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UNEP

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The United Nations Environment Programme (UNEP) was the lead agency which contributed and coordinated the preparation of technical papers and documentation on "*Women, Environment and Sustainable Development*".

The other collaborating agencies were:

FAO
HABITAT
OAU
UNICEF

and one leading NGO: ENVIRONMENT LIAISON CENTRE INTERNATIONAL (ELCI).



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**Women,
Environment and
Sustainable
Development**

EXECUTIVE SUMMARY

Even though the issues of Women, Environment and Sustainable Development have captured the world's attention only recently, from time immemorial women have cared for nature and managed the natural resources. Due to their traditional role as caretakers and providers of sustenance and basic needs and as managers of the environment and the household, women are responsible for the day-to-day survival of communities in Africa.

As the providers of basic necessities, the girls from a very young age learn to value resources. A woman's major role in subsistence agriculture, has a direct impact on the environment as she cultivates the land, gathers firewood, and fetches drinking water.

The Nairobi Forward Looking Strategies adopted at the Third World Conference on Women in Nairobi in 1985 was a landmark document calling attention to the women's close connection in development and environment. Paragraphs 224 to 227 which contained specific references to women and environment, demanded that the integration of women and environment require a new approach to programme design and implementation.

In addition, Principle 20 of the Rio Declaration on Environment and Development stated that: "Women have a vital role in environmental management and development. Their full participation is therefore essential to achieve sustainable development" Various chapters in the Agenda 21 and in particular Chapter 24 highlight this crucial role of women towards Sustainable and Equitable Development.

Furthermore, the Governing Council of the United Nations Environment Programme in its decision 17/4 entitled "The United Nations Environment Programme and the role of women in environment and development" urges governments to involve women fully in every aspect and at all levels of decision-making in the national follow-up of Agenda 21; and requests the Executive Director to ensure that gender considerations are well integrated into all policies, programmes and activities of the United Nations Environment Programme.

The sub-themes of this document illustrate how women's capacities in environment management attempt to avert or repair environmental degradation. But despite women's leadership in environmental management, women and environment are still a marginal issue. This document discusses the issue of Women, Environment and Sustainable Development in the following areas:

1 - Drinking water and sanitation

In Africa, the responsibility for fetching water, storing and using it for family and community needs falls on women. The Dublin Conference on Water and the Environment held in 1992 stated that: "Women play a central part in the provision, management and safeguarding of water. This pivotal role of women as water users and guardians of the living environment has seldom been reflected in institutional arrangements for the development and management of water resources. Acceptance of this fact and to improve this situation requires positive policies to equip and empower women to participate in the planning and management of water resource programmes"

2 - Land tenure and food security

Women contribute more than two-thirds of the labour force in food production in Africa and ensure about 90 per cent of the day-to-day food consumption of their families in the rural areas. In Sub-Saharan Africa, female-headed households which are on the increase have more and more say in the community. However, land ownership and land rights remain an unsolved problem. This paper examines the legal rights for land ownership by women and current practices in land vis-a-vis traditional use and their impact on women.

3 - Sustainable shelter

The Global Strategy for Shelter (GSS) for the year 2000 which was adopted by the United Nations General Assembly in its resolution 43/181 of December 1988 recognizes the crucial role played by women and women's organizations. It calls for recognition of women and for their full participation in human settlements development. In addition Chapter 7 of Agenda 21 points clearly to the need to involve women, as a special interest group in the national human settlement strategies.

About a third of all households in developing countries are headed by women. In spite of their economic and social contributions the weight of poverty falls heavily on women. They are often the poorest of the poor. It is estimated that 70 million women and children suffer from severe indoor pollution resulting from cooking fires, giving rise to respiratory and other problems because they spend more time in the house. It is further widely recognised that women bear an inordinate burden as the providers of domestic and community services in human settlements and that they are most affected when such services are missing.

4 - Women and disaster management

The declaration by the United Nations that the 1990's be known as the International Decade for Natural Disaster Reduction is a commendable effort to promote awareness and increase disaster preparedness. To what extent are women to be involved in coping with disaster management in Africa? This paper raised the question of women and disaster management; enhancement of women's capacity and capability in disaster management, disaster prevention, mitigation and disaster preparedness.

A mid-term evaluation Conference of the decade will take place in Yokohama in May 1994 in order to take stock of the progress so far achieved, the challenges still ahead and future goals.

5 - Energy and Forestry

In Africa fuel wood accounts for 90 per cent of household fuel. It is the responsibility of women and girls to get energy sources for household use. The impact of deforestation and desertification is much more pronounced for women as they are required to go further from their homes in search of firewood. It is of no surprise, therefore, to see women as in the forefront of tree-planting and agro-forestry projects. The Greenbelt Movement of Kenya is a well-known grassroots initiative resulting in the replenishment of much needed indigenous forests and at the same time as a method of improving the supply of fuel wood and fodder.

6 - Education and Training

It is recognised that women play a pivotal role in the primary education of children. They are the ones who transmit family traditions and community values to children. As such they exercise a powerful influence on the new generation by setting behavioural standards on how to act in relation to the community in general and to the environment in particular.

Being the very first educators, they have the great responsibility and privilege of molding the future citizens of the planet. Women are central to our vision of tomorrow's world for a sustainable future. As such women need to have access to quality information and tools in order to transfer their updated knowledge to benefit not only the new generation but all society in general.

As stated by the United Nations Secretary General, Dr. Boutros-Ghali "The cause of women lies at the heart of the cause of all humanity".

INTRODUCTION

Africa has been in a state of ecological, economic and political crisis particularly for the first two decades since the International Conference on Women in Mexico in 1975. Some areas of the continent suffer from a continual drain on its natural resources and their degradation. Millions of refugees from tragic political strife, economic turmoil perpetuate and widen the cycle of famine and resource destruction.

During these two decades, a number of programmes and activities have been initiated by the United Nations organizations and Governments for women to ensure their qualified presence in development process.

In December 1985, the African Ministerial Conference on the Environment adopted a Programme of Action based on the objective to halt the degradation of the resource base and ensure its rehabilitation, with the fundamental aim of securing self-sufficiency in food and energy by mobilizing Africa's human, scientific and technical resources.

The First African Regional Conference on Environment and Sustainable Development was convened in Kampala, Uganda, by the United Nations Economic Commission for Africa (UNECA) and the United Nations Environment Programme (UNEP) in pursuance of resolution 42/186 and 42/187 of the United Nations General Assembly adopted in December 1987.

It will also be noted that in 1979 the Economic Commission for Africa organized a Seminar on alternative patterns on Development and Lifestyle, which, among other things, identified environmental management and the role of major groups such as women, as one of the key areas for consideration. The type of situations with severe socio-economic repercussions on the plight of women and on serious impacts on their livelihoods and the highlights of issues addressed in the African initiatives papers, have been well documented in the reports of the African Ministerial Conference on the Environment, the African Common Position on Environment and Development and the documents of the First African Regional Conference on Environment and Development which was held in Kampala in June 1989.

It will also be recalled that in 1979 the Economic Commission for Africa organized a Seminar on alternative patterns on Development and Lifestyle, which, among other things, identified environmental management and the role of major groups such as women, as one of the key areas for consideration.

