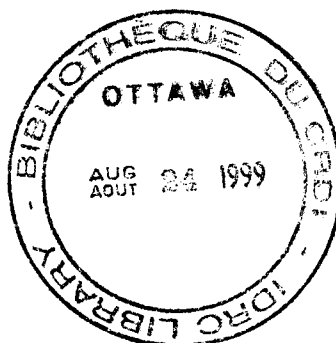# Supporting Women's Use of
Information and Communication Technologies
for Sustainable Development

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Table of Contents

I   Introduction

The central question of this study concerns African women's use of information and communication technologies (ICTs). This includes issues of access, the benefits African women experience and can expect to experience from ICTs, and the role they can and do play in the production and dissemination of information.

The study is organised into three sections. The first four headings look at the situation of African women vis a vis their social, technological and information contexts. The second section looks at barriers to women's full use of ICTs, and strategies for overcoming those barriers. This section is based on examples of women's experiences and activities. The final section contains guidelines and recommendations for future projects and research to facilitate women's participation in the information society.

II   Women in African Society

In assessing and promoting women's access to and use of ICTs in Africa, it is important to understand the gendered nature of the social, economic, policy and technology systems which frame opportunities for women. Women's needs for information are also structured according to their gendered roles and responsibilities, which in turn influence their use of and response to ICTs.

Women's place in African society is markedly distinct from that of men in almost all parts of life. Views of women's capability, purpose and needs are strongly held, defining the boundaries of what women expect of themselves and what they are expected by the rest of society to achieve. Their purpose is generally defined to consist of marriage, reproduction and "domestic" duties. Further, in many parts of Africa, women move away from their families upon marriage while men stay at home with their wives and continue to contribute to the family economy. Boys and men are therefore more highly valued, and more investment is made in their education, health, and future income-earning potential. It is likely that more investment is made emotionally in the boys as well, leading to a lesser sense of self-worth on the part of girls. As a result, girls and women take on second-class status in the home, developing fewer skills used outside the home, setting more limited goals for themselves, and gaining less access to education and health care. For this reason, a strongly articulated issue for African women is the need to change traditional attitudes, and for women to recognise within themselves the capability of transcending the limits socially ascribed to them.

The colonialist and post-colonialist focus on the cash economy marginalises women, whose triples roles in reproduction, subsistence production and community management are not valued quantitatively or economically. Despite the critical importance of women's contributions to the African economy, women's work as a result is not "visible" or recognised. Unmarried women who earn income generally turn it over to male members of the family. As a result, women are generally poorer than their brothers and husbands, and

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those who lead households without male heads are the poorest of all – up to 1/3 of households in developing countries.

Rural women in Africa are predominantly illiterate, being taken out of school at an early age to save school fees, to marry, to ease their mother's workload or because of pregnancy which often occurs at an early age. In Guinea-Bissau, for example,76% of women are illiterate. Those who continue in school tend to follow traditional or socially accepted streams for women which are non-scientific and non-technological, since science, technology and maths are generally considered incompatible with their reproductive and domestic sphere of their responsibilities and therefore inappropriate for women.

The effects of lower paid, lower skilled employment opportunities, lack of recognition of the triple roles of women, less autonomy and lower status in the household are exacerbated by the increasing hardships of environmental degradation and the cutting of social services by structural adjustment programs. As a result women's time is a critical resource in short supply. Any systems or activities meant to improve their lives and increase their empowerment must be perceived by women to save time or increase their efficiency rather than add to the already overly long list of activities in a day. The daily schedule for these activities must also be flexible, in view of the strategies women use to accomplish their tasks. These include multitasking, cooperation with networks of women, and the breaking up of tasks into smaller discrete units.

The representation of women's concerns in national, regional and international policy is low, in Africa as elsewhere. Women are poorly represented in policy making bodies at all levels and in most sectors of African society. National governments' records of implementation of gender equity in national policies are generally poor; while governments have failed to follow up on many of the policies they signed on to in international conventions and treaties. Work to address these issues by women's NGOs and other advocacy groups is impeded by lack of communication between various levels and among different sectors of governments.

III   Meeting Women's Information Needs

The importance of information and of technologies to transmit and disseminate information for development in Africa is well recognised. However, the issues discussed above should make clear that access for women to ICTs cannot be assumed to "naturally" occur when non gender-differentiated approaches and technologies are implemented. In fact, as noted by the IDRC Gender and Information Working Group, "most of the positive effects of the 'information revolution' have bypassed women[1]." There has been little research done on women's information needs and access to appropriate information in developing countries. While this is changing, the 'information highway' is still predominantly male-oriented, and

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[1]IDRC, 1995:268.

often a forum for gender discrimination, intimidation and even harassment. The profound, gendered implications of ICTs for both men and women in employment, education, training, and other productive and personal development areas of life mean that women need encouragement and support to take their place in the information revolution. For example, the concentration of women in clerical ICT work does not translate farther up the ICT hierarchies. What will the need for increased technical and operational skill levels mean for women's employment in ICTs in the future? Studies show that men continue to crowd out women's access to the training required for higher skilled work. On the other hand, women in Africa are engaging in formal and informal entrepreneurial activities on a large scale: "There is no doubt that women are the main economic force in developing countries.[2]" As economies become more and more information-driven, the issues of women's access to information as well as their ability to produce and disseminate it will be increasingly important to Africa overall.

The field of information and communication constitutes an increasingly significant element of science and technology (S&T), and will increasingly influence the content and mechanisms in developing countries for education in S&T, communications, and influence the creation of communities for learning, interaction and participation in community, national and international life.

As identified by the IDRC Gender and Information Group, the critical information issues for women are:
1) type of information - what kind, access to it, and gender-consciousness
2) information technology process - availability of technologies to women, their ease of use, policy processes around these, and the effects on women. Active involvement of women in the identification and definition of their information needs, and in the choice of mechanisms and processes to meet these needs is critical for their productive participation in production and dissemination of information as well as definition of and access to the information they need.

Viewed in this light, access to information can be seen as a central empowerment issue. Control over the kinds of information they need and produce – communications – is a fundamental aspect of empowerment for women, as is the ability to organise and mobilise for their concerns.

A.   *International policy statements*

Equitable access to ICT technology and the autonomy to receive and produce the information relevant to their concerns and perspectives are therefore critical issues for women. Recent important international policy documents have recognised the gender implications of the new

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[2]Oloko, 1996.

technologies. The Platform for Action of the Fourth World Conference on Women states that:

> Women should be empowered by enhancing their skills, knowledge and access to information technology. This will strengthen their ability to combat negative portrayals of women internationally and to challenge instances of abuse of power of an increasingly important industry...Women therefore need to be involved in decision-making regarding the development of the new technologies in order to participate fully in their growth and impact[3].

The Platform calls for increased access and participation of women to expression and decision making in the media and ICTs, in order to overcome negative portrayals and stereotypes of women in media and communications, and to encourage the presentation of balanced, non-stereotyped and diverse images of women.

Despite the conception that women engage in solely domestic activities which require a lower level of skill and innovation, NGOs and policy bodies are beginning to recognise and highlight the knowledge, innovation and abilities possessed by women.

The recent Association for Progressive Communications (APC) Africa Strategy Meeting in Johannesburg[4] in its recommendations identified four priority theme areas: supporting electronic networks, promoting strategic use of information and communication technologies among partner communities, developing information content and tools, lobbying and advocacy. While its recommendations do not focus solely on women, the importance of supporting women's participation in these areas is clearly stated as an important issue for the "Africa Information Society."

The Report of the Gender Working Group of the UN Commission on S&T for Development, which was unanimously ratified by the Commission, highlighted the gender dimension of S&T development planning and implementation; and emphasised the centrality of women's technological activities, as practised in subsistence agriculture, natural resource management, health care, and entrepreneurial activities, to sustainable and equitable development.

The Gender Working Group Report further recognises the importance of women's participation and control over ICTs for their work in the formal sector and in improving business efficiency of women in the informal sector.

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[3]"Report of the Fourth World Conference on Women", para. 237.

[4]Association for Progressive Communications (APC) Africa Strategy Meeting, Holy Family Centre, Johannesburg, South Africa, February 8-11 1997.

B.   *Women are important contributors to information for development*

Women's needs with respect to ICTs, then, do not concern only access to education and training that will support their participation, but the social and policy acknowledgement that what women already do is technology, appropriate and worthy of recognition, and, further, an important resource for development.

Support of women's existing technology activities, recognition of their role as possessors of most of the indigenous knowledge in developing countries, and support of their potential for contributions to S&T are critical to community development. Reasons for this include the benefits of taking advantage of a valuable resource for development, equity and recognition of the rights of women to equal access to personal and professional development, and benefitting from the skills and innovation that emerge from women's perspectives and responsibilities. Surveys of women innovators in Kenya and the Philippines show that women's inventions tend to have direct application to improving family and community wellbeing or increasing efficiency. Examples include a power tiller built to women's physical specifications and their agricultural practices, an improved cloth diaper, improved diagnostic kit for leishmaniasis, and a fireless cooker[5].

It becomes clear then, that an important task for the new information technologies is not only to allow women to gain information but to disseminate the information they already possess and generate.

C.   *Empowering women through ICTs*

Communications technologies are important for the distribution of alternate, balanced and equitable portrayals of women and their potential. They are also important for facilitating analysis of women's situation and developing active strategies to improve that situation. Karen Banks of GreenNet makes the point that women's ICT activities "take on a dynamic of their own...that is, the activity is more of a movement, gathering momentum supported by a network of peers utilising ICTs for communication, coordination and information and experience sharing.[6]" They help women to develop confidence and experience in expressing their viewpoints publicly by allowing space for experimentation and enabling them to find allies across communities, nations and regions. Two examples illustrate this: a woman in South Africa, recently working on a campaign for women's reproductive and health rights, posted a message to the APC <africa.women> mailing list concerning campaigns and information from other African countries. Women from two other African countries responded with information on precedent legislation which could help the advocacy campaign

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[5]See Moussa, 1994 and Mwangi, 1996.

[6]K. Banks, email communication, February 14, 1997.

in South Africa. In another case, a Senegalese woman, unable to find data locally on the number of women Ministers in African governments, contacted the international APC women's network through its mailing list. A woman in Geneva with access to UN agency information was able to fax relevant information to Senegal, so that her colleague was able to use this information to support advocacy concerning women's participation in African governments.

Other advantages of ICTs for women include the much lower cost of publication, once the initial financial investment is made, which encourages women to articulate their views publicly. The new kind of communication space which ICTs introduce is decentralised, de-hierarchicalised and allows the instantaneous 'registration' of many voices and viewpoints. The result can be a hybridised, genuinely integrated product, with possibilities for new kinds of discussion. ICTs are allowing the development of alternative modes of communicating and acting which go beyond rhetoric into the exploration of new models for action.

The explosion of electronic communication among women around the world in the run-up to the Beijing conference is an example of the use of ICTs by women as a tool for information dissemination, communication and organisation. World Wide Web sites set up to disseminate information on the Conference saw 158,722 requests for information before the conference alone. Email distribution took place through listservs (Beijing-95 and Beijing-Conf), electronic conferences set up by the Association for Progressive Communication (APC), and the International Women's Tribune Centre newsletter, Globalnet. These fora encouraged communication and information-sharing among hundreds of thousands of women around the world. A notable example of the role of ICTs in facilitating women's global lobbying occurred as a response to attempts by the Chinese organisers to restrict and control the access of NGO Forum participants to the official governmental conference; and to restrict the entry of certain groups into China. The power of the immediate global response of women to these and other restrictions was acknowledged by the Secretary-General of the UN, who agreed to oversee negotiations with the Chinese hosts on the concerns expressed by women about the Conference organisation. In addition the organisers agreed not only to back down on some of their more restrictive policies but also to facilitate communication between the NGO Forum and the Government conference.

Aside from strengthening women's voice, ICTs can benefit women in other ways. They can facilitate participation among women in different sectors and in different regions. They can provide the information that women need to improve their own wellbeing and that of their families, and to more efficiently fulfil their triple roles. The introduction of computers into offices has improved the quality of worklife for women in clerical and administrative occupations. ICTs allow the exchange of views, opinions and news that might not be possible in other media under government censorship and control. They have also been used to protect unpopular leaders in authoritarian countries: through publication of their ideas, up-to-the-minute status reports, they provide a vehicle for international expressions of concern and demonstrate to authoritarian governments that their actions are visible to the world. For example, during apartheid, the reporters of Africa Information Afrique (AIA) in South Africa

(many of whom were women) used modems and computers to transmit news reports out of the country.

