for Communication and Development (IICD) has also facilitated a National Roundtable on the use of ICT in agriculture where participants were invited to develop project ideas which would best demonstrate the use of ICT in agriculture (Freckleton 2002).

A follow-up Ministerial Consultation was planned in Jamaica two years later, with financial support from the Government of Italy, to discuss e-Government and ICTs for public sector management development (UNDESA 2001). One of the positive outcomes of the fora has been the recognition of the importance of an IT strategy, particularly in information dissemination and ensuring access to information and freedom of expression as indicated in the Caribbean Charter of Civil Society. In the Charter, governments are urged to respect, encourage and promote the existence of a diversity of sources of information as a means of ensuring greater public access to information (CARICOM 2004).

The advent of ICTs introduces a broader range of options for maximizing opportunities for Small Islands Development States (SIDS) economies. It is proposed that using ICTs to promote sports like cricket and soccer, music and other cultural activities could contribute to the islands' economies. In music, ICTs would enable musicians to compete and win in major overseas markets. The Jamaican music industry is already a major earner of foreign exchange and provider of creative employment opportunities for a large number and diverse group of Jamaicans. Jamaican music producers have managed to remain at the cutting edge of digital audio technology with more than 60 professionally equipped recording studios in Kingston alone. These studios are outfitted with computers, the latest in digital audio production software, and are also connected to the internet. The use of the internet for buying, selling and listening to music, websites for display of public relations information, and the use of digital technology for recording and duplicating music, adds to the variety of ways in which the Jamaican music product can be sold (Stanbury 2003).

In addition to music, the Caribbean region is blessed with a salubrious climate, abundant natural resources, and a young vibrant population. The region however consists of small open island economies which have also been perennially buffeted by the winds of change that make the region vulnerable from increased mobility of human capital, goods and information.

Natural and other disasters including hurricanes, earthquakes, communicable diseases and other epidemics often cripple SIDS economically, and can lead to widespread human misery. Access to ICTs can be crucial in mitigating these effects as was recently observed during the hurricane season. During the 2004 hurricane season that devastated the Caribbean Islands, access to and use of ICTs became extremely crucial. In Jamaica, for example, telephone companies including mobile phone companies remained in operation throughout the disaster period. The cell-phones were associated with saving thousands as many people called upon their friends, neighbours, the media and the police for help like in a case of a pregnant woman who called upon the police to assist in her premature delivery when nobody else could reach to her. As part of their post-hurricane support, mobile generators were provided by cell phone companies ensuring connectivity throughout the disaster period until the regular power supply was back in operation.

ICTs in Jamaica

Like other developing countries, ICTs have been recognised as an integral part of development in Jamaica with full support from the government. Given the availability of infrastructure, service providers and government support, ICT implementation has emerged quickly island-wide. In terms of infrastructure, by 2003 there were about 444,400 telephone lines, 1.4 million mobile phones and about 600,000 internet users. Since then, there are more people, particularly women and the youth who now have purchased cell-phones as more companies compete for customers, breaking the monopoly of the original service provider for both land lines and mobile networks. In terms of electricity, which is essential for connectivity, Jamaica has a surplus of electricity generation which stands at 6, 272KW. The number of computers per 1000 household is 18.74 and the number of internet subscribers is 2.69 per 100 persons in 2001 (CITO 2001). Personal computers are becoming more affordable with, for example, with new Dell model costing as low as US\$ 400 and being sold in a payment plan. However, with the internet cafés blooming throughout the region, and the increasing connectivity in the public and private sectors, access to internet does not require access to a telephone line or ownership of a computer.

The government has made the integration of IT into the economy a high priority and strategic imperative. The Ministry of Commerce has spearheaded this effort by having recently added 'Technology' to its name to read Ministry of Commerce, Science and Technology. With support from a \$17 million loan from the Inter-American Development Bank, the Ministry of Industry, Commerce and Technology was strengthened to enable it to continue to play a leading role in increasing e-readiness. The resources are being used to support the greater use of the internet to enhance the transparency and efficiency of government. Part of this has been training for up to 900 persons in ICTs. The focus has specifically been on the public

sector, which over the years has lagged behind in the quality of services provided. These services to the public are poor and characterized by cumbersome procedures; long delays; unsatisfactory resolution of problems faced by clients; high private costs of compliance with laws and regulations; and discourteous behaviour (UNESCO 2002).

A Jamaican IT strategic plan was developed in January 2000 and updated in March 2001, and is currently being finalised. This strategy, spearheaded by UNESCO, promotes ICTs in Jamaica and the wider Caribbean Region for investment, social-cultural, economic, political and education achievements. The strategy takes a three-pronged approach that envisages transformations (1) in human resource development (2) in infrastructure and (3) in the enactment of an enabling legislative and policy framework. The strategy aims at promoting Jamaica as a Caribbean hub for IT activities and investment generating over 40,000 IT-related jobs (UNESCO 2002).

The Jamaican government is also working collaboratively with the IICD to support the establishment of ICTs in the agricultural sector as a strategy for improving the production and marketing of agricultural commodities. Through ICTs, information on prices, volumes, logistics, best practices and intermediate services would be made available to farmers. The provision of information was planned to take place either in a telecentre or via extension officers who would give the information to farmers in printed form or face-to-face. After only one year, it was reported that there was a tangible impact on farmers who are no longer forced to depend on middlemen to market their crops (Freckleton 2002). In addition, out of an IICD ICT Roundtable held in Kingston in July 1998, a Computer User Television Show emerged as a means to effectively disseminate useful computer knowledge.

Situation in other Caribbean countries

Several other Caribbean countries, including Trinidad and Tobago, Barbados, and the Bahamas and Guyana are now pursuing ICT policies for social and economic transformation (Robinson 2003).

Trinidad and Tobago

Trinidad and Tobago has a small population of 1.2 million with a literacy rate of 98.5% in 2002. Over the years, there has been a fairly low percentage of internet use, and access in the academia was limited to universities, private schools and some semi-private high schools. In recent years, the government has placed emphasis on ICTs to integrate the nation into the networked world which has resulted in the popularity of internet cafes as a means of urban access to the internet due to low household PC penetration.

In recognition for the role of ICTs in national development, the government of Trinidad and Tobago has also put emphasis on building an export-oriented software and ICT services industry. The government has developed a science and technology park to attract local and multinational ICT services industry, reducing the regulations that limit ICTs and starting a multi-stakeholder consultative process involving government, private sector and civil society. There are many B2F (business to

financial sector) e-commerce websites but few online transactions are taking place in the country. One potential avenue for extensive B2C (business to consumer) e-commerce use may be tourism, a sector in which the island still lags behind most of other Caribbean countries.

By 2002, a draft policy was developed through the Ministry of Information, Communication and Technology, incorporating e-government awareness; gender perspectives to enhance women's capabilities; and health, security, and education and training for sustainable development. In an effort to close the digital divide, the Trinidadian government has put more effort and support into digital opportunities. Part of that effort goes into ICT training which is now a high priority for many organizations, as well as the establishment of the legal and functional framework through which ICTs are governed.

Barbados

Similar success has been found in Barbados, a much smaller but more developed Caribbean island. The island is also better connected providing links to other islands particularly in the promotion of tourism in the region. Barbados.org search engine (www.barbados.org) is a good example of ICT development, and also serves as a link to other islands. A recent newswire article reported on a survey of the major search engines and Barbados.org was more widely linked than any other Caribbean Island, beating Mexico, Jamaica and every Caribbean destination, even the Caribbean Tourism Organisation site. According to the article, the site has come to be regarded as the online Encyclopaedia of Barbados. Success in Barbados' connectivity is associated with the economy, the development of a policy and IT strategies, all of which recognize the role of ICTs in development. The available infrastructure allows access and use of ICTs throughout the Island.

Other countries

Although not all Caribbean Islands have the capacity to do as well as Barbados, there is a great effort in the region in the adoption and adaptation of ICTs in various sectors. Recently governments that had previously resisted the influence of ICTs for political, economic and ideological reasons have now joined the bandwagon, playing an active role in their implementation. The Mexican model, followed by Cuba, recognises the strategic importance of ICTs for national development and therefore emphasises connectivity. Several programmes have been implemented to ensure connectivity (Finquelievich 2003). The model is, however, not without criticism particularly when viewed from a development perspective as ICTs are not related to strategies to fight poverty, or encourage local development.

Some Caribbean countries, such as Haiti, face difficult challenges and are still struggling with the adoption of ICTs. This slow pace is probably associated with the political climate in the island which has also directly affected infrastructure that is critical in the development, access and use of ICTs. Over the recent years, private organizations and NGOs have attempted to move this forward, stimulating the public and private sector, and universities to initiate access to and use of ICTs. The Haitian

Internet Summit took place on December 2001 and published a document with a number of presentations covering several aspects of ICTs for the country. The document has input from Government officials, professionals and experts on matters such as infrastructure, e-commerce, telephone and internet access, regulation and legislation. This preliminary document will serve as the basis to the elaboration of a National Policy Document. With the help of the United Nations Institute for Training and Research, the Network of Sustainable Development in Haiti (RDDH) is pushing the development of the policy with financial and technical support from the UNDP Haiti.

Other challenges in the adoption and use of ICTs in the wider Caribbean as noted by UNESCO include the bureaucracies where compliance with laws and regulations takes precedence over achieving organizational objectives. In turn, this reduces responsiveness to emerging situations and discourages innovation (UNESCO 2002). Decision making is hierarchical and most decisions get pushed up to the senior level where such officials regard themselves as policy makers, controllers or regulators, rather than facilitators of ICT adoption and use. Marcelle (2003) also noted that, although ICTs are relatively affordable for the mass of the Caribbean population, the high levels of monopoly, small land mass and population size, sluggish implementation of new technologies, and low levels of innovation in deployment of applications, as well as the unmet demand for a regional infrastructure, all contribute to the challenges in the adoption of ICTs in the region. In spite of these challenges, the enthusiasts and proponents of ICTs in national development continue to push the technologies as tools to access, utilize and share information and knowledge, and to enable individuals, communities and peoples to achieve sustainable development and improve their quality of life.

ICTs and gender empowerment

Within the context of gender, ICTs have a totally new meaning mainly because of their role as an empowerment tool for resistance, social mobilization and development in the hands of people and organizations. ICTs have mainly been adopted to support women's empowerment through application of ICTs in health, education, trade, employment and other aspects of women's development agenda. This is where programmes see technology as the change agent and have integrated ICTs in their daily activities using them as tools to achieve their overall objectives. Various technologies have been incorporated into the efforts of gender empowerment and development from various perspectives whereby access to and control over information is seen as central to positive change for women. This access includes the online sharing of information and the creation of new cyber-communities, crucial to women's education and political organization (Robins 2002). The integration perspective recognizes that both the technology and the content are interdependent. Rather than focus on the outcomes of technology, this more integrated perspective focuses on ICTs as part of larger socio-technical processes that interact with both cultures and technologies and occur in specific contexts (Cooks and Isgro 2003).

NGOs in various parts of the world are now using the internet to network with others in the same field and for advocacy. Others have taken upon themselves to provide ICT

training and services among women. In Kenya, for example, a multipurpose project on community telecentres networks for African women provides public telephone services, fax and internet connectivity and e-mail to its members and the wider communities. The project supports services in education, health, government, e-commerce, advertising and announcements. Under the project, women are trained on basic computer skills to enable them to operate and manage the centres. The technologies have also been pushed to ensure that local knowledge, including local gender knowledge, is given importance in the media content. One of the most successful information networks for women is in Latin America where a gender and ICT project was initiated following an urgent need for news with a gender perspective. A group of women started *Mademmujer*, an information and communication network that aimed to strengthen women's participation in Mexico (Plou 2003).

Several other NGOs in the developing countries strive to incorporate ICTs in their project activities, creating websites and sometimes spending a fortune to hire technical support to maintain them. While some do so for connectivity, networking and sharing information, there are a few who use the internet to meet the demands of their funding agencies. It is not uncommon for the same agencies to request website information to validate NGO existence as a prerequisite for financial support. Some NGOs take advantage of the technologies using them to promote their activities as well as for advocacy, public relations and fund raising. These organizations recognize the benefits of publicity and public recognition for women in contexts that would otherwise have remained peripheral or invisible.

In Jamaica, for instance, the Women's Media Watch, an NGO that focuses and monitors the media coverage of gender-related issues in the Caribbean, has successfully used the media and other technologies to put the organization in the limelight compared to other NGOs of this calibre. The organization focuses on ICT training, offering computer courses to its members free of charge and at a time that is convenient for them. The organization also provides internet access to its members, all of whom are volunteers. With the current connectivity and use of ICT for networking and communication, encouraging online discussions rather than face-to-face, unless when absolutely necessary, the organization has attracted high profile women in the island and abroad, thus earning its credibility from the local and international agencies.

Programmes with a strong background and use of ICTs and targeted toward women in the Caribbean have addressed issues such as violence against women, literacy and human rights. The main objective of these programmes, however, has been to link NGOs throughout the nation or internationally through the internet. The UNIFEM's Violence against Women programme uses ICTs to provide women with a forum for addressing issues that previously had remained hidden to local communities and the wider world (Cooks and Isgro 2003). NGOs have been pressing for more specific principles, including the guaranteeing of gender equality within the emerging information society, by introducing it into all proposals, action-plans and follow-up programmes. This is in the context of the Convention for the Elimination of Discrimination Against Women (CEDAW) and the Beijing Platform of Action which emerged out of the 1995 World Conference on Women. These international

conventions led to a consensus that women's rights are human rights thus denouncing all forms of violation of these rights among women and girls (UNESCO 2004).

Globally, there is a realization that women, particularly those in rural and poor communities, shoulder more responsibilities in their societies particularly in taking special care of the more vulnerable members of the society. In many developing countries, rural poverty has taken a female face where women are extremely marginalized in asset allocation. Through effective use of ICTs, women are able to produce more and market their agricultural products as well as compete in the global market. A good example is JaBlum coffee produced in a small home in the Jamaican Blue Mountains but sold online to the world market.

There are several ICT-related success stories from the Jamaican agricultural sector. The recognition of the opportunities associated with ICTs has prompted the need for training among women in the sector. Through a series of workshops, the Jamaica Organic Agriculture Movement trains women farm entrepreneurs on ICT tools and services. This training is conducted with support from Networked Intelligence for Development, a Canadian-based organization that supports communities in developing and transition economies to assist them to harness the opportunities of evolving ICTs and to establish their identities in the information era. Topics covered in the training include the following: internet use for both personal and business needs including internet search for information on trade and marketing activities and opportunities; participate in a virtual expo; sharing of new agricultural practices, product processing, export and information management methods among other topics.

ICT training has become one of the critical skills necessary to compete in the labour market for women in the Caribbean. In Jamaica, two government-supported institutions offer IT training – the HEART Trust/National Training Agency has offered a range of courses since the mid-1980s. These include MS Office, basic and intermediate information technology, call centre worker training including data entry, and training in networks, as well as training in programming in concert with the Caribbean Institute of Technology. Female enrolment in lower level IT training courses has ranged around 70% since 1999, having been as high as 83% in earlier years. The programming course that came on stream in 1999 – interestingly, has had more male participation leading to the conclusion that, 'certainly more males continue to move into programming; more females into data-processing.' (Francis-Brown, 2003).

Gender gap

A gender-gap exists in the access and use of ICTs in both developed and developing countries. The internet use, for example, has become a home activity because almost one-half of the homes have internet access in the developed world whereas, except in upper income groups, home access to a computer (and to the internet) is not a widespread phenomenon in developing countries. Studies indicate that men are more likely than women to use the Web to read news, seek financial information and trade stocks online, participate in online auctions, access government web sites and search

for sports news. Women, on the other hand, are more likely to seek health information and play online games, and are more inclined than men to get religious information and research new jobs (Pastore 2000).

Most Caribbean women access the internet at the work place rather than at home or in internet cafés. With about 80% of the workforce being female, ICTs are more accessible to women than to men. In Trinidad and Tobago, even with the adoption of cell phones and increased telephone connectivity, call centres are still popular because they provide cheaper telephone calls and easy access to the internet at the same location. In the Caribbean, these centres are a key employment resources for many women, particularly for marketing and customer service, although the more senior and skilled jobs are taken by men. With the outsourcing of labour now prevalent in the USA and other developed countries, these centres have become major employment sites for women who, in addition to learning the skills have to assume an American accent.

Women are employed in the wider technology markets as typists, and as data entry and processing clerks. Existing research on employment in the sector, from the late 1990s, touches on the cases of Barbados and Jamaica, where free zone enclaves have encouraged teleworking. Leith and Hopeton Dunn (1999) and Carla Freeman (1998) exploring the use of ICTs by women found that women are overwhelmingly employed at the lower end of the technology market in Barbados, doing basic data entry and data processing. Medium and high-technology jobs, involving scanning, imaging and software development and installation, training and repairs, are male dominated. The gap in wages and working conditions is also wide. Freeman does note though that at a Dominican Republic sister plant to the one she studied in Barbados, around 40% of the data processing operators were male. She posited the draw of computer technology, increased unemployment, and students earning funds to further their education, as factors there.

Throughout the Caribbean, agencies, governments, networks and organizations that have started to incorporate a gender perspective in their initiatives struggle with the imperative to align their ICT programme objectives (and within that, their gender and ICT policies) with poverty reduction strategies and the Millennium Development Goals, which now underpin much of the ICT for development agenda. While the problem of a gender digital-divide is more widely recognized, there is little understanding of how ICT policies, programmes and projects in any context are changing women's impoverished state. Similarly, little attention is given to how information and communication flows are affecting women's rights. There is little effort to develop effective mechanisms for ensuring equal participation of women in all levels of policymaking that genuinely contribute to addressing inequalities and disempowerment. A gender imbalance is, however, clear in tertiary level education where more women than men are pursuing a higher degree. The University of the West Indies, for example, is composed of 80% women while only 20% are men. This imbalance is reflected in the world of work where more workers, particularly in the lower levels, are women, compared to the very few men who occupy the top decision-making positions.

ICTs and health communication

Health communication has taken huge strides in the recent years through research and the use of various communication strategies and tactics, whether through mass media health campaigns or simply sending out specific messages to specific audiences. Health communication stresses use of a variety of communication strategies that will increase understanding between communication sources and their target audience. The goal of health communication is to create a demand for information and services, and promote those services for the promotion and maintenance of health and well-being. Integration of ICTs in achieving this goal has become crucial, particularly in strategic communication for behaviour change.

Behaviour change communication (BCC), the current ‘buzzword’ in health communication, is a combination of communication strategies to reach a target audience and to attain their participation in the communication process. The BCC approach focuses on increased understanding of the need for behaviour change but, at the same time, also takes into consideration other factors causing the health problem (Rice 2001). Communication and behaviour change programmes target certain behaviours and addresses them strategically and appropriately through use of, for example, ICTs. Strategic communication replaces the traditional doctor-patient, one-way, source-oriented communication and includes use of audience-centred communication strategies for different segmented audiences rather than the general use of the mass media to reach the general audience.

Women’s health concerns in the Caribbean are several, ranging from cancer, diabetes, cardiac problems, nutrition and weight issues. Most serious is HIV/AIDS which is now becoming a woman’s problem. Health organizations are increasingly using the internet to disseminate information on these and other problems, although the information is generally not directly targeted at women. How many women access online health information is an area of research focus.

ICTs have also been used in other areas that address health and gender with support from the local and the international community. An example of this is the recognition of their role in the promotion of the gender and reproductive health issues, particularly their ability to reach women of various backgrounds with information and education on matters that affect them directly. The 1994 Plan of Action, that came out of the International Conference on Population and Development in Cairo for instance, emphasizes the use of communication technologies to meet IEC (Information, Education and Communication) for reproductive health decision making among women. It is now common for NGOs in the family planning and reproductive health field to use their websites and other technologies, including CD-ROMs, for packaging and disseminating information. Engender Health and Family Health International, both international NGOs, are good examples, producing materials and training manuals on the topic. More organizations have gone a step further to develop materials for a variety of audiences, including the media for easy access, understanding and use of the information.

Online resources in the health field

The effective use of ICTs in the health sector is only now being recognized compared to other development areas. In Jamaica, for instance, the health sector has been lagging behind in the adoption and use of ICTs compared to agriculture, which has received much support internationally in the adoption and application of ICTs. In an attempt to assist the health sector with the adoption and use of ICTs, external agencies have, over the last decade, intervened and initiated training and capacity building for persons working in the sector. The Peace Corps Health Volunteers for example, assisted their counterparts with the creation of the South-East Regional Health Authority website. The website provides information about the pools, tourism establishments, and food-handling establishments that have passed health inspections; HIV resources in southern and eastern Jamaica; and hospital locations and contact information. The site also contains job listings and media coverage of events in the region.

Over the recent three to four years, adoption and use of ICTs in the health sector is becoming more visible with the Ministry of Health taking the lead in terms of web development and using the internet for information dissemination. The Ministry now has a fully developed website with current information on existing programmes, national health data, current events and activities as well as contact information for key resource persons. The Ministry's website has become an extremely important resource for researchers and students particularly with current information on HIV/AIDS and other health problems.

Similarly, the National AIDS Committees (NACs) in the region, are a major resource for HIV/AIDS information and data. The Jamaican NAC website, for instance, provides important current data and links to the HIV/AIDS situation locally and globally, providing links to the international agencies and current issues in the prevention activities. The Caribbean AIDS Telecommunication Information Network also seeks to improve the health status of participating countries through an increased awareness of the impact and prevention of sexually transmitted diseases, HIV and AIDS. Its website has become an important resource for journalists, researchers, students and others.

Another important online resource for health in the region is the Caribbean Epidemiologic Centre (CAREC). CAREC has linked various websites belonging to the key health organizations including the Pan American Health Organization (PAHO) with offices in Jamaica and Barbados. The organization has encouraged the media in promoting health in the Caribbean, establishing a competitive health journalism award that encourages and rewards the region's journalists for the wide coverage of health issues. In addition, a discussion forum for journalists had yielded great interest on health topics among media personnel.

Connectivity for health purposes and the importance of the internet as an important health resource is recognized by the CARICOM and was included in their Agenda 2003 and the Platform for Action. As indicated in the CARICOM agenda for 2003, each Caribbean country should determine for itself how best to assess its readiness to develop an Agenda for Connectivity, and the level of analytical detail needed for its

ongoing work. One of the areas that required urgent connectivity is health (in addition to education, e-governance, e-commerce), where each country is informed of the importance of connectivity and the advantages to society, particularly in the provision of broadly based public health services.

Other ICT-based approaches to health

In Jamaica, the Telemedicine Research and Development Unit at the University of the West Indies has recently developed a seven-step, integrated telemedicine programme known as 'The Caribbean Model' which, when implemented, will allow patients to have immediate access to their doctor or medical records, using their telephone as a starting point. This project involves use of ICTs in the management of health information to create the conditions for patient access anytime, anywhere, mainly through the phone and internet. This project is made possible with the current access to the cell phones in the island.

Other ICTs used to promote health in the Caribbean include use of videoconferences. This technology has been developed extensively through the two main universities in the region, the University of Technology and the University of the West Indies. The University of Technology in Jamaica has, for example, recently launched the Technological Innovation Centre as part of the World Bank-backed Global Development Learning Network. Similarly, the University of the West Indies Distance Education Unit is used as a teaching channel throughout the Caribbean.

Other developments from an institutional perspective include the University of the West Indies' School of Nursing which, with support from the Commonwealth of Learning, now has a fully developed online programme that is offered throughout the region. More recently, the Caribbean Institute of Media and Communication launched a graduate programme that stresses the use of ICTs. The programme is designed with heavy emphasis in health communication and utilizes computers and other technologies for course delivery. Each student is equipped with a laptop computer with a wireless internet connection to enable them to access online materials while in class. Like other university programmes, the majority of participants are women (90%) thus giving it a strong gender component. The courses offered have paid much attention to gender and health issues in the Caribbean. These issues include gender and youth empowerment, prevention of gender-based violence and other crimes directly affecting women and youth, as well as prevention of reproductive health problems including HIV/AIDS.

Conclusions

The view of ICTs role in the development of the Caribbean region has contributed to their successful adoption and adaptation with much support from the private and the public sectors. The current efforts and interventions to incorporate ICTs in development activities have proved that there is great potential and great demand for ICT development in the region. The governments have provided support, not only through infrastructure but in enabling the development of policies and IT strategies that guide the adoption, access and use of the available technologies.

Training for ICTs has been one of the interventions for addressing the digital divide with government and private sectors establishing training centres throughout the region. Other interventions have included the development of IT policies and strategic plans across the Caribbean islands. Their development and implementation has, however, been hampered by the bureaucracies within the governments and delay from the top decision makers. Many agencies have therefore continued working with draft policies, most of which have been criticised for incompleteness. In general, the policies have been found to be gender-blind or gender-neutral, not addressing issues that directly affect women, and adopting technologies that are not women friendly. Also, there continues to be a serious lack of acknowledgement and commitment to redressing gender imbalances by ensuring that women participate and benefit from the emerging global knowledge-based economy at all levels. Few studies conducted on gender and ICT have indicated a lower internet access among women compared to men. However, such data are missing for the Caribbean region. There is a need for a large scale study to determine access and use of the internet and other communication technologies in the region.

Organizations in the Caribbean have been incorporating ICTs in their projects, using them to network with a variety of agencies as well as search for support internationally. Those actively involved in advocacy and networking, for example, require ICTs skills to perform their duties and compete in today's world. Bringing NGOs, particularly those dealing with gender issues, into the limelight has contributed to their support from the international agencies. This role of ICTs has been appreciated by both the NGOs and the international community where collaboration has become a much easier process, particularly where the latter sets the agenda. There is, however, still a great need to close the gender gap in the access and use of ICTs.

The role of ICTs in addressing health and other issues that are gender specific is an area that requires research focus. Telemedicine also has been found to be a cost and time effective remedy for shortcomings in the medical system whereas other technology becomes necessary in the maintenance of a good health system: laboratories, economical and methodological drug distribution (group purchasing of medicine), and pharmacy benefit management.

Evidence from the Caribbean indicates that empowering women through ICTs requires more than just introducing them to computers and other technologies. Even where the infrastructure and technologies are available, more women in the Caribbean still use them for basic functions. Computers, for example, are used for word processing, checking e-mails or accessing the internet (mostly at the workplace) while access at home remains limited. The implication here is that social, cultural, economic, geographical issues are associated with the adoption and use of the technology. These issues determine who has had access to what technologies and how to use them effectively, limiting the potential for the technologies in addressing some critical development issues particularly those associated to women and development. It is clear from the studies cited here that ICTs by themselves cannot transform the lives of women for better or for worse. They are not an end in themselves, rather as tools that speed up the achievement of economic and social goals.

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Annotated bibliography and web resources

A guide to the bibliography: explanation of the records in the bibliography

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1) 004 2) Empowerment and governance through information and communication technologies: women's perspective

³⁾ NATH, VIKAS. ⁴⁾ *International Information and Library Review* 33(2001)4, p. 317-339, ⁵⁾ lit.refs ⁶⁾ ISSN 1057-2317

The avenues created by ICT-enabled networking processes for women in the areas of empowerment and governance are explored, along with the obstacles encountered when engendering these processes. It is argued that in the context of the knowledge sphere, the issues of gender equality, equity and empowerment of women are even more significant as women have a strategic role in the incubation and transfer of critical knowledge which often forms the blue print of survival for communities to adapt and minimize their risk in adverse circumstances. Positive examples of ways in which ICT has helped women are given, such as the e-commerce activities of the 'Rupununi Weaver's Society' in Guyana, the GrameenPhone company's activities in Bangladesh, a Ukrainian telecentre project, and India's Gyandoot intranet project.

KIT Library code ⁷⁾ E 2186-33(2001)

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- 2) Original title.
- 3) All authors are listed and entered in the Author Index.
- 4) The reference includes the journal title in full (in italics), the volume number, year of publication (in brackets), issue number, inclusive page numbers as stated in the original document. For monographs, the publisher, place, number of pages and year of publication are given.
- 5) Summaries, glossaries, indexes, illustrations and literature references are also noted.
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Annotated bibliography

001 Advancing rural women's empowerment: ICTs in the service of good governance, democratic practice and development for rural women in Africa. Papers and resources

WomensNet, Johannesburg, 2004

Women's Net hosted a regional workshop which was held in Johannesburg, South Africa, February 23-25 2004, with the support of the Dimitra Project of the Food and Agriculture Organization of the United Nations (FAO). The workshop brought together women's organizations, government officials, and gender and development practitioners and researchers involved in gender and ICT projects and initiatives. The role of ICTs such as telecentres, radio, television, and technologies to improve access to ICTs to improve rural women's empowerment were discussed. The site contains conference presentations, papers, background information, links and outcomes and results.

http://womensnet.org.za/dimitra_conference/papers.shtml (accessed at 27-10-2004)

002 An alternative to literacy: is it possible for community video and radio to play this role? A small experiment

Deccan Development Society, Hyderabad, India

Development groups working in rural areas suffer from a feeling of inadequacy if they are not pursuing literacy programmes. They may be doing excellent work through harnessing people's knowledge in the fields of forestry, fisheries, and natural resource management, for example, but literacy programmes relentlessly haunt them. The irony is that in most of these activities literacy has very little to offer. A small experiment carried out by the Deccan Development Society (DDS) among disadvantaged women in the Medak District of Andhra Pradesh, India, illustrates this point. Seven dalit women were taught how to operate video cameras, edit their shoots, and make their own stories over an eight-month period. The objectives, methodology, outputs and linkages, findings, recommendations, and philosophy

behind the DDS project were outlined. The project demonstrated that non-literate women can turn into excellent videographers, that being non-literate is no barrier in learning video as a mode of expression, that video can be a very effective tool for use by non-literate rural people to express themselves to the outside world, and that in their ability to understand and express themselves through video, the non-literate women were in no way inferior to their urban counterparts who came to media education with formidable academic backgrounds.