The UN Conference to review and appraise the achievements of the UN Decade on Women, held in Nairobi in 1985, adopted THE FORWARD LOOKING STRATEGIES FOR

THE ADVANCEMENT OF WOMEN which among other things, recommended the enhancement of awareness of individual women and women's associations of the need for management of the environment and for sustaining development resources. Furthermore, the UNEP senior women's advisory group, in June 1987 met and decided to focus their collective efforts on Africa. They emphasized that this effort would be most effective if it related to the **Programme of Action of the African Ministerial Conference on the Environment (AMCEN)**.

In the above connection, they decided to activate **the network of senior level environmentalists women in Africa** in close collaboration with AMCEN's national focal points and women at community level. A Regional African Women's Assembly on Sustainable Development was put in place and held its first conference in Zimbabwe in February 1989. Through this Assembly women in environment-related government services, NGOs, grassroots movements and community-based organizations were required to join in a collective women's efforts on a regional scale, to combat environmental problems, thus filling the gaps in most African recovery plans. the measures proposed by the Women's Assembly emphasized the need for actions at national, sub-regional and regional levels. .

At the national level, it is considered that the most important need for a central role for women in agricultural development with increased food production as the first priority. In order to achieve this objective, special and urgent attention needs to be given to the role of women in sound environmental management, development and utilization of water resources, forests, the control of drought and desertification, development of alternative and renewable sources of energy, improvements in land use, human resources development and human settlements.

At the sub-regional and regional levels, attention is focused on the need for greater cooperation among African countries dealing with common problems in the field of the environment, in the development and use of shared natural resources and the strengthening of institutional and manpower capabilities as the means of enabling African communities to achieve the maximum possible measure of self reliance and sustained development in the future. The active participation of major groups such as women is crucial.

Drinking Water and Sanitation

DRINKING WATER AND SANITATION

1. THE IMPACT OF WATER AND SANITATION SERVICES ON WOMEN

The daily chore of collecting water is a huge burden on millions of lives, usually women and girls. Reducing the time women spend collecting water brings direct major benefits to their lives, including self-improvement, income generation and improved child cares.

Women and young girls are the major beneficiaries of improved water supply and sanitation facilities since they are primarily the ones who draw water for household use, transport at home, store and use it (for cooking, cleaning, washing, watering household animals). It is essential that they know about water resources, their quality and reliability, restrictions and advantages of their use, acceptable storage methods, etc. For this reason, women are in a far better situation to be able to design programmes to ensure these factors are considered.

Women may spend as much as 6-8 hours a day collecting water. In Kenya, it is estimated that three million women spend an average of three hours a day. Quantities carried vary greatly, but as an example, the World Health Organization usually sets 18-20 litres per person per day as the minimum acceptable. This would mean 108 to 120 kilos or 238-284 pounds per day for a family of six. In Burkina Faso women can spend up to 4-5 hours a day collecting firewood. If, in addition they have to walk 3 kms back and forth to collect water as well as other household chores, this considerably affects their ability to care for and look after children. The energy expended on this task may consume a third of daily caloric intake - not negligible in populations where malnutrition is already a threat apart from various infectious diseases associated with poor water quality and trauma induced by heavy load is common. For this reason women have been shown to be willing to pay 20 percent more for improved water supplies than men (World Bank: 1989).

Women fortunate enough to have assistance from children to lessen their own burden may obtain more water per household. But this may be achieved at the expense of their children's as well as their own education. Time and energy spent is inverse to time spent on homework or in the classroom. In many cultures, boys are given preference over girls to attend school precisely because of the importance of girls work at home. Time saved could be spent in literacy classes, women's cooperatives or associations, health education and other non-formal education to meet her "strategic gender needs" such as participation in community decision-making.

Agenda 21 directs us to reduce the heavy workload of women and girls by providing accessible and clean water, an efficient fuel supply and adequate sanitation facilities. These can be

accomplished through empowering women through their involvement in the design, development and improvement of environmental technologies.

Men, women and children in various societies usually have specific and different customs related to cleanliness and defecation. Frequently, children's faeces are considered harmless and their defecation anywhere is therefore acceptable. However, millions of children die every year because faeces are not disposed of in a sanitary way. On the other extreme, women's defecation practices are often surrounded by more strictures than men. Frequently, they must relieve themselves in secrecy for example at night - a difficult feat in populations with endemic diarrhoea if defecation has to be done in fields far away from the home.

Whether or not women face greater problems, practices often encourage separation of men and women - they may be unable to use the same facilities or to bathe in the same part of the stream. They therefore also have different priorities with respect to services. Programmes which ignore this are therefore in danger of providing services which at best can be used by one sex only.

2. THE ROLE OF WOMEN IN SECTOR PROGRAMMES

A goal of water and sanitation programmes can be the reduction of gender differences in:

- i) the role of women within programmes;
- ii) involvement at village, district and central levels in decision making;
- iii) responsibilities for implementation at the village level.

Obstacles which have to be overcome to increase the involvement of women in sector programmes at:

Senior/Middle Management Level

- untrained for technical positions
- not recruited for technical positions since untraditional role
- leaving due to pregnancy and marriage
- assigned to less senior positions as not considered equal
- not listened to by senior staff
- reluctance of females to work outside family areas
- cultural/social/religious barriers against women working including lack of childcare support
- insufficient incentives

Village Level

- cultural/social/religious barriers against women involved in decision-making
- demand for girls/women to do disproportionately heavy housework, agriculture and other labours
- pregnancy and early marriage
- lack of time and/or interest in village decision making process
- time and calories expended in collecting water by women/young children
- exposure to disease whilst collecting water e.g. schistosomiasis

The role of women within the water and sanitation sector is still not well defined. Agencies and governments are still unsure to what extent women can be involved in sector activities. Women and young girls are the major beneficiaries of improved water supply and sanitation facilities since they are primarily the ones who draw water for household use, transport it home store it until it is used, and use it (for cooking, cleaning, washing, watering household animals). It is essential that they know about water sources their quality and reliability, restrictions and advantages of their use, acceptable storage methods, etc.

An important priority is to remove the obstacles to women's involvement. Female-male disparities have to be identified at several levels. Policy development should address this issue and attempt to reduce or remove some or all of the barriers. Education is the long term answer to the reduction in gender disparity. However educating men is as important as education of women since it is their social power and behavior that keep women in their traditional roles in society. Traditional biases in the household and community against women's involvement must be countered by strong campaigns of community education to create awareness of importance of women in decision making.

In a 1993 review of four decades of support to water and sanitation, UNICEF noted the high correlation of improvements in health and nutrition with improvements in water and sanitation. Community empowerment and hygiene education are not only critical to water and sanitation, they are also vital catalysts for achieving a full range of health, nutrition and education goals.

It is crucial that women be given the opportunity to participate in all decision-making as it is women who are usually responsible for carrying and using water, as well as for household hygiene. However, it must be understood that women are usually overburdened with responsibilities. Their work schedules should be considered when reviewing their role and involvement.

Maximum use should be made of the potential that water and sanitation programmes provide as

an entry point for women in development and women's empowerment through enhancing skills and as an entry point for other development-related activities.