IV   Barriers for Women in Africa to the Full Use of ICTs

The barriers to ICT use and access are many in Africa, and well documented. The cost of internet access at all levels makes it inaccessible for the majority of the African population. Computers and modems are imported from industrialised countries with accompanying increases in transportation and duties as well as disadvantageous exchange rates[7]. The cost of online access is prohibitively expensive for most. Further, telephone lines are generally undependable, while the electricity supply can be erratic. Several women's groups in francophone Africa, for example, have had their modems shorted by electrical surges during thunderstorms. Other problems include lack of access to training, lack of technical information, lack of computer parts and repair, high rates of technological obsolescence and lack of human skills and know-how. As well, language is a barrier, especially in francophone Africa, since most training packages, software, and electronic conferences and journals are in English.

According to workshop participants at a recent APC Africa Strategy Meeting, key issues for ICT development in Africa are:
• 	Relevant African information ("content") needs to be produced, managed and delivered appropriately within Africa. The raw information heritage is too valuable to be trusted to others. Almost no resources are directed to this need.
• 	Telephone and other communication infrastructure beyond the cities remains under-funded - a problem that liberalization cannot solve. Private investment in de-regulated markets has so far generally concentrated in the major cities.
• 	The little international investment that there is in technical training and capacity building - a critical need, especially to bring more women into networking - too often neglects the particular needs of Africa.

Additionally, cultural attitudes and problems pose challenges for the non-hardware aspects of technology implementation. These include lack of experience in incorporating electronic networks into inter-organisational communication and the tendency to locate communications technologies in Director's or Deputy Director's offices.

These barriers to ICT use are exacerbated for women as a result of their lower economic and social status, their lack of training and literacy, their concentration in lower-level and entry-level employment, their lack of autonomy, and their lack of time:

The economic hardships in our countries make it impossible for women, who have to

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[7]Costs can increase ten-fold from point of manufacture to Africa, according to Christiana TitahMboh, 1994.

pay school fees for children and to cater for other basic needs, to save money to buy computer hardware, for example. That is why after attending computer courses, if one does not have a computer in the office to practice, then one will lapse back into illiteracy because she cannot afford to buy a computer for herself...many men are already computer literate because they have more time to themselves, access to ICTs and a supportive environment for them to acquire whatever new skill comes up[8].

Women professionals also experience difficulties. A woman lawyer in Uganda recognises the importance of international internet connectivity for information, support and advocacy, but has not been able to afford or obtain a separate phone line. To use e-mail, she drives 20 kilometres to the University library, presents a copy of the information to be sent either in manuscript or diskette, and pays one U.S. dollar per page to send a message and 50 cents U.S. per page to receive a message. She has to wait two days to pick up replies, but most e-mails she sends never arrive at their destinations, because the addresses are keyed in by the library personnel, who, she reports, "tend to make mistakes" in keying in the addresses[9].

The general and widespread decreased access to education and training experienced by African women has several ramifications for their use of ICTs:

- High rates of illiteracy among African women are the first obstacle to ICT use.
- Language issues are intensified for women, with less time, money and access for learning English - the dominant language of ICTs – or for translation of existing information and training documents into French or local languages.
- Women have less access to basic computer literacy courses, let alone advanced computer training.

As referred to in many of the examples above, women's time is at a premium. A survey undertaken by the APC found that barriers to ICT use include the issues of information overload and the time consumed in searching for useful, practical information. One respondent commented that "in some ways the Internet is a tool for those with lives of leisure."

Social influences on women's relationship to technology also affect women's attitudes toward ICTs. The tendency to direct women into non-technological professions and responsibilities means that women feel "fear and embarrassment[10]" when dealing with ICTs. A study in

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[8]M. Musoke, email communication, January 30, 1997.

[9]A. Goldstein, email communication, February 14, 1997.

[10] E. Onyejekwe , email communication, January 22, 1997.

Nigeria revealed that women considered the word "technology" to have male connotations, even though "information" seemed more feminine. Some even believed that working with ICTs would drive women mad[11]. These examples indicate a high level of discomfort with new information technologies.

Women generally are not involved in ICT-based professions in either the North or South, although this is starting to change slowly. When they are employed in this sector, it tends to be in the low-paying and less prestigious positions. Strong hierarchicalisation in institutions and industry mean that because of their lower position, women do not gain access to the computer equipment even if they have more computer ability and need for it. A common complaint at a workshop on 'Women and the Internet" at the NGO Forum in Beijing was that computers and modems tend to go to the (male) Director's office where they remain unused, instead of to the (female) receptionist or secretary who is willing and able to use the computer for communications and document production (personal observation). Compartmentalisation of departments can cause different problems: a researcher at a research institute in Dakar does not have actual email access, even though the University has an account. The reason: there is one account for the entire Institute, which is placed in the computer centre. To send and retrieve messages, the researcher has to physically bring a copy of the message on paper to the centre, and hand it over to the male technician for transmission. Similarly with reception of messages. Therefore convenience of transmission is lost, as is privacy. There can also be substantial time lags between transmission and reception[12]. Other institutional problems include lack of knowledge of available computer facilities and lack of training. These obstacles are exacerbated for women by the fact that they tend to be clustered in junior, part-time, and temporary positions, thus finding themselves at the bottom of the technological ladder.

In the NGO sector, women's organisations tend to be information-poor in general in addition to a lack of familiarity with ICTs, lack of training, lack of reliable telephone lines and lack of funds. Focus by NGOs on "on the ground" development efforts can lead to a mistrust of ICTs or the perception that they are not appropriate for developing countries. This is especially true for those NGOs dealing with the poorest, where a focus on basic needs and conditions of a minimum quality of life can take priority over "luxuries." Again, since women make up the majority of the poorest, their focus on the necessities will mitigate against their acceptance, or even awareness, of ICTs.

For those women's NGOs who do take advantage of information gained through ICTs, or who have access to ICTs, use can be sporadic or partial. Many groups which gained online access as a result of plugging in to the Beijing process lost interest after the Conference

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[11]Ighoroje and Bosede, 1996.

[12]Personal observation.

ended. This was due to lack of recognition of the potential uses and to technical difficulties. (Scarcity of technical service providers allows them to charge higher rates; this tends to disadvantage women's groups.) Other groups which do maintain their online use may play only a passive role in receiving information, not attempting to produce or circulate their own contributions to virtual discussion. The lack of networking and information exchange among women of different sectors within Africa, i.e. among secretaries, activists and researchers, sets up further barriers for the best use and circulation of information for women's empowerment.

Other barriers to access for women emerge for those who do not have professional access to ICTs, and lack of encouragement for use of ICTs by women's NGOs on the part of parent organisations.

V   Overcoming Barriers: Women Take Hold of ICTs

From a preliminary survey of African women's groups, ICT professionals, African APC networks and the World Wide Web, it is apparent that African women are just beginning to use ICTs; they are still in a tiny minority of ICT users. The evidence that women are using ICTs for their development concerns is scarce. That being said, it is also apparent that many innovative and exciting projects are being initiated or are in the planning stages. The attached Directory (see Appendix 1) gives an indication of the surge of women's use of ICTs that is imminent.

At the same time, it is important to ensure that women's participation in ICTs be appropriate to their situation, perspectives and concerns. They should be supported in creating: their own technological processes and abilities; virtual spaces free of harassment and supportive of non-traditional views of women's abilities; and content that supports their concerns and allows them to fulfil their productive, reproductive and community management roles more efficiently and effectively. The following examples of African women's use of ICTs indicates a strong potential for the innovative use of new technologies to support these goals. Attempts to support and encourage women's participation in ICTs should learn from and build on the examples of these pioneering efforts.

A.   Overcoming illiteracy
As discussed above, a fundamental barrier to women's use of ICTs in developing countries is illiteracy. This is true for Africa. The danger in such a situation is that ICTs will widen and deepen the gap between the haves and have-nots as economies become more and more information-based. However, two different approaches to this issue illustrate that ICTs can in fact help to overcome illiteracy. The Center for Communications and Women's Self-Employment, in Quakchott, Mauritania, like many successful literacy projects, ties literacy training to a package of skills and services provided to support women's entrepreneurial activities. The Center provides classes aimed at self-employment, such as sewing, cleaning and drying of fish, rug weaving and reading lessons. The reading lessons are intended to

allow women to more efficiently manage their day-to-day entrepreneurial activities, but also pertain to the recognition that for women, "the biggest problem is information.[13]" For this reason, lessons in computer technology and typing are also offered. A similar approach was taken by the Community of Living Water in South Africa who worked with the "Masizakhe[14]" group of women in Kayamandi, South Africa. The purpose of the project was to support women's organic gardening activities. ICTs were used in two ways: to deliver information on organic gardening techniques and resources, and to teach English language skills via CD-ROM. Two web sites in particular were used by the group, one at Ohio University, and the Life magazine Gardening Encyclopedia. Reading skills, initially developed by use of CD-ROMs, were supplemented by adult education information found over the Internet. This use in fact sparked a community initiative to donate used clothing to finance the women's enrollment in additional adult education courses available on the local network, SANGOnet.

B.   *Facilitating education and training for women and girls*
Two separate ICT initiatives are currently developing to facilitate access to higher levels of education and ICT technical training. They provide examples of how ICTs can facilitate education and training for women in different sectors. The program "Synergie Genre et Developpement" (SYNFEV) at ENDA in Dakar, runs a "Communication for Women" programme with support from the APC network GreenNet. The Communication for Women program emerged from the pre-Beijing process, as SYNFEV began to download, translate and distribute conference information to its local and regional partners and networks. (see Case Study A). Its post-Beijing strategy is to build on the momentum of the Beijing process to continue electronic networking in francophone Africa around women's health and rights issues. SYNFEV coordinated a workshop for an initial group of 15 NGO representatives from different francophone Africa countries as the initial catalyst group. This workshop provided to participants:
–   training in the use of FIDO networks
–   technical support and training from the ENDA system administrator and a female technician from GreenNet
–   modems for the 12 non-Senegalese participants, provided by CABECA/PADIS and GreenNet
-      support for the workshop costs from an external donor.

Each participant left the workshop with a modem, installation and configuration disks, and addresses for local internet/network access. An electronic conference was also set up, on "Rights and health for francophone Africa women", <femmes.afrique>, on GreenNet and moderated by SYNFEV.

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[13] Wilde, 1997.

[14]"We build together."

A second initiative, the "African Women Global Network" (AWOGnet) is currently being set up at Ohio State University by an African woman based at the university, to support the needs and concerns of women and children in Africa. The intent is to link up various organisations and institutions "whose activities are directed towards improving the standards of living for African women and children, especially those within the Continent of Africa[15]." The major focus of AWOGnet will concern better educational infrastructure and support, although it is recognised that this goal is interconnected with issues and activities to natural resource management, agricultural development, refugee and orphanage services, and other socio-cultural issues. The key activity will be the designing and implementing of technical and other support services, including distance education for students and teachers in Africa which is especially targeted to women and children, and which will contribute to increasing Internet connectivity in African countries. While still in the early stages, and in danger of having objectives that are too broadly defined, this project is worth watching for its potential contribution to the education of African women at various levels and in various sectors.

The potential of CD-ROMs as an education medium is yet to be explored on a general scale, although it cannot be addressed outside the context of technology provision, servicing and training. The experience of the project for African Research Libraries of the American Association for the Advancement of Science (AAAS), which has been working with African researchers and senior administrators on the use of CD-ROM and other technologies for information delivery and access in sub-Saharan Africa, could be relevant here, although its work has been mainly with universities and other institutions. The use of CD-ROMs at the local level has not yet been widely attempted, but according to some represents the best opportunity for the widespread education of girls and women.[16]

C. Supporting women's entrepreneurial activities

The support of women's entrepreneurial activities is an important ICT benefit for African women which has not yet been realised. A recent needs assessment survey conducted by GreenNet, sent to over 200 women's groups in Africa, found that there was strong interest in the potential of ICT to increase women's income generation. This relates both to women's entrepreneurial activities and to increased levels of skills with concomitant increased opportunities for more highly-paid employment. Timely information on policies, production methods, and support as well as advertising and marketing, can make important contributions to the success of enterprises. This has not yet been fully explored in the context of African women's business information needs. A Gender, Science and Development Programme/UNIFEM conference held at the University Harare, Zimbabwe on "Engendering International Trade: Women in the PTA Region" highlighted the difficulty for women entrepreneurs in Southern Africa to get the information they need. Workshop participants

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[15] Egondu Onyejekwe, email communication, January 21, 1997.