<http://www.ddsindia.com/video.htm>

(accessed at 27-10-2004)

003 Engendering management and regulations of ICTs: narrowing the digital divide for women

ANAND, ANITA; UPPAL, MAHESH. United Nations International Research and Training Institute for the Advancement of Women (UN INSTRAW), Santo Domingo, 2002

Regulation as a tool for desired development outcomes in the communications sector has been the subject of much recent work. However, its use as a tool specifically for gender equity is relatively new. It was argued that the present lack of gender-sensitive regulation is preventing women from accessing many services and exploiting the many potential opportunities that ICTs offer. Ways in which regulation could assist in gender-balanced ICT use were subsequently explored, with a special focus on the nature of specific regulatory interventions required to meet women's needs. An analysis was made of the regulatory options in effective delivery and pricing of critical services to those without adequate access to infrastructure and content. Ways in which regulatory frameworks for the ICT and related sectors can create an enabling environment for women entrepreneurs and workers were also examined. Finally, some emerging trends and best practices in the sector were highlighted in order to explore replicable models for gender-balanced regulation and

management policies and practices. It was concluded that women's ability to benefit from ICTs depends largely on how successful they are in weaving their ICT agenda into the national policies and regulation of this sector.

http://www.un-instraw.org/en/docs/gender_and_ict/Annand.pdf (accessed at 1-11-04)

004 The AWORC research on the use of information and communication technologies by women's organisations in the Asia-Pacific region.

Reference reading

Women's Electronic Network Training (WENT), 2001

Today, women around the world use mailing lists, create websites, and participate in online working groups. They also combine the use of more accessible and traditional technologies with new technologies such as the internet. All this is a far cry from the early days when women's organizations first began to experiment with the use of computer-mediated communications in the early 1990s. In response to the absence of any statistical data on the percentage of women's organizations that are currently accessing any of the ICTs, the Asian Women's Resource Exchange (AWORC), in collaboration with other organizations, decided to carry out a national survey in 2000 to study and document how this trend was developing. Three separate reports are presented pertaining to Asia, the Central Asian Republics, and the Caucasus and the Pacific. They set out to cover the level of ICT use among women's groups, their training and networking needs, and how ICT is used in their work. Each report includes a profile of the women's organizations surveyed, an overview of the information and communication sector in that region, a summary of the report's findings, and a summary of recommendations.

<http://www.aworc.org/went2001/tracks/joint/all-aworc-research.doc> (accessed at 27-10-04)

005 Harnessing ICTs for advancement of rural women: FAO perspectives and strategic actions

BALAKRISHNAN, REVATHI. *FAO Working Paper*. Food and Agriculture Organization (FAO), Rome, 2002. United Nations Division for the Advancement of Women (UN DAW), Expert Group Meeting on 'Information and communication technologies and their impact on and use as an instrument for the advancement and empowerment of women', Seoul, Republic of Korea, 11-14 November 2002

ICTs can help rural women to expand their knowledge and enhance their abilities to negotiate for their resource share and participation. Driven

by its mission to achieve sustainable food security, the Food and Agriculture Organization of the United Nations (FAO) is trying to improve rural women's choices in technologies and access to agriculture information, inputs and services, support them in their livelihood strategies, and enhance their welfare. FAO's experiences and activities in this area were outlined in two parts: (1) possibilities and barriers to harnessing ICTs for the advancement of rural women; and (2) FAO in development communications and ICTs for gender responsive development. It was stressed that, when designing ICT applications for rural women, a broader view of rural life should be adopted, particularly with regard to rural community service and resource needs, and rural women's role as a stakeholder in rural enterprises and related service and resource needs.

<http://www.un.org/womenwatch/daw/egm/ict2002/reports/Paper%20by%20FAO.PDF> (accessed at 27-10-04)

006 Muslim women on-line

BASTANI, SUSAN. *Arab World Geographer* 3(2000)1, p. 40-59, 27 ref. ISSN 1480-6800

Online communication is a new way of building and maintaining human relationships. Geographically dispersed individuals are able to communicate at a speed and cost superior to telephone, mail, and face-to-face meetings. It is important to study the impact of the development of this new mode of communication on human relationships. An examination was carried out of online interaction among a particular group of Muslim women, those taking part in the Muslim Women Network, and the kinds of support they provide online. This was illustrated with many examples of the different kinds of messages that were posted. Both participant observation and interviews indicate that members who are socially and geographically isolated and live away from Muslim communities attempt to gain more information and support online. These women are among the 'active' members and look for more face-to-face and off-line interaction to reduce their feelings of isolation. Other types of support which these Muslim women provide online are also explored.

KIT Library code H 2465-3(2000)1

007 An analysis of infoDev case studies: lessons learned

BATCHELOR, S.; SUGDEN, S. *Information for Development Program (infoDEV)*, 2003. Seventeen InfoDev projects conducted primarily among the poor in Kenya, the Philippines, Brazil, Colombia, Nigeria, Russia, India, Senegal and Peru were examined. The function filled by ICTs in the projects falls into five categories: (1)

information technology training and telecentres: projects that taught poor individuals basic computer skills and how to access the internet; (2) networks and partnerships: projects that used ICT to enhance and build networks and partnerships to improve health care, expand the market reach of small and medium-sized enterprises (SMEs), facilitate inter-organizational knowledge exchange, or develop and share educational resources; (3) e-commerce: projects to help users develop online catalogues, create websites, etc.; (4) e-services: projects that gave users access to market information through ICT, for example: weather reports or financial forecasts; and (5) radio and education: projects that used ICT to distribute education and news content to radio stations, broadening educational opportunities and community awareness among the rural and urban poor. A sector by sector breakdown of the projects was also presented. Eighteen lessons learned were then listed, followed by eight recommendations and eleven guiding principles developed by the Department for International Development (DFID). Finally, concrete steps were suggested for designing and implementing future infoDev ICT for Development (ICTD) projects, concerning project design, choice of technology, and training.

<http://www.sustainableicts.org/infodev/infodevreport.pdf> (accessed at 27-10-04)

008 The Zapista rebellion and the use of technology: Indian women online?

BELAUSTEGUIGOITIA, MARISA. *Indigenous Affairs* (2003)2, p. 18-25, ill., 14 ref. ISSN 1024-3283

Ways in which the internet has disseminated, shaped, and constructed the image and discourse of the Zapatistas were described, with particular reference to the indigenous women in Mexico's Zapatista movement. Specifically, the 'line' of mediators, spokespeople, voices, resources and strategies that have been involved in the Zapatista struggle for equality was analysed. In January 2003, twenty thousand Zapatistas demonstrated in San Cristóbal de Las Casas, demanding a resumption of the San Andrés Accords, which had been thrown out earlier by the government in 2001. One of the most visible and vocal Zapatista leaders at this time was Commandante Esther, which showed a marked shift in the forms of Zapatista representation as they now include Indian women in their leadership. The communications strategies of the Zapatista movement were described in this context, including the use of masks, postscripts and the internet. Issues such as the Zapatista women's campaign for the 'right to rest' and

websites related to Zapatista women were also described. In the absence of a 'right to rest', it was argued, how can indigenous women fully benefit from internet technologies?

KIT Library code E 2212-(2003)2

009 Connecting farmers worldwide through radio

BENNETT, NANCY. *LEISA*, 18(2002)2, p. 20-21, ill. ISSN 1569-8424

Radio has long been used as a tool for learning and community adhesion. Particularly in remote regions without telephones, people use radio to announce arrival dates, funerals and weddings. People learn about their government's policies and plans on radio, and hear about events and issues in their communities. They also use their local or community radio stations to voice their own views. It was in 1974, at a conference for African farm broadcasters in Zambia, that a group of participants, among them George Atkins, a farm commentator with the Canadian Broadcasting Corporation, first developed the pioneering idea to set up a Developing Countries Farm Radio Network. At the time, African farm broadcasters had little information at their disposal and relied heavily on sales brochures from commercial agricultural suppliers. With start-up funding from Massey Ferguson, Atkins enlisted 36 participating broadcasters in 24 countries. Soon, agricultural researchers and extension workers began providing information that was relevant to small-scale farmers in Africa, Asia and Latin America. Today, 500 radio broadcasters, stations, and training organizations in almost 100 countries participate in Developing Countries Farm Radio Network. Programmes are sent out in over 300 different languages on issues such as how small-scale farmers can cope with HIV/AIDS, how to get and use information about markets, and how cooperative community models can improve rural incomes and the quality of life.

KIT Library code D 2286-18(2002)2

010 Information and communication technology in development: cases from India

BHATNAGAR, SUBHASH; SCHWARE, ROBERT (eds). Sage, New Delhi, 2000. 230 p.

Successful uses of ICTs in rural development in India are documented. Written by administrators who have implemented projects, the 16 case studies spell out various applications of ICTs that have made a difference in the delivery of services and products or which have increased productivity. Among the services covered are health care, milk collection, disaster management, postal services, telephones and services for the disabled. These applications

involve the use of simple and inexpensive technologies at one end, and sophisticated satellite-based communication at the other. They range from those that improve the planning and monitoring of development programmes, those which empower citizens through access to information and knowledge, to those that generate employment opportunities and encourage entrepreneurship among women and men in rural areas.

http://www.worldbank.org/wbi/pubs_case37160.html

(accessed at 27-10-04)

KIT Library code P 00-1171

010a Internet and society in Latin America and the Caribbean

BONILLA, MARCELO; CLICHÉ, GILLES.

Southbound/International Development Research Centre (IDRC), 2004. 436 p. ISBN 1-55250-017-9

This book presents pioneering research that is designed to show, from a qualitative and ethnographic perspective, how new ICTs, as applied to the school system and to local governance initiatives, merely reproduce traditional pedagogical approaches and the dominant forms by which power is exercised at the local level. The studies thus constitute points of departure for further thinking about the need to promote an Internet culture based on the social application of a 'right to communication and culture' and an 'internet right,' that will permit the establishment of true citizen participation and free access to knowledge, with due regard to personal and individual rights such as those of privacy and intimacy. The research contained in this book is designed to foster discussion about the policies and actions that must be promoted for building an internet culture in Latin America and the Caribbean, based on the principles of social and cultural equity.

KIT Library code: order 531374

011 Bridging the gender digital divide. A report on gender and ICT in Central and Eastern Europe and the Commonwealth of Independent States

United Nations Development Programme/United Nations Fund for Women (UNDP/UNIFEM), New York, NY, 2004 ISBN 92-95042-06-9

Over the past decade, the gender and ICT advocacy movement has seen growth at a global level. In Central and Eastern Europe and the Commonwealth of Independent States (CEE/CIS) it has remained in its infancy, with diffusion of its ideas still characteristically ad hoc and fragmented. Gender and ICT advocacy networks, where they exist, are weak and confined to the fringes of a women's movement that is

preoccupied and overburdened by other urgent priorities. This report presents an inventory of gender equality projects and resources for the information society in the CEE/CIS, including references to other resources, relevant websites and contacts. It includes examples of good practice of the use of ICT for Development (ICTD) that may contribute to innovation across the region and thereby contribute to bridging the gender divide in the CEE/CIS region. The focus is particularly on the integration of gender in relation to issues, such as access and control, education, training and skills development, which work towards achieving equal benefits from ICTs and their use to enhance opportunities for human development. It is shown that if appropriately harnessed, ICTs stand to contribute meaningfully to and mutually reinforce the advancement of effective, more expeditious solutions to gender inequalities and women's rights violations, including problems such as gender-based violence or the unequal participation of women in political and economic spheres.

http://web.undp.sk/uploads/Gender%20and%20ICT%20reg_rep_eng.pdf (accessed at 27-10-04)

012 ICTs for the empowerment of indigenous women in Bolivia

BUSTILLOS RODRIGUEZ, NIDIA. Amsterdam, 2001

OMAK, an indigenous women's organization, undertook a study on the accessibility and use of ICTs by Aymara women in Bolivia. The aim was to find out ways to help the women make better use of ICTs as a tool for their empowerment. The findings are reported in seven chapters: (1) the communication infrastructure in Bolivia; (2) the context of the Aymara communities, paying particular attention to communication, local knowledge and the Aymara cosmovision; (3) the position of Aymara women, as well as men, in the Aymara communities; (4) the role of OMAK in the communities, and the work it undertakes to support the women; (5) factors affecting the economic and social empowerment of Aymara women, including women's use of and needs for information; (6) the available traditional and modern ICTs and their potential contribution to empowerment of the indigenous women; (7) the different ICTs that are used for communication within the Aymara communities, and the information strategy, behaviour and needs within OMAK to support the use of ICTs among the Aymara women and thereby contribute to their empowerment. One of the main conclusions is that the use of ICTs makes valuable contributions to the empowerment process because it offers women the opportunity to determine the limits of

interdependency and face the challenges of preserving their customs and their language. One of the recommendations made was that OMAK should use the Aymara language to develop information resources.

http://www.eldis.org/fulltext/ict_bolivia.doc (accessed at 27-10-04)

013 Weaving tapestries of solidarity with virtual thread: information and communication technologies at the service of grassroots indigenous women in Bolivia

BUSTILLOS RODRIGUEZ, NIDIA. *Indigenous Affairs* (2003)2, p. 26-31, ill., notes. ISSN 1024-3283

The Organization of Aymara Women of Kollasuyo (OMAK) is a network of grass-roots women's centres in eight communities, coordinated from a central office in El Alto (La Paz) in Bolivia. The OMAK centres are located in the mountainous areas of Bolivia, in the inaccessible Aymara regions. Given that the only source of information for many of the illiterate, deprived women living in the Aymara regions is word of mouth, it was argued that one crucial aspect of poverty is the poverty of information. Concealing information means that crimes go unpunished and it is impossible to take decisions. When this happens, responsibility is not taken for actions, democracy is weakened, corruption increases and the freedom and dignity of individuals is violated. Against this background, the situation of the women, young people and children who are involved in OMAK's work was described and the ways in which information and communication technologies (ICTs) is helping to improve their access to information in particular and enhancing their knowledge and well-being in general was described. The role of ICTs as instruments of denunciation and monitoring in this context was stressed, including their role as a tool for social development. Finally, it was concluded that the current challenge is a very concrete one for OMAK's leaders: either the indigenous women decide to take their future into their own hands or they leave it to others to decide for them.

KIT Library code E 2212-(2003)2

014 Information technologies to serve the poor: how rural areas can benefit from the communications revolution

CASPARY, GEORG. *D+C Development and Cooperation* (2002)1, p. 4-5 ISSN 0721-2178

Modern ICTs hold great promises for developing countries. However, if they are to benefit the poor their introduction must be carefully examined. This article shows several models of affordable access to ICTs which have

been tried in various parts of the developing world.

<http://www.inwent.org/E+Z/1997-2002/de102-3.htm> (accessed at 27-10-04)

KIT Library code E 2267-(2002)1

015 Providing low-cost information technology access to rural communities in developing countries: what works? what pays?

CASPARY, GEORG; O'CONNOR, DAVID. *Organization for Economic Co-operation and Development (OECD)*, Paris, 2003, 48 p.

The main channels through which ICTs are thought to benefit rural communities are outlined. The main challenges faced by would-be ICT infrastructure builders and service providers in low-income rural areas are highlighted and the main organizational models of ICT access provision are looked at, with a particular focus on their financial sustainability. The technology options, both for transmission and for end-user devices, are examined. Ways of addressing key demand- and supply-side constraints to broader rural ICT access, including the financing of 'universal service' are suggested. Possible policy instruments to support more rapid ICT diffusion, with a strong emphasis on telecoms regulatory reform, are discussed. A summary and conclusions are presented. Provision of ICT access in rural areas is likely to prove most beneficial where complementary infrastructure and services are also made available. In terms of services, access to credit is one of the most valuable accompaniments. Also small entrepreneurs may benefit from IT-enabled business support services and training in small business software applications. NGO's and local governments may also perform a useful public service in initial local content development, increasing the utility of ICT access to the point where a critical mass of users attracts private entrepreneurs into web-based or web-enabled services.

<http://www.oecd.org/dataoecd/13/52/7112502.pdf> (accessed at 27-10-04)

016 Using information and communications technology to reduce poverty in rural India

CECCHINI, SIMONE; PRENNUSHI, GIOVANNA. *PREMnotes* 70. World Bank, Washington, DC, 2002

The experiences in rural India discussed here reveal that ICTs can enhance poor people's opportunities by improving their access to markets and health care. ICTs can also empower them by expanding their use of government services, and can increase security by widening access to microfinance. Low-cost access to information infrastructure is the basic, but

insufficient necessity for reaching poor people. However, even if an information infrastructure reaches rural areas, there is no guarantee that poor people will access ICTs. Many projects that provide internet access in India end up favouring the middle class and educated men. Rural women in particular tend to be excluded because of their restricted mobility, lack of education, and in some cases male control over information and media. Examples of successful projects illustrate the important role of grass-roots intermediaries, local ownership, local languages, and training and awareness in project design.

<http://www1.worldbank.org/prem/PREMNotes/premnote70.pdf> (accessed at 27-10-04)

017 Rural radio in agricultural extension: the example of vernacular radio programmes on soil and water conservation in Ghana

CHAPMAN, ROBERT; BLENCH, ROGER; KRANJAC-BERISAVLJEVIC, GORDANA; ZAKARIAH, A.B.T. *Network Paper/Agricultural Research & Extension Network* 127. Overseas Development Institute (ODI), London, 2003. 11 p.

Radio is a powerful communication tool. Experience with rural radio has shown the potential for agricultural extension to benefit from both the reach and the relevance that local broadcasting can achieve by using participatory communication approaches. The importance of sharing information locally and opening up wider information networks for farmers was explored with reference to the specific example of vernacular radio programmes in Northern Ghana based on research on soil and water conservation. This experience was described in the context of rural radio as a tool for agricultural extension and rural development, with reference to the dramatically changing technology environment that is currently influencing information and communication processes worldwide. Examples of programme messages included: be aware of the dangers of bush burning; consider alternatives to chemical fertilizer such as animal manure and green manure from plants; agroforestry can help to improve soil fertility and prevent erosion so protect and plant trees where possible; and consider investing time in farm improvements using soil and water conservation techniques rather than migrating to urban areas for short-term work. The implications for policymakers of harnessing rural radio to improve agricultural extension were also discussed.

http://www.odi.org.uk/agren/papers/agrenpaper_127.pdf (accessed at 27-10-04)

KIT Library code E 3161-(2003)127

018 ICTs and rural development: review of the literature, current interventions and opportunities for action

CHAPMAN, ROBERT; SLAYMAKER, TOM. *Working Paper* 192. Overseas Development Institute (ODI), London, 2002

The role of ICTs in developing countries was examined, particularly in the rural areas. Looking beyond the current 'digital divide' debate, the potential role of ICTs in the context of current rural development paradigms was assessed. The current divergence between the technology drivers and the potential beneficiaries in rural areas in developing countries was addressed, along with the opportunities arising from the continued convergence of ICTs, old and new. Alternative approaches were considered, followed by a discussion of changing approaches to technology transfer, which drew on lessons from agricultural extension experience in order to illustrate how ICTs could be harnessed for rural development. The challenge of achieving rural development goals by supporting knowledge and information systems was analysed through an epistemological perspective illustrated by case studies from the literature and the authors' own research on the operation of these systems at the community level. The overall focus was on the role of ICTs as flexible and powerful tools for social development through small scale strategic interventions, linking to, and extending beyond, formal and centralized systems that operate on a larger scale. Pursuing 'universal access' and 'one size fits all' applications to 'bridge the digital divide', it was argued, ignores the real potential of ICTs to be used locally to enable those individuals and institutions that are the priorities of rural development strategies to access the information that is relevant to their own multi-dimensional livelihoods.

http://www.odi.org.uk/publications/working_papers/wp192.pdf (accessed at 27-10-04)

019 Livelihoods approaches to information and communication in support of rural poverty elimination and food security

CHAPMAN, ROBERT; SLAYMAKER, TOM; YOUNG, JOHN. Overseas Development Institute (ODI), London, 2002

This report is the result of a desk review to research the theoretical background literature on sustainable livelihoods and the current context of information and communication, to assist with the preparation of a strategic programme on information in support of sustainable livelihoods. The study focused on the work of the Food and Agriculture Organization of the United Nations (FAO) and Department for International

Development (DFID), particularly in relation to operationalising sustainable livelihoods (SL) approaches, and on inter-agency collaboration. While the thematic focus is on agricultural and rural development issues, many of the issues and recommendations are applicable to information systems more generally. It looks at the stakeholders involved in using information at different levels, and the importance of information and communication in support of decision making at every level. Drawing on the literature, some of the key issues to be considered by policymakers to ensure that information interventions are designed with the end user and beneficiary in mind are highlighted. Conclusions and recommendations on the key issues that policymakers should consider when designing and implementing information and communication programmes or adopting livelihoods approaches for rural development and food security interventions are provided.

http://www.odi.org.uk/rapid/Projects/R0093/Final_reports/SPISSL_WP_Complete.pdf
(accessed at 27-10-04)

020 Gender equality and economic development: the role for information and communication technologies

CHEN, DEREK. H.C. *Policy Research Working Paper* 3285. World Bank, Washington, DC, 2004. 34 p.

This paper focuses on the role that ICTs can play in improving gender equality, so as to enhance long-term economic growth. Employing OLS and IV panel regressions with country fixed-effects, the paper shows that increases in the level of ICT infrastructure tend to improve gender equality in education and employment. In addition, it shows that education among the general population is important for improving gender equality. The results provide evidence indicating that gender equality in education is an important contributor to gender equality in employment. Lastly, the results show that economic development itself tends to lead to some improvements in gender equality in the labor market. Hence, the use of ICTs to improve gender equality in education and employment may initiate a continuous cycle of positive reinforcing feedback effects between gender equality in employment and economic development, leading to further improvements in both.

http://econ.worldbank.org/files/35079_wps3285.pdf
(accessed at 27-10-04)
KIT Library code K 2450-(2004)3285

021 Mobile and outreach library services in Thailand

CHEUNWATTANA, AREE. *Information Development* 19(2003)1, p. 22-27, ill. ISSN 0266-6669

Thailand is a country with a widely dispersed population. Over 40 million of its inhabitants (70% of the total population) live in rural areas with different geographies. Consequently, mobile and outreach library services have an important role to play in bringing books and information to these scattered and often disadvantaged communities. A number of well established and more recent initiatives are described, such as: the mobile library (bus) service and the 'book houses' of the Bangkok Metropolitan Municipality; the elephant information service (2001) and the floating libraries initiative of the Department of Non-Formal Education, Ministry of Education; the 'library train for homeless children' initiative (1999) of the Railway Police Division, the Royal Thai Police; the bookmobile project for rural school children set up in 1981 by the Department of Library and Information Science, Khon Kaen University; the outreach information services to rural communities project (1981) of the Academic Resource Center, Mahasarakham University; the portable libraries project (1979) of the Department of Library Science Srinakharinwirot University; and the travelling books for young readers project set up by the Central Library, Srinakharinwirot University in 1989.

KIT Library code D 3486-19(2003)1

022 Factors affecting the use of information technology in Thai agricultural cooperatives: a work in progress

CHIEOCHAN, O.; LINDLEY D.; DUNN, T. *The Electronic Journal of Information Systems in Developing Countries* (EJISDC), 2(2000)1, p. 1-15 ISSN 1681-4835

An ongoing project to test and improve existing theories and methodologies in the research of information systems adoption in the Thai agricultural cooperatives was described. The project is also attempting to improve industrial practice where agricultural organizations in nations like Thailand can learn and adapt to changes. Thai agriculture, notably agricultural cooperatives, has been slow to introduce and exploit information technology. To discover why, and to understand the relationship between information technology and Thai agricultural cooperatives, it is necessary to draw from disciplines such as information systems and social sciences. The objective of this research project is therefore to find answers to the

following three questions: (1) what factors affect the use of information technology in Thai agricultural cooperatives; (2) what characteristics differentiate Thai agricultural cooperatives that use information technology from those that do not; and (3) can an improved model be developed to explain the factors affecting the use of information technology in Thai agricultural cooperatives. General factors from the external environment are political, economic, social, and infrastructure. The methodology and its development were also described.

<http://www.is.cityu.edu.hk/research/ejisdc/vol2/v2r1.pdf>
(accessed at 27-10-04)

023 Women's networking through the internet and empowerment

CHOI, EUN-JUNG. *Asian Women* (2003)17, p. 205-218, 18 ref. ISSN 1225-925X

Cyberspace has historically been a male-designed and male-operated practice. Without a gender perspective on the issue, noted disparities will continue to develop rapidly and in a direction that is bound to alienate women. It was within this context that the relationship between women's networking through the internet and women's empowerment was examined. The internet can contribute to the empowerment of women by acting as a tool for women's networking. Indeed, this type of networking has opened up a new way of interactive communication between women's groups for women's rights and advocacy. The concept of empowerment, defined as value empowerment, internal strength, and self-determination, was then explored from a feminist perspective. The Beijing experience and the Cybermentoring Programme set up by the Ministry of Gender Equality in Korea in 2002 were exemplified as successful models for exploring the relationship between women's networking through the internet and women's empowerment. The internet also contributes to the political empowerment of women as a tool for women's networking and political advocacy. However, it was concluded that, in terms of networking, women will need to broaden their access to power by joining women's networks. In this way, women can use the internet as a tool for empowerment and gender equality.

KIT Library code H 2328-(2003)17

024 Young women's participation in international conferences in the new information society

COTTES, JENNIFER. *Women in Action* (2003)2, p. 14-16, ill. ISSN 0101-5048

The information society, driven by the 'new' ICTs, has a dangerous potential to further marginalize young women from voicing their concerns. Therefore the presence of young women at international conferences is important; they bring in issues that they share with other young women. More often than not it is the same issues that women in general experience, but redefined and differentiated by their being 'young'. Young women who attend these conferences are likely to be the ones who are communicating over the web, who are part of the 'correct' networks (on and offline) and who in general contain knowledge of the issues, and the enthusiasm and capability to work with that knowledge. Therefore it has a greater impact if young women are given a chance to speak about their problems.

KIT Library code E 2629-(2003)2

025 ICTs and international cooperation: a discussion paper

CUMMINGS, SARAH. *Information Development* 18(2002)3, p. 161-166 ISSN 0266-6669

This discussion paper was prepared for a workshop on 'International Cooperation' at the conference on 'Global equality: rethinking ICTs in Africa, Asia and Latin America' held in Maastricht, the Netherlands from 25-27 March 2002. It assesses donors' commitment to ICTs, particularly whether they view ICTs as a 'priority area' or as a set of tools. The contribution of ICTs, in this instance the internet, to meeting international development goals is currently the subject of considerable debate. The examples of the international women's movement and the emerging knowledge sharing philosophy are used to emphasize the qualitative impact of ICTs on development. It is concluded that ICTs reduce isolation, facilitate international cooperation and provide access to vast amounts of information, although serious problems of access remain. The knowledge sharing philosophy which is entering the development discourse is crucially dependent upon and, in some cases, fundamentally entangled with ICTs. This may have the greatest impact on international cooperation as it could change the way development organizations work with each other.

KIT Library code D 3486-18(2002)3

026 Information and communications technologies and development: help or hindrance?

CURTAIN, RICHARD. Australian Agency for International Development (AusAID), Canberra, 2004

A large number of pilot projects have demonstrated to varying degrees the value of

using ICT for development. This paper draws on a database of 100 ICT-based projects in developing countries and some in-depth evaluations to identify key lessons. It uses a broad definition of ICT and distinguishes between the 'old' and 'new' forms of available technologies. Summary data on the use of ICT in countries that are the major focus of the Australian Agency for International Development (AusAID). Two approaches to the use of ICT in development, one where ICT is in the lead and the other where ICT plays a supporting role are suggested. Barriers to the use of ICT in a development context are discussed and reasons for the difficulties encountered are outlined. A 10 point checklist of what is suggested to be good practice in relation to ICT-based projects in developing countries is presented, highlighting the importance of an explicit focus on a contemporary development issue. The utility of the checklist is illustrated by reference to the People First network project in the Solomon Islands. Its utility is also demonstrated by applying it to an assessment of 100 ICT-driven projects. A series of 11 steps are proposed as a guide to mainstreaming ICT in development projects.

<http://www.developmentgateway.com.au/jahia/webdav/site/adg/shared/CurtainICT4DJan04.pdf>
(accessed at 1-11-04)

027 Internet technology and the private sector in Africa: UNDP's support and the overall perspectives for IT entrepreneurship on the continent

DANDJINO, PIERRE. *African Development Perspectives Yearbook* (2002/2003) p. 609-616, 3 ref.