3. THE IMPORTANCE OF WATER

The Grameen Bank in Bangladesh is well known as a provider of credit to some 2 million of the poor and landless in Bangladesh, mainly women. The bank is also a successful example of extending credit for rural water supply and sanitation which could successfully be applied in Africa. The bank's significant innovations to organise people in groups of five, and ask each person to guarantee the repayment of a loan to any of the other four members. The security provided to the bank is in the form of collective collateral, relying on peer pressure and close supervision by the bank. The leader of each group has a weekly review meeting with a staff member of the bank.

The Grameen bank system show how a high degree of community level participation can be effectively combined with financing mechanisms to expand coverage. the community, in particular women, (since the two million members of the bank are mainly women) is not only the decision-maker but their willingness to borrow results in an effective demand for the services. in UNICEF-supported tubewell installations, it is estimated that the community contributes about 45 per cent of the total capital costs; and about 93 per cent of the installation cost of sanitary latrines. Community participation must be supported with adequate financing mechanism if rural water supply and sanitation coverage is to be expanded towards universal coverage by the year 2000.

4. UNICEF SUPPORT FOR WATER AN SANITATION

In the 1990 World Summit for Children, the international community set 27 major goals for the survival, protection and development of children, to be achieved by the year 2000.

These include:

- . universal access to safe drinking water;
- . universal access to sanitary means of excreta disposal;
- . elimination of the water-borne Guinea worm disease (dracunculiasis)

These goals have now been endorsed by more than 150 countries and almost 100 countries have included them in specific national plans of action for children. All the goals were endorsed by the Earth Summit in Agenda 21,

To stimulate progress and capacities for achieving the year 2000 goals, a series of regional meetings of national leaders recently adopted a set of "Mid-Decade Goals". These include increasing water and environmental sanitation so as to narrow the gaps between 1990 levels and universal access by the year 2000, for water supply by one fourth and for sanitation by one tenth. The Mid-Decade Goals also advance the target for eradicating Guinea worm disease to 1995.

Out of a total of 5,116 UNICEF staff members, approximately 140 professional staff work in the water and environmental sanitation sector. Female WES professionals make up approximately ten per cent in 1993 as compared to only two per cent in 1991. By 1997 UNICEF's aims to reduce this gender disparity by having approximately twenty five per cent female professionals employed in the sector.

Field WES Staff comprise of both hardware and software professionals. In recognition of the fact that the 1980s primarily focused on the hardware aspects such as supplied for service delivery and construction of such services, UNICEF like other agencies at that time employed mostly engineers and technicians. However, the lessons of the 1980s, in particular, show that WES programmes must fully involve the beneficiaries in the decision making, implementation and management phases, if success is to be achieved.

Moreover, WES programmes should be planned in the context of and should contribute towards enhanced health and socio-economic benefits. This will necessitate a greater synergism between intra- and inter-sectoral programming for maximum benefits. In light of this, UNICEF is shifting its focus through new and refined strategies which aim to better balance hardware and software elements of WES programmes to maximise health and socio-economic impact. these new strategies will also help to ensure that WES programmes are more sustainable at local level and that they fully contribute to the attainment of Agenda 21 and poverty alleviation.

UNICEF WES programmes are aimed at the unserved and underserved populations particularly those in the rural, peri-urban and slum areas of developing countries. These programmes promote low- and intermediate cost technologies and approaches which can be fully managed and sustained at local level. Such programmes also aim to fully involve the beneficiaries in the decision making through management phases. Moreover, these programmes promote hygiene education, empowerment of communities (especially women), training for operation, management and maintenance of services provided and for advocacy towards more equitable use of WES resources. As earlier mentioned, UNICEF's objective is to achieve Agenda 21 and poverty alleviation through WES interventions.

There are three overall strategies for developing gender responsive programme planning in UNICEF. These are disparity reduction, womens empowerment and responsibility and work

sharing by men. Planning of low income women in developing countries must be based on their interests or their prioritised concerns. The Gender and Development Framework supported by UNICEF calls for identifying the extent to which planned interventions have been appropriate to the gender needs of women. It is concerned with increasing gender equality in all aspects of programme development.

5. EXAMPLES OF ENDEAVOURS BY COUNTRIES

Below are some examples of consideration of women's issues in the planning and design of sector programmes.

Zimbabwe

The Chivi CBM project is the first government sponsored attempt at community based maintenance of handpumps in Zimbabwe. It is implemented through an integrated approach with six WES sector government departments involved. The community-based maintenance project is aimed at moving away from the traditionally centralised three-tier maintenance system (ending a government paid areas mechanic - locally known as a pumpminder who services about 50 water points) to developing capacity within the community to operate and maintain their own water points.

In the two pilot wards in Chivi, 61 per cent of all pump mechanics are women. While the communities were given guidelines on how to select the mechanics, the actual selection was done by the communities themselves, without outside interference. Gender balance was a key consideration to the communities in selection of mechanics. Communities realised on their own the need to select at least one female mechanic - in many cases two females were chosen, and just one water point chose only male mechanics. An evaluation carried out by UNICEF in 1993 found the following: criteria used by communities in the selection process for pump mechanics included: trustworthiness, loyalty, literacy, mechanical ability, expected continued stay in the village and leadership ability. The project seems to have been success in promoting women's participation in community-based maintenance that male participants in focus groups often told the facilitators that women should be the ones to answer the questions relating to water in general.

Niger

A survey was conducted recently to investigate the needs of women in terms of selecting suitable technologies. Prior to the survey the information was that communities preferred to have large diameter hand dug well constructed in the villages. The results of the survey showed that 73 per

cent of the participants interviewed, including a high percentage of women, preferred handpumps; 23 per cent preferred wells and 4 per cent had no preference. Some preferred pumps over wells for the following reasons: ease of water collection and improvement in living conditions. The most important factors in choosing a water system were the reliability of the system, the ease of water collection, the water quality and cost-effectiveness. As a consequence, the results are being used to design a programme that focusses on the needs of women and their preferences.

Nigeria

Women have a very important role as the "front line" of defense in the maintenance of health and in the prevention and cure of disease within their households. It is women who make the diagnosis of illness and initiate the search for a cure in Nigeria. Women's roles in food production for the household make them important decision makers in terms of their children's nutritional well-being. Studies in Nigeria, in the two endemic areas of Idere in Oyo State and Ilorin in Kwara State, showed that a mother's inability to care for herself due to Guinea worm affected her ability to care for her infant. The substantial economic loss during the illness causes depletion of food in a household. the workload of an incapacitated mother is always transferred first to the girl child. The success of the Guinea Worm eradication programme including the provision of water supply has significantly improved the quality of women and children.

6. INTER-AGENCY COLLABORATION

UNICEF is a member of the Working Group of the Collaborative Council for Water Supply and Sanitation on Gender Issues which includes INSTRAW, USAID, National Commission of women and the World Bank. The Collaborative Council was formed in 1991 with the mandate of improving inter-agency coordination and collaborative action in the sector. At a September 1992 meeting of the Collaborative Council secretariat, it was decided that guidelines would be developed on an improved approach to gender issues in the water and sanitation sector and a source book on women in the Sector. The working group focusses on the concept of gender analysis in the planning process, the experience, tools for using gender analysis in planning at different levels and emphasis of users in application of tools at different levels.