[16] Meier, Richard (1996)

12

emphasised the importance of access to information on trade policies at national, regional, and international levels, and called for increased access to computerised databases, improved communications and information dissemination among women entrepreneurs, and advertising of the information resources available to them[17]. In addition, the Internet and WorldWide Web present an important opportunity for national and international marketing and advertising. Women's groups in Africa have used ICTs to facilitate "fair trade" with international partners. An increasing number of groups in the North which are importing Southern goods for distribution present their product information on the Web; this also presents opportunities for increased business support and markets, if African women can take advantage of them. Swasti Mitter refers to the importance for women of access to commercial knowledge and business skills for small and medium enterprises[18]. The Self-Employment Centre in Mauritania referred to above incorporates training in computers, typing and literacy to support women's entrepreneurial activities at the local level, while in the experience of SYNFEV, women's groups and associations formed at local levels often form around economic or entrepreneurial activities. As a key element in local self-sufficiency, these groups need support to encourage ICT business-related skills and activities.

D. Potential roles for African women's NGOs

The rapid growth of women's organisations at all levels and their demonstrated ability in development education, training and activities make them a key element of any strategy to encourage women's participation in ICTs. They are generally trusted by local communities, are flexible in operation and have demonstrated great innovation and creativity in framing and organising development projects. Several women's NGOs have extensive networks and operations across Africa, and are thus well-placed to work with technical organisations to develop ICT training and implementation programmes. These include the Zimbabwe Women's Resource Centre & Network (ZWRCN), the Forum for African Women Educationalists (FAWE), Isis-Wicce (Uganda), ABANTU for Development (South Africa), African members of the Once and Future Action Network (OFAN), and others. Maria Musoke refers to the importance of sensitising the heads of women's NGOs concerning the importance of ICTs, and, for example, of including budgets for equipment and online access in their proposals and program plans. "If there are, say, 10 established NGOs each with an average membership of 50 women, at least over 500 women would be conversant with ICTs. The sensitisation of women heads of NGOs is, therefore, important because it has a multiplier effect[19]."

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[17]Workshop on "Engendering International Trade: Women in the PTA Region," University of Zimbabwe, Harare, June 19-21, 1995. The full report of the meeting is available at http: www.ifias.ca/gsd/trade/Zimindex.html

[16 Mitter], 1995

[19]M. Musoke, email communication, January 30, 1997.

13

E. ICT delivery and access systems

Women's NGOs also potentially could play a role in facilitating the distribution and production of information by women in Africa. Since cost, technology expertise, repair and infrastructure issues will ensure that ICTs stay out of the reach of most individuals for the foreseeable future, alternative systems of access, delivery and information will need to be developed that are more appropriate to the situation of Africans. This is especially true for women, who tend to have less economic power, training and technical expertise.

Strategies for women should focus on email and listserv/conference systems. Studies worldwide show that women tend to use email more than other Internet services, for reasons of time, cost and level of technical ability. The African situation lends itself more to email services generally (see the Holy Family Communiqué, Appendix 3), but again, women's situation and income tend to cluster them in the simpler technology systems. In South Africa, a concern is that IT publications and the IT "milieu" are concerned only with the top end of the market, faster machines, and most impressive graphics. The situation of much of the population means that this is relevant to only a few; more attention should be paid to the great deal than can be achieved by the simpler ICTs.

The majority of women who have access today do so from research institutions, governments and some businesses. Access among poorer and rural classes is currently non-existent, but critical for Africa's development. A technical mix of transmission systems will most benefit these African women, which combines networks, fax, computer communications and even WWW connectivity and connects them to larger off-line or low-tech dissemination networks. Women at Beijing discussed local distribution of information downloaded from the Internet by a communications centre or NGO, through verbal interaction and education. Other possible means include the use of street theatre (already proven an effective dissemination medium), radio and TV, and even music. The experience of the Zambia Association for Research and Development (ZARD), which downloaded information on the Fourth UN World Conference on Women and distributed it regionally, including to local libraries, is an example of the success of this kind of distribution system. One of the challenges in a system such as this, however, is filtering of information which naturally occurs as a result of the choice of the downloader concerning which information is important enough to distribute. This could be resolved by frequent consultation with the receptor groups.

F. Women's time constraints

Women's lack of time influences the form and content of ICTs. Most women will not perceive the benefits of ICTs, nor will they be able to use them to their full potential, unless they can see an immediate benefit or result of participation in ICTs. Personal experience with other gendered electronic fora indicates that women generally do not have the same time or patience for "chat", philosophical discussion and generalised networking, but instead are much more practical in their assessment of the benefits of ICTs. Women want "hard, factual data, e.g., information on practical health and educational issues, and government policy documents in their country and in other African countries[20]. They are therefore interested in specific thematic and sectoral information

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[20]K. Banks, email communication, February 16, 1997.

systems which they perceive as fulfilling certain practical goals. This is demonstrated by the fact, for example, that women's ICT use around the world was catalysed by women's interest in information generated in the course of the UN Fourth World Conference on Women.

For these reasons, promoting women's ICT participation will mean focusing on the sectors in which ICTs will be of most use to women in any of their triple roles. Women have developed or are developing networks and communication projects in sectors they consider crucial:

- the conference facilitated by SYNFEV is focusing on women's rights and health (Case Study A);
- legal information networks, as supported by LAWA (Case Study C)
- the GENNET listserv based in the University of Cape Town is intended to facilitate communication between people teaching and research gender-related issues in the Western Cape region (Case Study E);
- the African Gender Institute is planning to develop a "Womens Net" as a wider Gender Information Network for South Africa. It currently facilitates email information exchange among librarians and documentalists working in gender equity and justice information, as well as a pan-African working group which communicates regularly through email (Case Study E);
- the Reproductive Health Alliance (RRA) in Johannesburg, South Africa, started using ICTs to send regular messages about events, to distribute minutes, organise Alliance activities, send out RRA policy statements, distribute a questionnaire, drafts of the legislation and the RRA Constitution (Case Study B);
- a member of the Healthnet network in Uganda is developing a proposal to examine women's use of and access to health information; the success of the Healthnet in supporting basic health care in Africa is established.

Other areas in which ICTs are considered to contribute are environmental/natural resource management and food production. Women in Africa are important natural resource managers and produce and process much of the subsistence food crops. Their access to current information is important, but so is their role in disseminating information in this area. As holders of most of the developing world's indigenous knowledge, women are recognised by the UNCSTD as central to achieving more sustainable community development.

VI   Implementing Women-Friendly ICT Systems

What becomes clear from these discussions and case studies, then, is that access for women in Africa will depend critically on where the technologies are located, while the most efficient and beneficial use of ICTs is closely connected to the kind of information produced and distributed, i.e. information that directly supports women's activities and responsibilities. Since personal ownership of ICTs for the vast majority of African women is not feasible for the foreseeable future, this means that the question of <u>where and how</u> they can gain access to ICTs is central. This includes institutional, sectoral and geographical contexts. Currently, it is only middle-class and professional women who use ICTs. In order to facilitate access for women from other classes and sectors, the

15

indications from this survey are that ICTs will need to be located in local institutions to which women have open and equal access, such as health centres, women's NGOs, women's employment centres, libraries, women's studies departments and institutes, and perhaps even churches. The location in these types of contexts also pertains to the practical, specific kind of information that women require as a result of their time constraints. For example, placing internet access in a local health centre will facilitate women's access to the health information they need for themselves and their children, by providing access to information for which there is a specific need at the same time as making a health-related visit. When women can understand and experience the benefits of ICTs, they are quick to use them. Establishing telecommunications centres in local communities is also a potentially useful strategy, if gender obstacles to their access by women are taken into account. Information production and distribution strategies will also be an important consideration, in order to make the most of each point of access. They will need to be flexible, mixed-media and multi-technology systems in order to effectively reach the greatest number of women in Africa.

VII   Recommendations and Guidelines

From the case studies and the examples of women's ICT activity, several general themes emerge which should guide the framing of activities designed to support and encourage women's participation in the use of ICTs.

1.   In planning ICT systems for women, the following general issues need to be recognised:

1.1   Women's information needs do not concern only the passive reception of information.

Women have scientific and technological expertise and knowledge which should be made more accessible. They also have specific concerns and perspectives which need to be integrated into ICT systems as well as into information systems for sustainable and equitable development.

1.2   Participation in ICTs represents an important opportunity for women's empowerment.

The ability to communicate their perspectives and concerns is a central empowerment issue, both for publication of their concerns and perspectives, and for access to information and education that will promote women's consciousness-raising. Further, the decentralised, interactive and non-hierarchical nature of these technologies present a non-threatening space for women to develop their views, opinions, benefit from the synergy of interactive communications with women. In addition, once the initial costs of access and technology are covered, ICTs present a low-cost and relatively simple mode of publishing newsletters, articles, statements, etc.

1.3   Women need to define and develop their own ICT systems from the beginning.

The experience of other communications media indicates that if women should be actively involved in the definition, development and information in the new technologies in order to

create a space that is conducive to the discussion of their concerns, represents their perspectives and abilities in a non-threatening, non-stereotypical manner, and addresses their concerns. Incidents of negative stereotyping, discrimination against women and sexual harrassment are already evident online.

1.4   New strategies for ICT implementation, delivery and use need to be implemented to encourage women's use of ICTs. They will need to include mixed-media and mixed technologies, locally-based distribution systems, and housing in organisational and sectoral contexts which fit with women's daily responsibilities and cater to their time constraints.

2.   In order for women to benefit most from use of ICTs, and, therefore, for them to be able to use ICTs to the fullest, the following barriers to women's use of ICTs will need to be addressed:

2.1   Literacy

The high rate of illiteracy among African women means that ICT projects will need to be integrated with literacy education in many areas. They will also need to implement strategies that will allow illiterate women to both receive and produce ICT information, e.g. through women's NGOs, and other information distribution systems.

2.2   Cost

Cost issues of ICT access especially effect women. They are generally lower paid than men, and often do not have control over their income. Their family responsibilities, e.g. health and education of children are the primary priorities for the income they do earn, so that often there is little left for other less-immediate needs. Women also do not have as much professional access to ICTs as men.

2.3   Education

Women generally have lower levels of education than men, less access to training, and less opportunity to learn the skills necessary for ICT participation, including basic technical skills, technical repair, and language training (for those whose first language is not English).

Training in ICTs for women will need to be gender-sensitive, and offered by women trainers as much as possible.

2.4   Women's Time

Women's scarce time resource mean that ICTs need to be incorporated into other activities and projects to empower women, and must be specific and active enough that women can see a tangible benefit from their use. ICTs should improve women's abilities to more effectively

17

fulfill their existing productive and reproductive obligations. As well, training and use of ICTs will need to be flexible enough fit in to women's daily schedule. Ongoing, advocacy, networking, support and empowerment activities and projects should be facilitated through access to and active contributions to ICTs. Physically this means that ICTs should be located in contexts and organisations which support the sectors and activities which women have indicated are their priorities, e.g. women's NGOs, health centres, educational institutions, self-employment and entrepreneurial centres, and perhaps even churches. Conceptually this means that information needs to be tailored and targetted to women's specific concerns.

2.5 Comfort level regarding ICT use

Women are unacquainted with ICTs and uncomfortable with using them. They need to be supported in learning to work with, and to feel confident of their ability to use these technologies productively. As a result, "they need more initial encouragement and training at the beginning and are less active in learning the new technologies...though once having learned the skills they work very effectively.[21]"

3.   With these overarching concerns in mind, the experience of African women with ICTs so far indicates the following guidelines and recommendations to facilitate women's use of, contribution to and full benefit from ICTs.

3.1 Cost and technology (including ICT training)

- Support programs to provide hardware, modems and online access to women's NGOs and women's centres in organisations and institutions which are embedded in appropriate women's support and distribution systems.

- Support implementation of ICT technical training programmes for women, and women's access to higher-level training in technical expertise and repair services.

- Examine the role that existing local and national level women's NGOs can play in ICT distribution, training and support, in partnership with technology providers.

- Ensure appropriate ongoing followup technical support and training.

- The APC experience has found that women have a need for women-specific training, free training, links with ongoing user support, and mentoring (women supporting women) in communities.