Following an introduction to the overall environment of the ICTs in Africa, a brief overview was presented on work by the United Nations Development Programme (UNDP) to help the African private sector harness the benefits of ICTs. Descriptions were given of some of UNDP's successful programmes in this area, including: 'Enterprise Africa'; 'ICAD IT for Africa'; 'Cisco Networking Academies'; 'African Training Management Services' (AMSCO); and the recently launched 'Benin Regional Ticad Server'. This was followed by an assessment of the new opportunities that ICTs, particularly mobile telephones, cyber cafés, internet exchange points, data management, e-commerce, and the Internet as a whole, can offer entrepreneurs in Africa. Three recommendations were made: increase efforts to boost connectivity; develop a conducive legal and regulatory framework; and encourage e-

entrepreneurs through incentives and a special funding mechanism.

KIT Library code D 2730-(2002-2003)9

028 Placing gender equity in the family centre stage: use of 'Kala Jatha' theatre
DESHMUKH-RANADIVE, JOY. *Economic and Political Weekly* 38(2003)17, p. 1674-1679, ill., notes. ISSN 0012-9976

Empowerment does not necessarily take place when incomes are generated or when livelihoods are enhanced or for that matter when groups are formed. Social capital empowers people undoubtedly. However, the scope of that empowerment is limited because hierarchies and structures do not alter within families and households. Hence changes in public areas with respect to new formations of social capital or new avenues of income generation, especially when they are directed to and through women, even contribute towards accentuating tensions within households. It is at such times that supplementary interventions, which open the household for question, are required. Interventions such as 'Gender Equity in the Family' which has been carried out as part of the Andhra Pradesh District Poverty Initiatives Project (APDPIP) in the district of Mahabubnagar in India since the early 1990s. The primary goal of this non-confrontationist intervention is to promote norms of democracy within the family through the medium of 'Kala Jatha' or folk theatre, with follow-up workshops. Without apportioning blame, the plays question traditional socio-cultural norms within the family. Along with sensitization, consensus and commitment are also sought from members of the audience. The activities, approach and impact of this pioneering intervention were described in detail.

KIT Library code B 3057-38(2003)17

029 Gender ICT: issues, implications & opportunities. Summary of discussions from September 13th to December 12th 2003

DHAR, ANURADHA. Discussion channel on Gender and ICT: issues, implications and opportunities, 2003

The discussion channel on 'Gender & ICT: Issues, Implications & Opportunities' is a joint venture by Digital Opportunity Channel <www.digitalopportunity.org> that OneWorld South Asia is launching with i4donline.net <www.i4donline.net>, an initiative of the Centre for Spatial Database Management & Solutions based in India. The discussion forum, which currently has 183 subscribers, is hosted at 'D-Groups' server (<http://www.dgroups.org>). It aims to increase awareness, raise concerns, and make

our commitments to give a gender perspective to policies and design of development tools. Details of the channel are presented along with a detailed summary of discussions held over a 3-month period at the end of 2003. Monthly topics discussed included: 'Access to ICTs and their use'; 'Information, technology, and women's empowerment'; and 'Women's campaigns, networks, resources and repositories on ICT.' Several sub-topics, based on the three main topics listed above, were also explored. It was observed that the introduction of a suitable or not so valid topic accounted for the rise or fall in the number of responses.

<http://www.dgroups.org/groups/GenderICT/docs/GenderICTReport.doc?ois=no> (accessed at 1-11-04)

030 Digital opportunities for development: a sourcebook for access and applications

LearnLink, Washington D.C.

The sourcebook reports on the key lessons and results of LearnLink's ICT-based activities. Its purpose is to share the experiences and insights broadly with development partners, planners and practitioners and with the United States Agency for International Development (USAID) and donors around the world. Featuring six 'models of use' that describe technology applications, it provides practical guidelines and strategies for assessing, implementing, monitoring, evaluating, and institutionalizing ICT-based activities. Each 'model of use' is illustrated by country case studies.

<http://learnlink.aed.org/Publications/Sourcebook/home.htm> (accessed at 1-11-04)

031 Draft report of the workshop on 'Engendering digital opportunities: bridging the gender divide in the ICT sector'. Indian Institute of Management, Ahmedabad, January 10, 2003

On January 10, 2003, the 'Engendering digital opportunities: bridging the gender divide in the ICT sector' workshop took place at the Indian Institute of Management, in Ahmedabad. Seventeen people took part. Following a description of the rationale and background of the workshop, a review of the three sessions was presented. A total of six presentations were presented at the sessions: 'Case studies on gender aspects of community management of knowledge centres'; 'ICTs for women's empowerment'; 'Mahitishakti – website for e-governance'; 'Business process outsourcing: opportunities for women'; 'The voluntary vacation of the more lucrative areas of ICT employment by women'; and 'Engendering management and regulation of ICTs'. The objective of the workshop was to share experiences of managers and practitioners

in responding to the gender concerns and review the status of gender orientation in the ICT sector. Recognizing that in order to take advantage of the opportunities in India, there must be awareness and action as most women in India have neither the access to the new technologies nor the prerequisites for their use, the workshop aimed to come up with recommendations for policymakers and draw up a research agenda for the future. The papers and abstracts presented by the workshop speakers are provided.

<http://www.iimahd.ernet.in/ctps/GenderandICT/Report%20of%20the%20Workshop.pdf> (accessed at 1-11-04)

032 ICT and gender equity policy: lessons of the Mali telecentres

DUMAS, JOSEPHINE HELEN ANN. Doctoral diss. Pennsylvania University, Graduate School, College of Communications, 2002

The use of ICT and the effects on women in traditional poor, rural communities of Mali is examined, drawing on a literature review, a survey of existing studies and a case study of a multipurpose community telecentre (MCT). The theoretical framework of international regime theory and development as freedom theory are applied to help explain how ICT diffusion can be an empowerment tool for women in development. Women of Mali face low literacy rates, high birth rates, high infant and maternal mortality rates, and low incomes. Influenced by international regime policies for gender equity, Mali's national machineries have implemented gender equity policy in communication access. Women participated in the design, implementation and operation of this MCT. The community open access design was found to be particularly conducive to ICT development through women's social networking. The findings suggest that Malian ICT development with gender equity in the context of national and international policy engagement has contributed to the positive change in health, education, politics, and the economy of Mali. The relationship between international and national regimes in the process of negotiating problem solutions is particularly important to policy analysis of telecommunications and of gender equity. Policy in each of these areas permeates every sector of society.

<http://www.iimahd.ernet.in/ctps/GenderandICT/Articles/ICT%20and%20gender%20in%20maili%20telecenters.pdf> (accessed at 1-11-04)

033 Wireless: a help line for agricultural development? Report of the 4th Consultative Expert meeting of CTA's Observatory on ICTs, Wageningen 2001

ENGELHARD, RUTGER. *CTA Working Document Series 8024*. Technical Centre for Agricultural and Rural Cooperation (CTA), Wageningen, 2002

A summary of the conclusions and recommendations of the 4th Consultative Expert Meeting of CTA's Observatory on Information and Communication Technologies (ICTs), held in June 2001, is presented. Eleven international experts and policymakers involved in introducing ICTs in ACP countries and in related initiatives in Europe took part. Three public lectures were given on satellite communication for development by: Gracia Hillman, President of the WorldSpace Foundation: 'WorldSpace, a gadget for the urban rich or a help line for the rural poor in ACP countries?'; Michiel Hegener, science writer and journalist: 'VSAT in rural Africa: a reality check of promising technologies'; and Mike Jensen, ICT for Development consultant: 'Wireless, the last help line for agricultural development in ACP countries?'. Concrete recommendations are presented with respect to wireless technology that provides two-way access to the internet via satellite. Recommendations arising from the discussions on the ICM framework and on the opportunities to develop it into the basis on which an ACP agricultural knowledge network could be established are also presented. Finally, a summary is given of some of the concluding comments made by the invited experts.

http://ictupdate.cta.int/index.php/filemanager/download/138/CTA_wireless.English.pdf (accessed at 1-11-04)

034 Engendering information & communication technologies: challenges and opportunities for gender-equitable development
World Bank, Washington, 2004

Engendering ICTs involves identifying and eliminating gender disparities in access to and use of such technology. It also involves adapting technology to women's needs by taking advantage of their special knowledge and strong informal networks and support systems. Six ways in which ICTs can be used to achieve gender equality were described: (1) pursuing social and economic transformation; (2) expanding employment prospects and supporting female entrepreneurs; (3) increasing educational opportunities via distance learning; (4) promoting political empowerment by setting up networks, increasing advocacy for women's causes, and raising awareness; (5) improving social services; and, (6) focusing on gender in national

technology policies. The World Bank's efforts to address gender issues in information technology (IT) projects were outlined, using a number of examples, including: a training project in India that provides scholarships and housing to female IT students; a technology training programme in the former Yugoslav Republic of Macedonia aimed at at-risk girls and boys from various socio-cultural backgrounds and from ethnic groups that are underrepresented in the country's education system; and a project in Mozambique that provides internet access to colleges and universities and increases women's access to higher education. Lessons learned were presented along with four key recommendations to ensure that ICT projects address gender issues.

<http://siteresources.worldbank.org/INTGENDER/Seminar-Series/20260878/ictbrochure.pdf>
(accessed at 1-12-04)

035 Information and communication technologies for development lessons from telecentres in sub-Saharan Africa: towards coherent policies for social ownership
ETTA, FLORENCE. Council for the Development of Social Science Research in Africa (CODESRIA) and International Development Research Centre (IDRC), Dakar and Ottawa, 2004

The setting, operations and effects of community telecentres are examined. The telecentre experiences of a variety of local and often rural communities, exploring the management structures and mechanisms that have been established to support these telecentres. The book provides profiles of telecentre usage and discusses the potential and challenges of setting up and maintaining community telecentres in the context of poor information infrastructure and limited human capacity.

KIT Library code: in order ISN 530611

036 FAO Gender and Development Plan of Action (2002-2007). Thirty-first session, Rome, 2-13 November 2001

Food and Agriculture Organization of the United Nations (FAO), Rome, 2001. 45 p.

The mission of the FAO is to build a food-secure world. In pursuit of this goal, an organization-wide Gender and Development (GAD) Plan of Action for 2002-2007 was presented at its 31st Conference Session during 2-13 November 2001 in Rome, Italy, which drew up a framework to mainstream gender at all levels in FAO's four key working areas: (1) food and nutrition; (2) natural resources; (3) agricultural support systems; and (4) agricultural and rural development policy and planning. The

theoretical approaches underpinning FAO's GAD Plan of Action were outlined. Key issues affecting gender roles and relations in agriculture and food security were explored in different contexts such as: globalization; population dynamics (HIV/AIDS, rural-urban migration, rural ageing); growing pressure on natural resources and competition for their use; urban and peri-urban agriculture; disaster-related complex emergencies; and ICTs. Finally, institutional arrangements and processes for the implementation, monitoring and evaluation of the GAD Plan of Action (2002-2007) were set out.

<http://www.fao.org/docrep/meeting/003/y1521e.htm>
(accessed at 1-11-04)

037 Meta-survey on the use of technologies in education in Asia and the Pacific

FARRELL, GLEN; WACHHOLZ, CÉDRIC. United Nations Educational, Scientific and Cultural Organization (UNESCO) Asia and Pacific Regional Bureau for Education, Bangkok, 2003

The first chapter gives an overview of developments and trends in the application of ICTs in education. It provides an illustrative overview of applications and models of ICT use in education, looking more carefully at trends in content development and in applications for primary and secondary education and for non-formal education, and in research and evaluation, and at emerging infrastructure developments. Gender-based issues and trends in ICT applications in education in Asia and the Pacific are the focus of the second chapter. It shows exciting examples of how ICTs can increase access to and improve the quality of learning experiences for girls and women, including in non-formal education. Trends in strategies, including gender mainstreaming and the engendering of ICT and education policies, are discussed. The third chapter includes a collection of country papers on ICT in education, grouped by sub-regions. The concluding section summarizes the apparent principles of ICT applications in education and discusses different policy framework developments, constraints and challenges of successful ICT integration in the region and possible strategies and opportunities for UNESCO assistance.

<http://www.unescobkk.org/education/ict/resources/JFIT/metasurvey/complete.pdf> (accessed at 1-11-04)

038 Future directions in agriculture and information and communication technologies (ICTs) at USAID: background paper

Winrock International, Arlington, 2003

The impact that new ICTs have had on agriculture was examined and an outline given of

emerging trends and ICT opportunities in the field. Guidance was also offered on ways in which the United States Agency for International Development (USAID) Agriculture and Food Security (AFS) division can build on its considerable experience to take advantage of ICTs effectively in development assistance. Four chapters focus on the following: (1) the impact of new ICTs on agriculture (particularly with regard to: ICTs, critical information flows, and the Agricultural Knowledge System, and gender and social equity issues); (2) the feasibility of ICT in rural areas (particularly with regard to the up-front costs and long-term benefits of ICT approaches, connectivity provision, the sustainability of ICT investments and market-based cost recovery mechanisms, the technical aspects of ICT feasibility in rural areas, and promising emerging technologies); (3) activities of USAID peers and other organizations, such as the World Bank; and (4) looking to the future: recommendations to USAID. Recommendations were also made on how to improve two key areas: project design in agriculture and ICTs; and increasing EGAT/AFS capacity to support missions in ICT.

http://www.dot-com-alliance.org/documents/AG_ICT_USAID.pdf (accessed at 1-11-04)

039 'Information as a tool for women's empowerment and gender equality-towards 2005'. Report. Regional conference 18-19 May 2001, Maputo, Mozambique

GABI, RUTH; KWARAMBA, ALICE. Women in Development Southern Africa Awareness (WIDSAA), Harare, 2001. 122 p.

The regional conference was organized to: (1) share strategies on accessing and utilizing information for the realization of the Declaration on Gender and Development of the Southern African Development Community (SADC), with a view to designing a regional strategic framework for information production, collection, dissemination and networking of gender issues; (2) share experiences from different regional NGOs and networks in information production, collection, dissemination and networking of gender issues; (3) identify information resources and tools available to stakeholders in the region for the realization of the SADC target of reaching 30% of women in decision making by the year 2005; and (4) review the Beijing Plus Five outcomes document and identify emerging challenges that are of common interest to the sub-region and how they can be addressed at the regional level. These proceedings include the background documents, introduction, presentations, panels and discussions, the

conference resolutions, country reports, regional reports of the conference.

KIT Library code G 02-150

040 Cyberfeminist technological practices: exploring possibilities for a women-centered design of technological environments

GAJJALA, RADHIKA. United Nations International Research and Training Institute for the Advancement of Women (UN INSTRAW), Santo Domingo, 2002

Drawing on prior studies and ongoing research into the different socio-cultural contexts in which ICT skills are transferred, answers to the following questions were sought: 'Are there 'women-friendly' practices of ICT design and use'; 'Do 'women-friendly' strategies for access and use of ICTs necessarily allow entry to women from all backgrounds irrespective of race, class, caste, sexuality and geographic location'; and 'Is it possible to devise women-friendly and gender-sensitive strategies for the development of technological environments and practices that will be empowering and enabling for women and other marginalized groups, particularly those in developing countries.' Some issues were touched upon that arise in specific technological environments concerning the production, reproduction and maintenance of enabling and disabling environments in relation to women and ICTs, while pointing specifically to gendering processes within such environments. It was argued that we cannot limit our questions to mere access to technologies and technological environments as they are currently structured, for these environments are not in and of themselves enabling. Instead, we should delve into multiple mediated and specific contexts in order to gain an understanding of how we might be able to re-design technological environments to empower the less privileged of the world, thereby enabling women in relation to ICTs.

http://www.un-instraw.org/en/docs/gender_and_ict/Gajjala.pdf (accessed at 1-11-04)

041 South Asian digital diasporas and cyberfeminist webs: negotiating globalization, nation, gender and information technology design
GAJJALA, RADHIKA. *Contemporary South Asia* 12(2003)1, p. 41-56, notes. ISSN 0958-4935

The theoretical and applied concerns that arise in attempts to design and produce South Asian cyberfeminist e-spaces are discussed with a view to contribute to applied solutions for the problem of designing and building technological environments that actually work to empower marginalized populations, rather than continuing to contribute to existing systems that devalue,

oppress and exploit them. The first part presents available literature in relation to South Asians and information technology, South Asians in digital diaspora, and the third world and cyberfeminism with the intention of mapping out theoretical paths leading to connections between theoretical examinations of South Asians in cyberspace and applied practices of designing and building online spaces. The second part of the paper addresses some issues that arise in practical attempts at building South Asian cyberfeminist websites, based on experiences on such projects for the past eight years, in particular with SAWnet, a women-only South Asian e-mail discussion list. It is argued that in order to succeed in changing existing technological environments so that they are empowering to women and men of lesser material and socio-cultural privilege, it is important to examine how individuals and communities are situated within the complex global and local contexts mediated by unequal relations of power.

KIT Library code D 2674-12(2003)1

042 Rural access by radio and Internet helps close the digital divide

GALLAGHER, LYNNE; BENAMRANE, DJILALI. On the Internet, Internet Society, 2001

Convergence of the internet and broadcasting is a critical priority in developing countries and is already happening in many areas. Strategies to bring the power of communications to rural communities marry the power and reach of radio broadcasting with the power and interactivity of the internet. Radio delivers information to many listeners. The internet enables the community to send back information, as well as to ask questions, request and seek information, and communicate with specialists. Radio will be the last mile that can localize, repackage, translate, and broadcast content from national and international sources. The radio broadcast system planned for Niger and the Tel@Bureau networks described in this article show the promise of such convergence for rural populations.

<http://www.isoc.org/oti/articles/0401/gallagher.html> (accessed at 1-11-04)

043 Equipping the mediators: enabling extension staff in Eritrea to mediate between users and providers of agricultural information
GARFORTH, C. *Quarterly Bulletin International Association of Agricultural Information Specialists (IAALD)*, 46(2001)3-4, p. 64-75, ill. ISSN 1019-9926

An agricultural knowledge and information system (AKIS) links people and institutions to promote and enable mutual learning and

generate, share and use technology, knowledge and information. The Ministry of Agriculture in Eritrea wants its field staff to understand the AKIS in their operational areas so that they can develop an advisory service that is more responsive to the requirements of farmers, and complements other elements within the system. A study was undertaken to: develop a methodology for analysing an AKIS at district level; build local capacity in using the methodology; describe and assess, from farmers' perspectives, the functioning of the system; identify constraints in the efficient functioning of the system and make suggestions for improving its performance; identify information and advisory needs of different categories of farmers, and suggest points of intervention to address these. Materials were developed, shared and tested at a workshop. The study team used participatory methods and a questionnaire survey to build up a picture of the local AKIS in 2 villages. The findings were presented to farmers and other local stakeholders for verification and to identify potential points of intervention by the Ministry of Agriculture and others. The study showed differences between men and women, socio-economic categories, and villages in access to and uses of sources of information.

KIT Library code E 1228-46(2001)3-4

044 GenARDIS: award winning projects 2003

ICT Update (2004)21. Technical Centre for Agricultural and Rural Cooperation (CTA), Wageningen, 2004

This issue features reports on the nine winning projects in the first round of the Gender for Agricultural and Rural Development in the Information Society (GenARDIS) small grants fund. Articles included: Q&A: Women, information access and rural development. Helen Hambly Odame argues that the provision of information to women is less important than ensuring equitable access to information; Malawi: Bessie Nyirenda explains how a database system, an online input calculator, and email are helping women farmers in Malawi to improve agricultural production; Benin: Alice Kouboura Djinadou Igue describes a project to provide computer training to women civil servants in rural areas; Chad: Grâce Agouna describes how radio listening groups help women in the province of East Logone to improve their lives; The Caribbean: Nidhi Tandon reports on a regional computer training workshop for Caribbean women engaged in organic farming; Ghana: Joana Francis Adda describes how an NGO in Ghana is using video equipment to enable

women to devise community plans for natural resource management; Kenya: James Onyango explains how radio cassette players are helping women from HIV/AIDS affected households to exchange information.

<http://ictupdate.cta.int/index.php/article/frontpage/29>
(accessed at 1-11-04)

045 Gender and ICTs

ICT Update (2002)8. Technical Centre for Agricultural and Rural Cooperation (CTA), Wageningen, 2002

ICT Update is a current awareness bulletin for ACP agriculture, published by CTA. This special issue focuses on the use of ICTs by rural women. The use of CD-ROM by women in Uganda, the promotion of ICT by the Women of Uganda Network, a rural radio project in Zimbabwe, and ICTs and gender mainstreaming are addressed in the articles. Links, titles of interesting documents and news are also included.

<http://ictupdate.cta.int/index.php/article/frontpage/1>
(accessed at 1-11-04)

046 Gender and ICTs

Cutting Edge Pack (2004). BRIDGE, Institute of Development Studies (IDS), London, 2004

This resource pack comprises an overview of gender and ICTs, a list of resources on the issue, and a copy of Development and Gender in Brief newsletter made up of three short articles on the subject. Women's access to and use of ICTs, the effect of gender relations, and benefits brought about by the use of ICTs are among the issues addressed.

http://www.bridge.ids.ac.uk/reports_gend_CEP.html
(accessed at 1-11-04)

047 GEM: gender evaluation methodology for internet and ICTs. A learning tool for change and empowerment

Gender Evaluation Methodology (GEM) Team, Association for Progressive Communication Women's Networking Support Programme (APC WNSP)

GEM is a guide to integrating a gender analysis into evaluations of initiatives that use Information and Communication Technologies (ICTs) for social change. GEM provides a means for determining whether ICTs are really improving women's lives and gender relations as well as promoting positive change at the individual, institutional, community and broader social levels. GEM's analytical approach is intended to help users understand the change associated with an ICT intervention from a gender perspective. It focuses both on understanding how this change affects women's

lives and favours gender relations in the household, community and other areas. At a broader level, the framework provides an analytical approach to identifying and understanding gender issues in the ICT sector, and specifically to strengthen women's empowerment issues in ICT projects for development and social justice.

http://www.apcwomen.org/gem/gem_tool/index.htm
(accessed at 1-12-04)

048 Gender mainstreaming in agriculture and rural development: a reference manual for governments and other stakeholders

Gender Management System Series.
Commonwealth Secretariat, London, 2001. 46 p.,
36 ref. ISBN 0-85092-606-8

Gender mainstreaming (GM) is the current international approach to promoting equality between women and men. It is based on the recognition that gender inequality operates at all levels and in all sectors of society, and thus needs to be addressed in the mainstream. It aims to ensure that women and men benefit equitably from all that society has to offer, and are equally empowered to affect its governance and decisions. The Gender Management System (GMS) is a holistic and systemwide approach to GM; it is a comprehensive network of structures, mechanisms and processes to enable governments and other organizations to contribute to gender equality through policymaking, planning and activities in all sectors. Five broad categories of objectives that require attention are identified: (1) increase rural women's access to land and water resources, credit services and entrepreneurship training; (2) ensure that agricultural policies and programmes are sensitive to gender differences in roles and activities; (3) ensure that agricultural research and extension programmes are gender-sensitive; (4) increase gender awareness in the commercialization of agriculture; and (5) increase women's empowerment and access to decision making. For each category, several recommendations are detailed. Tools for gender impact assessment, policy analysis and implementation, and a glossary of terms are included in the appendix.

KIT Library code Br G 01-220

049 The one to watch: radio, new ICTs and interactivity

GIRARD, BRUCE (ed.). Food and Agriculture Organization of the United Nations (FAO), Rome, 2003. 243 p. ISBN 92-5-104950-5

It was argued that in order to have a significant impact on development programmes,

ICT services must be readily accessible and meaningful to broad segments of rural populations and the information they carry must be adapted and disseminated in formats and languages that they can comprehend. They must also serve people's needs for entertainment, cultural enlightenment, and human contact – needs which, despite being strongly felt by us all, are too often overlooked by development professionals. Against this background, an overview is presented of the most significant experiences in combining radio and ICTs to achieve sustainable development. It is a result of numerous attempts by the Communication for Development Group of the Food and Agriculture Organization of the United Nations (FAO) to foster information exchange and collaborative partnerships in rural radio initiatives. A total of 17 papers are presented. Topics cover a wide range of issues from many countries, including: public radio and the internet in the United States; the Kothmale model: using radio to make the internet visible; creating and sustaining ICT projects in Mozambique; the Russian rural information network; blending old and new technologies: Mexico's indigenous radio service messages; the role and use of rural radio in Africa over the past 50 years; Callos and Guatitas: radio and migration in Ecuador and Spain; and community multimedia centres: creating digital opportunities for all.

<http://comunica.org/1-2-watch/html/download.htm>
(accessed at 1-11-04)

KIT Library code U 03-207

050 Literacy, information, and governance in the digital era: an Indian scenario

GOSWAMI, P.R. *International Information and Library Review* 34(2002)4, p. 255-270, notes.
ISSN 1057-2317

This paper presents an overview of the use of digital information in India for the purpose of poverty alleviation, the marketing of farm produce in rural areas, responsive governance, and provision of access to official records and information. The paper also seeks to identify better ways of using ICTs for Indian national development. It appears that the use of ICT for the purpose of alleviating poverty is limited to certain areas. NGOs and local agencies are making sincere efforts to make the rural masses info-literate so that they can exert pressure on local administrations to avoid unscrupulous middlemen. In India, while there is great stress on ICT, neither information nor content development has received enough attention. Policymakers should view content as more important than conduits; and proper content

management is possible only with the active involvement of information professionals.

KIT Library code E 2186-34(2002)3

051 Developing women: how technology can help

GOYAL, ASHIMA.

The question of whether women have lower earnings due to intrinsic feminine attributes or because of features of their environment was addressed. A model of household resource allocation and the labour market was used to show that equilibria satisfy static efficiency but are dynamically inefficient. Women are relegated to low productivity work in a self-reinforcing, low level trap that lowers their self esteem, but modern information technologies (IT) make flexi-time, high paying, work at home feasible for women. They lower matching costs, compensating for a lack of mobility. Women will more easily find jobs that match their preferences and attributes. Society will gain because dynamic efficiencies will be removed but greater diversity preserved. Since entrenched perceptions take time to change, special policies are required. The model allows us to distinguish among the distortions that occur, and identify targeted policy interventions. There is evidence that the predictions of the model are being borne out in the use of IT. It was not the small difference in women's biology and preferences that harmed them as much as the absence of opportunities that matched these qualities. Technological change can, with a little help, remedy this.

http://www.gdnet.org/pdf/842_Ashima.pdf (accessed at 1-11-04)

052 Why women lag behind and why they may lead

GOYAL, ASHIMA. I4Donline, 1(2003)3

Women tend to allocate more time to the household, often in a critical period of their career. This lowers their productivity in the external labour market, and by lowering learning-by-doing in remunerative skills, lowers future earnings as well. Perceptions and power magnify the distortions. Others doubt women's ability, but women also doubt themselves, and this self-doubt further harms their prospects and has resulted in a deep ambivalence in women's relation with technology. Yet, it was argued, in these circumstances ICTs, particularly the internet, can offer great benefits to women by facilitating flexi-time activity, lowering location constraints, and enabling women to maintain and upgrade skills. While the women's movement recognizes the importance of the internet, there

are fears that women may be left behind and end up as have-nots. The fears expressed in the women's literature were subsequently examined, together with the extent to which events have validated them. The key question, it was found, seems to be the level of skills and of supportive organizations: those working at the high end have much more freedom and control of their lives. A number of ICT initiatives in India were used to illustrate this. Finally, all indications point to the usefulness of ICTs in benefiting women who are aware of them, and their use of such technologies is rising steadily. However, gender friendly policies are needed.

http://www.i4donline.net/issue/sept-oct2003/women_full.htm (accessed at 1-11-04)

053 Women and ICTs for open and distance learning: some experiences and strategies from the Commonwealth

GREEN, LYNDASAY; TREVOR-DEUTSCH, LAWRY. Commonwealth of Learning (COL), Vancouver, 2002

The synthesis report provides guidance to those using ICTs for open and distance learning (ODL) to ensure that women have equal access and are able to contribute to their full potential. It aims to be a practical tool for those working in the field. The first part highlights lessons learned from previous research material and comparing regional differences with respect to the current use of ICTs and the access that women have to ODL. Barriers to the education of women are discussed, followed by a detailed look at the additional barriers that are specific to the use of ICTs. Strategies to address these barriers are suggested. The second part of the report contains case study examples of women's use of ICTs, some specifically focused on ODL and some broader applications. Each case study includes the background of the project, the key results and the lessons learned.