**Land Tenure and
Food Security**

LAND TENURE AND FOOD SECURITY

1. Legal Rights for Land Ownership by Women and Current Practices on Land vis-a-vis Traditional Use and their Impact on Women

Despite their substantial role in food and agricultural production, most rural women do not have adequate access to land, productivity-raising services, or appropriate technology. Indeed in most developing countries, access to such resources and services is a common problem affecting small farmers, both men and women. However, women's access to them is even more limited owing to cultural, traditional and sociological factors.

For example, women contribute more than two-thirds of the labour force in food production in Africa and ensure about 90 percent of the day to day food consumption of their families in the rural areas, land ownership and land rights remain an unsolved problem in many traditional communities.

In many countries there is persistence of large inequalities of land ownership and an increase in landlessness. Land reform programmes as well as the tendency towards the break-up of communal land holdings - especially in areas of tribal and customary tenures - have led to the transfer of exclusive land rights to males heads of households. The "head of family" concept, which is used as the basis for land redistribution, has historically ignore both the existence of female-headed households and the rights of married women to a joint share.

With growing migration of rural men, which in many cases has been brought about by the inability of the rural sector to generate adequate employment opportunities and family income, the number of female-headed households in many developing countries is increasing significantly in rural areas. In sub-Saharan Africa remade headed households are estimated to represent, for instance, 30 percent in Malawi, and 40 percent in Sierra Leone. the proportion of such households is even higher in southern African countries where fiscal and investment policies have drawn men into the mines and plantations. In Latin America and the Caribbean, in Honduras 22 percent, in Peru 23 percent and in Jamaica 34 percent of the households are reported to be female-headed. In Asia data for Indonesia, Malaysia and Sri Lanka show that female-headed households account for about 20 percent of households. Among countries in the Near East, in Morocco female-headed households account for 15 percent and in Syria 14 percent of households.

In almost all countries female-headed households are concentrated among the poorer stata of society and often have lower income than male-headed households. the most vulnerable are the female-headed households where a male adult is totally absent. In india and in Kenya, for instance, the income of such households is estimated to be 50 percent less than that of male-headed households. Married women whose husbands migrate often get remittances and in this case are in a better position than other female-headed households.

The (WCARRD) Programme of Action and the Convention on the Elimination of Discrimination Against Women call for measures to improve women's legal status in land and agrarian reform. In general, however, women have not been subjects of the agrarian

reforms and the majority of agrarian reforms have not resulted in significant numbers of female beneficiaries. Where land reform entails the division of land into separate family holdings, only heads of households have been the direct beneficiaries. In almost all cases, ownership of the land is bestowed on the male head of household regardless of the inheritance rights of men and women. Thus the male-household head, as landowner, has ultimate legal authority over land use and its utilization as collateral for credit, even when absent from the household.

In many countries, land settlement schemes continue to be more prominent than agrarian reform programmes. These schemes have also generally been affected in the name of the male head of the household, with the result that many women have lost control over resources and income. In Asia many women have lost out in terms of land ownership in new settlement schemes. In some countries in Africa the amount of land allocated to the household plot in the resettlement areas was smaller than women's traditional food fields that allowed them to sell small surpluses or women even lost the personal use of the field produce. There is also evidence that when land is improved by partial or complete water control, women tend to lose traditional use right to land, which may result in less diversified diets. It is also often reported that with new settlement or land development schemes such as irrigation, the women's workload increases disproportionately at the expense of their customary personal agricultural and non-farm income earning activities.

Although overall, benefits for women from land reform have not been entirely satisfactory, there have been some cases where women have made real gains in terms of improved access to land. In some cases, agrarian reforms have replaced the feudal system where women traditionally had a subordinate role in family production. In some situations (as in China, Cuba, Malaysia, Nicaragua and Thailand), women's organizations have helped to overcome existing barriers or to protect women's rights regarding access to and inheritance of land. In India the Sixth Five-Year Plan provided for joint land titles in all development activities involving the transfer of assets. In some countries, women by their own efforts have improved their access to land, for instance by pooling their resources to buy land or farms collectively.

The Agrarian Reform and Land Settlement Service of FAO (ESHL) recently undertook various studies on assessing the extent of access to land in favour of women and implemented projects in the region, aimed at facing adverse legal situations. In country studies and following seminars, emphasis has been given to the necessity for women to gain more right in land access, safety of tenure and inheritance rights. It is recognized that joint titles of ownership need to be promoted instead of the common practice of bestowing land to the male head of the household.

In Comoros, for instance, ESHL recently undertook a study which underlined the importance of the "Manyhuli" practice which permits land ownership to women and inheritance rights to plots from mother to daughters.

The reinforcement of this institution may facilitate the access to land for women and their children, their land ownership, and shows a system wherein women retain their rights on land. The Comoros study, in the meantime, has been published.

Other studies of the traditional communities of the region conveyed the same concern about lack of guarantee for access to land or landownership for women, and guaranteeing rights to farming land to women. This has been the case for Uganda, Tanzania, Nigeria, Benin,

Cameroon, Madagascar, Zambia, Central Africa, Burkina Faso, Namibia, Guinea and Swaziland.

Seminars where these recommendations have been presented for discussions and implementations have taken place in Nigeria and Tanzania recently and other country case studies under preparation, followed by national seminars, which will cover Morocco as well as Tunisia.

Besides women's access to land it is also important to ensure that women are also beneficiaries of land reform policies, settlement schemes and irrigation projects.

II Role of Women in Agriculture and Food Security including Planning Policy for Food Security

Rural households try to obtain their food and other basic needs through efforts to grow food or to earn income. In their efforts to generate household food supply/income, a substantial responsibility revolves on women. Women are engaged as family labour in agricultural as well as in wage labour and other income-earning activities and generate a substantial proportion and sometimes even all the basic daily food for the family. Village-level time allocation studies show that in most cases, women work longer hours than men. A number of studies also show that while men devote a relatively small part of their income to household food expenditure, women devote a substantial part of all of their income for household food and other basic needs. Improvement of households food security and nutritional levels is thus closely linked with women's access to income and participation in decision-making on the use of income.

Despite the growing awareness by governments of the role of women in food production and food security, agricultural development policies and programmes of most countries have not adequately addressed the needs of small farmers and particularly those of women.

In almost all developing countries, a major impediment to incorporating gender issues into food and agricultural development policies and strategies has been the lack of comprehensive data on the nature and role of women's contributions to food and agricultural production. The major reason for under-estimation of women workers in national statistical data is widely thought to be an inadequate coverage of women's unpaid labour on family holdings. Women's labour is usually enumerated only if women work for wages. In some countries and regions, such problem have led to the definition of women as non-farmers, resulting in their virtual exclusion from agricultural services and resources.

¹ Data and statistics by gender and activity at the village level are indispensable in framing measures aimed at integrating women in national development.