- Lower-cost and lower-maintenance networking technologies should be examined. Network

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[21]APC, 1997.

computers which perform the simple functions of email, World Wide Web browsing and word processing could be an important means to increasing women's ICT access. For example, New web servers which are now available which use only 500K RAM and are extremely simple to use also have the potential to increase women's presence on the Internet.

- Internet-focused vs FIDOnet online strategies should be used wherever possible, to increase the range of ICT activities and international links.

- Training and workshops on proposal writing and language, style and methodologies that are generally accepted by donors and agencies.

- Build on the expertise and development of the APC women's programme in ICT training for women.

- Work with and support groups which have been identified as seeking Internet access and who are unable to achieve this due to cost, infrastructure or other institutional problems.

3.2   Information distribution and production systems

- Work with women's groups, women leaders in ICT and "target" groups and individuals to define information systems that support women's concerns and situation and which are designed to support their daily productive and reproductive activities.

- Support the design, development and maintenance of mixed-technology approaches, including:
    - designation of a central network node
    - systems of two-way delivery of information between nodes and women's groups
    - incorporation of different levels and kinds of communication technology, from WorldWide Web to email to paper distribution to oral dissemination.

- Develop flexible, rural-based delivery systems to enable access for women in both rural and urban areas.

- Build ICT systems around women's areas of concern, to allow for production and delivery of focused, applicable information relevant to women's needs (see 3.5 below).

- Focus on email-based information systems, including document delivery, and mailing lists, which could be linked to a WWW server.

- More information is needed on women's use and access patterns at local-level telecommunication centres as opposed to women's groups, for example.
    - local telecentres should have female technicians and personnel on staff

- Encourage and support women's NGOs to work with technical providers to ensure

appropriate implementation and delivery systems, as well as long-term support.

- Explore the potential for developing the capacity of women's NGOs to deliver and support ICT use on a long-term basis.

- Technical training, access and delivery systems, and technical occupational arrangements should be flexible to adapt to women's schedule and her childcare responsiblities.

3.3 Education
- Support of ICT training and related necessary skills, including literacy, typing, and English language skills in local women's employment and entrepreneurship centres.

- Support of training in WWW coding and searching.

- Provide technical training that encourages innovation, flexibility, and problem-solving skills.

- Explore the potential of the uses of ICTs for women's education, through distance-learning, CD-ROMs and other ICT-related opportunities.

- Develop school curricula that encourages girls to enter technology and science-related areas.
  - e.g., the Gender and Science and Technology Assocation (GASAT) has regional Africa members who can be consulted for strategies and curricula information on science education for girls and women; the Forum for African Women Educationalists is another resource.

3.4 Encouraging awareness and use of ICTs

- Increase women's awareness of the potential benefits of ICTs.
- Sensitise leaders of women's NGOs of the benefits of using ICTs.
- Increase confidence concerning women's abilities to work with and productively use ICTs.
- Programmes to encourage women's use of ICTs should focus on and encourage women's active contributions and interaction, in terms of production of information for dissemination, using online conferences to organise and mobilise, etc.
- The organisation of ICT interaction around topical themes encourages the development of cross-sector and -class coalitions.

3.5 Supporting the fulfillment of women's responsibilities

- Literacy training and related computer skills should be incorporated into projects to improve or develop women's already existing productive and reproductive activities.
- The specific, more concrete focus of thematic ICT activities provides tangible benefits of participation. Women can then better afford to invest their own time and energy in these activities.

- Existing and emerging women's initiatives indicate areas of priority for women's ICT participation:

  - Health information and advocacy for women and children (especially concerning reproductive rights and AIDS)
  - Women's rights and legal frameworks supporting these
  - Education for women and girls
  - Research and training
  - Business and entrepreneurship information
  - The Gender Working Group report to UNCSTD calls attention to the need to break the isolation of women in science in developing countires through building networks of support for women in science. Electronic networking among women scientists is gaining momentum in other parts of the world; African women scientists should be encouraged to establish their own networks, and link up with international networks.
  - The importance of ICTs for food production and natural resources management has been highlighted. As natural resource managers and producers of much of the subsistence food in Africa, women's concerns should be especially considered in the development of these information systems.
  - Facilitation of regional and international links with other groups active in these theme areas, including the many electronic initiatives of African women expatriates abroad, and of women in other parts of Africa, i.e. Western Sahara, groups in other regions, and Canadian groups.

3.6 Kinds of ICT information which are needed by women:

- gendered databases in every sector listed above
- compilations of resources, information and databases for specific issues, accessible over the WWW and via email, i.e. through online document ordering
- establishment of mailing lists, electronic conferences, listservs, etc. to foster cross-sector and cross-class discussion, moral and technical support and strategising among the following groups of women:
  - ICT trainers, technologists and educators/introducers, at national and international levels, including South-South and North-South links. For example, local, national and regional listservs and networks could be linked into the global support network developed by the APC Women's Programme.
  - women in health research and advocacy
  - women's rights
  - food producers, natural resource managers
  - expansion of beginning networking among African women lawyers and legal rights advocates
  - science and technology practitioners, at university/research, applied and indigenous S&T levels

- These listservs should link up for contact with or distribution of information from groups

outside of Africa.

- As indicated by the experience of the Reproductive Alliance, these listservs should be less for general discussion purposes, than as providers and promoters of the development of specific and useful information.
- Support the compilation and production of regular thematic "digests" or newsletters containing information on activities, organisations and publications of groups in each area.

3.7 Policy

- Support of individuals, organisations and approaches to incorporate gender analysis and perspectives in policy research and recommendations for African internet connectivity and systems.
- Promote participation of women in the planning and implementation of major Africa Internet initiatives.
- Research to determine the state of national level ICT policies and the degree of involvement of women in the process of its development.
- Gender analysis of national ICT policies.

3.8 Areas of research which emerge from this survey:

- This survey is just the tip of the iceberg. Many women's ICT activities are just beginning to emerge on a large scale. A sourcebook similar to the model of the IISD Sourcebooks, on Women's ICT Activities in Africa, would be a valuable resource for education, networking, and developing strategies. It could include a directory of organisations and activities, models of ICT use and development, strategies for obtaining and disseminating information and technology, etc., and could be regularly updated.

- Further research and surveys among African women ICT providers, trainers and organisations on needs, perspectives, areas where support is most needed, and strategies to encourage women's contributions to ICTs.

- Further research and surveys among Africa women's groups concerning what their information and ICT acesss concerns are.

- Research and examination of local, regional and national cooperation among women's groups, access providers, agencies with training expertise, etc. to develop appropriate ICT delivery and access strategies for women.

- Research on curricula and teaching materials to encourage girls and women to enter ICT professions.

- Research on the potential use of ICT's in the area of women and market trade.

22

3.9   Collaboration with other initiatives

- The UNDP Sustainable Network Development Programme (SNDP) has a strong Africa
  focus. Although it does not have an official women's component, the Director of the
  programme has sent a letter to each focal point specifically calling for the contributions of
  women in every part of the programme. Acacia should explore with SNDP collaboration and
  coordination of strategies to support women's networking.

- APC Women's Programme in Africa (see Case Study G).

- There should be further exploration and research into strategic collaborations with
  programmes, institutions and agencies working to improve ICT use and access in Africa;
  strategies of developing input into these processes, and bringing in relevant regional women
  practitioners and women's networks and organisations.

- Partnerships with women's initiatives and groups in other parts of the world, to support ICT
  development for women in Africa, and to encourage the spread of the women's movement
  internationally:
  - thematically, on areas outlined above
  - with Canadian groups (several are listed in Appendix 2)
  - with groups from other regions, such as "ModemMujer" and NEWW-Online of the
    Network of East-West Women.

VIII Appendicies

1. Case Studies

A.   Setting up Networks in Francophone Africa: Synergie Genre et Developpement (SYNFEV), ENDA,Programme on Communication for Women

1. Context of the programme

SYNFEV is a subunit of Environnement et developpement in the Third World
(ENDA), an international nongovernmental organisation created in 1972, with
headquarters in Dakar, Senegal. ENDA works toward development which respects the
environment. The mission of SYNFEV, more specifically, is to promote sustainable
development with respect to gender relations. With this goal several complementary
programmes have been developed since 1987: "Economic Autonomy for Women,"
"Health for Women" and "Communication for Women."

The programme on "Communication for Women" began in 1995, during the preparations for the Fourth UN World Conference on Women (Beijing, September 1995). During this period, the flow of global information and communication, both practical and substantive (?) on women's issues developed considerably. It became important to have access to information, and quickly. But the information which was distributed was mostly in English, a language seldom learned by women's groups in francophone African, and often arrived to these groups very slowly as a result. Only those women accustomed to travelling and working at large international meetings had the opportunity to get information quickly in a language accessible for them.

SYNFEV was aided by the fact that ENDA had already invested in a the dissemination of electronic information for NGOs, by putting in place aa network node, with viable human and technical resources. SYNFEV was therefore able to benefit from access to critical information concerning participation at the Beijing Conference, distributing this information to local organisations in Senegal, developing its interest in using communications technologies up to the Conference and afterwards, in order to benefit other women's organisations in francophone Africa.

SYNFEV took on the responsiblity of working with the team of 40 women from the Association for Progressive Communication (APC) who provided all electronic communications services at the NGO Forum in Huairou, and during the United Nations governmental confernce at Beijing. As a result of this SYNFEV proposed to facilitate the development of electornic communication for women's groups in francophone Arica. With the assistance of APC, SYNFEV was able to identify a donor, World Association for Christian Communication (WACC), which would be willing to support this project financially.

2.   **Workshop on Electronic Communications for Women in Francophone Africa, Dakar, February 1996**

Since the strategy adopted was to promote electronic communications in francophone African countries west of Maghreb, it was decided in the first phase to train representatives from women's NGOs in each of these countries (15 in all) with the intention that these organisations would ultimately become "mothers of networks," i.e. electronic network centres to support ICT access for women's groups in each country. The workshop provided:

–   training in the use of FIDO networks
–   technical support and training from the ENDA system administrator and a female technician from GreenNet
–   modems for the 12 non-Senegalese participants, provided by CABECA/PADISaa and GreenNet
–   support for the workshop costs from an external donor.

The participants each left the workshop with a modem, installation and configuration disks, and addresses for local internet/network access. To further the process of communication, it was decided to put in place an electronic network on the theme An electronic conference was also set up, on "Rights and health for francophone Africa women" , <femmes.afrique>, the primary theme of the organisations represented, moderated by SYNFEV.

From March to November 1996, this activity continued, with financial support from the Women in Development Europe (WIDE) program on Small Projects Post-Beijing, under the title "Energising electronic communication among women in francophone Africa." This activity consisted of:

- supporting the connections formed as a result of the Dakar workshop: identificiation of groups who were able to make successful electronic connections (Morocco, Mali, Burkina Faso, Benin, Senegal); following up with groups who were experiencing difficulties in making connections (Mali, Burkina Faso, Cote d'Ivoire, Togo); putting in place hookups for those groups who were not able to connect (Niger, Cameroun); following up with groups who were facing insurmountable difficulties at this stage (Guinea-Bissau, Zaire). In July and October, an evaluations were made to identify the various levels of difficulty.

- integrate other groups into the network working on the same topic identified who were connected through other networks

- connect 10 more women's groups, providing them with modems

- facilitate communication a circulating information on the themes of "Rights and health for women in francophone Africa": calendars of events, re-distribution of information originally circulated in English, outlines of existing electronic solidarity campaigns, provision of information and news on activities taking place in francophone Africa, connection with other electronic conferences for women in Africa which were primarily anglophone. To deal with this, agreements were made with several information providers, (notably HuriNet, IPS and IFEX) for translation and subsequent redistribution on <femmes.afrique> of news of interest for African women in English. SYNFEV is seeking to increase its capacities to search the World Wide Web to identify other sites producing information relevant to <femmes.afrique>, as well as to diversity its sources of information.

- the report of the 1996 conference was printed on hard paper, and parts were incorporated into other publications (WIDA, the UNIFEM Dakar publication).

- increasing SYNFEV electronic capabilities over GreenNet: connections to

electronic conferences, access to the World Wide Web, putting up documents on Web pages.

3. Technical Assistance for Electronic Communication for Women in Francophone Africa: Mali, Burkina Faso, Togo, Cote d'Ivoire, Cameroun

WACC agreed to financially support a project to provide technical on-site assistance for electronic communications, provided by a francophone GreenNet female technician. in 5 countries which had proven to have high levels of potential/ability for electronic connections: Mali, Burkina Faso, Togo, Cote dIvoire, Cameroun.