<http://www.col.org/wdd/women%20and%20ICTs.pdf> (accessed at 1-11-04)

053a Bridging the digital gender divide: issues and insights on ICT for women's economic empowerment

GURUMURTHY, ANITA. United Nations Development Fund for Women (UNIFEM), Confederation of Indian Industry Fund for Women, 2003

Using a gender lens and focusing on women's economic empowerment, this review highlights best practices on the use of ICTs for women's economic empowerment in South Asia, with special emphasis on India. It analyses the more visible ICT initiatives, extracting insights and

learnings, providing enough food for thought on gender and ICTs in the context of poverty and development. The study is a rich resource for diverse practitioners, including governments, NGOs and national and international organizations working on ICT and gender.

http://www.unifem.org.in/bridging_the_gender.htm
(accessed at 1-11-04)

054 Are ICTs gender neutral: a gender analysis of six case studies of multi-donor ICT projects

HAFKIN, NANCY J. United Nations International Research and Training Institute for the Advancement of Women (UN INSTRAW), Santo Domingo, 2002

The hypothesis that women do not benefit equitably from ICT and development projects without specific gender analysis and efforts is tested in this paper by application to six field studies of projects of the Information for Development Programme (infoDev) that were commissioned as part of an infoDev effort to integrate gender issues. InfoDev is a multi-donor grant programme managed by the World Bank and part of a global effort to bridge the digital divide between developed and developing countries. The six field studies covered different geographical regions (two each were chosen from Africa, Asia and Latin America) and different kinds of projects (field projects, policy projects and technical projects). Included among the projects are: two technical training projects (one women-only), one project introducing a new technology, one project using technology to facilitate employment, one project developing rural community information services and one project promoting national development of e-commerce. Recommendations to help ensure that projects are not gender-blind or biased are presented.

http://www.un-instraw.org/en/docs/gender_and_ict/Hafkin.pdf (accessed at 28-10-04)

055 Gender issues in ICT policy in developing countries: an overview

HAFKIN, NANCY. *Report EGM/ICT/2002/EP.1* United Nations Division for the Advancement of Women (UN DAW), New York, N.Y, 2002

While advocacy for gender issues in ICTs gained their first international foothold at the fourth World Conference on Women in Beijing in 1995, the issue of gender issues in ICT policy entered the international scene three years later at the World Telecommunications Development Conference in 1998. Engendering ICT policy is an area of great importance. If gender issues are not articulated in ICT policy, it is unlikely that girls

and women will reap the benefits of the information age. Different categories of gender issues were examined, including: physical access to infrastructure, social and cultural issues, education and skills, financial resources, and the limitations of the media on gender issues. A gender analysis of national ICT policy frameworks was then presented. Numerous recommendations were made for specific measures that could be incorporated into ICT policy in developing countries to ensure gender equality. This was followed by an examination of the question "Best practices: are there any?" with regard to developing countries, specifically Africa. A review of the ICT policy over the last decade outlined the African experiences regarding the incorporation of gender elements. It was concluded that, despite the fact that at least 34 of the 53 African countries are actively working on elaborating ICT policies, up to 2002, only South Africa showed any awareness of gender issues.

<http://www.un.org/womenwatch/daw/egm/ict2002/reports/Paper-NHafkin.PDF> (accessed at 28-10-04)

056 Get in and get in early: ensuring women's access to and participation in ICT projects

HAFKIN, NANCY J.; JORGE, SONIA. *Women in Action* (2002)2, p. 11-15, ill., notes. ISSN 0101-5048

Most of the ICT-based projects developed and funded by major donors do not consider gender in the project design phase and, consequently, fail to address the demands of women in the targeted communities and give them access to ICT. The year 1995 was a watershed for many multilateral, bilateral and non-governmental organizations to start ICT and development efforts. However, it was not until 1998 that the consideration of gender and ICT began to appear on the agenda. Today, many development practitioners believe that incorporating gender concerns into ICT projects will result in more successful project outcomes. Yet, despite this, incorporating gender into projects and linking ICT and development is still the exception rather than the rule. The reasons behind this are outlined and suggestions are given on how to go about incorporating gender into project design and implementation. Popular misconceptions about gender were illustrated using examples of so-called gender-neutral projects. It was concluded that gender-neutral projects neglect the complex socioeconomic and cultural context which impacts project outcomes and which constrains women's access to and participation in ICT projects. It was argued that integrating

gender analysis into project design and implementation from the very start is of the utmost importance. Two strategies were recommended to achieve this.

<http://www.isiswomen.org/pub/wia/wia202/getin.htm>
(accessed at 1-11-04)
KIT library code E 2629-(2002)2

057 Gender, ICTs and agriculture: a situation analysis for the 5th Consultative expert meeting of CTA's ICT observatory meeting on Gender and agriculture in the information society

HAFKIN, NANCY J.; HAMBLY ODAME, HELEN. August 2002

Acknowledging the current digital divide between the developing nations and the rest of the world, a situation analysis of gender, ICTs and agriculture was presented. It was argued that within the ACP countries, both obstacles and opportunities exist in the use of ICTs by resource-poor farmers, women and youth. Attention focused on how ICTs can help to reconstruct gender relations so that the needs of all groups in the information society are met. A general introduction to gender, ICTs, and agriculture was followed by an overview of the major gender issues within agricultural and rural development. Important gender issues in ICTs in developing countries were then outlined and key initiatives around the world relevant to gender responsive use of ICTs for rural development were identified. Insights were given into innovative projects as well as the activities of various multilateral, bilateral and non-governmental organizations (NGOs), and academic institutions. Finally, a summary was presented of efforts, ideas and recommendations on gender, information, communication, and agriculture in ACP countries generated to date by CTA and its stakeholders. Suggestions were also made on how CTA could further mainstream gender in its strategy and actions for the future.

http://www.agricta.org/observatory2002/background_paper.pdf (accessed at 28-10-04)

058 Gender, information technology and developing countries: an analytical study

HAFKIN, NANCY; TAGGART, NANCY. Bureau for Global Programs, Field Support and Research, United States Agency for International Development (USAID), Office of Women in Development, Washington, D.C., 2001

This document provides a conceptual framework to inform the creation of appropriate information and communication technology (ICT) programs and activities for women and girls in developing countries. Examination of the gender

dimension of the digital divide reveals key barriers to women's participation in information technology, as well as areas where women already are participating in and benefiting from the use of ICTs. The impact of ICT on women's work is further discussed and the role ICT can play in empowering women both economically and politically. Practical solutions are suggested with regard to making the gender issue a central piece of ICT policies and widening opportunities for education and skills acquisition. The framework will provide a foundation for the work of USAID and others in developed and developing countries.

http://learnlink.aed.org/Publications/Gender_Book/Home.htm (accessed at 1-11-04)

059 Gender and agriculture in the information society

HAMBLY ODAME, HELEN, et al. *ISNAR Briefing Paper 55*. International Service for National Agricultural Research (ISNAR), The Hague, 2002. 8 p. ref. ISSN 1021-2310

Women are twice as likely as men to be involved in agriculture-related activity, yet they seldom own or control the key resources, such as land, on which their agricultural activities depend. For this reason, when Information and Communication Technologies (ICTs) are applied in the areas of agricultural and rural development in developing countries they are inextricably linked to gender. It is therefore essential for policymakers, donors, researchers, non-governmental organizations (NGOs), and farmers' organizations to wake up to the need for dialogue and action on issues of ICT and gender in the context of food security, poverty reduction, and sustainable development. Seven initiatives to use ICTs to address gender considerations in rural development were described, such as the Nakaseke Telecentre in Uganda and the People First Network in the Solomon Islands.

Constraints on women's access to and use of ICTs were outlined, as were the opportunities that ICTs can bring to women. It was argued that the purpose of calling attention to gender as it relates to ICTs in developing-country agriculture is to bring about positive outcomes that benefit not only resource-poor rural women but also the entire global information society.

KIT Library code D 3096-(2002)55 (English)

KIT Library code D 3096-(2002)56 (French)

KIT Library code D 3096-(2002)57 (Spanish)

059a Gender and agriculture in the information society. A special report of a CTA meeting, Wageningen, The Netherlands, 11-13 September 2002

HAMBLY ODAME, HELEN. Technical Centre for Agricultural and Rural Cooperation (CTA), Wageningen, 2004. ISBN 92 9081 283 4

In 2002 CTA ensured through a set of initiatives that gender would be taken into account in its work to make information and communication for agriculture and rural development more accessible and beneficial for ACP (Africa Caribbean Pacific) Nations. These efforts have started to build valuable capacity within CTA, and new partnerships within and among the ACP Regions. The 5th CTA Observatory Meeting, 'Gender, agriculture in the information society', was a major step forward in creating a dialogue among ACP countries and with other regions of the world on the role of ICTs in helping rural women overcome the obstacles they experience daily in their lives as farmers, entrepreneurs and agents of community and national development.

http://www.agrieta.org/pubs/gender/cta_gender_en.pdf (accessed at 1-11-04)

060 Women's empowerment through the internet

HARCOURT, WENDY. *Asian Women* (2000)10, p. 19-31, 10 ref. ISSN 1225-925X

The positive and innovative use of the internet by the international women's movement was described. Ways in which women are using the internet to support their political work were traced. Three key areas were explored with a view to illustrating how the internet lends itself to the networking and strategizing of the international women's movement: (1) how women are using the web to help stop violence against women; (2) how the internet has enabled a vast outreach in women's networking and organizing; and (3) how women are creating new cross-cultural connections on the web, with the group 'Women on the Internet' (WoN) as an example. The WoN project was originally set up by the Society for International Development with funding from the United Nations Educational, Scientific and Cultural Organization (UNESCO). Numerous examples were given of how women all over the world have successfully used the web to lobby for justice. However, the downside of the cyber revolution was also examined, and questions such as 'Who is master-minding the Web?', 'Are women truly connected or just scratching at the surface of a fast changing world that is evolving without their needs?' and 'Where are the women when the

telecommunications policies are being drawn up?' were explored. The challenge, it was argued, is for women activists in search of gender justice to use the web not only as an immediate empowering tool for their strategic needs but to open up its potential to others.

KIT Library code H 2328-(2000)10

061 Women@Internet: creating new cultures in cyberspace

HARCOURT, WENDY (ed.). Zed Books, London, 1999. 234 p.

The experiences of women on the internet are studied and the possibilities for women to use the internet as a political tool are discussed. Contributors include anthropologists, media analysts and experts in the fields of development and communication. The book contains two sections, the first of which explores the barriers and the new frontiers women are encountering and creating on the internet, and the second, a compilation of personally, politically and professionally oriented reports. The first section is primarily theoretical, while the second draws on practical examples. The book is a project of Women on the Net, set up by the Society for International Development with funding of the United Nations Educational, Scientific and Cultural Organization (UNESCO).

KIT Library code P 99-270

062 Neria grassroots distribution project: final project report May 2000-September 2001
HAUSMANN-FATA, CHRISTINE. Media for Development Trust, Harare, 2001

The locally produced feature film *Neria* was the second of its kind in Zimbabwe. In brief, the film tells the story of *Neria*, who, after the tragic death of her husband finds herself overruled by her in-laws, who, by citing tradition, dispossess her of property and children. After a long period of suffering, the widow learns that the law and tradition are on her side to regain what is rightfully hers. As a so-called women's education project, the film shows the disadvantaged positions women could face on the death of their spouses. The *Neria* grass-roots distribution project was launched to enhance the coverage of the film by developing proper training materials, and making the film available in Shona and Ndebele. The distribution project is reported in this paper in terms of the project phases, achievements, limitations, impact and recommendations. Project achievements include the successful assessment of a variety of organizations to carry out the task of a distributor throughout Zimbabwe, the country-wide formative research period with screenings

and focus group discussions, the successful pre-testing of the designed materials, and the training of trainers in the effective use of the support materials which comprise of a Neria feature film, a Neria support video and a Neria support manual in Shona, English and Ndebele with picture cards, support groups address lists and legal educational pamphlets.

<http://www.mfdi.org/docs/NERIAGrassrootsDistProj.doc> (accessed at 28-10-04)

063 Advancing rural women's empowerment: information and communication technologies (ICTs) in the service of good governance, democratic practice and development for rural women in Africa

HOLMES, REBECCA. *A Women'sNet Resource Paper version 1*. Women'sNet, February 2004

Empowering African rural women to access their social, economic, cultural and political rights to be equal participants in the governance of their future, is a task as complex as African history, and equally undeniable. Into this complex arena enters a new (and old) set of tools: Information and Communication Technologies (ICTs). How have ICTs been incorporated into the pursuit of rural women's empowerment in Africa so far, specifically in terms of their access to human rights and good governance? This question formed the basis of a paper presented at the Dimitra-sponsored workshop organized by Women'sNet in February 2004. The topic of the workshop was 'Advancing rural women's empowerment: ICTs in the service of good governance, democratic practice and development for rural women in Africa'. The paper was produced through a desk review conducted primarily via online research. The perspectives and stories that are explored as a result are 'loud' voices. Voices and stories that have attracted media attention or are more easily retrieved online. It is neither a definitive nor exhaustive review of current activities in the field. Rather, the focus is on providing an overview of the political, women's empowerment, and human rights framework that shape development and good governance goals for African countries. Ways in which ICTs are being used to achieve these good governance and development imperatives that benefit rural women are also explored.

http://womensnet.org.za/dimitra_conference/Empowering_Rural_Women.doc (accessed at 28-10-04)

064 How to get started and keep going: a guide to community multimedia centres

HUGHES, STELLA. United Nations Educational, Scientific and Cultural Organization (UNESCO), Paris, 2004

There are growing numbers of grass-root communication and information service providers in the developing countries today. They are operating community radio stations, multipurpose telecentres, information centres, community learning centres and – in a few cases – community multimedia centres (CMCs) that already combine both radio and telecentre facilities. This book is intended to be of use to all those wanting to become involved or already involved in such initiatives – staff and managers, community groups, NGOs working for community empowerment, communication planners supporting development activities, trainers and project partners. It will obviously be of particular interest to those operating or considering starting a CMC as it covers the full range of topics linked to community broadcasting and to telecentre operations. For those working in a more limited structure, some chapters will be of direct relevance while others can be useful to help situate one's own activity within a broader perspective.

http://www.unesco.org/webworld/cmc/handbook/full_book.pdf (accessed at 28-10-04)

065 Information and communication technologies: a priority for women

HUYER, SOPHIA; CARR, MARILYN. *Gender, Technology and Development* 6(2002)1, p. 85-100, 26 ref. ISSN 0971-8524

The majority of women still do not have access to ICTs that are appropriate to their needs, and nor are they active participants in the process of science and technology development. Women's effective access to ICTs can help them achieve increased participation in production and productivity and thereby contribute more to economic development. The current situation of women and the digital divide was examined within this context. How can ICTs support social development? How can they be used by women to help meet livelihood needs? These and other questions were addressed. After surveying current efforts to increase women's access to ICTs, it was concluded that using ICTs to support women's productive activities should be seen as a priority area.

KIT Library code H 2516-6(2002)1

066 Overcoming the gender digital divide: understanding ICTs and their potential for the empowerment of women. Synthesis paper
HUYER, SOPHIA; SIKOSKA, TATJANA. United Nations International Research and Training Institute for the Advancement of Women (UN INSTRAW), Santo Domingo, 2003

The 'gender digital divide' is used to describe the existing inequalities and biases in access to and use of ICTs by women and men. The fact that ICTs have so far been predominantly designed and created within male-dominated environments and that ICT policies are usually formulated by male policymakers has contributed to this divide. Yet ICTs, when appropriately harnessed, also hold great potential for women's empowerment on an individual level (better self-esteem, increased confidence and more career opportunities) as well as on a collective level (improving their advocacy, lobbying and networking activities). This paper synthesizes major research findings contained in the five background papers commissioned by the United Nations International Research and Training Institute for the Advancement of Women (UN INSTRAW). The report explores the leading approaches to maximising the potential of ICTs for women's empowerment, examines the social context of technology, and identifies the main structural barriers to women's access and use of ICTs. Strategies are proposed to overcome these barriers and empower women through ICTs, including the need for women's groups to share experiences and knowledge to strengthen their lobbying skills, and to gain expertise in engendering the ICT policymaking and regulation process.

http://www.un-instraw.org/en/docs/gender_and_ict/Synthesis_Paper.pdf (accessed at 28-10-04)

067 'ICT tools and services in support of organic agriculture in the Caribbean'. A regional training workshop with women farmer entrepreneurs, Kingston, Jamaica, March 27th-April 2nd 2004. Final report
Networked Intelligence, and Jamaica Organic Agriculture Movement, 2004

The regional meeting which is reported was participatory in nature and included comprehensive technical sessions as well as marketing strategies for organic farmers, basic skills in internet use and electronic networking and an introduction to the mechanisms of electronic commerce. Specific training workshops which combined strategic planning sessions with demonstrations and skill-building components for entrepreneurs also formed part of the workshop. The majority of the women had

had limited information technology experience and were curious and interested to learn more. They left the workshop with a basic understanding of the uses of ICTs, website content control and design and email use. Many of the aspiring organic farmers were also keen to deepen their understanding of organic farming techniques and to learn from each other's experiences.

<http://www.networkedintelligence.com/Jamaica%20report.html> (accessed at 28-10-04)

068 ICTs and development
Journal of International Development 14(2002)1, special issue ISSN 0954-1748

This special issue on the role of ICTs in development addressed: (1) links between ICTs, knowledge and development; (2) the role and impact of ICTs in development drawing on cases from Kerala (India), Russia, Botswana and Australia; (3) ICTs in development projects in South Africa and Vietnam; and (4) new approaches to understanding ICTs in development with reference to information literacy needs and scaling up information services for telecentres.

KIT Library code E 3118-14(2002)1

069 Linking rural radio to new ICTs in Africa: bridging the rural digital divide
ILBOUDOU, JEAN-PIERRE; CASTELLO, RICCARDO DEL. In: *The one to watch: radio, new ICTs and interactivity*/ed. by Bruce Girard. Food and Agriculture Organization of the United Nations (FAO), Rome, 2003. Digital edition 1.1

Today, more than 80 developing countries suffer from chronic food deficits and about eight hundred million people live in hunger. By 2025, the world's population may exceed eight billion and food needs in developing countries may double. The challenge of ensuring food security in developing countries calls for new technologies, skills, practices, and ways to collaborate. Most importantly, farmers must be able to communicate with peers, local authorities, and institutions and have access to relevant knowledge and information. Against this backdrop, an outline was given of the work of the Food and Agriculture Organization of the United Nations (FAO) in the area of communication for development methodologies used in rural radio, and how radio and communication for development methodologies, coupled with technological innovations, can help rural communities access the knowledge and information they need to improve their living conditions. Two model initiatives from Mexico and Chile were highlighted. The goals and

activities of FAO's Electronic Information Systems Group were described. This multi-disciplinary working group was created in 1996 to explore the potential of ICTs to support sustainable development processes. Twelve common elements of successful rural and agricultural internet communication and information systems were listed. Finally, FAO's strategic programme to bridge the rural digital divide and reduce poverty and food insecurity was presented.

<http://comunica.org/1-2-watch/pdf/chapter3.pdf>
(accessed at 28-10-04)

KIT Library code U 03-207

070 Information and communication technologies (ICTs)

The Courier: ACP EU (2002)192, p. 33-68

Various prospects for using ICTs as a tool for empowerment are examined, including: (1) the role of ICTs in the European Community (EC) policy on development co-operation; (2) the relevance of ICTs when developing countries are struggling to provide food, clean water, education and health care; (3) development agenda for ICTs in Africa; (4) scepticism on plugging in the rural world; (5) enhanced development through ICTs; (6) 'www': why promote ICT in development countries and who should do what?; (7) ICT developments and initiatives in the Caribbean and Pacific regions; (8) ICTs and women; (9) setting up a decentralized cohesion fund to bridge the digital divider; (10) the role of ICTs in knowledge management for development; (11) e-commerce business models in developing countries; (12) media in the South; and (13) supporting indigenous people to reclaim their land. The EC intends to use ICTs as part and parcel of its strategy to fight poverty and achieve the Millennium Development Goals. Consensus is emerging on the fact that, when wisely applied, ICTs offer enormous opportunities to narrow social and economic inequalities.

KIT Library code K 2054-(2002)192

071 Information and communication technologies and their impact on and use as an instrument for the advancement and empowerment of women. Final report of the Expert Group Meeting, Seoul, Republic of Korea, 11-14 November 2002

EGM/ICT/2002/Report

Ways in which the rapid diffusion of ICTs and the associated growth of the ICT sector offers both opportunities and risks to women's empowerment and the worldwide promotion of gender equality are examined, particularly as this relates to developing and transition

countries. Evidence is presented to demonstrate that when there is an enabling environment, ICT can provide diverse avenues for women's social, political and economic empowerment. Meanwhile, a contrasting body of evidence showed how gender-blind ICT policy processes can undermine women's access to opportunities in the emerging knowledge and information society and diminish ICT's potential to help promote gender equality. Specific challenges, such as women's uneven and unaffordable access to ICT facilities and services, are identified. An attempt is made to present coherent and strategic responses to the challenges that face women in the ICT area. The resounding message throughout is that there is an urgent need to ensure that women enjoy the myriad potentials for social and economic empowerment offered by ICT and participate effectively in all aspects of the ICT field. Finally, it is recommended that all stakeholders must take urgent action to ensure that gender equality and women's rights are integrated into the next World Summit on the Information Society (WSIS).

<http://www.un.org/womenwatch/daw/egm/ict2002/report/s/EGMFinalReport.pdf> (accessed at 28-10-04)

072 Information and communication technologies for development: present situation, perspectives and potential areas for German Technical Cooperation in Peru, Lao P.D.R., Vietnam, Tanzania and Uganda

GTZ (Deutsche Gesellschaft für Technische Zusammenarbeit), Eschborn, 2002

This report presents the results of studies on the ICT sector, ICT-related activities and involved stakeholders in Peru, the People's Democratic Republic of Lao, Vietnam, Tanzania and Uganda. For each country an overview is given of the legal and infrastructural framework, the access of rural areas to telecommunication services, and internet-related developments and limitations. Each country's strengths and weaknesses are assessed and recommendations for potential German involvement are made. Cross-sectional thoughts concerning the lessons learned and implications for future strategies conclude the report.

http://www.gtz.de/dokumente/Information_and_Communication_Technologies.pdf (accessed at 28-10-04)

073 Information communications technology for development: synthesis of lessons learned

Essentials 5. United Nations Development Programme (UNDP), Evaluation Office, New York, NY, 2001

This is a practical introduction to the area of information and communications technologies

for development (ICTD). It seeks to provide the development practitioner with evidence-based insights, synthesized from across a wide range of ICTD initiatives undertaken by UNDP and partners, and presented as a selection of generic challenges and lessons learned. This analysis is divided into three parts: (1) ICTD and its rise on the global development agenda; (2) six generic challenges (awareness, politics, access, relevancy, sustainability, and coordination) that can critically affect any ICTD initiative, whether it is at a global, national, regional or local level; and (3) practical ideas for development actors to 'lead by example' in ICTD.

http://www.undp.org/geo/documents/essentials_5.PDF
(accessed at 1-11-04)

074 Internet and ICTs for social change

APC WNSP (Association for Progressive Communications, Women's Networking Support Programme), 2001

Work carried out by the Association for Progressive Communications Women's Networking Support Program (APC WNSP), founded in 1993, on Gender Evaluation Methodology (GEM) for ICTs was placed in the context of overall development issues related to gender and ICTs. Critical ICT issues relevant to gender equality and women's empowerment in the current context of globalization were listed. The way in which the Association for Progressive Communications (APC) and APC WNSP analyse these issues and their approach towards using ICTs for development was also presented. Key to this approach is an understanding of the power relations in society in general and an appreciation of the unequal power relations between men and women, north and south, rich and poor, urban and rural, connected and unconnected – in local communities, in sovereign countries, and globally. The WNSP works to transform these relations of inequality with the full knowledge that ICTs can be used to either exacerbate or transform unequal power relations. It is also important to realise that ICTs cannot create gender equality, or end poverty, but that they can be tools for social action and positive social change. Other issues discussed include: the APC WNSP gender approach in using ICTs for development and social justice; are ICTs contributing to gender equality and women's empowerment; access and control; education, training, and skill development; industry and labour; content and language; power and decision making; privacy and security; trafficking, pornography, and censorship; making the

connection: putting ICTs to strategic use; and the right to communicate.

http://www.apcwomen.org/gem/Gender_ICT/index.htm
(accessed at 28-10-04)

075 Libraries and information in sustainable rural development in Nigeria

IWE, JOSEPHINE I. *Information Development* 19(2003)3, p. 169-177, 12 ref. ISSN 0266-6669

Nigeria's 120 million-strong population consists of hundreds of ethnic groups which speak different languages and dialects. Its inhabitants are scattered over thirty-six states and are served by 776 local governments. It was argued that better rural library services could play a significant role in achieving sustainable rural development in Nigeria by providing information support to development projects and helping to eradicate illiteracy. The potential goals of such libraries were explored and an outline was presented of the different strategies to satisfy the information needs of rural people through libraries. However, it was argued that merely setting up libraries will not be enough; instead efforts should be made to disseminate relevant and timely information to the people through some form of service-oriented scheme. It was concluded that an acceptable national information policy for Nigeria was urgently needed; one that squarely addresses the information needs of both urban and rural areas. KIT Library code D 3486-19(2003)3

076 Bhojpuri songs, women's work and social control in northern India

JASSAL, SMITA TEWARI. *Journal of Peasant Studies* 30(2003)2, p. 159-206, 20 ref. ISSN 0306-6150

This analysis is concerned with the construction and reproduction of gender identity in women's work songs, specifically songs of the millstone, or jatsaars, in the Bhojpuri-speaking region in northern India. Sung as accompaniment to the daily grinding of grain and spices, the songs, rich in narrative content, cover a range of women's concerns including caste and patriarchal anxieties. As the songs also serve a pedagogical purpose whereby societal values are transmitted from older to younger women, they serve to warn and prepare women for the hardships of married life, also spelling out the limits of transgression, the nature of punishments, and the rewards for compliance. Through the delineation of family relationships which might be potentially threatening and antagonistic, and by outlining approved codes of honour and conduct in such contexts, the songs indicate the extent to which women are complicit in their own oppression.

While the jatsaar cuts across caste lines, the songs presented here are collected from women belonging to a range of castes and classes, and thus it can be said to represent an authentic female voice. The main issue concerns the extent to which lessons learned through the jatsaar have a bearing on female subordination in the sphere of agricultural production, particularly in relations with the employer in the field.

KIT Library code E 2150-30(2003)2

077 The community telecentre cookbook for Africa: recipes for self-sustainability. How to establish a multi-purpose community telecentre in Africa

JENSEN, MIKE; ESTERHUYSEN, ANRIETTE. United Nations Educational, Scientific and Cultural Organization (UNESCO), Paris, 2001

With six billion people on the planet and only about 800 million telephone lines, more than half the world's population have not yet made a telephone call, let alone accessed the internet. If this digital divide is not closed, there could be an even greater gap between the rich and poor of the world. So how can this challenge be met? One solution is public access communication and information services, commonly known as 'telecentres'. Low cost telecentres are being established through private and public programmes across Africa, through special projects, or by adding PCs to telephone shops, schools, libraries, community centres, police stations and clinics. Despite widespread interest in telecentres, they are a new concept, so there is a shortage of knowledge on how to establish and sustain them, especially in Africa. The aim of this manual is to draw upon existing knowledge and materials and adapt them to the African context in a style which is user-friendly and makes few assumptions about the user's knowledge. It is aimed at any person or organization that is interested in setting up a community-based telecentre, such as a telecom-operator, an NGO, a community group, a local government, or a small business.

<http://unesdoc.unesco.org/images/0012/001230/123004e.pdf> (accessed at 28-10-04)

078 Telecenters and the gender dimension: an examination of how engendered telecenters are diffused in Africa

JOHNSON, KELBY. Thesis submitted to the Faculty of the Graduate School of Arts and Sciences of Georgetown University, Washington, D.C., 2003

Telecentres have become an important component to development programmes that seek to narrow the digital and knowledge divides

that exist throughout the world. Despite the proliferation of telecentres throughout Africa, women continue to be cut off from essential information resources that could improve their lives. This thesis examines the relationship between gender differences, telecentre design and women's accessibility to ICTs. By examining how these elements interact in the context of the diffusion model, this thesis suggests that the incorporation of the gender dimension into telecentre designs can enhance the diffusion of engendered telecentres, thereby increasing women's access to ICTs and improving their ability to contribute to the evolution of Africa's information society.

<http://cct.georgetown.edu/thesis/KelbyJohnson.pdf> (accessed at 28-10-04)

079 Gender perspectives on telecenters

JORGE, SONIA NUNES. International Telecommunication Union (ITU)/Telecom Americas 2000 Telecom development symposium 'communications: universal access and community telecentres', April 11, 2000

What are the strategies for facilitating access to community telecentres for women living in rural and peri-urban areas? Although telecentres currently provide an innovative alternative for areas traditionally lacking in access to telecommunications infrastructure and services, little attention has so far been paid to facilitating the use of community telecentres by women and girls in developing countries. According to the author, failure to integrate a gender component in telecentre planning, design and implementation has so far led to the marginalization of rural women and girls from potentially beneficial information and telecommunications services. To create a sustainable female customer/user base for telecommunications services, gender analysis and training should be an integral component of telecentre planning. In addition, the needs and specific contexts of women's and men's lives need to be taken into consideration. This can be achieved, it is suggested, by engendering telecommunications policy through such measures as providing affordable prices for the use of telecentres and ensuring that 50 percent of all telecentres are owned or operated by women.

http://www.siyanda.org/docs/jorge_telecenters.pdf (accessed at 28-10-04)

080 Gender-aware guidelines for policy-making and regulatory agencies

JORGE, SONIA NUNES. International Telecommunication Union (ITU), Geneva, 2001

A concise set of guidelines was presented with a brief discussion of each point. Four main areas

were covered: general, human resources, training, and licensing activities. The guidelines are intended for use by policymakers and decision makers to ensure that gender analysis becomes an integral part of licensing and regulatory activities. They can be used in two ways: as a checklist of issues to consider when making decisions, or as a consultative document to provide ideas on how to mainstream gender in regulatory and licensing agencies. Some of the main recommendations laid out in the guidelines included the following: review, revise or develop new regulations, circulars, issuances and procedures to remove any gender bias; ensure that there are no wage disparities among the genders and establish a policy to eliminate such gaps; ensure equal access to training opportunities; promote gender analysis as part of the policy process; develop and establish systems to gather gender statistics; and, ensure that a certain percentage, targeting 50%, of all supervisory and management positions are occupied by women.