In many developing countries environmental degradation and natural disasters have pushed great numbers of families into marginal environments. As a result of the growing recognition of the crucial links between the environment and rural women in their role in ensuring household food security, there is an increasing trend for policy measures, especially in the area of forestry and energy supply to enhance the participation of women. One major policy approach that aims to promote participation of women is "agro-forestry" which integrates the husbandry of trees with that of crops and livestock, especially in fragile situations such as upland watersheds where shifting cultivation is destroying forest cover and arid areas in danger of desertification. Another policy approach is "social or community forestry". These policy approaches fully take into

account gender issues as important for their success.

It is increasingly recognized that efforts to alleviate rural poverty and to improve food security through measures to enhance food production and employment opportunities cannot be successful without taking into account the issues relating to women as producers and providers of food in developing countries. The major issues which call for specific policy attention in order to enhance the contribution of rural women to food security and ensure their full participation in development include:

- (i) Improving women's access to land and agricultural services such as credit, agricultural inputs, training and extension, and marketing services. These services should be geared to the specific needs of women.
- (ii) Increasing wage income of rural women, notably to meet the needs of poor households, and of landless and near landless households which depend on wage income to ensure their food security. Improved food security can be achieved through encouraging the production of food crops and providing remunerative prices and economic initiatives such as improved inputs, transport and marketing services.
- (iii) The introduction of appropriate labour-saving technology in order to reduce the time and effort spent by women on remunerated and un-remunerated activities, such as wood, water for the household. Attention has also to be paid to ensure that new technologies are introduced in consultation with the targeted beneficiaries (men and women) to ensure that they do not have negative impacts on women through either resulting unequal division of labour within the household or through displacement from income-earning work.
- (iv) Initiatives to stem the growing migration of rural men to the cities or to other countries in search of income-earning opportunities since this leaves an increasing number of female headed households which are particularly prone to poverty and food insecurity.
- (v) The collection and analysis of comprehensive gender sensitive data on the division of labour within households and the contribution of women to food and agricultural production and the consideration of the gender issues in the design and implementation of food and agricultural development policies and programmes.
- (vi) Improving the household status of women through poverty alleviation programmes, increased food production, and improved education and access to health and welfare services. These are all aspects which tend to be negatively affected by structural adjustment programmes and efforts are required to reorient government policies to ensure that the problems that constrain the role of women in food security (access resources, services, institutions and employment opportunities) are fully addressed.

- (vii) **The promotion of women's participation in development activities to promote food security and alleviate poverty through promoting women's organizations such as producer, marketing and service cooperatives and through increasing women in business or management skills in order that they hold managerial positions in such organizations.**

Sustainable Shelter

SUSTAINABLE SHELTER

Introduction

Housing can be simply described as a place to live in peace, safety and dignity; as such it is recognized as a human right. This definition implies security, privacy, access to a means of making a livelihood and a base from which to develop. Safety also implies a clean and healthy environment. To many, housing represents an investment, a source of income and a symbol of permanence and security.

WHY FOCUS ON WOMEN

- 1) The question is not whether women are involved in the human settlements development process, but rather how they are. All over the world, women play a large part in building and maintaining settlements. The level and extent of women's participation in house construction vary in different cultures, ranging from assisting the men to having total responsibility. Providing a safe and clean environment, especially in poor urban neighbourhoods, is hard and difficult work, done mostly by women. Yet when it comes to formulating settlements policies, planning settlements and designing housing programmes, women are seriously under-represented, and hardly consulted. As a result, women's work in providing and maintaining shelter remains invisible, unrecognized, unrewarded, and their needs unplanned for.
- 2) It is essential to view housing not only as a social but also as an economic investment. There has been increasing recognition of the links between shelter, basic services and the reproductive role of women. Women's primary responsibility for child care and household maintenance make them a major actor at the household and neighbourhood levels. In different contexts, this has provided women with the motivation and legitimacy for taking collective action to get their needs met, for example in relation to housing, health and education. Increasingly, it has provided an empirical rationale for development practitioners to design policies and projects to meet women's needs and to involve them in a range of ways, in interventions around housing and basic urban service provision. Within the framework of economic reform measures and privatization, in some contexts this has extended to recognising women as being more reliable than men in cost recovery and the repayment of housing loans. Women's unpaid labour is also increasingly used along with that of men in the provision and maintenance of housing and services. What has been less visible to practitioners is that parallel to their involvement in reproduction, many women are also contributing to household income. While in some households women may be one among many contributors, in an increasing number of households, they may be sole income earners.

In many African countries women are involved in petty trades to manage the households. This is typical of the Ibo tribe in Western Nigeria and of the women in Ghana where the household income is almost entirely generated by the women who are involved in such trades.

Women also form groups where small financial contributions are made weekly/monthly in Western Province of Cameroon to assist members of the group in turns whenever there is a need for a substantial investment which could not otherwise have been made. This, in most cases, often goes to save the lives of family members including their husbands.

An estimated 20 to 35 per cent of all households world-wide are headed by women. This number is growing. In certain African countries the percentage is as high as 45. Such households may be headed by unmarried women and widows, or married women, often with children, who are de facto heads of household because the husbands have left home for economic or political reasons, often not communicating with their families for long periods.

Women-headed households have several factors in common: they are generally much poorer than those headed by men; they predominate in informal and poor urban settlements, where they are also among the poorest, they face many problems in their attempts to secure a place to live, as well as in their daily fight for survival. To facilitate the balancing of their different roles, and often because of their lack of access to resources, in many contexts their economic involvement is primarily in micro-enterprises in the locality of their homes.

From the perspective of housing provision, women's involvement in home and neighbourhood based production raises a number of issues. Some relate to the spatial location of economic opportunities for women at the local level. Some have implications for urban economic and land use policy, planning and management. However, they also relate to the equal opportunity of women to use shelter itself as a factor of production, either as a place to conduct economic activity, as collateral to raise credit, or as a capital asset which can be bought and sold. In many countries, restrictive land use planning, discriminatory land tenure and legal regulations and practices are key factors which deny women the same opportunity as men to benefit from shelter as an economic investment or as a source of earning an income.

- 3) Women face various constraints related to access to land and property. Laws, customs and economics prevent women from owning, inheriting and using land. This in turn adversely affects their access and control to shelter, and their contribution to shelter development. In many customary law situations in Africa, women have no right to own land except through fathers, husbands, sons or other male relatives. This can make the situation of widows with no sons, or unmarried women, very difficult. There are legal systems in which women are treated as minors, unable to make transactions without a male relative's consent.

In Africa, there is an urgent need to address first and foremost the issue of inheritance rights for women. This right will not only empower women to have access and control over land and property but will at the same time enable them to participate fully in designing cities, communities and villages.

4) Some specific difficulties faced by women in shelter projects

When women are not consulted at the planning and design stage of human settlements development, their needs and priorities may not be taken into account. These may be related to particular cultural requirements, or to the need to combine income-earning and household tasks. This can cause severe problems. Women's lives can be adversely affected by introducing services that are inappropriate to their needs.

Women often have to work in or near the home. The failure of architects and planners to recognize this has resulted in house designs that do not take into consideration the needs of women. In addition, zoning regulations separate residential and business activities, thus prohibiting the development of income-earning activities in the home or locally in residential areas. This has at times led to harassment of women who have no choice but to locate business in areas not accepted by local authorities.