The project is currently in progress (January - March 1997). To date, the visits to Mali and Burkina Faso are completed, and the mission is currently in Togo. In each country visited, the technician:
- checks the technical situation of the organisation's electronic connection
- reviews and completes training of the user
- organises a session on sensitising women's organisations in the country
- installes two modems (provided by WIDE) and trains "users" from two women's organisations
- participates in visits to sensitise local organisations involved in provision of Internet access – administrative services, internet service providers, support agencies for women's development – all with the goal of facilitating the future establishment of national level projects of training and equipment provision for other women's groups.

B. Connecting a coalition for reproductive rights: The Reproductive Rights Alliance, Johannesburg, South Africa

The Reproductive Rights Alliance is a network of organisations and structures "committed to creating and promoting a liberalised, safe and legal framework for reproductive health and well-being." It was formed in early 1996 in order to organise support for reproductive rights and comprehensive reproductive heath care services in South Africa, and more specifically to work towards the passing of legislation for safe abortions. It brings together some 27 organisations with a history of activism in the area of reproductive freedom, rights and health.

Alliance members are largely urban-based and located throughout the country, including Cape Town, Johannesburg, Pietersburg and Durban. Members include trade unions, women's organisations, university-based research groups, law organisations and health-oriented groups. They come together as a community sharing a common interest in reproductive rights.

The Alliance considers its achievements to be the inclusion of reproductive rights in the Constitution, the passing of the Choice on Termination of Pregnancy Bill into legislation, and growth in membership and profile. The Constitution provides a

number of protections, such as the equality clause, the right to freedom from public and private violence and the right to make decisions about reproduction and to security and control of our bodies. The abortion bill, after several years spent in drafting and debate, came into operation on 1 February 1997.

As a networking body, the Alliance planned to strengthen the work of the individual organisations in the field through the dissemination of information and lobbying for the pro-choice position. With these as primary aims, and with the geographic spread of its members throughout the country, electronic networking was a logical and innovative step. The Alliance raised funds to assist their members and their management committee to get on line - where necessary, purchasing modems, supplying software and taking out subscriptions to Internet Service Providers, so that they could make effective use of an e-mail communications system.

In February 1996, the Alliance set up a list server, through the non-profit Internet service provider, SANGONeT. The purpose of the list was to network members, keep them informed of meetings and activities, and to distribute information. It was set up as a closed list, restricted to the Alliance members. Some of the messaging was "administrative", used to organise Alliance activities, while some was more substantive and used to distribute documents.

The list was used extensively to send regular messages about events, to distribute minutes and to organise Alliance activities. It was also used to send out RRA policy statements, to distribute a questionnaire, drafts of the legislation and the RRA Constitution. The Alliance thus increased accessibility to documents, and information by sending them out on the list. They found that using a list expedited the discussion of issues and opened up communication possibilities that would not otherwise exist. Their members were able to communicate fast and without the cost of long-distance telephoning or faxing.

The list administrator in the Alliance office was already computer literate when she took on the job, and was able to teach herself to send and received messages, send files and decode them etc. She did not receive any formal training and she perceives this as a problem to further development of electronic systems at this stage, as her knowledge is limited. She feels that she does not know the full potential of the Internet, and would need further advice in order to use it more effectively.

Some of the women who joined the list were new to computing and even newer to electronic mail, having received modems as part of the Alliance's efforts to facilitate communication. One of the participants commented that they did not include electronic communication in their daily routines. People with busy programmes were used to spending time on the telephone, faxing or in meetings, but were not used to taking time to do their e-mail and participate in the list. However those who had many years of experience using e-mail participated more freely and actively in the

list.

One of the criticisms of the list was that too few people participated actively - approximately 20 - 25% used it consistently to discuss substantive issues, and that there was a "one way" communication stream from the Alliance to its members.

The major problem which was experienced in the sending of documents was that people were unable to decode them. The Alliance used Word Perfect 6.1 which may have added to the difficulty of reading the files, such as difficulties with reading them in MS Word. They therefore had to send documents by fax, or resend them in ASCII as well as by e-mail. This was identified as a training issue but it was not effectively addressed. It is likely that time pressure mitigated against training during the intense lobbying processes which took place during 1996.

An important comment made was that the list "could not make networking happen. This was the task of the Alliance and, whereas the list could facilitate the process, participants had to have the will to network. Where networking was not seen as an important activity, the list could not be an effective tool. At this juncture, with the Constitution and the abortion legislation both having come into effect, the Alliance will need to assess its future activities and network accordingly.

The Alliance has set up a basic Web site, which forms part of the Health Systems Trust site. It contains a short description of the organisation, list of members with live electronic contact addresses, and has the full text of three policy documents. In our discussion, Judi Merckel, the Alliance Administrator, expressed the view that they had not used their site as extensively as they could have done, and intend to change this during 1997. They plan to use the site to feature articles and papers, although their quarterly newsletter, intended primarily for members, may not be put up on their site. They still need to explore further possibilities and ways of developing their site. At the time of writing, the site had not been updated for over four months, in spite of the coming into effect of the new Constitution (of South Africa) and the new abortion legislation.

The Alliance considers that it has advanced the issue of reproductive rights publicly, through successful lobbying for its inclusion in the final constitution and the passage of the legislation. These processes have been assisted by the use of the list server. In addition, they have had many inquiries by the public and are therefore encouraged to use their Web site to better effect in future.

Based on the experience of their first list, the Alliance plans to set up a new, publicly accessible list on policy and legal developments. The list discussed above will be maintained for communicating about Alliance activities. A third internal list is to be set up for the Legal Working Group to share information about the future constitutional challenges to the abortion legislation. It will assist members to

communicate about legal issues, exchange ideas, distribute documents and prepare litigation.

A further plan of the Alliance is to reach rural organisations dealing with reproductive rights. They will use e-mail to do this as far as possible, however it is seen as a problem that most of the contacts are through governmental and non-governmental organisations, which tend to suffer from a lack of infrastructure. While money alone is not the issue, infrastructure, such as available computers, and the knowledge to use them, may present a problem to the Alliance. It is recognised that there are further barriers to overcome before this becomes effective, such as the perceived difficulty and fear of the technology, the lack of culture of electronic communication and the time factor.

Interestingly enough, the setting up and use of the list server as a means of communication, is not mentioned in the Draft Annual Report 1996, although it is acknowledged by staff as having been effective. It was also suggested that an evaluation of their electronic communication methods should take place, as until now, the Alliance has been piloting its work. As it moves into the next phase, it would like to make more effective and powerful use of the medium to enhance its work.

C.   Leadership and Advocacy for Women in Africa (LAWA)

With funding from U.S.A.I.D., the Georgetown Women's Law and Public Policy Fellowship Program has since 1993 sponsored and administered the Leadership & Advocacy for Women in Africa (LAWA) project. The LAWA project recruits, selects and trains women lawyers from Ghana, Tanzania, and Uganda interested in advancing the cause of women's rights upon return to their country. Selected participants come to Washington, D.C. for a sixteen month period of advanced legal study and work assignment on legal and policy issues affecting the status of women. Fifteen of the twenty lawyers taking part in the four year pilot project have returned home; the remaining are currently at Georgetown.

As part of their training, from the second year of the program all of the LAWA fellows have received internet and e-mail training, and U.S.AID has made available the funding for computers and start-up of e-mail accounts on their return home. Of the fifteen fellows who have returned home, to date only three have succeeded in activating accounts. All three of these women are in Uganda.

One of the alumnae, Gloria Ofori-Boadu of Accra, Ghana, did her graduate work on legal obstacles to women's empowerment in Ghana; she and her colleagues are attempting to set up a micro-credit initiative modeled on the Grameen Bank to work with Ghanaian small tradeswomen. Gloria does not have direct access to e-mail because she as yet has not been able to afford or obtain a separate phone line. To use e-mail, she drives 20 kilometers to the University library, presents a copy of the

information to be sent either in manuscript or diskette, pays one U.S. dollar per page to send a message and 50 cents U.S. per page to receive a message. She has to wait two days to pick up replies, but in any event most e-mails she sends never arrive at their destinations, because the addresses are keyed in by the library personnel, who, she reports, "tend to make mistakes" in keying in the addresses.

Several of the LAWA alumnae who have not yet activated accounts are from outside urban areas. Regina Rweyemamu, for example, is a magistrate from the northern part of Tanzania. Regina's placement in the second half of 1996 was with the U.S. Federal Judicial Training Center and with the International Women Judges Foundation (IWJF). Regina has worked at developing a judicial training program for Tanzanian judges; she is extremely talented, and the IWJF would love to work with her in further developing and presenting her program; there is substantial support for such a program among African judges who are members of the IWJF, but it will be impossible to run a program with Regina if she cannot get on line.

Ultimately, LAWA expects that all of its alumnae will succeed in activating accounts, because it is too important not to. They need to be able to share information about litigation and legislative strategies for combatting domestic violence, changing sex discriminatory inheritance, contract, and family laws and practices, new developments in AIDS prevention (a subject several of them are working on), etc. Funding is going to continue to be an ongoing problem. Even though the costs of access are falling, they are still high relative to their earnings, and will be for the foreseeable future.

D.   **Engendering International Trade: Women in the PTA Region Gender, Science and Development Programme and the UN Development Fund for Women**

The Women in Business Unit(WIB), COMESA
In 1992, at the time when the Preferential Trade Agreement (PTA) conducted a review of its operations for the previous 10 years, a Women in Business (WIB) Unit was established within the Secretariat as part of the overall effort to adapt to economic changes in the region. Within the context of increased emphasis on private sector, and given women's urgent need to earn income, the focus of the Unit was on women entrepreneurs.

The Unit was instrumental in incorporating a chapter on gender in the COMESA Treaty and a strategy was designed to help put this into action. The first step in 1993 was to mobilise women entrepreneurs through the location and creation of focal points through which they could meet and express and exchange views. These became formalised as National Associations of Businesswomen. There was also a need for a sub-regional body which could help express the views of women entrepreneurs officially through PTA to the Intergovernmental Committee of Experts, the Council of Ministers and Heads of State which is where decisions on trade policy are made.

Accordingly, FEMCOM was established in July 1993 as a body of COMESA.

In addition, the WIB Unit has been doing gender training and sensitisation for Secretariat officials, for government focal points of COMESA, Chambers of Commerce, etc. Recently a system of roundtables had been established whereby the private sector can meet directly with Ministers prior to the meeting of the Council of Ministers.

With respect to questions on information dissemination and specifically what FEMCOM is doing to make information available to women entrepreneurs, it was explained that there is a computerised data base system (TINET) available through Chambers of Commerce. However, this is only just becoming gender sensitive and would probably not be really accessible unless it was also available directly through National Associations. Other participants felt that there was a great need to improve channels of communication with women entrepreneurs because so few know that either the National Associations or FEMCOM exist. One suggestion was that press releases by GEMCOM to the national/international media could also be made available to local radio stations in local languages. Generally, it was felt that information dissemination both to the grassroots but also between Associations was a high priority. An example of lack of information exchange was that one Association had established a company to buy and sell goods of members and also raise funds for itself. A participant from another country expressed surprise as her Association had wanted to do something similar but did not because they thought it was not legally possible. Advice of this nature through FEMCOM would be useful. It was also felt that FEMCOM should be seeking the resources which the National Associations need to reach out to existing and potential members.

FEMCOM is only 2 years old and national structures are not yet effectively in place. However, FEMCOM has undeniably been successful in becoming part of the COMESA structure. Women's Associations can use this first to influence COMESA policies and then, possibly, trade policy at the international level. The role of women's NGOs in community development, and the potential they possess for sustainable and equitable development in Africa is frequently remarked upon.

E.   **Researchers and librarians use ICTs: GENNET, University of Natal, Africa Gender Institute, University of Cape Town**

1. GENNET

GENNET is intended as an open forum for the discussion of gender-related topics, primarily (although not exclusively) across tertiary institutions in Kwa Zulu/Natal.

Among the topics covered are:

- announcement of gender-related meetings, workshops and conferences in the academic world;

- news and announcements concerning upcoming political, constitutional and legal issues relating to gender issues locally and nationally;

- discussion of books and articles, along with brief reviews and recommendations;

- discussion of teaching materials and bibliographies; information about courses offered at regional institutions;

- debate about key gender-related issues on campus and in the wider society, for example sexual harassment, sexual orientation, religions and gender equality, etc.