<http://www.itu.int/ITU-D/gender/pdf/GenderAwarenessGuidelines.pdf> (accessed at 28-10-04)

081 The economics of ICT: challenges and practical strategies of ICT use for women's economic empowerment. Paper prepared for the United Nations Division for the Advancement of Women (DAW) Expert Group Meeting on 'Information and communication technologies and their impact on and use as an instrument for the advancement and empowerment of women', Seoul, Republic of Korea, 11-14 November 2002 JORGE, SONIA NUNES. *EGM/ICT/2002/EP.8*.

United Nations Division for the Advancement of Women (UN DAW), New York, N.Y., 2002

ICTs provide a great development opportunity by contributing to information dissemination, providing an array of communication capabilities, and increasing access to technology and knowledge, among others. However, access to and the cost of ICTs continue to be major development obstacles, particularly in the developing world. In peri-urban and rural areas the problem is even bleaker, where the infrastructure is either old or non-existent. These areas are home to the vast majority of women and poor populations. If ICTs are to become a means for improved economic conditions, particularly in rural and peri-urban areas, ICT policies and programmes must address the needs of women and the poor in general. It was against this background that the challenges and practical strategies of ICT use for women's economic empowerment were examined. The main challenges and obstacles faced by women were

discussed, and practical strategies to remove such obstacles were suggested. Finally, recommendations were made on how to proceed in order to improve the conditions leading to women's empowerment.

<http://www.un.org/womenwatch/daw/egm/ict2002/reports/Paper%20by%20Sonia%20Jorge.pdf> (accessed at 28-10-04)

082 Telecentres for universal access: engendered policy options

JORGE, SONIA NUNES. *Women in Action* (2002)2, p. 36-39 ISSN 0101-5048

Universal service is traditionally defined as access to a telephone in every household. In 1996, 95% of households in developed countries had a telephone, however, only 18% of the households in the rest of the world had one. The urban-rural divide in developing countries is even more depressing: about 60% of the population lives rurally, yet 80% of the telephone lines are in the urban areas. The magnitude of the access gap (or digital divide) has led to a recent rethinking of universal service policies for developing countries. Given that a telephone line per household may not be economically or technically feasible for many developing countries, a wider concept of universal access to telecommunications should be the focus of the discussion. Instead of thinking along the lines of a 'telephone per household', the current approach is to think in terms of wider 'community access' to telecommunications. The whole concept has also shifted from 'access to telecommunications' to access to 'ICTs', including fax, radio, email, internet access, computer services, traditional telephony, and access to local, regional and national information previously available to only a few. Telecentres have recently emerged in developing countries as the new medium to achieve this. Arguments were presented to stress the importance of including a gender perspective in future projects and policies to set up telecentres in developing countries.

<http://www.isiswomen.org/pub/wia/wia202/telecentres.htm> (accessed at 28-10-04)
KIT Library code H 2629-(2002)2

083 Rural women and their access to useful information: communication networks in selected villages in Moyamba district, South Sierra Leone KAMARA, ISATU S. British Thesis Service, Boston Spa, 2000. ca. 450 p. ill. Doctoral diss. University of Reading

In 1992, a survey was carried out among 2789 women farmers in 5 villages in Moyamba District, southern Sierra Leone, to determine the sources from which they accessed agricultural

information and whether communication networks existed and on what basis. It was found that substantial communication networks existed among the women farmers. The 3 main networking systems were based on: (1) friend-peers; (2) family and neighbours; and (3) other sources, including people in other villages. Additional networks existed to address the need for credit and labour. The linkages between these networks had considerable potential for the effective transfer of information. Husbands and other male kin emerged as important sources of information. Some women were also very influential and the principal custodians of indigenous knowledge. One of the conclusions was that women were very gender aware and conversant with gender relations. They were not submissive, but capable of exchanging and using innovative information. The potential of using their strength and emancipation to ensure that the relevant messages reach them is emphasized. It is suggested that the model of rural animation used in Francophone West Africa could be applied in the area.

KIT Library code N 02-1676

084 Making ICT policies gender sensitive
KIHORO, WANJIRU. *GAP Matters* (2001)12,
p. 4-9, 19, ill. ISSN 1462-2769

ICTs have the potential to make an impact on the lives of African people. However, in order for ICTs to benefit African women, policies that address issues of women's access to, use and knowledge of ICTs must be developed. Additionally, African women must be proactive, not only in advocating for these policies but they must also be active actors and be involved in decision-making in the sector. The policymaking arena in Africa and globally was therefore examined, and the key players identified. Proposals were then presented that would make ICT policies both gender-sensitive and gender-responsive. Organizational policies, national-level policies, and international policies were discussed. Other issues examined in the context of ICT policy-making in Africa were: the problem of poor ICT infrastructures; telecommunications monopolies; varying levels of ICT-readiness between government departments; unsympathetic management structures and styles; a lack of funding; and, the prevailing novelty of the internet that still exists in Africa.

KIT Library code H 2426-(2001)12

085 New technologies, old issues: research report of the AFTIDEV internet debate on the transfer and social appropriation of information and communication technology for African development

KOLE, ELLEN S. University of Amsterdam. Amsterdam School of Communications Research (ASCoR), Amsterdam, 2002. 123 p. ill. ref.

In 2000, people from Africa and the North engaged in an e-mail/internet discussion on the transfer and social appropriation of ICTs for African development, in the framework of international development cooperation, as part of the civil society project 'Africa, Technology, and Information for Development' (AFTIDEV). The opinions, experiences and suggestions as written down by the debate participants are documented. Also included is some background information on the posted contributions, the participants and other subscribers to the forum. There are four main research subjects: context, international cooperation, technology and ICT introduction for development. The analysis of the debate contents shows that participants pay very much attention to the context of ICT and development. They find most context issues problematic, especially those referring to the economy, social/international relations, and attitudes/perceptions. Recommendations for policy and further research are suggested. Important points for further study are: development of adequate assessment criteria; inclusion of 'the North' as subject of study; inclusion of actors who are excluded from ICT projects; and improving of theorizing, based on praxis.

KIT Library code G 02-81

086 African women speak on the internet: research report electronic survey WomenAction Africa

KOLE, ELLEN S.; OKELLO, DOROTHY KABAGAJU. University of Amsterdam, Amsterdam, 2000. 59 p. ill. ref.

This report presents the research results of the electronic survey in the African region into information and communication needs among women's organizations and women from other NGO's. The survey was undertaken by WomenAction and the regional programme in Africa of the Association for Progressive Communication's Women Network Support Programme (APC-Africa-Women) in 1999. Respondents were questioned on their current communication facilities, communication problems and their modes of communication with other organizations and their target constituencies. Problems reported by the respondents included: lack of skills for electronic

communication and problems of connectivity, technical and financial problems, and language. The report also presents trends and similarities compared to earlier research on women, internet and development. Recommendations or policy, practice and further research are made
KIT Library code Br G 02-29

087 Gender issues in information technology communication

KUNTJARA, ESTHER. *Women in Action* (2002)2, p. 40-43 ISSN 0101-5048

Can you tell which are the men and women in virtual online communities? Perceived and actual differences in the type and tone of language used online by men and women were explored in detail, drawing on personal observations and findings of a number of recent studies in linguistics. It was observed that besides the frequent apologies, women also tend to write shorter messages and gently reproach those that write long messages. They also hedge and present their assertions indirectly as suggestions. Conversely, men have been found to dominate discussions, interrupt more frequently, use a more aggressive tone, and 'flame' others more often. When women do attempt to participate in online cross-gender discussions on a more equal basis they risk being ignored by the men. Consequently, because of the social conditioning that makes women uncomfortable with direct conflict, they are often intimidated by these delegitimization practices and therefore stop participating. On the one hand, it was argued, the internet can be empowering to women by allowing them to be active and constructive and make their voices heard. On the other, however, it can also be seen as a place where the same old stereotypes of gender identity are recreated. It could end up as yet another medium reflecting the constraints imposed by a society dominated by capitalism and patriarchy, and therefore still a problematic site for women.

<http://www.isiswomen.org/pub/wia/wia202/genderissues.htm> (accessed at 28-10-04)
KIT Library code E 2629-(2002)2

088 Women'sNet: information technology to empower women in South Africa

LEVIN, LYDIA. *Voices from Africa* (2000)9, p. 75-86, 6 ref.

In 1998, 81% of internet users in South African were men. Only 19% were women. It was against this backdrop that the work undertaken by the Women'sNet project was examined. Launched in 1998, Women'sNet uses electronic information and communication technologies (ICTs) to

empower and gain equality for South African women. Some of the main problems concerning South African women's presence on the internet were highlighted, particularly those linked to content, communication, and coordination. One of the main successes of Women'sNet is that its website was built collectively by South African women who previously did lack the technical skills to build a website. It was also built directly in accordance with women's needs. Women'sNet has also established information partnerships with organizations and individuals which enables it to develop information content in a sustainable way. It was concluded that we need processes to engage women and to reach further into disadvantaged communities. Training is also a crucial component in empowering women. Women'sNet, and similar projects, can address such issues and help women achieve quality and human rights.

KIT Library code K 2535-(2000)9

089 Mainstreaming ICTs: digital futures of ACP agriculture

ICT Update (2004)18. Technical Centre for Agricultural and Rural Cooperation (CTA), Wageningen, 2004

This special issue contains articles and provides information on web resources, projects and documents focusing on how to mainstream ICTs into policy, programmes and projects, and on the role of ICTs in agriculture, in the provision of market information services, and in the life of an agricultural extension worker.

<http://ictupdate.cta.int/index.php/article/frontpage/23> (accessed at 28-10-04)

090 Getting gender into African ICT policy: a strategic view

MARCELLE, GILLIAN M. In: *Gender and the information revolution* ed. by Eva M. Rathgeber and E. Ofwona. International Development Research Centre (IDRC), Ottawa, 2000. p. 35-83

Having observed the positive impacts of science and technology, particularly the revolution in ICTs, African policymakers are turning their attention to this area of economic activity. Unfortunately, few directly comparable examples exist to help them develop ICT policies supportive of sustainable development. The challenge of harnessing ICTs for development is difficult and encompasses many issues. One such issue is gender. Without a gender perspective, it is argued, the potential benefits of ICTs may bypass girls and women. Yet, to date, this has been a missing element of ICT policy formulation and implementation. Strategies to introduce a gender dimension into national ICT policies were

therefore outlined. It was demonstrated that, on efficiency and equity grounds, such gender considerations are vitally important. An active interventionist vision for ICT policymaking in Africa was subsequently described and recommended. Following a brief analysis of the current state of national ICT policymaking in Africa and a brief historical review of the landmarks in this policymaking, the process of policymaking in four countries was examined: Mozambique, Senegal, South Africa, and Uganda, and a list of recommendations for policymakers was presented.

http://web.idrc.ca/en/ev-32945-201-1-DO_TOPIC.html
(accessed at 28-10-04)

KIT Library code N 00-710

091 Information and communication technologies (ICT) and their impact on and use as an instrument for the advancement and empowerment of women. Report from the online conference conducted by the Division for the Advancement of Women

MARCELLE, GILLIAN M. Division for the Advancement of Women (DAW), International Telecommunication Union (ITU) and United Nations ICT Task Force Secretariat, 2002

When used effectively, ICTs can be a powerful tool for women's empowerment. They can create better opportunities for women to exchange information, gain access to online education and engage in e-commerce activities. However, many women worldwide are still not fully able to benefit from using these tools due to lack of connectivity, inadequate access, illiteracy, and to language and behavioural barriers, among other obstacles. This report is a summary of an online discussion held by the United Nations Division for the Advancement of Women (UN DAW) in June/July 2002 on 'ICTs and their impact on and use as a tool for the advancement of women'. It was organized in preparation for an Expert Group Meeting on the same topic in November 2002. The paper highlights successful case studies from many countries on the use of ICTs as a tool for economic empowerment, participation in public life, and for enhancing women's skills and capabilities. It also explores strategies to integrate a gender perspective into national ICT policies. A call is made to all stakeholders to work on improving connectivity, access to ICT skills training and eliminating negative behavioural attitudes to women's full engagement with ICTs.

<http://www.un.org/womenwatch/daw/egm/ict2002/reports/Report-online.PDF> (accessed at 28-10-04)

092 Thinking BIG to accelerate gender equality and transformation in the ICTs arena
MARCELLE, GILLIAN M. In: Gender in the information society/ed. by Swasti Mitter and Cecilia Ng. *Gender, Technology and Development* 8(2004)1, p. 31-52 ISSN 0971-8524

There is an urgent need to fill the gap between the concept and practice of gender equality in the ICTs arena and to develop effective strategies for concerted action. These actions are needed to ensure that women secure access to the potential benefits of ICTs and to minimize potential disbenefits associated with the ICTs revolution. Unless decision making and participation in the ICTs sector undergo a fundamental change, ICTs will not be able to fulfil their potential for use as a tool for gender equality, women's empowerment, and human development. To address this issue, an action-oriented conceptual framework has been developed using the Buy-in, Implementation, and Growth (BIG) approach. The framework offers a way to open space for gender equality and women's perspectives to contribute to reshaping the ICTs revolution. Four critical areas of intervention were analysed using the framework: ICTs policymaking; ICTs applications to promote women's economic empowerment; ICTs-enabled health and education services; and ICTs-mediated public life participation. It is hoped that this ambitious framework will help to inspire and catalyze further activities to bridge the conceptual and operational gap that exists in order to transform the ICTs arena so that it more effectively benefits humanity.

KIT Library code H 2516-8(2004)1

093 Transforming information and communications technologies for gender equality

MARCELLE, GILLIAN M. *Gender in Development Monograph Series 9*. United Nations Development Programme (UNDP), New York, N.Y., May 2000

Gendered bases of inequity and inequality are powerful and evasive. The background information necessary for framing advocacy strategies for change was therefore presented, showing how ICTs can contribute to human development through their effects on economic, social and political structures and processes. An overview is given of how technological innovation and other facilitating factors combine to produce rapid rates of diffusion, which in turn effect society. However, the developed and developing world have different ICT needs and histories. It was argued that developing nations need an approach that emphasizes adaptation, synchronization with local innovation systems,

and alignment with development objectives in order to achieve sustainable positive impacts on human development. This is closely linked to the goal of improving gender equality in the sector. In this context, the effects of the rapid diffusion of ICTs on gender relations were examined, including: the distribution of power between men and women in ICT firms; ICT markets as carriers of gender bias; the macroeconomic dimension: globalization; individual, household and community level effects; and, the political negotiation of gender relations. Secondly, ICTs as tools for the advancement of women were analysed, for example: organizing the global women's movement, collecting and disseminating gender-related information, monitoring and protecting women's human rights, and providing an affordable means of private and professional communication. Finally, recommendations for action were made for national governments, multilateral development agencies and donors, private sector organizations, and civil society organizations.

<http://www.undp.org/gender/resources/mono9.pdf>
(accessed at 1-11-04)

094 Looking behind the internet: empowering women for public policy advocacy in Central America

MARTINEZ, JULIANA; REILLY, KATHERINE. United Nations International Research and Training Institute for the Advancement of Women (UN INSTRAW), Santo Domingo, 2002

The findings of an ongoing research project entitled 'Public information for public policy advocacy: action research with women's organizations in Costa Rica and Nicaragua' are presented. The project examines the role of public information, information systems, and ICTs in mediating state-civil society relations. Using Strauss' grounded theory approach, it aims to: determine whether women's organizations have access to public information that is relevant for policy advocacy; identify the main shortcomings in this vein; and explore strategies to overcome these obstacles. Certain core ideas behind the research differentiate it from other efforts in the area of gender and ICTs, for example, its focus on women and policy rather than on ICTs. It is not about women's access or their activities in the virtual world. Instead, it looks at women's needs and concerns in the real (offline) world and how public information and ICTs can contribute to solutions. The interface between state and the state-civil society is explained in the Central American context. Issues such as e-government, e-governance, e-democracy, obstacles concerning public

information, processes behind access to public information, and the production and dissemination of public information are examined with the help of key women's organizations and leaders in Costa Rica and Nicaragua.

http://www.un-instraw.org/en/docs/gender_and_ict/Martinez.pdf (accessed at 1-11-04)

095 Participatory video production and development

MATEWA, CHIDO ERICA FELICITY. In: Poverty, prosperity, progress: pohara, tonui, kokiri. Pre-conference proceedings. Aotearoa New Zealand International Development Studies Network (DEVNET), Wellington, 2000, p. 122-125

The Africa Women Filmmakers Trust uses the participatory methodology in the production of educational videos. Traditional forms of communicating are encouraged and incorporated into the videos, e.g. music and poetry. Communities determine how traditional media are used and what they are used for to communicate. The Trust focuses its video production activities at the women in Zimbabwe. The operations, short- and long-term objectives, and methodology of the Trust are outlined, and the content of a video on survival, the first film produced by the Trust using the participatory approach, is described.

KIT Library code G 01-114

096 Women connect! Case study of an alternative communication model

MAYER, DOE; PILLSBURY, BARBARA. *Women in Action* (2002)2, p. 20-25, ill., 4 ref.

ISSN 0101-5048

Women Connect! was a five-year initiative carried out between 1997-2002 with 30 women's NGOs in Africa (Zimbabwe, Zambia and Uganda). Its vision was to help women's organizations use the power of information and communication technologies (ICTs) to change women's lives. To realise this vision it set itself two goals: (1) to contribute to women's empowerment through collaboration, communications capacity building and information sharing with women's organizations; and (2) to help women strengthen their organizations and their ability to achieve their own objectives, especially in the areas of women's health and well-being. The structure and content of the Women Connect! initiative was described, including: its strategic use of the media; communication campaigns; training and technical collaboration; and the small grants it provided to 26 African organizations to enable them to develop and implement their own ICT-enabled projects. Descriptions of three of these

projects and their results were given. They were carried out by the following organizations: the Forum for African Women Educationalists Uganda (FAWEU); the Uganda Private Midwives Association; and Jkesa Pfungwa (Zimbabwe). Some of the lessons learned during the course of implementing the Women Connect! initiative were listed. It was concluded that, thanks to Women Connect!, the participating organizations are now more keenly aware of the need to formulate communication strategies and to strengthen their use of ICTs and media.

<http://www.isiswomen.org/pub/wia/wia202/>

womenconnect.htm (accessed at 1-11-04)

KIT Library code E 2629-(2002)2

097 Usability of the internet in SME's: a case study of female small scale textile entrepreneurs in Botswana

MBAMBO, BUHLE. *African Development Perspectives Yearbook* (2002-2003)9, p. 617-621, 8 ref.

The relationship between information and development is both complex and intricate. The literature describes the internet as an essential part of the development process. It further appeals to development organizations to speed up the development process by adopting the internet and modern ICTs. Women have, on the other hand, been described as minority users and as consuming users of the internet. It is against this background that a summary is presented of research into how far the internet can be utilized by predominantly women's organizations in small-scale businesses. A case study on the Gaborone chapter of the Botswana Textile and Small Business Association (BOTSBOA), which has a 93% female membership, provided the data. The findings of the study, including a list of four key recommendations, were highlighted. It was concluded that the internet can be an extremely beneficial development tool in developing countries provided that economic and legal constraints are resolved. It was also shown that entrepreneurs will tackle micro-level difficulties of language in order to trade but require macro-level assistance at policy levels to create economic and legal frameworks for operation.

KIT Library code D 2730-(2002-2003)9

098 Information needs of women in small businesses in Botswana

MCHOMBU, CHIKU MNUBI. *International Information and Library Review* 32(2000)1, p. 39-67, ill. ref. ISSN 1057-2317

Botswana is developing quickly and boasts one of the strongest economies in Africa. A small,

exploratory study investigated women's information needs in small businesses in Botswana in order to establish how these needs arise, and factors that influence information-seeking habits. A total of 40 women and 10 institutions were consulted in Gaborone using structured interviews and stratified sampling techniques. Institutions, which serve the small business sector, were also consulted. The identified information needs were business management, sources of financial assistance, business diversification and legal information. The study also found that women obtain most of their business information through informal channels and that women lack awareness of formal information resources. The study makes recommendations on how to design an appropriate information service for women in small businesses: firstly, an information service supporting women in small businesses should be started and ideally located in the Ministry of Commerce and Industry. Secondly, a simple directory listing all the services currently offered to women owned-businesses by different institutions in Botswana, such as CORDE, WFHB, and the Friedrich Ebert Foundation, should be produced.

KIT Library code E 2186-32(2000)1

099 Information and communication technology in agricultural development: a comparative analysis on three projects from India

MEERA, SHAIK N.; JHAMTANI, ANITA; RAO, D.U.M. *Network Paper: Agricultural Research & Extension Network* 135. Overseas Development Institute (ODI), London, 2004 ISBN 0-85003-705-0

The performance of three very different ICT projects to deliver information to farmers and other rural dwellers in India was examined: the Gyandoot e-governance project in Madhya Pradesh, the Warana Wired village project in Maharashtra, which is an attempt by sugar cooperatives (with some government support) to expand services to growers; and, the iKisan project in Andhra Pradesh which is an experiment by a large, private agricultural input supplier to provide information to farmers in Andhra Pradesh. The organization of each project is described, the types of farmers involved is discussed (including how they utilize the services), and the backgrounds and performance of the functionaries who manage the projects is examined. Three key conclusions were drawn: (1) efforts should be made to incorporate ICT in all endeavours related to agricultural development; (2) the organizations and departments concerned with agricultural

development need to realise the potential of ICT for the speedy dissemination of information to farmers; and, (3) Government at the national and state level in India has to reorient agricultural policies so that a fully-fledged strategy is formed to harness ICT's potential for assisting overall agricultural developments.

http://www.odi.org.uk/agren/papers/agrenpaper_135.pdf (accessed at 1-11-04)

KIT Library code E 3161-(2004)135

100 SEWA Banascraft project: a case study in rural marketing

MENNING, GARRETT; with the support of Reema Nanavaty and the other staff of Banascraft, United States Agency for International Development (USAID). Business Services for Small Enterprises in Asia: Developing Markets and Measuring Performance, International Conference, Hanoi, Vietnam – April 3-6, 2000

An assessment was given of the utility and relevance of the Business Development Services Performance Measurement Framework (BDS PMF) by means of a case study of Banascraft, a BDS project in India organized by SEWA (Self-Employed Women's Association). Banascraft helps poor women in the sparsely-populated, underdeveloped Banaskantha District near the Rann of Kutch to manufacture and market traditional handicrafts. Through the project, (some) local women are given training in purchasing raw materials, product design and development, and marketing. The project's approach and the particular local problems that it seeks to overcome highlight important issues in the current debate about the proper goals and strategies of BDS. In recent years, there has been a general shift in focus in the BDS field from promoting particular supplier organizations toward the broader goal of fostering vigorous, competitive markets. However, in the case of projects like Banascraft, stimulating a robust market environment with competition among a number of different BDS suppliers is simply not a realistic option in the near-term. Areas of complementarity and overlap between the organizational development model and the market development paradigm were explored. In the process, the Banascraft case study is also used to suggest ways to improve the usefulness, versatility and relevance of the PMF for both donors and practitioners.

<http://www.ilo.org/public/english/employment/ent/papers/indisewa.htm> (accessed at 1-11-04)

101 Asian women in the digital economy: policies for participation

MITTER, SWASTI. United Nations Development Programme (UNDP), Kuala Lumpur, 2001. 36 p. ill. ref.

Drawing on the experiences at grass-roots level and on recent empirical research in this field, this monograph documents how the emergence of the digital economy is transforming the lives and work of women in Malaysia and some other countries in Asia. The monograph highlights the opportunities and threats that the ICTs present to women; at the same time it indicates the way the new technologies themselves could be used to transcend the digital divide around gender. The monograph emphasizes the importance of participation of all three stakeholders, the state, the private sector and the NGOs, in a policy framework that explores the use of ICT for women's empowerment and livelihood. The analysis takes note of the vision of the Malaysian government for creating a gender-sensitive ICT-led caring society. A case is made for an exchange of information among the policymakers and NGOs in the region.

KIT Library code U 02-30

102 Globalization, ICTs, and economic empowerment: a feminist critique

MITTER, SWASTI. In: Gender in the information society ed. by Swasti Mitter and Cecilia Ng. *Gender, Technology and Development* 8(2004)1, p. 5-29 ISSN 0971-8524

In order to evaluate the problematic of ICTs-led globalization from the perspective of women from poorer countries, the challenges and opportunities encountered by this group were documented. The impact of ICTs on the working lives of these women, for example when they trade on the net, or in the areas of teleworking or call centres, was also assessed. The recurring theme is the economic empowerment of traditionally disadvantaged groups such as women through ICTs. References were made to the growing concerns expressed by eminent non-European scholars and various anti-globalization movements. Concerns that are rooted in the hegemony of the North, both in technology and trade. In this context, the visions and concerns of women from the developing world with regard to ICTs and digital trade were explored, especially among women living in communities without basic amenities such as water and electricity. Finally, the case is made for including women's groups in policy dialogues to assess the significance of ICT-led globalization in the developing world.

KIT Library code H 2516-8(2004)1

103 Impact of technology on women: strategies for non-formal education

MOHSIN, SELINA. *Indian Journal of Gender Studies* 7(2000)1, p. 101-123, 12 ref. ISSN 0971-5215

Functional literacy, or non-formal education (NFE), is an integrated approach to education and training organized outside the formal system, which includes literacy, skills development, collaborative group activities, information and training on issues of everyday life and work for improved health, status and socioeconomic development. The potential contribution that NFE could make to help change the lives of poor and illiterate women is discussed, drawing on evidence of NFE initiatives in Africa and Asia. Access to and use of technology to promote health, employment and sustainable development are examined. Roles and responsibilities of actors in NFE initiatives are explored. Factors affecting the use of technology, and in particular barriers faced by women are addressed. Finally, strategies for NFE are suggested.

KIT Library code H 2219-7(2000)1

104 The feminist project in cyberspace and civil society

MOJAB, SHAHRZAD. *Convergence* 33(2000)1/2, p. 106-119, 9 ref.

A feminist critique of the concept of 'civil society' is presented by examining it in different contexts of the West and the Middle East. While in the West the main centre of power has shifted from the state to the market, the state continues to dominate the market and civil society in many non-Western societies. Drawing on the experience of the International Kurdish Women's Studies Network, a critical assessment is made of the claim that the current communication revolution has changed the balance of forces in favour of civil society. It is argued that cyberspace enhances the ability of individuals to organize in social movements, and create and disseminate knowledge. Cyberspace is, however, not neutral and social movements engage in very unequal competition for hegemony. Finally, it is argued that recognizing the contradictions and limitations of the real and virtual spaces of civil society enhances our ability to create alternative forms of knowledge and learning.

KIT Library code H 1967-33(2000)1/2

105 Cellular phones for women empowerment in rural Bangladesh

MONI, MONIR HOSSAIN; UDDIN, M. ANSAR. *Asian Profile* 32(2004)1, p. 77-91, 20 ref. ISSN 0304-8675

Bangladesh is one of the world's most densely populated poor countries and has one of the least

developed communications systems: less than four telephone lines per 1,000 people. It is not uncommon for rural villagers to spend two days travelling to a city to make an important telephone call. Steps were taken to change this in the mid-1990s when the Grameen micro-credit bank supported the Village Pay Phones (VPPs) initiative: a pioneering project to reduce information poverty by bringing cellular phones to the villagers. The project's aims, how it works, the difficulties it encountered along the way (such as the country's stringent regulatory framework), and its overall impact on poverty alleviation are described in detail. It was concluded that the VPPs initiative is having a positive impact on the socioeconomic empowerment of rural individuals and communities. Early findings suggest that the project has had considerable development benefits. It has reduced the cost of communications relative to other services such as transportation and has boosted producers' returns by enabling village pay phone users to compare rural prices, increasing their bargaining power with the middlemen. The initiative has also enabled the village pay phone entrepreneurs, poor by most standards but among the better off in the villages, to turn a profit. Headlines such as "One moment please. Ganganagar calling the world" (The Washington Post, March 1, 1999), and "A new line for micro-credit and anyone waiting to talk" (International Herald Tribune, March 3, 1999) also indicate the widespread interest in and impact of this initiative.

KIT Library code B 3113-32(2004)1

106 A study of the family information needs and information seeking behaviors of rural women in Botswana

MOOKO, NEO PATRICIA. Ann Arbor, MI, UMI, 2003. 217 p. ill. Doctoral diss. University of Pittsburgh, Pittsburgh, PA, 2002

The family formation needs and information seeking behaviour of rural women living in Makwate, Modipane and Paje in Botswana are examined. A total of 60 married women and single mothers who were heads of households form the population under study. The women needed information concerning health of the family, basic needs such as clothing, finances, acquisition of agricultural implements and the improvement of agricultural produce. Women also needed information relating to family violence, job opportunities, child maintenance and further training. The sources of information were interpersonal sources, comprised of formal and informal sources. The informal sources of information were members of the social network,

traditional and spiritual doctors and the village headman. The formal sources were mainly government officials and very limited printed matter. The common channels of information hinged on oral tradition. The radio was the only medium providing information cutting across most of the information needs. The use of women's groups was for the most part limited to village-based groups rather than national groups. The village-based groups were used because the women were members or personally knew the members of the women's groups. The respondents trusted the village-based groups while the national women's groups were viewed as outsiders. The respondents did not use the national women's organizations due to the lack of representation at grass-roots level and ignorance of what they can offer. When seeking information, women experienced satisfaction, and a sense of achievement when the information needs were met. They also experienced rejection, reluctance, discouragement and delays in information delivery.