Lack of training is the most significant cause of under-representation and the low status of women in the construction industry. Lack of understanding of this sector also makes it easy for women to be exploited when they have to hire artisans to build for them. Maintenance of the house poses the same problem to the woman who has no understanding of building.

Training of women can mobilize unemployed or underemployed labour resources, resulting in a more balanced distribution of jobs in the construction industry, and help women to acquire shelter through self-help construction. Skills acquired can also be used in house maintenance. The issue of linking finance and credit to land ownership must be addressed as well.

At the moment, there are some innovative credit programmes that help women improve their incomes and their shelter. What is needed is the recognition of the special problems of women in acquiring finance for shelter, and the political will to address this problem. The involvement of women in policy-making is very essential. Already some progress for women's access to credit has been made through the work of associations of women bank managers, and women development workers. More needs to be done, for example, to make the necessary education and training available to women, so that they can be in decision-making positions. Steps should also be taken, at the national level, to improve women's land and property rights. Last, but by no means least, is the need to make information on credit opportunities and procedures available to women. Both governments and NGOs have a responsibility in this task.

5) Is there adequate information on women in shelter development?

The answer, unfortunately, is "No." There exists little useful information on the roles, needs and contributions of women in shelter development. This is partly because not enough appropriate research has been done in this area, and women remain invisible in many research findings. Equally important is the fact that policy-makers and project managers do not make use of the scanty information that exists. Women's views, needs and contributions are often neglected in policy formulation and implementation, not just because of lack of information, but also because of lack of concern about the situation of women.

The 1993 *Human Development Report* by UNDP describes women as the "non-participating" majority. Indeed women's contribution in many areas of development has often been described as "invisible".

For their part, women lack essential information on shelter development such as policies, projects, credit facilities and opportunities. As a result they miss out on the few possibilities available to them. This is partly due to the fact that information about some of these policies, projects and credit facilities has not been widely distributed and publicized. Another reason why women lack information is that many of them live in isolation and poverty, many are illiterate and cannot obtain information from the print media and they are often too poor to own a radio or television set.

6) What are some of the obstacles to information sharing and gender awareness in shelter development?

Lack of gender awareness of some of the policy-makers in the media and in institutions making policies on shelter development is a big disadvantage. The policy-makers, mostly men, decide on the information to be collected and disseminated. A lot of the information is gender-blind. Even in developed countries, few programmes are devoted to homelessness and other issues related to shelter development. Serious issues like shelter are not usually scheduled on prime time on television or radio, nor are they given front page coverage in the print media.

At the end of 1987, the International Year of Shelter for the Homeless (IYSH), a group of 90 women from East and Southern Africa met in Harare, Zimbabwe, to talk about the shelter situation of women in sub-Saharan Africa. This group identified lack of information as a serious constraint to women's ability to control and improve their living environment. They recognised the right to information as one of a cluster of rights making up the right to housing. Networking is part of information sharing.

7) What needs to be done?

Women researchers and professionals should carry out surveys to provide information and statistics on women's roles, needs, views and contributions in shelter development -- to be made available for use by policy-makers and project managers working in government, international organizations and NGOs.

Training workshops to promote gender awareness of both female and male decision-makers in shelter development, like those run by the Women in Human Settlements Development Programme of UNCHS (Habitat), should be extended to include some men and women from the mass media.

Community-based organizations should seriously be encouraged to include gender sensitization in their programmes.

From their experience, many women from developing countries know that it makes a lot of difference to their work when they network, at however informal a level, with other women in decision-making positions in the official national machinery.

Networking also helps to build solidarity. Just knowing that there are others engaged in the same struggles, advocating and promoting the same goals, makes a difference. Associations of women bankers are already making an impact in some countries on women's access to credit. Associations of women lawyers are fighting for property rights for women; women planners and project designers have been networking for more gender-sensitive zoning laws and housing designs, as well as better consideration for female heads of household.

The United Nations Centre for Human Settlements (Habitat) Women in Human Settlements Development Programme has initiated a comprehensive programme of action to address the particular problems of women in the area of shelter and human settlements development. The programme is based on the following three major strategies:

- (a) Capacity building targeting different groups active in the human settlements field at various institutional levels providing gender competence training for high level officials with governments, non-governmental and community-based organizations and professional staff at UNCHS (Habitat); managerial and advocacy skills training for women who are already in the human settlements field, and construction, maintenance and environmental protection skills training for women.
- (b) Participatory action and research which involve: gathering and processing data and developing indicators in order to measure women's participation in the human settlements development process; evaluating field experiences of women in the construction field and in the credit schemes, compiling experiences of women in

decision-making positions in the human settlements field, and developing, producing and testing manuals for gender-awareness building within the human settlements development process.

- (c) Networking activities which include: supporting regional newsletters and the interregional Habitat International Coalition Women and Shelter Network; creating an information retrieval system; collecting and disseminating case studies on successful integration of gender issues in a specific area of human settlements development; elaborating and disseminating training materials such as videos, manuals, posters, and flyers related to essential topics, e.g., gender-awareness, capacity-building, and urban management; supporting regional meetings for women in human settlements development in Africa, Asia, Latin America, the Caribbean and one interregional meeting; supporting regional exchange visits for women working in local governments and NGOs active in the human settlements field; and collaborating in the system-wide effort to have a closer coordination of activities and sharing information on gender-awareness activities among the United Nations agencies.

In 1996, the United Nations will hold a second Conference on Human Settlements, "Habitat II", twenty years after the first United Nations Conference on Human Settlements in Vancouver. This second Conference will examine the current situation and look for new solutions to human settlements development, with special regard to improving the living conditions of the world's urban and rural poor.

In this endeavour special attention will be given to the importance of improving the status of women, enabling women to take a more active part in the human settlements process as a whole and incorporating gender issues into its entire work programme.

UNCHS (Habitat) will continue its work to support national, local governments and NGOs so that they can continue their efforts to achieve sustainable human settlements development for both men and women.

**Women and
Disaster Management**

WOMEN AND DISASTER MANAGEMENT

1. Introduction

The issue of women and disaster management in Africa is a very opportune topic, not only for its intellectual challenges, but more particularly for two related and coincidental reasons. First, the 1990's have been designated, by the UN as the International Decade for Natural Disaster Reduction. A mid-term evaluation conference of the decade is to take place on Yokohama in May 1994, the World Conference on Natural Disaster Reduction. Secondly, in preparation for the Conference, the OAU in cooperation with World Health Organization/Emergency Preparedness and Response (WHO/EPR), the ECA, and United Nations Disaster Management Training Programme (UNDMPT) are preparing an **African Common Position** on the issue of Natural Disaster Reduction in the continent.

The declaration by the UN of the 1990's as International Decade for Natural Disaster Reduction is an effort to increase disaster preparedness, improve on mitigation measures so as to minimize the impact of disaster on the socio-economic development process, especially in the Third World. The objectives of the decade are as follows:

- improve each country's ability to mitigate the effects of natural disasters;
- devise guidelines and strategies for applying existing knowledge;
- foster scientific and engineering endeavours to reduce loss of life and property;
- disseminate existing and new information about the assessment, prediction, prevention and mitigation of natural disasters;
- promote programmes of technical assistance and technology transfer, demonstration projects, education and training tailored to specific hazards and locations.