GENNET was established at the beginning of 1996, at the Centre for Gender Studies at the University of Natal, primarily to facilitate communication between people involved in teaching and researching gender-related issues at the two campuses of the University of Natal, and in the Kwa Zulu-Natal region more widely. The network also has members from the Western Cape region, where there is a lot of activity on the gender front, along with a handful of subscribers from other countries.

Thus far the list has been used mainly for posting notices about women and gender-related events (with an occasional flare-up of discussion), and it has yet to fulfil its potential. This year the organisers would like to see GENNET membership expand to other parts of South Africa and become a more effective tool for networking, in order to help to increase South African women's use of on-line resources. For a developing country, South Africa has a high level of Internet connectivity and access to technology, but these resources have yet to be put to best use by women.

Future Plans and Possibilities:

Women's/Gender Studies is a growing field in South Africa, and GENNET could be used to facilitate communication between teachers and researchers in this area throughout the country; the organisers would also like to see the GENNET Web site developed properly as a resource (http://www.unp.ac.za/UNPDepartments/politics/gender/gennet.htm). Fulfilling both aims depends on the active co-operation of those involved in Women's/Gender Studies. Barriers to involvement include lack of available time and mental energy, and overcoming a degree of "technophobia".

2. Africa Gender Institute (AGI), University of Cape Town

AGI is in a relatively privileged position, in that it has access to ICTs at the University of Cape Town and given South Africa's high level of internet connectivity and capacity. AGI has full Internet access and is keen to use it to its full potential. To that extent the Institute is exploring ways of information dissemination and communication on gender.

Currently, the institute is working on putting online the bibliographic details of its comprehensive documentation centre which focuses on the collection, management and dissemination of material on gender equity and justice issues in Africa. It hopes to make this information available on its new Home Page (currently being set up).

The Institute participated as the Southern African focal point in a recent International Women's Tribune Centre electronic conference on gender training resources. This was a very useful exercise in collecting, downloading and posting to NGO's and institutes in Southern Africa who do not have Internet access.

In March of this year AGI is hosting a workshop for librarians and documentalists working in the area of gender equity and justice information. The workshop is to look at ways of establishing communicative mechanisms on gender equity and justice information in Africa. AGI has a pan-African working group whose email correspondence has facilitated quick, efficient and regular communication.

The workshop will be looking at issues of ICT and how women librarians and documentalists can utilise ICT in Africa, particularly around dissemination of information on gender.

F.   **Supporting women's electronic networking in Africa: Assocation for Progressive Communication (APC) Women's Networking Programme**

APC Women's Programme works with a community defined as: groups of women networkers who are leaders in their own right in the fields of journalism, health and reproductive rights, internet service provision, information brokerage, and environmental sustainability.. They are women who are intermediaries working with and providing linkages for their communities in and through national and international initiatives and fora. They are motivators, animators and focal points of networks in their countries andregions, using ICTs to faciliate their work with their communities.

The APC's Women's Networking Programme objectives are to "equip women's groups in Africa, Asia and Latin America with the necessary access to training, technology and information to: facilitate local regional and international communication and information exchange; empower women with an information tool to increase their visibility and highlight their achievements as primary agents of development; provide access to communicate channels and facilitate information exchange for women and men around the Beijing process; respond to women's

training needs, and support the involvement of a core group of women technicians and information management specialists."

The programme began in 1993 and emerged as a response to several convergent needs and demands from women and women's organisations, working within and outside APC and its network alliances.

Generally speaking, the programme has had most impact in Kenya, Tanzania, Uganda, Morocco (and the Maghreb), Senegal (and francophone West Africa), Ghana, Zambia, South Africa and Mozambique.

Activities

1. In December 1993 a questionnaire was sent to 200 African women's groups covering issues of information, technology, information and training in preparation for Beijing.

The survey was posted (regular mail) or faxed to 200 women or womens groups, since at that time only a very small number of women wre using electronic mail in Africa (excluding South Africa).

One set of activities which resulted was the development of relevant and well organised content and information systems and support for women working as information brokers. At the time, there was concern that these activities were fundamentally unsustainable in that they required a great deal of human resources and that, until these services were recognised as having "value" enough for people to agree to pay for them, the activities would have to be largely subsidised.

Although this situation continues to be true to this day, the generation of local content, development of appropriately multi-disciplinary information systems, efficient and targetted delivery and sharing of relevant information in local languages continue to be highlighted as priority areas by many working for sustainable human development.

2. In November 1994 APC facilitated on-site communications, training and orientation activities at the UN World Conference on Women regional meetings in Dakar, Senegal .

The objectives of this activity were to:

* provide on-site communications and training at the African Regional Meeting of the Fourth World Conference on Women.
* provide training and orientation for NGO delegates

34

*   facilitate the flow of information to and from the conference.

The technical setup was very modest: two computers were placed in a room near the press centre. From there, a connection was made to the ENDADAK host in Dakar, where email was exhanged to and from the internet four times daily via a connection to GreenNet in London.

Training sessions were held daily in French and English. In general, most of the women who attended these sessions did not have modems (though many had computers) and many came from countries where no local internet service providers existed, making local support impossible and the cost of calling a host in another country financially restricting. Nonetheless, most women who attended were quick to grasp the potential benefits of using ICTs.

Information from the NGO delegates and other media groups, e.g. The Women's Feature Service Daily newspaper, were uploaded into electronic conferences and sent to interested colleagues and groups which were following the process online.

During the drafting of a section on Women's Rights as Human Rights in the African Regional Platform, the Internet was used as a source to find precedent language used in documents such as the Vienna Human Rights Declaration to facilitate proposed changes to the African Platform.

Some experiences of this activity;

(a)   There was some difficulty establishing the installation of telephone lines at the conference site. Although the organisers of the event were very open to the potential of using email during the conference, they were not sufficiently familiar with its potential to prioritise the necessary arrangements to ensure telephone lines were installed. There was also some wariness from some members of the organising committee as to the exact nature of the technology, its relevance to the meeting.

(b)   During the meeting, electricity supply to the site was unreliable, often meaning that women and men had to work by natural light while it was available. This of course also meant that it was impossible to run training sessions and connections to transfer email. If information was time urgent, the usefulness of computers and modems powered by electricity as a communication tool was minimal.

(c)   There are 4 official languages used by the UN for African conferences - English, Portuguese, French, Arabic. English and non-cyrilic language is dominant in on-line communications and this presented a serious obstacle to using the medium to carry information.

3. In March 1996, an African Women's Policy and Technical workshop, was held in Johannesburg, South Africa. This workshop gathered together many of the key women technicians and networkers using ICT in Africa. Twenty women attended the workshop - system operators, information brokers and women from organisations simply interested in using ICTs more effectively.

The following are a few of the issues which arose during the workshop:

*   The meeting was briefed by a member of a high level African working group whose mandate was to develop a blueprint to encourage African governments, specifically the African Conference of Ministers, to pursue the establishment of full Internet connectivity in their countries.

    It soon became evident that the question of gender analysis in the document, and the role of women in this process, were somewhat wanting. When asked the question as to why these women, for example, had not been consulted by the many who had been working on preliminary surveys, or why the document contained little gender analysis, the member of the group replied that the main objective of the exercise was to firstly convince governments that full Internet was crucial as a tool to facilitate the development process. The question of women and their role in this process, or that of the role of gender was seen to be secondary and would be addressed in the later stages of the process.

    The recommendation was that APC work strategically with and through institutions like the UNECA and donor advisory boards etc, to ensure that African women were not further marginalised in this process. At the recent APC African meeting in February, two women were elected to represent a wide and diverse group of African communicators in key donor and inter-governmental advisory group positions.

*   Several areas were identified during the meeting as priority research areas: e.g., potential use of ICTs in the area of women and market trade; research to determine the state of national level ICT policy and the degree of involvement of women in the process of its development, and the gender analysis within it.

G.   **Empowering women in the information society: Building a Women's Information and Communication Network in South Africa on SANGONeT**

1.   *Introduction*

Following the first democratic elections in the country's history, government and civil society in South Africa are grappling with the challenges of radically transforming

South African society. Critical to this transformation is the constitutional obligation and political commitment to building a society based on gender equality. A great deal is happening to consolidate women's historic gains: the inclusion of sex equality provisions in the new Constitution; the South African government's ratification of CEDAW and participation in the Beijing Fourth World Conference on Women and work on a Women's Empowerment Policy for the Reconstruction and Development Programme. A momentum has also been achieved in the establishment of national machinery to advance gender equality: e.g. the Commission on Gender Equality; planning for an Office on the Status of Women; gender units which are being established in government departments at national and provincial and local government levels.

In civil society there is a corresponding resurgence in the development of sectoral and regional NGO networks focusing on gender equality. Beginning with a definition of a Women's Charter for Effective Equality by the Women's National Coalition in 1993, a more co-ordinated national women's movement is beginning to emerge.

This environment offers many possibilities. Very real obstacles, however, hamper women's ability to strategically and effectively participate in developments around advancing gender equality. A national women's movement in South Africa is still in its infancy and to a great extent still divided by the legacies of apartheid. Newly elected legislators and policy makers in government, particularly at the provincial level, are isolated by a lack of access to information about developments in gender equality policy both inside South Africa and in other parts of the world.

It is necessary to connect islands of activities into a broader gender equality movement. This calls for information to be channelled effectively and continuously within a framework that also facilitates communication and interchange between the people and organisations working for gender equality.

Information technology in South Africa is becoming increasingly accessible and is being recognised as a fast, effective and affordable method of lobbying and monitoring as well as information exchange. Good communications software is readily available, modems are becoming cheaper and of higher quality. Many more legislators, civil servants, NGOs and individuals have access to computers and phone lines and as a result to a powerful mobilising tool. Effectively co-ordinated and integrated with training in the use of the technology, an electronic information and communications network in the field of gender equality would greatly enhance women's ability to act strategically and in a co-ordinated fashion.

Being able to use information technology is an important source of empowerment for women who often feel isolated and disempowered by rapidly advancing technological change. Such a network would also provide a link with regional, continental and international networks.

2.   *SANGONeT and the APC Women's Programme*

SANGONeT, the Southern African Nongovernmental Organisation Network has been providing electronic communication services to NGOs in South Africa from 1987 when it was first established as WorkNet. Since 1993 SANGONeT has focused on integrating the provision of an accessible and affordable electronic communications infrastructure with training and other capacity building activity, including the provision of useful information.

In 1994 SANGONeT became a full Internet service provider. This enabled easier access to international sources of information and immediately increased the size of the information pool users could access. At the same time the lower cost of modems and computers enabled more organisations in the development and social justice sectors to afford the necessary hardware. These factors gave rise to a dramatic increase in the number of Internet users in South Africa, and in the actual use made of the technology. A user survey conducted by SANGONeT in mid-1995 indicated that most users regarded electronic mail as an essential component of their communications systems and that at least 40% were using the network to retrieve information they needed in the course of their work.

To consolidate and extend these trends, SANGONeT provides a range of services which include training and electronic publishing. Between 400 and 450 people have been trained in the past year and have created 36 World Wide Web sites[22] and extensive use is being made of communications tools such as mailing lists and on-line discussion forums. As a result there is finally a visible impact in the levels of electronic information sharing and communications among civil society organisations in South Africa.[23]

From the outset SANGONeT earmarked gender and women's issues as a critical area for information development and linking of organisations. However, other than various projects around the Beijing World Conference on Women in 1995, and the campaign for the Termination of Pregnancy act of 1996, its activities in this sector in South Africa have been limited.

At the international level SANGONeT have worked with its international partner organisation, the APC (Association for Progressive Communications). The

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[22] See the attached list for a selection of the WWW sites hosted and developed by SANGONeT.

[23] SANGONeT currently has just under 800 users of which about 100 are linked through local area networks in larger organisations. Of these 36 have published information electronically on the world wide Web while several hundred have participated in various electronic discussion forums.

programme has provided hundreds of women with technical skills training and included training of trainers. One such training workshop was hosted by SANGONeT in March 1996 for women working in networks and women's organisations in Africa.

3. *The South African Women'sNet*

3.1 Beneficiaries

A critical aim of the Women'sNet is to enhance the ability of both law and policy makers and civil society to impact on various political and decision making processes which seek to redress the unequal status of women in South African society. The initial target groups for this network would therefore be:

- gender specialists in legislatures, local and provincial government, government line departments;
- people working on women's and gender issues in NGOs;
- membership based women's organisations;
- women's studies departments and gender units in educational institutions;
- people working on women's issues at the community level.