KIT Library code P 04-684

107 Net gains: African women take stock of information and communication technologies
MORNA, COLLEEN LOWE; KHAN, ZOHRA.
APC-Africa-Women & FEMNET, 2000. 107 p.

The research reported here forms part of a APC-Africa-Women and FEMNET programme of activities related to the Beijing+5 process in Africa and internationally. It builds on previous research results of an electronic survey in Africa into the information and communication needs among women's organizations and women from other NGOs. In the introduction an overview is provided of information technology in Africa and the challenges this is posing; the gender dimensions of information technology; and gender and information technology as they relate to Africa. Personal experiences of information technology, the impact and uses of ICT within women's organizations in Africa, and training and support needs are discussed. Ways in which ICTs are applied as a tool for advancing gender equality in Africa are explored. It is also examined how to extend ICTs to women who do not have access to them and how to use ICTs as a tool for poverty reduction. Policy recommendations for improving access to ICTs by African women and for using ICTs as a tool for advancing gender equality are made, and a matrix and checklist for engendering ICT policy in Africa are presented.

<http://www.apcafricawomen.org/full.rtf> (accessed at 1-11-04)

KIT library code N 04-399

108 Information villages: connecting rural communities in India

MORROW, KATHERINE. *LEISA* 18(2002)2, p. 28-30, ill., 7 ref. ISSN 1569-8424

The Information Villages project, launched in 1998 in Pondicherry, South India, by the M.S. Swaminathan Research Foundation, was described. Under the project, village knowledge centres have been set up in ten villages using the hub and spokes model. Information is provided on the technical infrastructure upon which the village knowledge centres depend, how the network was built, staffing and training at the centres, the rural information landscape in the region before the project, why content in the local language is so important, the link with extension, and the project's impact on power and gender. Three obstacles were highlighted, these were: problems due to a lack of local language content on the World Wide Web; the weakness of both telecommunications and electrical infrastructure in the region, especially in the rural areas; and, the reluctance of local bureaucrats to relinquish their monopoly on information on government services and programmes. In addition, sustaining the network in a context where most users are below the poverty line also proved a difficult hurdle to overcome although, thanks to unpaid volunteers, most of the centres are partially self-sustaining. A key to their sustainability is the fact that they are perceived a valued community assets. Positive attention from the media has also helped to boost their image, both at home and abroad, and the possibility of going global with the project is now being discussed.

KIT Library code D 2286-18(2002)2

109 MSSRF: village knowledge centers
Gender, Technology and Development 6(2002)1, p. 147-152 ISSN 0971-8524

A project launched in 1998 in Pondicherry, South India by the M. S. Swaminathan Research Foundation (MSSRF) in India to measure the impact of information technology in rural areas through a number of rural telecentres or 'Village Knowledge Centers' was described. The telecentres are run by unpaid local volunteers and managed by local village groups under a Memorandum of Understanding (MoU) with MSSRF. The project was developed with an in-built gender-sensitive component and had three objectives: to set up telecentres that enable rural families to access modern ICTs; to train educated young people, especially women, in rural areas in how to operate information shops; and, to build a model in information dissemination and rural exchange in rural areas using an appropriate

blend of modern and existing channels of communication. A hub-and-spoke model of data-cum-voice communication in a group of six villages was set up, using a hybrid of technologies; wired and wireless for communication and solar power and electricity for power supply. Two important features of this project are the strong sense of ownership that village communities have developed towards the village centres, and the active participation of rural women in the management and use of the village centre. The telecentres provided information in Tamil on a range of locally relevant issues, from incense manufacture and savings cooperatives, to herbal remedies. It was stressed that using Tamil, the local language, was key to the success of the project.

KIT Library code H 2516-6(2002)1

109a Multipurpose community telecentre network project for African women. In partnership with Benin, Burundi, Central African Republic, Democratic Republic of Congo, Gambia, Guinea Bissau, Kenya, Malawi, Congo, Rwanda, Tanzania & Zambia

International Telecom Union (ITU), Telecommunication Development Bureau (BDT), 2004

This project proposal for the creation of a Multipurpose Community Telecentre (MCT) Network for African Women will involve construction of a network of at least 100 MCTs in 20 or more African countries, owned and managed by women, providing public telephone, fax and internet connectivity and e-mail, as well as basic information and a host of ICT applications such as health, education, government and other information services, e-commerce, shared office facilities, including IT equipment, training in computer literacy, use of computer applications and support in use of the MCT facilities, trade services (access to market information), radio and television, photocopying services etc. The main project objectives include: creation of an enabling environment where women will actively participate in the development process of the African continent and expand women's role in ICT and its new technologies and services; improvement of the basic economic conditions and lifestyle of the population; to facilitate affordable and easy access to basic telecommunications and information services; and to encourage women's participation in ICTs by enabling women to manage and control the telecentres.

<http://www.itu.int/ITU-D/af/fr/pdf/MCTNetworkforAfricanWomen.pdf> (accessed at 1-11-04)

110 Information revolutions: how information and communication management is changing the lives of rural people

MUNDY, PAUL; SULTAN, JACQUES. Technical Centre for Agricultural and Rural Cooperation (CTA), Wageningen, 2001. 234 p. ref. ISBN 92 9081 2289

Grass-roots actors, citizens' groups and NGOs are increasingly learning how to use communication tools to promote their own agendas. Network of users are emerging: cooperatives, producers' groups, research networks, groups of radio stations. Many of these groups cut across traditional boundaries: NGOs, universities, government research centres and farmers all working together to solve a problem. They decide what types of information they need, and find it through dialogue with other groups or by tapping resource centers and information banks. The ways in which communication and information management is used to provide information to audiences, to help audiences find information and to facilitate dialogue among audiences are addressed and illustrated by stories about particular institutions or sets of institutions. There are sections on radio and television, newspapers and newsletters, literacy and local languages, computers and telecommunications, farmers' groups and markets, farmers' knowledge, research and extension links, research networks, and libraries.

<http://ictupdate.cta.int/index.php/filemanager/download/134/> (accessed at 1-11-04)

KIT Library code N 04-265

111 Gender-Net: a political goal of communication technologies

MUNÉVAR M., DORA INÉZ; ABURTO ARRIETA, JUAN. *Gender, Technology and Development* 6(2002)1, p. 43-62 ISSN 0971-8524

Gender discrimination determines women's exclusion in all societies and social estates, so that women constitute the poorest people. It comprises an almost insurmountable impediment for the enjoyment of all kinds of resources, among them technological ones and, in particular, communication technologies. The configuration of Gender-Net is therefore proposed as a decisive tool to promote the quality of life of women, using human communicative processes that are communitarian in scope, and employing the socio-cultural and political goals derived from this option. This intention forces us to think about the power relations unfolded by the internet as technological products and, simultaneously, the technological input useful to reach empowerment goals. Rather than offering answers and solutions, the emphasis is placed on establishing

a basis to prompt questions and discussions about technology and life and, more closely, the issue of technology and gender discrimination.
KIT Library code H 2516-6(2002)1

112 Application of ICTs in Africa's agricultural sector: a gender perspective

MUNYUA, HILDA. In: Gender and the information revolution in Africa/ed. by Eva M. Rathgeber and Edith Ofwona Adera. International Development Research Centre (IDRC), Ottawa, 2000, p. 85-123 ISBN 0-88936-903-8

Some of the key problems facing women in the agricultural sector, along with efforts made to address communication issues and other problems, were analysed. These problems range from limited access to credit, and restricted access to training and education, to heavy workloads, and non-adoption of new agricultural technologies. Various needs assessments have already been conducted for women in the agricultural sector. Some additional needs are identified here and ways in which these are being met are described. In most African countries, investment in information and communication technologies (ICTs) has focused mainly on the urban areas, although ICTs have a great potential to help meet the needs of rural female farmers and to benefit rural communities. A few examples of activities that have already been undertaken were presented, including initiatives by the United Nations Economic Commission for Africa (UNECA), the International Development Research Centre (IDRC), the United Nations Development Programme (UNDP), the Food and Agricultural Organization of the United Nations (FAO), the World Bank, the United Nations Educational, Scientific and Cultural Organization (UNESCO), the United States Agency for International Development (USAID) and a number of African regional bodies. Finally, some policy implications of the broader use of ICTs were explored.

KIT Library code N 00-710

113 The use of information and communication technologies (ICTs) as a tool to bridge the gender gap: a case on the use of locally-developed CD-ROM by rural women in Uganda
MIJUMBI, RITA MUKAAKA. United Nations International Research and Training Institute for the Advancement of Women (UN INSTRAW), Santo Domingo, 2002

The status of Uganda's ICT sector, particularly with regard to ICTs for development, was described briefly, followed by a report of a small experimental study carried out during a field visit to Nakaseke Telecentre in rural Uganda. An

initiative to develop a CD-ROM for rural women so that they could access information on a particular subject in which they were interested was described. The CD-ROM, entitled 'Rural Women in Africa: Ideas for Earning Money', consists of an introductory section on how to use the computer and the CD-ROM and three content sections that focused on the need to identify existing assets, how to make money from a product or service, and how to expand business opportunities. An assessment of responses from 34 women who had been using the CD-ROM over a seven-month period in Nakaseke village (also site of a Telecentre) was presented. The impact of this tool on women and men in rural areas was examined, particularly with regard to its capacity to improve their socioeconomic status by enabling them to access the right information. Finally, the lessons learned from this initiative, and other ICT development initiatives in general, were described.

http://www.un-instraw.org/en/docs/gender_and_ict/Mijumbi.pdf (accessed at 1-11-04)

114 Moulding ICT to their needs: Kerala's women overcome their misgivings

NAIR, PREMA. *Women in Action* (2002)2, p. 16-19, ill. ISSN 0101-5048

With the internet fast becoming the 'electronic hall of democracy', access to this becomes a paramount issue for women in their efforts to enter the public arena. Experiences of women in Kerala, South India with regard to information technology (IT), especially their limited access to computers in the home and lack of employment opportunities in Kerala's booming IT industry, were examined. It was found that, although women in Kerala have the highest literacy and education levels in India, this has not necessarily translated to social conditions that might encourage them into fields such as ICT. In addition, the computer and e-mail communication era has not found easy acceptability among the women of Kerala. To begin with, technology is generally introduced first to the male members in a household, with boys getting priority over the girls. Girls tend to use the computer much less, usually only to type application letters. Activities carried out by Kerala's vibrant and growing women's movement were described along with the common prejudicial views about women that tend to keep them at the lower levels of the IT industry. The benefits that access to ICTs could offer women were outlined, especially with regard to making their voices heard in Kerala's patriarchal society, where women's visibility in public space is still minimal.

KIT Library code E 2629-(2002)2

115 Empowerment and governance through information and communication technologies: women's perspective

NATH, VIKAS. *International Information and Library Review* 33(2001)4, p. 317-339, ref. ISSN 1057-2317

Expectations are high when it comes to the opportunities that Information and Communication Technologies (ICT) can offer to women in developing countries. In this context, the avenues created by ICT-enabled networking processes for women in the areas of empowerment and governance were explored, along with the obstacles encountered when engendering these processes. It was argued that in the context of the knowledge sphere, the issues of gender equality, equity and empowerment of women are even more significant as women have a strategic role in the incubation and transfer of critical knowledge which often forms the blue print of survival for communities to adapt and minimize their risk in adverse circumstances. Positive examples of ways in which ICT has helped women were given, such as the e-commerce activities of the 'Rupununi Weaver's Society' in Guyana, the GrameenPhone company's activities in Bangladesh, a Ukrainian telecentre project, and India's Gyandoot intranet project.

KIT Library code E 2186-33(2001)4

116 New technologies for rural applications: final report of ITU-D Focus Group 7
International Telecommunication Union (ITU), Geneva, 2000

In 1998, the World Telecommunications Development Conference in Malta adopted 'Topic 7', the study of new technologies for rural and remote applications, as a component of its action plan. A Focus Group was subsequently formed in March 1999 specifically to identify the new technologies that would enable developing countries to replace their outdated and inadequate networks with systems that would offer opportunities hitherto unavailable to them. In a report published in September 2002, the Focus Group presents its findings in seven key sections: (1) background and goals of Focus Group 7; (2) trends in rural and remote applications; (3) application areas; (4) access infrastructure; (5) renewable and off-grid energy solutions; (6) information technology (integrated telephone/email devices, email appliances, handheld computers, video game systems, transaction cards, thin client systems, interactive voice response systems, computer add-ons and accessories); and (7) conclusions and six key recommendations. The Focus Group 7 also

proposed the creation of a task force, consisting of a small group of volunteers to help implement the recommendations. The overall conclusion was that there is a need for robust telecommunication systems combining low-cost, wireless access technologies with packet-based networks for the possible delivery of internet in rural and remote areas.

http://www.itu.int/ITU-D/fg7/pdf/FG_7-e.pdf
(accessed at 1-11-04)

117 NGO-Women@asia.net: the use of information and communication technologies by women's organisations in seven Asian countries. A regional study

ISIS International, Manila, 2002. 92 p. ill. ref. ISBN 971-8829-10-5

This Asia research report is part of a wider regional study initiated by the Asian Women's Resource centre (AWORC). The objectives of the study were to generate a set of baseline data in order to contextualise the environment surrounding women's access and utilization of ICTs in their countries, and to collect data from a sample survey of women's organizations on their use of ICTs in office settings. Following a review of the literature, the survey findings are presented. The study revealed that ICT has the potential to be used as a means of strengthening the women's movement through access to information and dissemination to the widest number of people possible. Most especially, grass-roots women may be empowered through timely, truthful and complete information, and having a venue where marginalized voices can be heard. Recommendations for macro policies, training and skills development for women's organizations, and research and documentation on women and ICT in the Asian region are made.

KIT Library code N 02-19800

117a The information needs and information-seeking behaviour of fishermen in Lagos State, Nigeria

NJOKU, IFEANYICHUKWU FAITH.
International Information and Library Review 36(2004)4, p. 297-307, ill. ISSN 1057-2317

A study was conducted to identify information needs, information-seeking behaviour and information use of rural fishermen and the problems facing them in their efforts to satisfy their information needs in Lagos State, Nigeria. Data were collected from 500 fishermen (409 male and 91 female) in the fishing communities in the state. It appeared that fishermen of Lagos State rely on friends, relatives and neighbours for their information. However, these channels of information are no longer adequate to meeting

their information needs, which centre on credit procurement and modern fishing techniques. Also, the lack of awareness of where and how to obtain information is not only dangerous but also detrimental to the advancement of the profession. Recommendations include the need to develop basic infrastructures such as electricity in the rural communities so that the community members can enjoy the great impact of information technology on their profession.

KIT Library code E 2186-36(2004)4

118 Relevant and accessible electronic information networking in Africa

OCHIENG, RUTH; RADLOFF, JENNY. *Voices from Africa* (2000)9, p. 33-42, 7 ref.

Some of the ways in which women globally and in Africa are harnessing ICTs are reported within the context of the ongoing debate on the relevance and usefulness of ICTs, particularly for women in Africa. Various initiatives carried out by women's organizations around the globe during the 1990s to find ways to harness ICTs were described. Several (Anglophone) African women's initiatives in this area were also described, such as a joint listserv by the Africa Information Network (GAIN) and the Southern African Non-Governmental Organization Network (SANGONeT). Throughout, the communication potential of ICTs is stressed, rather than the technology itself. As information on the internet is overwhelmingly Northern-oriented and male focused, developing relevant content is critical. It was concluded that, despite past initiatives, women's information in Africa is still marginalised by most publishing houses, the traditional producers of information. Lobbying for the inclusion of more African women in the use and application of ICTs is therefore necessary in order to overcome the many challenges and barriers that hinder African women's full participation in shaping the global information society.

KIT Library code K 2535-(2000)9

119 The 'poor man's mobile telephone': access versus possession to control the information gap in India

O'NEILL, PETER D. *Contemporary South Asia* 12(2003)1, p. 85-102, ref. ISSN 0958-4935

Wireless in local loop (WiLL), a radio communications solution with implications for the provision of cheaper telephony in urban and rural areas, has become a topic of a debate. In India over what has become known as the 'poor man's mobile phone'. This paper examines access to 'telematics' (not simply phone ownership), the validity of 'teledensity' as a statistical tool, the

view that rural people are too poor to justify phone infrastructure, and the validity of cross-subsidy arguments from city to rural areas. The need to seek overseas investment is questioned, since developing countries can avoid expensive foreign telecommunications equipment through low-cost, high-quality, indigenous telematics equipment production. India, for instance, has installed more than 20 million of such indigenous phone lines, saving billions of dollars. Internet, not just phone, connectivity, is essential for rural people to increase earnings. Politics, price, technical differences, and internet access are examined in relation to two competing WiLL products: India's corDECT (Digital Enhanced Cordless Telephony) and the American/South Korean CDMA (Code Division Multiple Access). It is suggested that the information gap cannot be 'bridged'. Instead, developing countries will have to wrest of the web for their own regions.

KIT Library code D 2674-12(2003)1

120 Synthesis report on 20 ICT case studies from organisations in South Asia, Southern Africa and Central America

OP DE COUL, MAARTJE. *OneWorld, Building Digital Opportunities (BDO), Learning and Evaluation Action Program (LEAP)*, 2004

Twenty ICT case studies from organizations in South Asia, Southern Africa, and Central America are described in a synthesis report. Their activities vary from offering wireless communication equipment to tribal nomads and teaching slum children how to use a computer, to showing NGOs how to build a website, and online broadcasting of radio programmes. The studies focused on the impact in terms of opportunity, empowerment and security, sustainability in terms of finances and human resources, a comparison between the three regions studied and other issues, namely: gender, open source, and technology. The case studies are based on interviews with people working for the partner organization or involved in another way. Where possible, representatives of the target group were also interviewed. The organization's websites were another important source of information. A glossary of all case studies is provided. It was concluded that ICTs do have an impact on poverty, mainly through promoting opportunity and facilitating empowerment. When the different continents were compared, it was found that the best enabling environment for ICT for development projects is in Central America: the political context and infrastructure are most favourable there and measuring results is one way to guarantee the quality of the activity. Also, content is sophisticated and exchanged within the

region. Nevertheless, the outreach to rural areas was found wanting and the focus on Spanish content impedes a truly global exchange. <http://www.bellanet.org/leap/docs/BDOsynthesis.pdf?OutsideInServer=no> (accessed at 1-11-04)

121 Information communication and community forestry development in Shinyanga
OTSYINA, J.A. *Discovery and Innovation* 13(2002)4, special issue, p. 82-89, ill. 24 ref. ISSN 1015-079X

In 1992, a study was carried out in Shinyanga, Tanzania, to investigate the information communication strategies of the Hifadhi Ardhi Shinyanga (HASHI) programme, a soil conservation and afforestation project. It was found that the project had achieved little success in the area of community support or participation. The key elements which led to the low participation and impact included: (1) the top-down approach to information communication; (2) the lack of mechanisms for feedback; (3) the needs of women were not adequately met; and (4) men benefited more than women. To increase farmers' participation, it was suggested that time should be taken to involve farmers at all stages of the project.

KIT Library code D 3650-13(2002)4

122 Knowledge-sharing through radio and newsletters as a catalyst to grassroot participation and management for rural water-related environment problems in Ebo Itumbunuso, in local government areas
OTU, UWEM ROBERT. *International Information and Library Review* 35(2003)3-4, p. 311-317, ill. 2 ref. ISSN 1057-2317

Knowledge comes from experience and experience from trials, successes, failures, reading, lectures, and information generally. An initiative to disseminate information about healthy living and environmental sustainability among the rural poor in Ebo Itumbunuso is described. The initiative was aimed at educating the people about water-related health and environmental issues in the area. Radio, television, illustrative dramas, newsletters and folk tales have been used for building environmental and health awareness and education. The project has been successful in terms of reducing the incidence of water-related diseases, and increased awareness of the need to preserve the environment.

KIT Library code E 2186-35(2003)3-4

123 Reforming farm journalism: the experience of Adike Patrike in India
PADRE, SHREE; SUDARSHANA; TRIPP, ROBERTT. *Network Paper: Agricultural Research & Extension Network* 128. Overseas Development Institute (ODI), London, 2003

Agricultural journalism often describes techniques that have not been tested on farmers' fields. Yet can farm journalism be shifted to incorporate the views and experience of farmers? And how should we invest in building editorial capacity and developing collaboration and respect between farmers, scientists and journalists? The Indian monthly farm magazine, Adike Patrike, is living proof that this can be done. A rare example of a commercially viable agricultural publication based on farmers' experiences, Adike Patrike caters specifically to cash-crop growers (particularly those growing betel nuts) in Karnataka and Kerala in South India. Its success has implications for farm journalism in all developing countries. Adhering to the philosophy of farmer participation in the generation of information, and sustained by a belief that farmers are more interested in reading articles by fellow farmers than the formulaic recommendations of 'experts', the magazine has established a unique niche. It insists that farmers verify technologies described in the magazine, has an adaptive approach to technology, encourages farmer-to-farmer dialogue, and acts as a counterbalance to government and industrial promotional campaigns.

http://www.odi.org.uk/agren/papers/agrenpaper_128.pdf (accessed at 1-11-04)

KIT Library code E 3161-(2003)128

124 Digital villages: a dream revisited
PAINTING, KEVIN. *Entwicklung und ländlicher Raum* 37(2003)5, p. 16-19 ISSN 0343-6462

Modern ICTs are widely seen as the driving force behind the information revolution which has transformed institutions, businesses, and the lives of people the world over, from large cities to the remotest of villages. In fact, such is the faith in ICTs that many regard access to them as the sine qua non of sustainable development. Yet the majority of the world's population has yet to benefit from the new technology; in sub-Saharan Africa, in 2000, only 0.4% of the total population used the internet compared with 54.3% in the United States. Universal access to ICTs has been a rallying cry amongst policy makers for some time now with connecting rural areas being high on the list of priorities. The far-reaching potential of radio use, television, phone shops, and the simputer in Africa was examined in this light.

Other issues explored in the context of ICT use in Africa included content and gender. Finally, the case for a 'people first' approach using community-based initiatives and common access points was put forward.

KIT Library code E 2253-37(2003)5

125 The developmental promise of information and communications technology in India

PAL, JOYOJEET. *Contemporary South Asia* 12(2003)1, p. 103-119, ill., ref. ISSN 0958-4935

The growth of information and communication technology in India is examined with the state's universal internet access policy (part of its 'IT for All' initiative) at the centre of the investigation. With its IT for All policy, India aims to incorporate the disempowered into the information society. The internet is the major communications medium of the IT-enabled economy, and one of the most significant ways in which end-users find their lives changed by technology in their daily lives. The effects of the spread of the internet among the various strata of the Indian population, mostly the corporate and the upper and middle classes, to an extent school students, and in some cases even the village farmer, differ vastly on account of three characteristics: differences in location on rural and urban populations; differences in educational level; and differences in economic status between middle and lower income classes. The state has developed alternatives to remedy the inequity between India's urban and rural spaces. These alternatives include a rapid and urgent investment in primary education, and the development of new semi-urban hubs to break away from the current state of economic imbalance that concentrates almost all non-agricultural opportunity in one or two major urban agglomerations in every Indian state. Developing hubs is then not a companion to grass-roots development, but can be an indirect route to grass-roots development, when coupled with a strong education system.

KIT Library code D 2674-12(2003)1

126 Building solidarities: a case of community radio in Jharkhand

PAVARALA, VINOD. *Economic and Political Weekly* 38(2003)22, p. 2188-2197, ill., 6 ref. ISSN 0012-9976

While India's government dithers over legislation to facilitate the functioning of community radio in India, a few community-based organizations have already initiated radio projects that seek to deploy communication technologies for development and community

empowerment. Against this background, a study was carried out to examine the functioning of one such community radio initiative in India: 'Chala Ho Gaon Mein' that is broadcast once a week on AIR Daltonganj in the Palamau district of Jharkhand. Broadly modelled after the Kutch Mahila Vikas Sanghathan project in Gujarat, 'Chala Ho Gaon Mein' was launched in August 2001 as a 30-minute community radio programme for 45 villages. This unique experiment in using media technologies, especially radio for the development and empowerment of marginalized, rural communities, is supported by the National Foundation for India and produced by community representatives of Alternative for India Development (AID), an NGO. The geographical context of Jharkhand was outlined, followed by a brief profile of AID. So far, the programme has covered issues such as literacy, dowry, agriculture, superstitions, child marriage, and alcoholism. Field work carried out to obtain feedback on the radio programme from villagers helped to produce 12 concrete recommendations.

KIT Library code B 3057-38(2003)22

127 Gender issues in the information society

PRIMO, NATASHA. *Publications for the World Summit on the Information Society*. United Nations Educational, Scientific and Cultural Organization (UNESCO), Paris, 2003

Women are underrepresented in all decision making structures in the ICT sector, and this undermines the negotiation of gender-sensitive investment decisions and introduction of innovative patterns, policies, and standards in the ICT sector. Equitable access to ICTs and the autonomy to receive and produce information relevant to women's needs and concerns are central to women's empowerment, and to the construction of an Information Society for All. UNESCO believes that unless gender issues are fully integrated into technology analyses, policy development and programme design, women and men will not benefit equally from ICTs and their applications. Against this backdrop, the evolution of the international debate on gender and information technology is sketched out in Section 1. Section 2 goes on to contrast the impact of infrastructural and gender-specific constraints on women's capacity to exploit the potential of the new ICTs in different world regions. The cross-cutting role of gender in determining participation in the information society, and the issues this raises, are explored in Section 3. Strategies, initiatives and best practices aimed at addressing these issues, and at bridging the gender divide, are considered in Section 4.

Finally, Section 5 puts forward a range of actions to be considered by the various stakeholders involved.

http://portal.unesco.org/ci/en/file_download.php/250561f24133814c18284feedc30bb5egender_issues.pdf
(accessed at 1-11-04)

128 Women and the internet: participation, impact, empowerment and strategies. Report of the pan-Canadian consultation between women and women's equality-seeking organizations
POLLOCK, SCARLET; SUTTON, JO.
Womenspace, 2003

Canadian women and women's organizations were invited to share their opinions, experience and knowledge in an online, facilitated consultation on women, communication rights and the internet between 23 September and 25 October 2002. Four themes, collectively called P-I-E-S, were discussed via Email list forums and WebBoard in English and French: Participation (including communication rights and internet access), Impact (the effect of the internet on women's lives and on women's organizations), Empowerment (using the internet for learning and work), and Strategies (using the internet for women's equality). An offline strategy was used to include the views of specific groups that were less likely to be working online. The consultation process was described in detail and included: different strategies used for inclusion, the online traditional survey for women's organizations to gather feedback, and the learning curve experienced by those involved. This was followed by an examination of the leadership and community development issues that came out of the consultation. Other issues examined included participation and human rights, barriers to participation (such as language), the impact of the internet, women's organizations' online experience, violence against women, empowerment in work and learning, internet strategies in women's organizations, strategies for civic participation, and an electronic strategy for women. A list of recommendations for further work and policy dialogue was also provided.

http://www.womenspace.ca/policy/consult_report.html
(accessed at 1-11-04)

129 Rural community ICT applications: the Kothmale model
PRINGLE, IAN; DAVID, M.J.R. *The Electronic Journal of Information Systems in Developing Countries (EJISDC)* 8(2002)4, p. 1-14
ISSN 1681-4835

The communication scenario along with the political context in Sri Lanka is very similar to most of its South Asian neighbours. The

metropolis and regional centres are witnessing rapid expansions in the telecom and media sector, while telephones, electricity, and clean drinking water are luxuries for many of those living in the countryside. Therefore, in an effort to bridge Sri Lanka's growing 'digital divide', the United Nations Educational, Scientific and Cultural Organization (UNESCO) joined forces with a series of Sri Lankan and international agencies in 1998 and set up the Kothmale Community Radio and internet in central Sri Lanka. The elements that make Kothmale stand out in the field of ICT projects are the 'marriage' of internet with local community radio and the innovation in raising rural community awareness of ICTs that this convergence has allowed. Kothmale is an excellent model for successful rural Information and Communication Technology (ICT) usage. It has laid the groundwork for the local community to use ICTs for a variety of purposes, including economic improvements, the development of new skills, networking and of course for entertainment and enjoyment. 'Quick fix' solutions to the digital divide, it was argued, will fail. Rather, community ICT applications should be part of a cohesive strategy supported by international, regional and national policies that are genuinely interested in empowering rural men and women, girls and boys to use ICTs in positive ways.