Poverty increase vulnerability to disasters and disasters help to perpetuate poverty. the poor lack the resources to respond to disasters which often destroy infrastructures crucial to their socio-economic development. Most disasters occur in poorer countries and the people who suffer most from disasters occur in poorer countries and the people who suffer most from disasters and from environmental degradation are always a society's poor. A 1976 UNDRO study estimated that 95% of deaths from disasters occur among 66% of the world's population that lives in poorer countries. In Japan, for example, Anderson (1985) points out that the average annual death toll from disasters is 63 while in Peru, with similar incidence of natural disasters the annual death toll is 2900.

Disasters destroy life and property in every country but the losses, relative to a country's resources are more of a burden on the poorer countries. Absolute economic losses may be higher in wealthier countries because more property of higher value is damaged but

the loss in GNP from disasters is almost 20 times that greater in developing countries than in developed countries.

Poverty is thus exacerbated by repeated disasters as some of the most environmental problems in developing countries are often a cause and effect of poverty. In urban areas, for example, the poor cannot afford serviced home sites and are a great threat to the natural environment in cities. Landless squatters concentrate in fragile, often marginal areas, increasing the cost and magnitudes of disasters.

If the cycle is never broken by preventing or mitigating the effects of disasters, there is little prospect for sustainable development. This is because repeated disasters limit developing countries' ability to attract domestic and foreign investment and to encourage entrepreneurial activity. This latter point is borne out by the fact that the impact of disasters is often felt disproportionately by people who live at the margin and subsist in the non-formal economy. Their activities which are associated with production, consumption and distribution of goods and services are not counted in national economic systems for quantifying national economic activity. And yet, in Africa in particular, the non-formal sector represents a significant portion of the economy.

In both the situation of poverty and the non-formal activities, women predominate; thus in many disaster situations in developing countries, women are the most vulnerable and make up the greater percentage of the victims.

The issue of both man-made and natural disasters in Africa have assumed serious socio-economic dimensions for our development process and need to be addressed. It is in this context that the active involvement/participation of women in addressing this recurring human scourge becomes meaningful and urgent. The rest of this paper attempts at situating the female dimension in the disaster management process in Africa, taking into consideration women's traditional role and knowledge of the African environment, especially in the salient areas of conservation of nature and natural resources, which when dislocated trigger disasters of one type or the other. This is so, especially in soil erosion, deforestation, drought, floods, etc. Consequently, the democratization of the socio-economic development process in Africa is an imperative that should not be put in political deep-freezer any longer.

II. DISASTERS IN AFRICA AN OVERVIEW

In Africa, there have been disasters of all types, varying in scope and magnitude. Thus, drought, desertification, civil strife, floods, land-slides, bush fires, earthquakes, cyclones, epidemics, insect infestations, constitute some of the man-made and natural disasters that have increased serious impediments to the development process. In recent memory, drought of a severe nature hit the Sahel zone, 1968-1973 and later, this scourge spread to the Horn of Africa in the 1980's and the South in the early 1990's. In Southern Africa, the

Southern African Development Community (SADC) Member States suffered from severe food shortages and consequently, painstaking economic programmes had to be put in abeyance in order to address the problem of the drought. Their cumulative consequences, such as mass deaths, loss of property, epidemics, destruction of the social and physical infrastructures, etc. have had severe impact on socio-economic development efforts of many African countries. Equally, significant is the aftermath of these disasters in the form of refugees, displaced persons.

Undoubtedly, such disasters create emergency situations that need to be addressed. Here then comes the question, namely, to what extent are women to be involved or integrated in coping with disaster management in Africa? This question is salient, because, women are rarely involved in initiatives to promote disaster management. Yet where men migrate to urban areas due to disasters, women are left to manage and preserve rural communities; they should therefore not be sidelined, ghettoized or marginalized but should be integrated at all stages of programme design and implementation in respect of disaster management. The philosophy of the democratization of the development equation through popular participation should be applied without discrimination at all levels of society. Any attempt to exclude particular sectors of our society from the development process will have negative consequences.

III WOMEN AND DISASTER MANAGEMENT: TRADITIONAL CONTEXT

In all African societies, women play a dominant role in disaster management. This has been so because by the nature of their daily activities in support of their families, they have developed an intimate knowledge of their natural environment. Moreover, women's role in traditional societies gave them special advantage in dealing with the vulnerable in the community, namely, the young/children and the elderly. These, as usual are the first victims when disasters strike and women are capable of addressing their problems, caring for their injuries, feeding them, housing or looking for shelter for those in dire need.

These deep rooted cultural roles should be translated into the current reality of disaster events and their management.

IV ENHANCEMENT OF WOMEN'S CAPACITY AND CAPABILITY IN DISASTER MANAGEMENT

Because women are the major victims of disasters they are by implication an integral part of the problem of disasters; by the same token they should be part of the solution of the problem as active participants and beneficiaries of disaster management activities. This becomes even more important when one considers women's various roles as sources of traditional knowledge of the habitat, with traditional knowledge of managing and protecting natural resources, as collectors of forest products, agricultural producers, processors of

products, providers of fuel wood, fetchers of water, pastoralists, consumers distributors of goods and services, community members and refugees.

Their participation can be effective if their capacity and capabilities are enhanced. Such an enhancement in the area of disaster management should be viewed in the context of disaster preparedness, prevention, mitigation and response, which provides a framework within which relevant activities for addressing disaster management can be articulated.

Indeed, in many African countries, there exist well organized women's groups, associations, organizations and institutions whose traditional functions include addressing local disasters or situations that cause distress to the community. The capability and capacity of these societies should be enhanced by governments and the donor community to facilitate and strengthen their disaster management role. This could be accomplished through technical and financial assistance. It is particularly instructive that local women's NGO's be involved at this level.

Local NGOs which normally have knowledge of local survival experiences and practices should be the base for externally assisted disaster mitigation programmes. Many local NGOs could help women-based organizations make credit available to women and educate them about women's rights, population control, sanitation general and special aspects of production technologies and how to prevent environmental degradation. They should improve access to training and help raise awareness of the problems women might face.

Therefore, for women to be effective in this whole exercise, the issue of disaster management should be part and parcel of government process of integrating women in the socio-economic development policy. It should become part of national development planning in countries affected by or prone to natural or man-made disasters, so that women can organize themselves accordingly to address the various phases of disaster management which include:

DISASTER PREVENTION Relates to appropriate measures which are aimed at impeding the occurrence of disaster event or equally, ensuring that such an event does not have serious impact on society or communities.

MITIGATION Action is intended to ameliorate the impact of disaster on the community. Thus, some countries have regulations, codes or laws relating to building standards for earthquakes and cyclone areas. Consequently, while such disaster will occur, their impact will be modified or reduced. In this respect, the following actions or programmes can be put in place.

DISASTER PREPAREDNESS In this domain, measures are instituted which enable governments, women's organizations, communities and individuals to respond rapidly and

effectively to disaster situations.

RESPONSE: Response measures mean those usually taken immediately prior to and following disaster occurrence. Such measures are instituted or directed towards saving life and protecting property and to dealing with the immediate disruption, damage and other effects caused by the disaster.