Once the network has been established to the extent that a significant number of organisations working with women at the community level are participating, the target group will be expanded to include:

- women in communities who could have direct access to the network through their relationships with NGOs and CBOs, e.g. resource centres, training centres, small and micro enterprise support groups, advice centres, health and reproductive rights services, child care support groups, etc.

3.2 Empowering women through communications and information access

A preliminary project proposal for Women'sNet identifies the following components:

3.2.1 A World Wide Web site to include:
- posting of new documents and information related to gender equality
- monitoring of gender issues in government
- a national events calendar
- participative policy forum
- directory information (the possibility of updating the Women's Organisations in South Africa Directory will be explored)
- contact mailing list
- links to other relevant African and international web sites

- feedback feature

3.2.2 The establishment of conferences and mailing lists to facilitate sectoral networking. These will be participative and could be public and/or private.

3.2.3 Two principles would guide the presentation of information on the Women'sNet: an <u>emphasis on</u> interactive communication and multimedia applications. An emphasis on interactive or participatory communication means that information is not left to tell its own story. Definitions and contextual commentary will help to locate the information. Information about how and where to make a submission to a parliamentary committee for example, would accompany a government gazette announcement inviting public submissions on a particular bill. A multimedia approach ensures that information on the Women'sNet can be circulated in broader communication networks. As an example, continually updated information sites, like the calendar of events would be formatted online in such a way that it could be reproduced effectively as a printed document. Information can also be edited and presented in a format that can be used by community radio stations in disseminating it using radio, the most accessible medium of communication in South Africa.

3.3   Empower by Building Skills

3.3.1 To minimise the gap between those who already have access to technology and to basic computer skills, and those who have been historically denied access to the same, a critical component of the Women'sNet project is to empower women through skills training to harness an important networking and information resource.

3.3.2 Skills training would focus on the technical skills necessary to use the electronic network as well as basic introduction to information network development. It is envisaged that this skills training would take place in a series of workshops, including:
- a training workshop for an information management team
- a national workshop to launch the Women'sNet and provide electronic networking and skill development
- provincial workshops on same
- training of trainers workshops
- maintenance and occasional skill training on request

3.3.3 As a tool to form the basis of ongoing training and introduction to electronic networking on gender equality a reference manual would also be developed. The APC Women's Programme is in the process of developing gender sensitive electronic networking training material, which SANGONeT will be able to adapt and draw on in developing a local manual.

The manual will focus on both the conceptual skills required in using, building and finding information on the Internet as well as 'how to' use the necessary software and hardware.

3.4 Location

The Women'sNet project would be coordinated by SANGONeT and housed and administered in the SANGONeT offices in Johannesburg.

3.5 Consultation and Accountability

The project will be governed and informed by a broad consultative process which will include:

- the governance of an Advisory Board which will include representatives from government, national and provincial parliaments and local government; NGOs; media practitioners; and information and resource specialists;
- an information management team, a subset of the Advisory Board, which will have a particular focus on sourcing and feeding information to the central coordinating body;
- close liaison with the APC Women's Programme.

3.6 Aims and Objectives of Women'sNet

3.6.1 Develop and provide access to a comprehensive overview of current and historic work in the field of gender equality advocacy in South Africa;

3.6.2 Contribute to the development of a coordinated and strategic South African women's movement through the continual flow of information to facilitate lobbying, information sharing, policy formulation, planing and strategising and coordinating action plans;

3.6.3 Create a national information and communication forum which will broaden South African women's participation in the Southern African women's movement as well as the international women's movement';

3.6.4 Empower women through information technology skill development;

3.6.5 Ensure that the development of information technology is gender representative and that formerly marginalised groups - women, NGOs, CBOs are empowered to make use of this affordable, effective communication tool;

3.6.6 Build a pool of women trainers who can more effectively train other women to use information technology.

41

2. Preliminary Directory of Women's ICT Activities in Africa

a) *Organisations*

African Gender Institute
University of Cape Town
Private Bag Rondebosch, 7700
Cape Town, South Africa
Tel: +27 21 650 2970
Fax: +27 21 685 2142
E-mail: jradloff@agi.uct.ac.za
Jennifer Radloff
- Documentation centre on collection, management and dissemination of material on gender equity and justice issues in Africa, also undertakes information dissemination.
- Uses email for communication among its pan-African working group, is organising a workshop which will address communication on gender equity and justice information, including email.
- Setting up a WWW site.

AWOGNet:
c/o The Center For African Studies
The Ohio State University
314 Oxley Hall, 1712 Neil Ave.
Columbus, Ohio 43210-1219 USA
Egondu (Ego) Rosemary Onyejekwe Ph.D.
E-mail: onyejekwe.2@osu.edu
http://www.osu.edu/org/awognet/

The African Women Global Network (AWOGNet) is an organization that is inclusive of men, women, non-governmental organizations and institutions whose activities are directed towards improving the standards of living for African women and children, especially those within the Continent of Africa.
AWOGNet will design and implement technical and other support services targeted to improve the lot of women and children of Africa. Services include anywhere from rural agricultural development to distance education delivered to reach teachers and students in the rural areas of the continent.
AWOGNet will pay particular attention to educational services, especially those that provide quality education to women and children, including also projects that advance Internet connectivity for African countries.

SANGONeT
PO Box 31 Johannesburg, 2000
Anriette Esterhuysen
anriette@sn.apc.org
Phone: 27 11 838 6944

Fax: 27 11 492 1155

Healthnet, Uganda
Maria G.N. Musoke
Deputy University Librarian - Medical
Albert Cook Medical Library
Makerere University Medical School
P.O.Box 7072 Kampala. Uganda. East Africa
Fax: 256-41-530024
E-mail: Mmusoke@uga.healthnet.org

ENDA-SYNFEV
Synergie Genre et Developpement,
Environnement et Developpment du Tiers-Monde
B.P. 3370, Dakar, Senegal
tel (221) 21 60 27 22 42 29
fax (221 22 26 95
email:mhms@enda.sn
http://www.enda.sn
Operates apc-connected network in Dakar which coordinates francophone Africa communications,
through training, supply of technology and technical training, moderation of the conference
"femmes.afrique".

African Women Development and Communication Network
FEMNET
P.O. Box 54562
Nairobi, Kenya
Tel: 744977
Telex: 25513
Miss_Nancy_Gikori@mukla.gn.apc.org

The Forum for African Women Educationalists (FAWE)
Kenya Chapter
P.O. Box 53168
Nairobi, Kenya
Tel: (254) 2-226590
Fax: (254) 2-210709
lmmfawe@form-net.com
http://www.africaonline.co.ke/AfricaOnline/women/fawe.html

Founded in 1992, FAWE is a Pan-African Non-Governmental Organisation which brings together
African women ministers of education in charge of national education systems, women vice-
chancellors of universities in Africa, senior women policy makers in education and other educators

well positioned to stimulate broad policy reform and create a conducive environment for increasing parental demand for girl's education.

Worldnet Women
South Africa Web site for women, targetted to a middle class, computer-literate audience.
http://africa.cis.co.za/women/index.html

Tanzania Media Women's Association
Fatma Alloo
tamwa@mukla.gn.apc.org

Zambia Association for Research and Development (ZARD)
Regina Shakakata, Vice Chairperson
Zamnet
Lusaka, Zambia
medlib@unza.zm

EcoNews
Mercy Wambui
Coordinator, Electronic Networking Programme
Nairobi, Kenya
econews@form-net.com

Reproductive Rights Alliance
8th Floor Sable Centre
De Korte Street
Braamfontein
Johannesburg
South Africa
Tel: 403 2101
Co-ordinator: Tamara Braam
Administrator: Judi Merckel
Web site: http://www.healthlink.org.za/rra/policy.htm

MARIE, Tanzania
marietta@marie.gn.apc.org
bernice@marie.gn.apc.org

Environment Liaison Centre International
Womens' Programme Co-ordinator(WEDNET)
Ndemi Road, off Ngong Road
P.O. Box 72461
Nairobi, Kenya
Cecilia Kinuthia Njenga

Ph(W): +254-2-562022
Ph(H): +254-2-786336
Fax: +254-2-562175
E-mail: ckinuthia@elci.sasa.unep.no

APC-connected groups in francophone Africa:

Mali : Centre Djoliba
Burkina Faso : Femme et Sante en Afrique - Sub-Saharienne - IPD
Cote d'Ivoire : Association des Femmes Juristes de Cote d'Ivoire
Benin: Association des Femmes Juristes du Benin- AFJB
Maroc : ENDA Maghreb
Centre d'Informations Juridiques du Reseau Africain pour le Developpement Integre,
Senegal : Réseau Femmes Sous Lois Musulmanes, WLUML

Groups currently gaining access in francophone Africa

Togo
- Commission Nationale des ONG et Associations Feminines pour la Preparation de la 4●
  Conference Mondiale sur les Femmes à Beijing / FONGTO (Federation des ONG du Togo)
- Service d'Information des Eglises d'Afrique, SIEA
- Club Unesco Feminin la Colombe
- FAMME : Forces en Action pour le Mieux Etre de la Mere et de l'Enfant

Mali
- APDF, Association pour la Promotion des Droits des Femmes
- AMPJ, Association Malienne pour la Promotion des Jeunes

Burkina Faso
- RECIF/ONG, Reseau des ONG Féminines
- Promo Femmes/Sport-Developpement

Cameroun
- Association de Lutte contre les Violences faites aux Femmes ALVF

Groups in francophone Africa who want Internet access, but are unable to do so, because of infrastructure, reglementation, or political/institutional problems:

Guinee
- COFEG - Coordination des ONG Feminines de Guinee

Mauritania
- ONG Espoir, Al Amal Association

45

Niger
-        Association des Femmes Juristes du Niger (AFJN)

Zaïre
-        PROPRE - Programmes de Protection et de Preservation de l'Environnement Tunisie :
         AFTD - Association Tunisienne des Femmes Democrates

Senegal
-        Societe des Femmes Africaines face au SIDA, SWAA

2. Listservs/ World Wide Web servers

GENNET

Ann Tothill
Research Capacity Building Division
Centre for Science Development
Human Sciences Research Council
Pretoria, South Africa
aat@gallup.hsrc.ac.za
http://www.unp.ac.za/UNPDepartments/politics/gender/gennet.htm
Listserv run out of the University of Durban, mainly for university faculty members in Africa and abroad, to discuss gender issues in Africa.

Gender, race and law listserv run from the University of Cape Town(GRALE@uct.ac.za).

There is a privately held address list being used by a small group of researchers who are working on the Women's Budget in South Africa.

africaw@corso.Ccsu.Ctstateu.Edu
Forum to support the struggle of African women for social progress. Subscription requests to majordomo@corso.ccsu.ctstateu.edu. "Subscribe Africaw firstname lastname"

Rural South African Women Learn Online
http://park.org/Pavilions/Cyber24/html/6_42.html

AfricaOnline - Women
http://www.AfricaOnline.co.ke/AfricaOnline/women
Includes database of women professionals
Histories of famous African women

South Africa Women's Page

http://africa.cis.co.za/women/index.html

3. Women Computer/Information Professionals

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Constitution Commission (TGE)
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4. "Potential" Groups and Organisations - ICT or women's activities unknown

Association of African Professional Women in Communication
APAC
B.P. 4234
Dakar, Sénégal
Tel: 221-21-08-15
Fax: 221-22-00-42

Federation of African Media Women
FAMW
c/o Zimbabwe Inter-Africa News Agency
P.O. Box 8166

Causeway, Harare, Zimbabwe

SODNET (Social Development Network) is a registered Kenyan national network which provides a practical forum for shared visions, insights and activities for member NGOs involved in social development and poverty alleviation programmes. Currently in the network we are not addressing women as a category but with help and support we are ready to develop and inco-operate the gender component in the network as we realize that this is a very important area if social development and poverty alleviation concerns are to be realized.
Prof. Oyugi
Kinga
P.O Box 63125 Nairobi .
Tel/Fax 713262
E- mail address: kincric@arcc.or.ke

AFRICA INFO AFRIQUE
aia@wn.apc.org

Media Institute of South Africa
- aim to put modems in every media organisation in South Africa

MANGO NETWORK
Micro Access for NGO
P.O. Box 5690
Harare, Zimbabwe
Memory Sachinkonye, Sysop
sysop@mango.apc.org

5. Upcoming Conferences, Seminars, Fora

Sixth International International Federation of Information Processing (IFIP) Conference onWomen, Work, And Computerization, Bonn, Germany, May 24-27, 1997
IFIP-WWC97
c/o Doris Koehler
Hamburg University Computer Centre
Schlueterstr. 70
D-20146 Hamburg, Germany
fax: +49 +40 - 4123-6270
e-mail: IFIP-WWC97@rrz.uni-hamburg.de
URL: http://www.uni-hamburg.de/ ~ frauen/first.htm

African Gender Institute
University of Cape Town

March workshop for librarians and documentalists in gender equity and justice information. Purpose to establish communicative mechanisms on gender equity and justice info in Africa

Establishment of a South Africa "Womens Net", an electronic gender information network for South Africa.
Contact: J. Radloff, African Gender Institute, University of Cape Town

6. African Initiatives, Contacts outside Sub-Saharan Africa
Western Sahara-Sahrawi Women's Home Page
http://heiwww.unige.ch/arso/UNFS-Homepage.htm

naija-women@gradient.Cis.Upenn.Edu
("Nigerian Women's Net") Subscription requests to naija-women request.