<http://www.is.cityu.edu.hk/research/ejisdc/vol8/v8r4.pdf> (accessed at 1-11-04)

130 E-Homemakers: helping mothers work from home

PUVANESWARY, S. *Gender, Technology and Development* 7(2003)1, p. 131-136 ISSN 0971-8524

The 'Mothers for Mothers' network, formed in Malaysia in 1998, was described in detail. From 1999-2001, the network helped single mothers and other disadvantaged women to work from home. The network and its members have organized a wide range of activities to support women, including conferences and fund raising events. The network also led to the E-homemakers project being set up in 2001. This government-supported project has seven goals: to build a cyber community for homemakers and homeworkers; to encourage and guide members to work from their homes by providing information on how to start and maintain home-based income-generating solutions; to provide a cyber platform for self-reliant, people-to-people activities through which members can help each other through networking and knowledge exchange; to promote networking among homeworkers and parents; to educate women to excel in areas where they are skilled and talented

through the use of ICTs; and, to provide various cyber activities and Net resources for homeworkers, parents and their children, disadvantaged mothers, and mothers in transition. By 2002, the E-homemakers project had set up its own portal in July 2002 called myhome4work.net to help women develop their own home-based businesses and had organized its 9th conference which attracted 350 people, mostly women. KIT Library code H 2516-7(2003)1

131 Net gains for women in Africa
RADLOFF, JENNIFER; PRIMO, NATASHA.
Development 45(2002)4, p. 41-48, 6 ref.
ISSN 1011-6370

Women's initiatives and organizations using new ICTs for development, gender justice, and social change were described. Based on research commissioned by the Association for Progressive Communications (APC), Africa Women and the African Women's Development and Communications Network (FEMNET) and undertaken by Gender Links Associates, issues faced by women using ICTs were examined, particularly how these are being addressed and what creative projects are being undertaken through the strategic employment of ICTs. Initiatives such as the Flamme/Flame initiative and APC's Betinho and Hafkin Prizes to encourage the innovative use of ICTs were described. A lack of appropriate content on the internet and problems with access to and control over connectivity were identified as major bottlenecks. Other issues explored included internet rights, evaluating the impact of ICTs on women's lives using the gender evaluation methodology (GEM), and lobbying to engender the World Summit on the Information Society (WSIS) 2003-2005. It was concluded that despite the many gains made in African women's access to and use of ICTs, formidable challenges remain. Therefore, lobbying and campaigning for the inclusion of gender targets in the final WSIS Declaration will be of paramount importance. KIT Library code H 1000-45(2002)4

132 Gendered discourses and mediated modernities: urban and rural performances of Tuareg smith women
RASMUSSEN, SUSAN J. *Journal of Anthropological Research* 59(2003)4, p. 487-509, 44 ref. ISSN 0091-7710

The verbal art performances of Tuareg smith women, in praise, songs, dance, joking, and, more recently, in media such as radio, are becoming more complex, as their messages and styles articulate with wider audiences and changing social relationships, in particular those involving

gender and relations between the sexes. An analysis was therefore carried out on the gendered discourses in female smiths' performances, with particular emphasis on the radio narrative in Agadez, Niger, and a rural wedding praise performance in the Air Mountains region. As female smiths perform alongside male smiths at rural rites of passage, they mediate important concerns of not solely their noble patrons but also Tuareg women. In urban, multiethnic settings, smith women's messages and roles are changing, particularly with the new technologies, such as radio, deployed by the elite feminist organizations to advance their own agendas for gender and socioeconomic change. More broadly, communities and transformations in smith women's verbal art performances provide new perspectives on cultural mediators and gendered discourses in multiple modernities. KIT Library code C 2610-59(2003)4

133 Gender and the information revolution in Africa
RATHGEBER, EVA M.; ADERA, EDITH OFWONA. Ottawa, International Development Research Centre (IDRC), Ottawa, 2000. 237 p. ill. Ref. ISBN 0-88936-903-8

The essays in this text examine the current and potential impact of the ICT explosion in Africa. They focus specifically on gender issues and analyse the extent to which women's needs and preferences are being served. The authors underscore the need for information to be made directly relevant to the needs of rural women, whether those needs are in the areas of agriculture, health, micro enterprise, or education. The contributors argue that it is not enough for women simply to be passive participants in the development of ICTs in Africa. Women must also be decision makers and actors in the process of using the new ICTs to accelerate African economic, social, and political development. KIT Library code N 00-710

134 Interaction between traditional communication and modern media: implications for social change in Iran and Pakistan
RAWAN, SHIR MOHAMMAD. In: Mass media, politics, and society in the Middle East/ed. by Kai Hafez. Hampton Press, Cresskill, NJ, 2001, p. 175-196, ill. 43 ref.

Traditional structures of communication and their impact in Iran and Pakistan are examined. Some reference is also made to other Islamic studies. Using Iran as an example, the roles of traditional and personal forms of communication, i.e. mosque, bazaar, and religious academic

institutions both in the city and in the country, in the organization and mobilization of people during the Islamic revolution are studied. Traditional systems of communication in modern Iran appear to be the most important distributors of information, ahead of the mass media, especially at local and regional level. The Islamic regime in Iran also understood the role of traditional communication from the very beginning of the Revolution in 1978-79, and developed means of integrating modern and traditional communication. A field study in North West Frontier Province in Pakistan shows that traditional opinion leaders carry more credibility than television or newspapers. It is concluded that a combination of both forms of communication is vital for societal change.

KIT Library code P 01-3045

135 Report of the Asian regional expert consultation on rural women in knowledge society, 16-19 December 2002, Hyderabad, India
RAP Publication 16. Food and Agriculture Organization of the United Nations (FAO), Rome, 2003

In the context of the World Summit on the Information Society (WSIS), the Gender and Development Programme of the FAO Regional Office for Asia and the Pacific has organized a regional consultation on 'rural women in the knowledge society'. The primary purpose of the consultation was to examine with development stakeholders, the value of ICTs for every segment of global society. Stakeholders' exploration was done in particular reference to those who have been marginalized in the previous phases of technological revolutions, namely rural communities, illiterate rural women and populations living in resource poor environments and isolated areas. The report presents an overview of the stakeholders' deliberations and recommendations as relevant to ICTs and rural women, and to distance education and rural women. These recommendations will feed into various processes that design the Plan of Action for WSIS to improve the effectiveness of ICTs in development to address the persisting problems of gender inequality, poverty and food security.

<http://www.fao.org/DOCREP/006/AD450E/AD450E00.HTM>
 (accessed at 1-11-04)

136 Revisiting the 'magic box': case studies in local appropriation of information and communication technologies (ICTs)
 Food and Agriculture Organization of the United Nations (FAO), Rome, 2003

Ways in which different groups of people in Mexico, Costa Rica and Uganda are

appropriating ICTs to make positive changes in their communities were explored. The Women of Uganda Network (WOUGNET) discusses the constraints still faced by knowledge-sharing networks in Africa, while the Costa Rican internet radio station called FIRE (Feminist International Radio Endeavour) delivers community radio to the international community by broadcasting local women's voices to global audiences via the internet. A third case study from Mexico looks at the challenges facing community radio stations as they try to network and integrate new ICTs against a backdrop of an unclear regulatory environment. Four guiding principles for the successful appropriation of ICTs were distilled from the case studies presented: communities and outsiders should monitor and evaluate ICT projects and develop guidelines to measure their impact; 'process' is vital to development interventions; focus on the benefits not the technology; and, access must be accompanied by capacity building for local content. Finally, indicators to evaluate ICT interventions were discussed.

<ftp://ftp.fao.org/docrep/fao/006/y5106e/y5106e00.pdf>
 (accessed at 1-11-04)

137 Can e-commerce enable marketing in an African rural women's community based development organisation?

RHODES, JO. In: Proceedings. Informing science: challenges to informing clients: a transdisciplinary approach. June 2001

Findings reported in the World Bank Development Report 2000 show that at the macro level the most effective anti poverty policies are those that achieve equity through redistribution whilst simultaneously enhancing the efficiency of the markets used by poor people. It also found that even if markets work, poor people need assistance to overcome the obstacles that prevent them from freely accessing markets on an equal basis with other business groups. Investment in infrastructure and modern technologies such as ICTs may break down some of the barriers of access such as physical remoteness and are cited by the World Bank as a potential solution to creating market access. However, there is little existing research that examines this scenario at the micro level. A case study on the Rural Women's Association of Sekhuhkuneland, Northern Province, South Africa, was therefore used to examine whether e-commerce can indeed enable access to markets in an impoverished, under-resourced rural location. Issues such as education, business acumen, gender, and the current market environment were explored. Possible business models that can integrate

e-commerce in their implementation were discussed. Finally, a viable e-commerce model was presented; one that could be used in a rural setting and promised to provide greater economic development for this community.

<http://proceedings.informingscience.org/IS2001Proceedings/pdf/RhodesEBKCanEC.pdf>
(accessed at 1-11-04)

138 The development of an integrated e-commerce marketing framework to enhance trading activities for rural African communities
RHODES, JO. *Perspectives on Global Development and Technology* 1(2002)3/4, p. 269-293, ill., 34 ref. ISSN 1569-1500

Much of the research on ICT and rural development so far has been speculative, offering little more than project progress reports. An intensive case study on a rural African community recently revealed that poor market access might not be simply an ICT problem. Rather, the problem seems to lie in the inability of rural communities to optimize existing facilities and resources. A more fundamental cause could be the lack of microeconomic reforms in these communities, resulting in ineffectually applied marketing skills, poor leadership and management ability, low status and power of women, inadequate financial knowledge, and insufficient technical and information technology knowledge. It was argued that African rural economic development is progressing at a slow pace and needs a 'missing link' or kick-start to overcome the present inertia. One solution could be to integrate ICT and marketing in such a way that it can identify and address social, cultural, political, and educational constraints encountered by rural African communities. The activities, achievements, strengths and weaknesses of the Rural Women Association, a section 21 not-for-profit company, launched in Sekhukhuneland, Northern Province, South Africa in 1992, were examined in this context. An integrated e-commerce marketing framework was put forward to resolve the problems mentioned. The development of this proposed model should be consolidated by further studies using the Participative Action Research approach.

KIT Library code H 2918-1(2002)3/4

139 Are African women online just ICT consumers?

ROBINS, MELINDA B. *Gazette* 64(2002)3, p. 235-249, 69 ref. ISSN 0016-5492

While internet use in the West has been well-documented, scholars have generally overlooked this same issue in developing countries. To help

redress this imbalance, internet initiatives in sub-Saharan Africa in general and Senegal in particular, and their impact upon women, were examined. An investigation was subsequently carried out into the sites where gender, class and international trade intersect with the emerging communications technologies, thus epitomizing the ambiguities of globalization. To understand the asymmetrical power relations between gender, the study was carried out as a feminist analysis. As Africa's women struggle to enlarge their spheres of influence in political, economic and social arenas, the overriding question is whether the internet and other digital technologies can become agents of transformation or will merely reproduce the inequalities of the status quo. It was argued that the impact of communication technologies in the developing world can only be understood within this web of contingencies, and that neither a naïve celebration of ICT potential nor condemnation of a new digital colonization adequately captures the situation.

KIT Library code D 1907-64(2002)3

140 Rural connectivity

ICT Update (2003)10. Technical Centre for Agricultural and Rural Cooperation, Wageningen, 2003

This special issue presents articles and information on projects and web resources related to rural connectivity. It focuses on new and traditional ICTs that can be used to improve rural people's access to information that is of vital importance to their livelihoods. Included are articles on radio email for the Solomon Islands, ways to improve rural connectivity, and the role of email as alternative for the web.

<http://ictupdate.cta.int/index.php/article/frontpage/7>
(accessed at 1-11-04)

141 Women weavers online: rural Moroccan women on the internet

SCHAEFER DAVIS, SUSAN. *Gender, Technology and Development* 8(2004)1, p. 53-74
ISSN 0971-8524

A case study was presented on how gender functions in the information society at two sites in N'kob and Ben Smim in rural Morocco. At both sites, mostly illiterate rural women use the internet to sell rugs and other textiles they weave. This could solve the age-old problem faced by isolated rural women on how to market their products effectively. It could also help them keep a larger share of the final profit, which often goes to middlewomen or men. The process used by rural women to sell their textiles online was described, including photographing,

measuring, weighing, and pricing the items, placing photographs and descriptive texts on web pages, taking orders through the internet or by telephone, and handling packing and shipping. The benefits and obstacles were also examined. The two sites provided interesting contrasts in terms of gender, communication challenges, and international payment transfers. In Ben Smim, the assistant is a young, female university graduate, while in N'kob the assistant was a middle-aged man who had not finished high school, reflecting the geographic situation in Morocco, where women reach higher levels of education in the north. Women were also found to be obtaining more of the profits generated by their work, and also achieving some degree of empowerment by selling their wares on the internet. Profits are used to support the family or for the children's education, and at one site rug sales are assisted by the village development association, which receives a percentage of the profits and puts them into village projects like latrines for the school.

KIT Library code H 2516-8(2004)1

142 Empowering development through e-governance: creating smart communities in small island states

SEALY, WENDY UNETTE. *International Information and Library Review* 35(2003)3-4, p. 335-358, ill. 40 ref. ISSN 1057-2317

The use of (multi) community access centres (CACs) or telecentres (information mall kiosks, libraries, police stations, post offices, etc.) to create 'smart communities' for e-governance is discussed, drawing on examples from the Caribbean. The centres provide greater access to services to the rural population, where otherwise they would have no such access to computer facilities than a single office location and where bureaucratic delays are often encountered after a long journey to the town center. A review is given of the growth of ICTs and the e-governance experience in the Caribbean, and illustrated with case studies of e-governance in Jamaica and the role of radio programmes in stimulating citizen participation in the democratic process. It is concluded that the deployment of the new technologies to include the wide use of the internet needs to be seen as one of the best government responses to the digital divide and offers the potential to be a powerful tool for development. Some key policy directions for Caribbean states and other developing countries to pursue are proposed.

KIT Library code E 2186-35(2003)3-4

143 Building communities: some experiences with IT

SEN, BHARATI. *International Information and Library Review* 35(2003)4, p. 359-365
ISSN 1057-2317

Case studies of building communities for development in which IT has been a potent force and an enabling technology are discussed. The geographical focus is on Kutch, an arid and underdeveloped district of Gujarat, India. This area has been facing repeated calamities over the years and a number of NGOs are working there. It is shown how IT has enabled the development of a database which has been used to inform relief work and rehabilitation work in the area, and how it has created employment opportunities for women in the area. Other uses of IT that are being developed are databases of market and customer profiles and for recording village level information, for preserving ethno-historic and indigenous knowledge.

KIT Library code E 2186-35(2003)4

144 Whose global knowledge? Women navigating the net

SHADE, LESLIE REGAN. *Development* 46(2003)1, p. 49-54, 14 ref. ISSN 1011-6370

The tensions between the feminization of the internet, versus feminist uses of the internet are examined. Feminization of the internet refers to the creation of popular content where women's consumption is privileged and encouraged, rather than production or critical analysis. Women have been active agents in the construction of the internet. Diverse women's communities in both developed and developing countries have been using the internet for feminism activism and democracy and a variety of innovative uses have been designed. Areas for further research on the use of the internet by and for women and gender issues are suggested.

KIT Library code H 1000-46(2003)1

145 Completing the revolution: the challenge of rural telephony in Africa
SHANMUGAVELAN, MURALI; WARIOCK, KITTY. Panos, London, 2004

This publication looks at the patterns of rural telecom growth in the light of the promising overall growth of telephony, and at the actual situation of rural provision in Uganda, Senegal, Burkina Faso and Zambia. The following questions are considered: whether mobile telephones will provide the solution for rural areas or whether fixed lines should still be the goal; whether governments have done enough to liberalise the market and allow competition; and whether, ultimately, the market will provide access for

rural people or whether this sector needs significant subsidy, in the same way as roads and other services are generally subsidised. Most governments in Africa are committed in principle to universal access, as they see the development benefits it could bring. However, they are not taking steps needed to achieve it. Policy issues that should be widely debated include the need for subsidising the rural sector, and how mechanisms such as Rural Service Funds can be made effective and transparent; and technologies for providing rural service. Also much more attention needs to be paid in international policymaking to providing rural telephony, for instance, in the second stage of WSIS in 2005. <http://www.panos.org.uk/PDF/reports/Panos%20Report%20-%20Completing%20the%20Revolution.pdf> (accessed at 1-11-04)

146 Empowering women self-help groups
SHARMA, V.P. *i4donline* 1(2003)3 (Sep-Oct)

Over 5.4 million women have organized themselves in 380 thousand groups and have accumulated savings of the order of 900 US dollars. They are now demanding more and more access to information. It was within this context that MANAGE (India's National Institute of Agricultural Extension Management) launched a village level action research project entitled 'Reaching the last mile: information technology for farmers and farm families at their door step' in Ranga Reddy District, Andhra Pradesh, the home district of MANAGE. Under the project, computers were installed in 11 villages in September 2000. One System with one printer, one modem, and 1 KVA (Kilo Volt Ampere) UPS (uninterrupted power supply) was provided to each village and placed in the premises of the Mutually Aided Co-operative Thrift and Credit Societies (MACTCS) in nine locations and at the Gram Panchayat (grass-root administrative structure) office at two locations. Connecting these 11 villages cost a total of USD 22,000. The village information kiosks are located on the roadside and operate as rural cybercafé-cum-cyberoffices, with each information kiosk providing services to about 25 to 30 villages, or around 20,000 to 30,000 people. The services provided by the kiosks were described, including the information they provide, people they serve, and social impact they are having at both the village level and the MACTCS director level. The kiosks have proved themselves to be sustainable, effective and useful in orienting rural people, men and women alike, towards the benefits of ICTs in their daily lives.

http://www.i4donline.net/issue/sept-oct2003/empowering_full.htm (accessed at 1-11-04)

147 Improving access to rural radio by 'hard-to-reach' women audiences. Paper presented at first international workshop on farm radio broadcasting entitled 'Information & communication technologies (ICTs) servicing farm radio: new contents, new partnerships', Rome, Italy, 19-22 February 2001
SIBANDA, JENNIFER.

The globalization of communication systems and the new ICTs that are flooding the world are changing the media landscape the world over. However, in Africa, radio is still the most appropriate communications technology available to the majority of Africans, and particularly the disenfranchised rural communities, women, and young people. African women constitute the poorest group in the world. Against this backdrop, a recent survey was carried out by the Federation of African Media Women-Southern African Development Community (FAMW-SADC) on listenership to examine the implications of women's access to radio along with questions such as 'are their issues being mainstreamed on radio'; 'does the radio give women a voice'; and 'how amplified is this voice'. The survey covered four countries and used questionnaires to gather data on 3000 women with the aim of establishing how many women owned a radio set, how many women listened to the radio, and which radio stations and services were either chosen or listened to by women. The study also tried to discover whether women were interested in and willing to start community-based radio listening groups and if women non-governmental organizations (NGOs) and other NGOs had the capacity to initiate community-based radio projects. Finally, the structures of current media (radio) organization and whether they are gender friendly were also examined, particularly with regard to their capacity to address the women's agenda and whether there is a need for a critical mass of women at these organizations, especially at top management levels.

http://www.fao.org/documents/show_cdr.asp?url_file=/DOCREP/003/X6731E/X6731E00.HTM

(accessed at 1-11-04)

All papers classified by author, by country or geographical area, and by theme, can be accessed at:

http://www.fao.org/documents/show_cdr.asp?url_file=/DOCREP/003/X6721E/X6721E00.HTM (accessed at 1-11-04)

148 The roots of change: human behaviour and agricultural evolution in Mali

SIMPSON, B.M. *IT Studies in Indigenous Knowledge and Development Intermediate Technology* 1999. 182 p., ill. bibliography (p. 146-172)

In 1992, field work was carried out among farmers, both men and women, in southwestern Mali to examine the processes by which the formal and informal systems of knowledge, communication and innovation have contributed to agricultural change within the context of the 'Office de la Haute Vallée du Niger' (OHVN). The major natural resource systems in the OHVN zone are reviewed. The highly adaptive nature of farmers' agricultural performances in diverse and risk-prone environments is described, and the notion of agricultural performances is located within the household livelihood portfolio. How farmers' agro-ecological knowledge, informal exchange of information and experimentation have enabled them to adapt to change is explored and contrasted with the dominant research and extension programmes within the OHVN zone. A basic framework for understanding agri(cultural) change, emphasizing the dynamic interplay between the maintenance of cultural traditions and processes of individual creativity, is outlined. Recommendations for strengthening the abilities of formal research and development activities to facilitate agricultural growth are provided. To build more directly upon farmers' creativity, formal research must develop technologies that are 'loosely packaged', or specifically designed to allow farmers to adapt them to local circumstances.

KIT Library code N 99-411

149 Gender as a factor in the uptake and use of ICTs on family farms in Southern Queensland, Australia

STEWART, JULIANNE. *Gender, Technology and Development* 8(2004)1, p. 97-117 ISSN 0971-8524

It is often suggested that farming women's increased access to technology, especially ICTs, will increase their power on the farm and in related agribusiness activities. As traditional family farms in Australia are increasingly turning to ICTs to help them become more effective and efficient farm managers, a study of the use of ICTs on 20 family cotton farms in southern Queensland, Australia sought to discover whether tools such as cellular phones, CB radios, computers, fax machines, and the telephone had gendered patterns of usage. An analysis of these patterns of usage, applying Connell's theory of gender relations, was therefore carried out in the context of family cotton farms in Southern Queensland, Australia. The analysis focused on the gender-based division of labour and on the power relations embodied in the usage of the technologies. References were made to the findings of similar studies on the gendered use of ICT in other countries. Based on

interviews with family members on the farms, especially husbands and wives, the Australian study found that access to such technologies did not result in appreciable changes in women's power, nor in changes to the established gender-based division of labour. It is, therefore, highly unlikely that internet-based ICTs will deliver on their promise of women's empowerment, particularly in family farm contexts.

KIT Library code H 2516-8(2004)1

150 Strengthening partnership among local FM radio networks and reproductive health agencies on HIV/AIDS. A review of the effectiveness of local FM radio in promoting reproductive health, HIV/AIDS prevention and gender equity

United Nations Population Fund (UNFPA), New York, NY, 2002

An overview is provided of how local FM radio has been used around the world to promote health and development goals. It is intended to inform country representatives of the United Nations Population Fund (UNFPA) of the potential use of local and community radio to achieve UNFPA objectives worldwide. The various experiences reported demonstrate the importance of autonomous community run radio stations. At the same time, community radio stations are dependent on international aid organizations for funding and training. Once established, community radio provides a positive community-based outlet for education, entertainment and expression. It is also beneficial for community radio stations to form alliances with local health providers and educational institutions, as well as with local businesses; these help support the activities of the radio station both financially and through the provision of information and resources. Local and community radio appears to be an excellent means of furthering communication for social change; there are strong indications that radio has a particularly strong impact on women. The conclusion reached is that for UNFPA local and community radio would be an effective and important tool for achieving UNFPA's objectives in reproductive health and women's rights.

http://www.unfpa.org/upload/lib_pub_file/157_filename_communityradio.pdf (accessed at 1-11-04)

151 Empowering women farmers through multichannel learning: an application of need assessment technique

SULAIMAN, F. *Indonesian Journal of Agricultural Science* 1(2000)2, p. 39-50, ill. 12 ref.

Focus group interviews and gender analysis techniques were used to identify non-formal

educational needs of poor women farmers in Monti Tangi Village, Sakra district, East Lombok, West Nusa Tenggara, Indonesia. It was found that women farmers could not afford to participate in learning activities, unless the learning programme offers a direct benefit to generate income. In general, they set high hopes on their children's education and learning opportunity to achieve a better income. Due to their very limited educational background, demonstration and learning-by-doing methods were considered the most effective extension methods. Radio and television were not effective educational channels, because only few women had access to radio and TV sets. In the efforts to empower women farmers, field extension workers require training on socioeconomics, including gender analysis, and on need assessment methods. From author's summary.

KIT Library code E 2763-1(200)2

152 Economic opportunities for women.

Case study: Cameroon and Ghana

TAGGART, NANCY. In: A sourcebook on access and applications: models of use and case studies. LearnLink, Washington, D.C.

The opportunities that e-commerce can offer women in developing countries were explored, using two cases of e-commerce ventures in which women play major roles. ASAFE (l'Association pour le Soutien en l'Appui a la Femme Entrepreneur, <www.asafe.org>) and AQ solutions (AQS) are women-led programmes that employ women. AQS was set up in 2000 as an offshore outsourcing company that provides software development and other ICT services through professionals based in Accra. ASAFE, established in 1989, is an association of 3000 women's businesses from Cameroon, Mali, Chad, Guinea, and Benin. ASAFE provides information, business support, and banking services to its member business owners, the majority of whom are food processing and textile sectors. Both are unique examples of locally initiated and managed enterprises responding to the needs and interests of local entrepreneurs and technicians. An overview of their successes and challenges provides insight into some of the factors that shape e-commerce ventures in developing countries and demonstrate strategies for involving women.

http://learnlink.aed.org/Publications/Sourcebook/chapter5/cameroon_ghana_casestudy.pdf
(accessed at 1-11-04)

153 Information and communication technologies for development in Africa. Vol. 1: opportunities and challenges for community development

THIOUNE, RAMATA MOLO. Council for the Development of Social Science

Research in Africa (CODESRIA); International Development Research Centre (IDRC), Dakar; Ottawa, 2003. 117 p. ref. ISBN 1-55250-001-2

In 1997, the International Development Research Centre (IDRC) launched its Acacia Initiative in an effort to empower sub-Saharan African communities with the ability to apply new ICTs to their own social and economic development. This book synthesizes the results of the pilot projects on the introduction of ICTs in poor communities in rural and suburban areas of Kenya, Senegal, South Africa and Uganda. Two pilot projects involved the role of ICTs to enhance women's participation in governance in Kenya and increase women's economic empowerment in Uganda. Overviews are made of the institutional context of ICTs and the ICT environment in the countries under study. The expectations of African communities in using ICTs, and both the expected and observed impacts of ICTs within the communities studied are explored. The introduction, adoption and utilization of ICTs at the community level are examined and opportunities and challenges that ICTs present for community development are presented. Generally, these challenges relate to participation and ICT appropriation mechanisms and to materials and formats that can be used to collect, organize, disseminate and share useful information and knowledge using ICTs. Other challenges include the provision of democratic access to ICTs for all community members, including women.

KIT Library code P 04-203

154 Poverty reduction through access to information and communication technologies in rural areas: an analysis of the survey1 results from the social impact assessment conducted by the Chinese Ministry of Science & Technology and the United Nations Development Program. With recommendations on issues of future sustainability and household participation

ULRICH, PAUL. *The Electronic Journal of Information Systems in Developing Countries* (EJISDC), 16(2004)7, p. 1-38 ISSN 1681-4835

A social-impact assessment survey of a pilot community internet access programme in rural China was carried out in September 2003. Five teams of graduate students from the China Agricultural University, under the direction of project staff from the Ministry of Science and

Technology's (MoST) Rural Agricultural Technology Development Centre, went to five Chinese provinces to conduct the survey of 1,235 households in the 32 towns and villages of the ICT project. The sample of 1,235 respondents represents 12.6% of the nearly 10,000 households in the 22 project villages. A brief background to the project was presented, followed by a discussion of the survey methodology, and highlights of the key findings. This was followed by a detailed overview of the survey results. Generally speaking, the tabulations, correlations, and regressions yielded the expected results, with one major surprise concerning the clustering of financial benefits in the project's second poorest county. The overall survey results revealed a slight bias against women in their awareness and use of the centres as well as a somewhat higher usage of the centres by better-off members of the communities. Policy recommendations for expanding the project's pilot efforts into a nationwide programme were then discussed. An annex containing the English version of the questionnaire used in the survey was also supplied.

<http://www.is.cityu.edu.hk/research/ejisd/vol16/v16p7.pdf> (accessed at 1-11-04)

155 Girls with digital diaries: empowerment issues

VILLACORTA, CLAIRE. *Women in Action* (2002)2, p. 33-35 ISSN 0101-5048

Empirical observations of the process of keeping, and reading other people's, online diaries were presented in the Philippine context. The issue of public versus private was explored during this process: what and how much to disclose, and to whom. Examples of several online entries written by young girls were given. Online diary spaces such as Diaryland.com, with its community-oriented interface, Blogspot, and LiveJournal (LJ) were examined in detail. It was concluded that online diarists link up in cyberspace for two reasons: their own personal desire to participate in varied forms of online communities, and the convenience of the Net. Nevertheless, participation in Net activities depends very much on internet access and connection, that is having an up-to-date computer system and a price tag on hours spent.

Consequently, whether at home, school, or in the workplace, the idea of democratic spaces in the Philippine context is still classed. For young Filipinas now only taking part in Cyberculture, empowerment remains a privilege, not a right.

<http://www.isiswomen.org/pub/wia/wia202/grlsdig.htm> (accessed at 1-11-04)

KIT Library code E 2629-(2002)2

156 Connecting voices and expanding horizons

VIAS, ANJU. *Development* 45(2002)4, p. 55-60, 1 ref ISSN 1011-6370

E-mail is one of the technologies most commonly and effectively used by women. It is considered more 'horizontal' in nature than some of the other 'hierarchical' communication formats. One of the most widely used applications of e-mail for group and mass communication and electronic networking is a mailing list, more commonly known as a listserv or electronic discussion list. BOL is one such electronic discussion list. Initiated in early 1998 by the Department of Population and International Health, Harvard School of Public Health, as part of its Global Reproductive Health Forum (GRHF), BOL is now handled by the Centre for Women's Development Studies (CWDS) in India and currently focuses on gender issues in South Asia. The word 'bol' means 'talk' in Hindi. The genesis, developments, doubts, dilemmas and challenges of moderating BOL were described. Issues such as the contents, subscribers' profile, methodology and technical matters relating to BOL were discussed. Today, BOL has 700 subscribers from 20 countries in both the North and the South. It was argued that e-discussion lists have immense potential for resource sharing, networking and advocacy activities which need to be fully explored and utilized by the women's groups and researchers in the South Asian region.

KIT Library code H 1000-45(2002)4

157 Az Dekhon ba Dekhon (Farmer to Farmer): a participatory radio series for private farmers in Tajikistan

WASON, ARMORER. Food and Agriculture Organization of the United Nations (FAO), Rome, 2002

Farmers in Tajikistan have only recently begun to farm with a measure of independence from the state. Following the break-up of the Soviet union, they face a number of challenges such as: the absence of effective structures to support private farming, a lack of finance, endemic corruption, poor rule of law, and during 2000 and 2001 very severe drought. So far, the media has failed to highlight the problems they are facing. Farmers do not have reliable sources of information, even on the most basic, uncontroversial, technical aspects of farming. A weekly, 25-minute radio series on Tajik radio called 'farmer to farmer' is therefore trying to respond to the concerns and questions of private farmers, through interviews with farmers and a range of agricultural experts. The radio series is part of a larger project based in Dushanbe, the

capital of Tajikistan, which trains veterinarians, supports veterinary services, and distributes seeds. The radio project was described within the broader context of farming in Tajikistan and the general situation within the media. The legacy of soviet times is a deep-grained unease among the general populace, including journalists, with regard to asking questions, even about the mildest issues. Inevitably, this threatened to limit the content of the radio programme. Measures taken to ensure that the radio programme could indeed meet the needs of the rural farmers in these circumstances were described.

http://www.fao.org/sd/2002/KN0401a_en.htm
(accessed at 1-11-04)

158 ICT4D – connecting people for a better world: lessons, innovations and perspectives of information and communication technologies in development

WEIGEL, G; WALDBURGER, D. (eds). Swiss Agency for Development and Cooperation (SDC) and the Global Knowledge Partnership (GKP), 2004 ISBN 3-03798-065-6

The ICT for Development Platform took place from 9-13 December 2003 in Geneva, Switzerland, within the framework of the World Summit on the Information Society. The Platform and its preparation have resulted in a compilation of state-of-the-art-knowledge which is presented in this book. Following an overview of the debate with a particular emphasis on the development and poverty reduction perspective, thematic chapters are presented on central and cross-cutting themes and sub-themes: innovating for equitable access; fostering policy and implementation; enhancing human capacity and empowerment; strengthening communications for development; promoting local content and knowledge; and cross-cutting themes, including women/gender. The reports delivered by Walter Fust and Rinalia Abdul Rahim to the plenary of the WSIS on 12 December 2003 are also included.

<http://www.globalknowledge.org/ict4d/index.cfm?menuid=68> (accessed at 1-11-04)

159 ‘Coming close to God’ through the media: a phenomenology of the media practices of Islamist women in Egypt

WERNER, KARIN. In: Mass media, politics, and society in the Middle East/ed. by Kai Hafez. Hampton Press, Cresskill, NJ, 2001, p. 199-216, 19 ref.

The socio-religious practices of the female members of an Islamist group in Cairo are explored to assess these women’s use of the media in everyday life. A basic assumption is that religious practices and the media are

strongly interwoven. The study shows how young women are constructing individual sacred spheres with the help of modern media. They use modern media, recorders, videos, to perfect their own virtual reality and, at the same time, to protect themselves against the ‘corruption’ of society through the regular mass media.

KIT Library code P 01-3045

160 Bridging information gaps between farmers, policy-makers, researchers and development agents. Paper presented at the regional conference on agroforestry impacts on livelihoods in Southern Africa: putting research into practice. Aventura Warmbaths, South Africa, 20-24 May 2003

WESSELER, GESA; BRINKMAN, WILLEMINE.

After more than a decade of research on agroforestry, technologies are now available for scaling up and scaling out to the millions of small farmers in the southern African region. This paper attempts to highlight the importance of information and communication in this process and shows some promising examples of how such gaps between different actors in agriculture and rural development can be closed. The examples presented offer only a glimpse of the large number and variety of projects and initiatives that have been launched. However, they reveal that the key to successful bridges across the various information divides appears to be a tailor-made approach, combining different, and locally appropriate means of communication. For the research community, it seems that to encourage efforts aimed at bridging information gaps among stakeholders, a change in incentives and evaluation criteria for researchers and scientists is needed. For policymakers, information sharing is all about transparency and accountability. Thus, the current trend towards decentralization and democratisation will hopefully lead to a better two-way flow of information to and from this stakeholder group, making it more receptive to the voices from rural areas, and providing mechanisms for these voices to be heard. To serve the farmers, it is necessary to develop tools, networks and opportunities for the exchange of information, encouraging people to learn and pass on information to others.

<http://www.cta.int/pubs/wd8030/informationgaps-final.pdf> (accessed at 1-11-04)

161 The Internet and public culture in Kuwait

WHEELER, DEBORAH L. *Gazette* 63(2001)2/3, p. 187-201, ill., 33 ref. ISSN 0016-5492

The development and impact of the internet in Kuwait is assessed. It is argued that even though

important cultural filters shape internet use, experimentation with new social relationships in cyberspace occur. This is true especially among youth. Three kinds of analysis are made to show this point. First, a content analysis of the major Kuwaiti daily newspapers in both Arabic and English to illustrate the emergence of a public consciousness of the internet. Second, survey data are used to describe the scope and character of the Kuwaiti internet community in relation to the general population of Kuwait, and in relation to regional internet access and use patterns. Third, the emerging impacts of internet use in Kuwait are examined. It is concluded that the most significant possibilities for change stem from student use of the internet to transgress gender boundaries, and to protest against the state's new gender law.

KIT Library code D 1907-63(2001)2/3

162 Women and media for social change: communications initiatives worldwide

Coordinated by the Centre de documentation sur l'Éducation des adultes et la condition féminine. Les Éditions du remue-ménage, Montréal, 2000. 154 p. ill. ref. ISBN 2-89091-189-6

The progress made in the media landscape in the six years that followed the United Nations Conference on Women in Beijing in 1995 and the obstacles encountered by women in each world region are highlighted. The progress made in implementing the actions outlined in Section J of the Platform for Action, the section on women and the media, is assessed. It includes a report for each region in the world. Good practices and successful strategies that women in different countries have developed in the areas of outreach, advocacy, media watch, codes and standards, and use of new ICTs are reported. The examples include a newspaper in Haiti, multimedia books for rural African women, a feminist press agency in Mexico, community radio in East Timor, interactive television in France, journalists networks in the Middle East, and internet network for peace in Macedonia.

KIT Library code P 01-3047

163 Women Connect! The power of communications to improve women's lives

Pacific Institute for Women's Health, Los Angeles, 2002, 20 p.

In 1999, the Pacific Institute for Women's Health launched 'Women Connect!', an innovative three-year programme designed to strengthen the ability of women's non-governmental organizations (NGOs) in Africa to communicate more effectively. The initiative assisted these groups in using both modern and traditional ICTs

from posters, brochures, newspapers, radio, magazines and television to email and internet to communicate and advocate for causes they deemed important, such as women's sexual and reproductive health, inheritance rights for women, and the reduction of all forms of violence. The project was carried out with 30 NGOs in Zimbabwe, Zambia, and Uganda, but the lessons learned apply to women's groups throughout Africa, Asia, and Latin America. After presenting an overview of the project, experiences and lessons learned from the project in four key areas were explored: (1) using media tools to advance women's health; (2) organizing women: the potential and challenges of technology; (3) best practices for working more effectively with women's NGOs; and (4) the way forward. It was found that while women's NGOs are interested in more structured networking to avoid duplication, they often operate in the context of competing agendas, lack of trust and limited resources. In light of this, it was felt that communications could go a long way toward helping these organizations achieve their goals through networking with like-minded groups.

<http://www.piwh.org/pdfs/wc2002.pdf>

(accessed at 1-11-04)

164 Women in the global economy

International Trade Forum (2003)4, p. 4-22. International Trade Centre, Geneva, 2003

More and more women are entering the business workforce, and their role as business owners is growing. Yet, overall women are still firmly in the minority as business owners or managers. For all small businesses, access to finance, market information and training is critical. ICTs play an important role in opening business opportunities. Women exporters, however, have less access to trade support networks than many of their male counterparts. These issues are highlighted in business cases and country reports from South Africa, India, Nepal, Cameroon, Canada and Uganda. An overview is given of the trade-related activities aimed at women that exist within the United Nations system, other international organizations and major NGOs.

http://www.tradeforum.org/news/fullstory.php/aid/631/Women_in_the_Global_Economy.htm

(accessed at 1-11-04)

KIT Library code K 1340-(2003)4

165 Women's organizations and their use of information and communication technologies in the Caucasus and Central Asia Region: an exploratory assessment

United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), Emerging Social Issues Division (ESIP), Bangkok, 2001

To promote women's and women's groups' full participation in a rapidly changing global information society, there is a need to identify the current situation of women's groups with respect to ICT use in order for them to be able to take advantage of these new technologies to promote their causes and missions. This publication explores the needs and opportunities for women's groups of ICTs for utilization as a development tool in Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan. The results of the research, including preliminary conclusions and recommendations, can be used as an awareness-raising tool for policymakers, NGOs and donors on the linkage between ICTs and women's empowerment, as well as suggestions for technical assistance.

<http://www.unescap.org/publications/detail.asp?id=845>
(accessed at 1-11-04)

166 Gender gap in media use and informed political participation: a test of the 'communication effects gap hypothesis' during the 2002 presidential election campaign in Korea
YANG, SEUNGCHAN; KANG, HYUNG, CHEOL.
Asian Women (2003)17, p. 65-86, ill. bibliogr. p. 83-86 ISSN 1225-925X

A study in Korea pursued two research goals: (1) to empirically examine whether the gender gap in media use and informed political participation could occur in the 2002 Korean Presidential election campaign process; and (2) to test the knowledge gap hypothesis proposed by Tichenor et al (1970) in the Korean election context. The 'communication effects gap' in relation to media use and education was also explored. The gap in political knowledge and participation between high and low education groups was expected to be larger among heavy media users than light users. An analysis of data collected during face-to-face interviews with 500 adults (female 50.8%, male 49.2%) in Seoul during the Korean presidential campaign revealed a gender gap in media use and political knowledge gain. The average levels of women's use of television, internet, interpersonal communication use and political knowledge were lower than those of the men. Also, the segments of female voters with higher educational status tended to acquire political information from

television at a faster rate than the lower status segments. Hence, the knowledge gap phenomena tended to occur in the case of women's television use. By contrast, newspaper use tended to play an important role for Korean women in terms of enhancing their knowledge and participatory level regardless of educational background. It was concluded that newspapers could reduce the intra-group participatory gap of female voters.

KIT Library code H 2328-(2003)17

167 Vifu: virtual community building for networking among women

ZORN, ISABEL. *Gender, Technology and Development* 8(2004)1, p. 75-95 ISSN 0971-8524

ICTs are being used to support development, yet women do not profit from them as much as men do. The question is therefore how to design and apply internet technology to improve women's lives and women's access to information, education, and autonomy. Within this context, an 'avenue' was suggested to empower women in the North and South (who already have internet access) by building virtual international communities as one of the tools for women to participate in and benefit from international exchange. This article describes the social and technical aspects of building an enabling environment for women called the Virtual International Women's University (Vifu). A development procedure characterized by inclusion, participation, user-developer-interaction, and transparency with the aim of enabling sociability and the transfer of technological know-how is discussed. It was argued that when ICTs are about to be promoted and used for development issues, their specific technical and social design will play an important role for the success or failure of a certain initiative.

KIT Library code H 2516-8(2004)

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Web resources

Gender and ICTs for Development

APC-Africa-Women

<http://www.apcafricawomen.org>

APC-Africa-Women is a network of organizations and individuals that work to empower African women's organizations to access and use ICTs for equality and development. It is the Africa regional programme of APC's Women's Networking Support Programme. The site includes information on activities, news, events, resources and provides access to 'Pula', an e-newsletter on Women and ICTs in Africa.

APC.org (Association for Progressive Communications)

http://www.apc.org/english/news/women_index.shtml

'Women and ICTs' is one of the news sections on this website.

APC WNSP (Association for Progressive Communications, Women's Networking Support Programme)

<http://www.apcwomen.org/index.html>

A network of over 100 women from 36 countries who support women networking for social change and gender justice, through the use of ICTs. The site presents information on the issue and on the activities of APC WNSP, about gender and ICT policy, relevant resources, and links to ICT policy portals.

The Centre for Women and Information Technology

<http://www.umbc.edu/cwit/>

A comprehensive online resource on women and technology based at the University of Maryland, US. The website contains extensive links to girl-related resources, books about women and information technology, curricular resources on gender and technology, and a list of frequently asked questions on the topic.

Cisco Learning Institute Gender Initiative (CLI), Cisco

<http://gender.ciscolearning.org/index.html>

Cisco and CLI that are working with networking Academies worldwide to collect and disseminate information on best practice strategies in recruitment and retention of female students worldwide. The site presents tools and resources, such as a gender module, marketing materials, and gender websites that have been designed to attract and retain more females to the field of IT.

Dimitra project: Rural women and development, FAO

<http://www.fao.org/Dimitra/index.jsp>

Dimitra is an information and communication project which aims to highlight rural women's contribution to their community and their country, and to provide rural populations with easier access to information that can be used as a means to mobilize people for change.

ENDA-SYNFEV (Synergie Genre et Développement)

<http://www.enda.sn/synfev/synfev.htm>

SYNFEV is an entity of ENDA Third World (Environment and Development of the Third World) based in Dakar, Senegal. It aims at the promotion of gender equality as a crucial dimension of sustainable development by implementing pioneer activities around negative factors impairing women in development policies and as in terms of new challenges faced by women in the context of globalization. The work includes the promotion of ICTs in communication.

Fantsuam Foundation

<http://www.fantsuam.com>

Fantsuam is a non-profit organization that works with rural communities in Nigeria to bring distance learning and internet access to rural communities, through mobile community telecentres. The Foundation has an on-going microcredit project aimed at alleviating poverty among rural women.

Feminist International Radio Endeavour (FIRE)

<http://www.fire.or.cr/indexeng.htm>

The first women's Internet radio project. The website contains numerous radio materials on rape, disabled women's issues, conflict situations and globalization, among others.

Femmes, internet et développement durable

http://www.aedev.org/rubrique.php3?id_rubrique=25

With the aim of supporting African women's participation in ICTs, the Association E-Development (AEDEV) launched this French language internet feature on women, the internet and sustainable development. The site publicises women's initiatives for social change, including in the arts and business, and sources of practical support.

Flamme: African Sisters Online

<http://flamme.org>

An initiative set up for women in the field of ICTs in Africa committed to strengthening the capacity of women through the use of ICTs to lobby, advocate and participate in the Beijing + process regionally and globally.

Forum on ICTs and Gender,

<http://202.144.202.75/gender2003/index.cfm>

This is the official website of the 2003 Forum on ICTs and Gender, a multisectoral, multi-stakeholder initiative that brought together about 300 participants from around the globe. The forum was held from 20-23 August 2003 in Kuala Lumpur, Malaysia. The forum's programme, objectives, declaration and recommendations, and photo's and a video of the forum are presented.

Gender and ICT, Digital Opportunity Channel

<http://www.digitalopportunity.org/article/archive/1077/>

At this page access is offered to documents on gender and ICTs from the websites of OneWorld partners worldwide.

Gender and ICT, section of UNESCO's portal on Communication and Information,

http://portal.unesco.org/ci/ev.php?URL_ID=1475&URL_DO=DO_TOPIC&URL_SECTION=201&reload=1089204621

This section reports news on UNESCO's activities in the field of women and ICTs.

Gender and ICTs Network (regentic)

<http://www.famafrique.org/regentic/accueil-engl.html>

The Gender and ICTs Network is a follow-up of the workshop 'Gender dimensions of ICT policies in Senegal'. It aims to promote and facilitate, in cooperation with national actors and international partners, the local appropriation of and participation in decision making processes in the ICTs sector, with a gender equality perspective. The site is mainly in French, with some information in English including the Network's Action plan 2003-2005.

Gender and Information and Communication Technologies, GenderNet, World Bank

<http://www.worldbank.org/gender/digitaldivide/>

Gender and ICT seminars are sponsored by the Gender and Development and Girls' Education Thematic Groups, and Bridging the Digital Divide through Education Task Force of the World Bank. The seminars look at the impact that information and communication technologies (ICT) are having on gender relations and innovative ways that ICTs are being used to overcome gender inequalities and bridge the digital divide.

ICT and Gender, Development Gateway

<http://topics.developmentgateway.org/ict/rc/BrowseContent.do~source=RCContentUser~folderId=3134>

One of the key issues included in the ICT theme section on the Development Gateway. It is listing useful resources about efforts to empower women via ICTs, publications, and news.

ICT and women, Dot-Com-Alliance.org

http://www.dot-com-alliance.org/activities/results_interventions.php?intervention_id=26

This section provides access to DOT-COM activities and articles on ICT and women.

ICT-based Enterprise for Women

<http://www.dgroups.org/groups/WomenICTEnterprise/index.cfm>

This workspace and discussion list aims to build knowledge about the relationship between women, development, and ICT-based enterprises.

ICTs for Rural Women

<http://list.matrixlinks.ca/mailman/listinfo/ictforruralwomen>

This is an information and announcement list that circulates information on resources, events and organisations working on issues related to how women can use ICTs to support their grassroots productive enterprises.

Gender issues, International Telecommunication Union (ITU)

<http://www.itu.int/gender/index.html>

The website presents information on ITU's priorities and strategies regarding women's and gender issues, its gender mainstreaming activities, its Working Group on Gender Issues, and on gender and WSIS.

NGO Gender Strategies Working Group (NGO GSWG)

<http://www.genderit.org>

The GSWG was formed at the first WSIS PrepCom Meeting in Geneva in July 2002 by a group of women's information and communication NGOs. The website contains a section exploring linkages between the Beijing PFA and the WSIS process; comments on the WSIS Action plan; WSIS-related lobbying and advocacy materials; and reports from regional caucuses and thematic working groups on priorities for civil society.

Le Réseau Genre et TIC (regentic)

<http://www.famafrique.org/regentic/accueil.html>

See: Gender and ICTs Network (regentic)

Special focus on Gender and ICTs, IDRC

http://web.idrc.ca/en/ev-2722-201-1-DO_TOPIC.html

This section of IDRC's website includes gender concept definitions, an annotated bibliography, short key documents and links on gender and ICT.

UNIFEM & WSIS

<http://www.unifem.org/campaigns/wsis>

Work undertaken by UNIFEM to help ensure that WSIS includes women and women's interests is reported.

WIGSAT-L

<http://list.matrixlinks.ca/mailman/listinfo/wigsat-l>

WIGSAT is an internet mailing list on international gender, science and technology issues. The list regularly distributes information on job announcements, events and publications, including the International Gender, Science and Technology Digest. The Digest is a bimonthly newsletter of activities, meetings, and who's doing what in gender, science and technology.

Women and Information and Communication Technologies, Women'sNet

<http://womensnet.org.za/ict/ict.shtml>

Women'sNet is particularly interested in supporting South African women's access to new ICTs. This page collects resources and information on this topic, with a particular focus on South Africa, Africa, and developing countries.

Women in Global Science and Technology (WIGSAT)

<http://www.wigsat.org>

WIGSAT is an international non-profit organization that provides services in the area of gender, science and technology for development, with a special focus on ICTs. The site provides information on their services, projects, and networking and includes information resources.

Women in the Global Economy, International Trade Forum

http://www.tradeforum.org/news/categoryfront.php/id/517/Women_in_the_Economy.html

This website offers access to articles addressing issues related to women and trade.

Women Online

<http://www.amarc.org/wol/>

WomenOnline is a project of the AMARC Europe Women's Network to encourage women in using new technologies. They aim to offer a basis for women to make use of the internet and digital production, including the possibilities of audio on the internet. The site presents a training kit for women on how to use the internet, consisting of seven modules for training courses as well as for self-learning.

Women's International Network of AMARC (AMARC-WIN)

<http://fire.or.cr/amarcpage.htm>

WIN is a network of women communicators working to ensure women's right to communicate through and within the community radio movement. AMARC-WIN provides training programmes and production exchanges at the international and local level.

WSIS Gender Caucus

<http://www.genderwsis.org/>

The multi-stakeholder Caucus was formed during the African regional preparatory conference (Bamako 2002). The website contains links to the Gender Caucus guide to creating a national gender programme in preparation for WSIS; key Gender Caucus recommendations and statements; and links to the latest WSIS events.

ICTs for Development resources

Bridges.org

<http://www.bridges.org>

Bridges.org is an international non-profit organisation that promotes the effective use of ICT in the developing world to reduce poverty and improve people's lives. The website provides information on the approach and work undertaken, the debate on the 'digital divide', and offers a database of online resources.

Commonwealth of Learning

<http://www.col.org>

The Commonwealth of Learning (COL) is an inter-governmental organization created by the Commonwealth Heads of Government to encourage the development and sharing of open learning/distance education knowledge, resources and technologies. COL is helping developing nations improve access to quality education and training.

Communication for Development, Panos London

<http://www.panos.org.uk/global/projectdetails.asp?ProjectID=1035&ID=1002>

Communications for Development is one of the global themes of Panos is addressing through reports, books, features, projects and links.

Developing Countries Farm Radio Network

<http://www.farmradio.org>

Developing Countries Farm Radio Network is a Canadian-based, not-for-profit organization working in partnership with approximately 500 radio broadcasters in over 70 countries to fight poverty and food insecurity. It supports broadcasters in meeting the needs of local small-scale farmers and their families in rural communities, and helps broadcasters build the skills to develop content that responds to local needs.

Digital Dividend Project Clearinghouse, World Resources Institute (WRI)

<http://wriw1.digitaldividend.org/wri/app/index.jsp>

An online platform tracking social enterprises that use ICTs to deliver tools and services to underserved communities in developing countries. It provides access to projects, ideas, case studies, publications and other information.

Eldis ICT for Development Resource Guide

<http://www.eldis.org/ict/index.htm>

This is a guide to printed and electronic documents and websites on the issue, including on ICT and gender, contained in the Eldis database.

FAO Rural Radio

<http://www.fao.org/sd/ruralradio/en/index.html>

This website focuses entirely on rural radio for development, particularly in Africa. It includes audio resources, training materials, publications, workshop information, and fact sheets.

iConnect Online

<http://www.icconnect-online.org>

iConnect tracks the use of ICT and knowledge for sustainable development in the global south; it provides a knowledge sharing platform for partners in the Building Digital Opportunities programme. The information provided can be searched by sector (agriculture, environment, health, livelihoods, education, governance) and by theme (capacity, content, evaluation, knowledge management, policy and regulation, radio, research).

ICT application for non-formal education programmes, UNESCO

<http://www.unescobkk.org/education/ict/v2/info.asp?id=10957>

This is an Asia-Pacific programme implemented by UNESCO Asia-Pacific Regional Bureau for Education. It includes the use of ICT for community empowerment and in development programmes are two sub-themes. Information and other resources on these sub-themes are presented.

ICT4D: Information and Communication Technologies for Development. Self-paced learning materials for an online course

<http://www.knowledgefordevelopment.com/ICT4D03SP/index.htm>

These self-paced learning materials are developed by Barbara Phillip for an online ICT4D course. It is meant as a self-contained set of training materials to allow people to learn at their own pace, without the need to submit assignments and without communications with a facilitator or instructor. The goal of the course is to familiarize participants with key concepts and issues related to the impacts of ICTs on the social, economic and political development in Asia, Africa and Latin America. The 10 modules include ICTS and learning; ICTS and better health; ICTs and agriculture; eCommerce; eGovernance and Telecentres. Each module

includes a set of assigned readings and a list of additional resources specifically related to the module.

In the Field, BBC World Services and Natural Resources Institute, University of Greenwich
<http://www.nri.org/InTheField/index.htm>

The site contains the notes that partner the radio series 'In the Field', which is a series of twelve programmes made by the BBC and broadcast on the BBC World Service between January and March 2001. The programmes are also available on the BBC web page for the series, where they can be listened to in Real Audio.

Information and Communication Technologies for Development, Development Gateway
<http://topics.developmentgateway.org/ict>

One of the subject areas where the Development Gateway currently concentrates its knowledge sharing efforts. The website contains resources, news and events on the use of ICTs for development. Gender is among the key issues.

Information and Communication Technologies for Development, IDRC

http://web.idrc.ca/en/ev-43441-201-1-DO_TOPIC.html

The website presents an overview of the ICT and Development work of the IDRC, with links to various sections including Stories and Publications about Information and Communication Technologies in Africa, Asia and Latin America.

International Institute for Communication and Development (IICD)

<http://www.iicd.org>

IICD assists developing countries to realise locally owned sustainable development by harnessing the potential of ICTs. IICD works with its partner organisations in selected countries, helping local stakeholders to assess the potential uses of ICTs in development. Country programmes of IICD, news about IICD's projects, and information on their capacity building, knowledge sharing and thematic networking activities are discussed.

itrainOnline

<http://www.itrainonline.org>

itrainOnline is a joint initiative of six organizations with exceptional expertise in computer and Internet training in the South. It offers a single source on the web containing a selection of the best and most relevant computer and Internet training resources for development and social change. It includes links to resources specifically targeted at women, both for trainers and end users.

Networked Intelligence for Development

<http://www.networkedintelligence.com/>

Networked Intelligence for Development® works with communities in developing and transition economies to assist them to harness the opportunities of evolving ICTs and to establish their identities in the information era. A good proportion of NID's work is directly with women who earn their livelihoods from their own business ventures.

Open Knowledge Network

<http://www.openknowledge.net>

The Open Knowledge Network (OKN) is a human network, which collects, shares and disseminates local knowledge and experiences in agriculture, health and education. The website provides information on the approach, the work undertaken and a link to OKN's online community.

Radio for Development

<http://www.rfd.org.uk>

RFD works in Africa, Asia, the South Pacific, the Caribbean, and Europe, in producing effective communication materials for the purposes of social development. Information on projects and RFD's partners are presented at the site.

Sustainable Initiatives

<http://www.sustainableicts.org>

The website has been generated as part of a research programme on sustainability factors drawing on case studies commissioned by InfoDev for WSIS. An analysis of the research programme, and lessons learned are reported. These reports, a background paper, the case studies, and video clips of short interviews can be accessed through the website.

ICT for rural development: examples, cases, stories, projects

Building Digital Opportunities: ICT case studies
<http://www.digitalopportunity.org/article/frontpage/321/4853/>

ICT case studies from Africa, Asia and Central America.

The Communication Initiative (CI)

<http://www.comminit.com>

CI is a partnership of development organizations seeking to support advances in the effectiveness and scale of communication interventions for positive international development. Its website provides access to information on initiatives and web resources on the use of traditional and modern ICTs for development.

IICD projects

<http://www.iicd.org/projects/>

ICT stories

<http://www.icconnect-online.org/stories/>

The Global Knowledge Partnership (GKP) partners with infoDev and IICD to support ICT Stories.

ICT-enabled development case studies series: Africa

http://www.bridges.org/iicd_casestudies/case_studies.html

This list of case studies is an initiative of IICD and Bridges.org

ICTs and Development Special, KIT (Royal Tropical Institute)

http://www.kit.nl/specials/html/it_some_experiences.asp

This web resource includes a chapter on 'Some experiences with ICTs' that presents 18 case studies of the use of ICTs for development in diverse sectors.

IDRC Reports: stories of research on the developing world

Focus on Africa – http://www.idrc.org.sg/en/ev-58361-201-1-DO_TOPIC.html

Focus on Asia – http://www.idrc.org.sg/en/ev-47595-201-1-DO_TOPIC.html

Focus on Latin America –

http://www.idrc.org.sg/en/ev-47596-201-1-DO_TOPIC.html

ITU internet country case studies

<http://www.itu.int/ITU-D/ict/cs/>

Radio for Development, projects

<http://www.rfd.org.uk/projects.asp>

Radio Internacional Feminista

<http://www.radiofeminista.net/>

See: Feminist International Radio Endeavour

Selected best practices for rural poverty reduction, UNESCAP

<http://www.unescap.org/rural/bestprac/>

Semi-literate Mekong women learn using video compact discs: dot-EDU

<http://www.dot-com-alliance.org/newsletter/mekong.html>

Tianjin Women's Business Incubator (TWBI)

<http://www.tjwbi.com/fuhua/index.htm>

Women Entrepreneurs' Information Network

<http://www.win.org.pk>

Website serves information and network needs of women business in Pakistan. It provides online data on policy, regulatory and legal environment as well as procedural information related to micro, small and medium business opportunities for women.

Women of Uganda Network (WOUGNET)

<http://www.wougn.net>

The aim of the network is to develop the use of ICTs among women as tools to share information and address issues collectively.

Women's Voices

http://www.itdg.org/html/icts/womens_voices2.htm

Women's business association encourages exporters in Cameroon

<http://www.tradeforum.org/news/>

Women's Internet Cafe, ZWRCN

<http://www.zwrcn.org/zw/womenscafe.html>

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