3.   Potential Canadian Partners

Canadian Women's Business Network
WWW site: http://www.cdnbizwomen.com/
Sections on/links to:
Canadian Connections, guest book, small business development, global trade and business organisations, financial resources, Canadian business resources
Also a Women's Business Directory
email: threshold@nisa.net

Women and Rural Economic Development (WRED)
379 Huron St., Stratford, Ontario, Canada N5A 5T6
Ph. 519-273-5017 or 1-800-790-9949
Fax 519-273-4826
Email: General Inquiries; Executive Director: Carol Rock
http://www.sentex.net/~wred/
Sections on/links to:
    Philosophical Overview
    Membership Information
    Business Information Services
    WRED Library Resource Centre
    Business Promotion Services
    WRED Internet Business Directory
    Business Support Services
    Assessing Discrimination Against Women Entrepreneurs
    Business Development Services
    Small Business Workshops
    Professional Development for Trainers
    Survival Skills for Women

Business Women's Mentorship Coordinators
Business Women's Network Coordinators
How to Become an Affiliated WRED Network
Coming Events
Country Commerce '96
Positions Available at WRED
Past and Present Funding Sources
Investing in WRED
Contact Numbers

granny g's canadian neighbourhood homeport:
http://www.grannyg.bc.ca/
Sections on/links to: Organizations; People; Sponsors; Human Rights Appeals Tibetan Resource Directory; Reviews of Canadian Kids' Books
This site began in the summer of '95 as a platform for voices which may not otherwise be heard. It is a web home for associations and individuals who are working to benefit their fellow human beings in the service of equality, peace and freedom. Granny G's is dedicated to "breaking down barriers" which exist between peoples and communities and to foster the idea of world community. It is based on our belief that the better we know one another as human beings the better chance we have to resolve global issues which at best, deter community making, and at worst, threaten the very existence of us all.

The Canadian Women's Health Network
http://www.web.net/~cwhn/
cwhn@web.net

The Canadian Women's Health Network (CWHN) was officially launched in May, 1993, by women representing over 70 organizations from every province and territory. It is the culmination of the generous dedication of health care workers, educators, advocates, consumers and other Canadians committed to sharing information, resources and strategies to better women's health.

The CWHN is committed to building regional and national links among organizations and individuals concerned with women's health issues. Our goals are to:
- Improve communication and information exchange
- Give women easier access to health information, resources and research
- Produce user-friendly materials and resources
- Provide a forum for critical debate
- Be a "watchdog" on emerging issues and trends that may affect women's health
- Work to change inequitable health policies and practices

Services include:
- CWHN Newsletter
- Clearinghouse services

-   Community animator
-   Women's health information line
-   Electronic networking

The Ontario Women's Justice Network
email: owjn@web.net
http://www.web.net/~owjn/
Excerpt:
The OWJN is a computerized network linking women's organizations and grassroots groups across Ontario who work on social justice and anti-violence issues. These issues include anti-violence, anti-poverty, anti oppression, law reform (criminal and family), women's health care issues, childcare, employment and pay equity, labour, legal aid, women's rights, etc.

The network is a cost-effective, efficient tool which enables groups and individuals from across the province to share information and resources, as well as to collectively strategize, lobby, respond to government policies, analyze current or proposed laws and their effects on women (ie. disclosure of records, child support tax changes, Charter of Rights, sexual assault, drunk defence, etc.). The Network is also an effective tool for getting information on current government actions and policy formulation, as well as aiding in responding to and participating in government consultations. The Network allows all women in the province to participate and receive current information regardlessof the geographic area where they are located. We are able to communicate across regional, national, and international borders.

The Women of Faith Net Worker Newletter
The Women of Faith Net Worker Society
P.O. Box 2046, VMPO
Vancouver, BC, V6B 3R6
afax: (604) 251-0920
VM_Davies@bc.sympatico.ca
Available online at http://www.grannyg.bc.ca/faith/

Since 1994 we envisioned a monthly periodical that would better meet the needs of the women in the Lower Mainland concerned with ecumenical events, news of prayer groups, woman-church, social justice issues, connecting with other women with similar interests. We try to keep women informed of events that are taking place in denominations other than their own, of retreats and workshops, ecumenical events, and the work and events of other women's groups. We also are an outlet for the articles, poems, stories, prayers our readers wish to share with each other.
On a more encompassing level we are now subscribers to the Ecumenical News Service, the wire service from Geneva, and receive news from all over the world in its unedited and unbiased format. This allows us not only to print up to date articles but also allows us to be a resource for anyone needing this information for research or purely general interest.

Women Inventors Project
Celebrating Canadian Women Inventors & Innovators

1 Greensboro Drive, Suite 302
Etobicoke, Ontario
Canada, M9W 1C8
(416) 243-0668
Fax (416) 243-0688
susanb@tor.hookup.net

The Women Inventors Project is a non-profit organization working to increase the number of successful women inventors and entrepreneurs in Canada. The Project supports the innovative and scientific endeavors of Canadian women through programs which educate and heighten public awareness.

At the site:
- Find out about the Women of Invention Exhibit
- You too, can contribute to the Women Inventors Project
- Preview the Women Inventors Project catalogue of educational materials
- Review some of the Women Inventors Project publications
- Test your knowledge of Canadian Women Inventors with our interactive quiz

Women in Global Science and Technology Network (WIGSAT)
Gender, Science and Development Programme, IFIAS
39 Spadina Road
Toronto, Ontario M5R 2S9
www.wigsat.org/index.html
shuyer@wigsat.org
Sophia Huyer

Facilitates international networking among groups working in gender, science and technology around the world, through listservs, electronic conferences, online document ordering, an International Gender, S&T Digest, and a WorldWide Web site of resources, organisations, meetings and reports. WIGSAT also puts up WWW sites for other groups working in international gender, S&T. Currently these include the Once and Future Action Network (OFAN) and the Gender and Science and Technology Association (GASAT). Through its work it has connections with most of the major Southern women's science organisations, including the Third World Organisation of Women in Science (TWOWS), the African Academy of Sciences, the Intermediate Technology Development Group (ITDG), OFAN, GASAT and the UN Development Fund for Women.

Canadian Women's Internet Association
http://www.women.ca/
Excerpt:
The Canadian Women's Internet Association was founded to give all women both a voice and a place of their own in Cyberspace. We are here to ensure that women feel welcome and comfortable on the Internet.
This Web site serves as a resource centre and meeting place for Canadian women. Our Information Resource Centre contains hundreds of links to sites relevant to women, with a special focus on

Canadian content. Our interactive guestbook allows you to meet other women or speak your mind on the Web. We also have mailing lists that we use to stay in touch with each other, and to express our many unique ideas and perceptions of the world.
Links to:
- Advocacy
- Canadian Resources for Women
- The CWIA Job Board
- Feminism & Women's Studies
- Gender & Sexuality
- Global & Community Awareness
- GrRL Stuff & Ezines
- Health & Fitness
- Internet Help for Women
- Our Mailing Lists
- Motherhood
- Sisterhood
- Spirituality
- Upcoming Events
- Women & Technology

Wenlido: Self-defense for Women and Children
2349 St. Catherines St.,
Vancouver, B.C., Canada, V5T 3X8
1 (604) 876-6390
http://www.kwantlen.bc.ca/~lds/wenlido.htm

Excerpt:
Personal safety by women for women and their children
Learn how to be effective
Acces your own strengths and abilities
Acknowledge the assault is really happening to you
learn and apply awareness
Who the attacker really is, why they attack, & what really happens in attacks
Assessment: your decision about what you will say and do
Avoidance: ways to make your environment as safe as possible
Assertiveness: act and speak positively to state what you want
Action: what you can do to release holds and fend off physical attacks
You choose to change and act as you believe is necessary
to deal with assault situations

Links to:
Aggression & Assault - Women's Reality
Who are Women Educating in Self-defense Training?
Current Wenlido classes in the Lower Mainland of BC

What Can I Say or Do if I am Assaulted?
Challenging Self-defense Myths
Recent Changes to the Canadian Criminal Code
Links to other Women's Self-defense

Women's Web
Web Networks, APC
www.web.net

Women'space
RR 1, Scotsburn, Nova Scotia, Canada B0K 1R0 http://www.softaid.net/cathy/vsister/w-space/womspce.html
e-mail: diamond@fox.nstn.ca

Women'space explores how cyberspace is being used as a powerful tool for women's activism. We aim to further women's equality, to celebrate our diversity and the things we share. Women'space promotes Internet accessibility for women.Encouraging online participation by many communities of women is part of the politics of our lives.
Newsletter
Listserv on Internet access for women in Canada

4.   Initial List of Experts

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5.   Comminiqué from APC Africa Strategy Meeting: February 1997

"The Holy Family Communiqué from African Electronic Communicators at the Association for Progressive Communications (APC) Africa Strategy Meeting, Holy Family Centre, Johannesburg, South Africa, February 8-11 1997."

11 February 1997

Many of us have worked in African networking from the early days and welcome the blooming of Internet access across the continent. But the network is not an end in itself. This technology has the potential to bring about dramatic social, political and economic change in Africa.

We work in a variety of roles in the progressive and non-profit sectors to support thousands of users in Africa with the connections and the information they need. We will continue to work together to pursue our vision of a network with a purpose. Our goals of low-cost, cooperative internetworking, quality local content, and the widest possible participation will remain even if and when the current Internet mania dies away.

We have started work on a number of initiatives to address priority areas identified during the meeting and welcome partnerships in developing responses in four thematic areas: supporting electronic networks, promoting strategic use of information and communication technologies among partner communities, developing information content and tools, lobbying and advocacy.

A historic opportunity to develop technology for the good presents itself. However, without action on a number of issues , too many African people will be relegated to the role of passive spectator as the global information society takes off. As a grouping of interested parties under the aegis of the APC, we hope to raise awareness of these key problem areas:

o   Relevant African information ("content") needs to be produced, managed and delivered appropriately within Africa. The raw information heritage is too valuable to be trusted to others. Almost no resources are directed to this need.

o   Telephone and other communication infrastructure beyond the cities remains under-funded - a problem that liberalization cannot solve. Private investment in de-regulated markets has so far generally concentrated in the major cities.

o   The little international investment that there is in technical training and capacity building - a critical need, especially to bring more women into networking - too often neglects the particular needs of Africa.

o   Methods of information delivery must go beyond "putting it on the Web". The power and flexibility of electronic mail should not be under-estimated.

o   Alliances are being developed between some donors and parastatal PTTs which are giving governments a stranglehold on national bandwidth. Donors are mainly focussing on the pipes, not the people.

o   We seek greater consultation from the various initiatives which aim to steer telematics developments in Africa - including: AIF, ANI, AISI, AFCOM, SDNP, ACACIA and the Leland Initiative. There is a difference between being used as cheap advisors and then ignored, and becoming valued as key stakeholders in an ongoing process.

We believe these concerns are shared by many in the African networking community, and unless they are addressed, the development of the African Information Society will be skewed and the prospect of greater marginalization will be increased.

Signed:

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Other enquiries or expressions of support can be sent to Na'eem Jeenah < naaem@wn.apc.org > and will be recorded in an updated version of this document. Na'eem can be reached on tel: +27 082 458 6536 until 12 February 1997.

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59

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