From the foregoing, it is necessary to emphasize that women are better placed to address some of these areas than men if they are given the necessary logistical support by governments or are well trained in disaster management in all its forms, referred to above.

Thus, no matter what type of disaster it is or whatever phase of disaster management is addressed, the following are important particularly for women, considering their important and multiple roles in their society:-

- Systems and institutions for consultations and decision-making, arrangements for holding of meetings at which decisions are made must include women and their organizations, associations and groups, as appropriate.
- Traditional mitigation and preparedness measures as well as recovery strategies should be identified, evaluated for their effectiveness and strengthened for expansion or incorporation in national plans and strategies.

It has been observed that in the process of planning and implementation of programmes in disaster management victims are often left out and outsiders and decision-makers bring ready made solutions, foreign technologies and inappropriate life styles to communities whose residents are excluded from meaningful participation. Active participation by communities in planning strengthens their ability to implement emergency measures and provides the framework for social and economic development.

To adapt traditional measures means orienting planning processes of disaster management measures from the perspective of communities most likely to be affected and to involve villages and communities in local plans. Planning should thus be initiated at the village level and priority should be given to activities that stimulate self-reliance, promote cooperation and community involvement and contribute to community development.

CONCLUSIONS

Since women constitute more than 50% of Africa's population, their integration into the development process should be a preoccupation of governments if meaningful socio-economic and political achievements are to be realized for present and future generations. Women's potential, their domestic management skills, talents and experiences, both in the traditional and contemporary setting should be effectively mobilized for our development

objectives in the 1990's and within the context of the United Nations, International Decade for Natural Disaster Reduction.

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Energy and Forestry

ENERGY AND FORESTRY

Introduction

The scarcity of resources for the initiation, stimulation, promotion and sustenance of development activities is at the root of the underdevelopment and environmental degradation in developing countries, particularly Africa.

There is a growing awareness of the importance of involving women directly in the development process - not the least when it comes to energy and forestry issues.

1) Energy needs and resources

There is no simple connection between fuelwood demand and the rate of deforestation. Different sectors of fuelwood demand, (such as institutional vs. domestic catering) may have a completely different environmental impact, since not all wood that is burnt has been obtained by environmentally-damaging means. To burn trees which have already been cut down to clear land for agriculture, or which have died of natural causes, has virtually no direct impact on the rate of deforestation. What matters is not the total national woodfuel demand, but the level of demand which must be met by the harvesting of trees specifically for fuel. And a realistic figure for that is exceedingly difficult to obtain. (UNEP. Energy Report Series, Vol. 18, 1989, p. 35)

In Kenya (and many other developing countries) it is estimated that between 1/3 and 2/3 of rural households are headed by women (Karekezi, 1992) and therefore the women are bearing the brunt of securing the livelihood for the children and the family. This means that collection of fuel(wood), cooking, tending the garden are all her responsibilities.

In developing countries household energy needs are derive from biomas often fuelwood and fodder. The reality of the energy situation in Africa is characterised by:

- a) considerable reliance on wood for fuel. (90% of the household fuel)
- b) predominant role of cooking as an energy end use
- c) need to develop reliable and efficient sources of supply materials.

In many parts of Africa, new technologies for more efficient utilization of fuelwood consumption are introduced to the community and are combined at the same time with the development of other biomas sources such as the provision of tree nurseries and community woodlots.

Great efforts are being undertaken to improve this supply and reduce the demand:

- . developing or improving the sources of supply - through afforestation and reforestation;
- . tree-planting campaigns, and the development and maintenance of community woodlots to enhance the continuous supply of fuelwood; and
- . combining agriculture and forestry (agroforestry)

To reduce the demand the following have been developed:

- . improved cooking stoves
- . solar cookers
- . briquetting of agricultural residues

Few countries in Africa have started promoting solar energy as supplements to conventional cooking methods.

To improve the situation for rural women, reforestation can be an important approach, not only to secure availability of fuelwood, but more so to ease the task of gathering the fuelwood. On a larger scale, fuelwood (plantations) can generate income to rural women, who, in the time saved from collecting fuelwood, can harvest and market fuelwood (as charcoal) in urban centres.

The idea of growing fuel, tends to be more attractive for the women than for the men, since the women can benefit from their agricultural skills and their greater understanding of the biological cycles which lead to a better rate of success (i.e. higher survival rate of seedlings, higher growth rate for both trees and crops/vegetables in case of agro-forestry).

If the fuelwood production is combined with energy conservation measures in the household, this can lead to further reductions, in time consumed in connection with the domestic fuel supply, since less fuel is needed, i.e. less fuel needs to be collected. This spare time can be used for other income generating activities.

The energy, forest and women complex, cannot only be viewed as a purely technical matter, but must also be viewed in the light of cultural and socio-economic factors. Even though in many societies women do the majority of the work, the men tend to have the last say in most decisions. If the women are not allowed to get their fair share of the benefits (and possibly money) that comes out of the projects, any initiative and/or motivation will quickly fade out.

Training programmes focus on providing information on safe energy options and the use of new and renewable energy sources, as well as training and education in the design, construction and maintenance of stoves.

The lack of energy security, one of the five priority concerns singled out in Africa Common

Position of the African Environment is a crucial variable in environment and sustainable development.

Implementation of Agenda 21 towards socially equitable, economically and technologically sound and environmentally sustainable development in African countries depends on greater energy security and self-sufficiency.

In order to develop and strengthen technical cooperation among African countries through the development of horizontal scientific and technical links, within the framework of the African Ministerial Conference on Environment (AMCEN), eight specialized regional networks made up of national institutions have been established (Environmental Monitoring, Climatology, soils, fertilizers, water resources, energy, education and training). Genetic security and self-sufficiency would over time improve per capita energy access for satisfaction of essential needs for survival and raise the availability of efficient energy (improved stoves - alternative sources of energy, appropriate technology of biogas use, solar energy and wind, just to mention a few).

2) Forestry development

Throughout Africa, women do much of the agricultural work, provide firewood and water for household use and actively manage natural resources. Over the past two decades, the forestry development community has grown increasingly aware of the important roles played by women in forestry and natural resource management. Many community forestry, agroforestry and farm forestry activities have recognized women's major roles and have sought to promote their participation.

Women are actively involved in a wide range of forest-related activities, both those of a spontaneous nature and those fostered through development projects and programmes. In fact, except for industrial timber and charcoal production, African women are the protagonists in activities related to the management and use of forest resources. Particularly important is the gathering of fuelwood for domestic energy, and of fruits, leaves, gums and medicinal products both for household use and sale in local markets. Women's participation in the production and dissemination of fuel-efficient cook-stoves, in agroforestry, tree nurseries and horticulture is also very important.

There are a number of obstacles that impede the fuller participation of women in forestry activities in Africa: restricted access to productive resources, particularly tenure rights to land and trees; limited access to information, training and education, regarding environmental management.

Efforts are needed to train more women in forestry and natural resource management in order to enhance their participation at all levels - from grassroots to international policy.

While women may provide voluntary labour for environmental rehabilitation efforts, they also need income. Many forestry projects typically offer paid employment to men but expect only voluntary unpaid labour from women. In many African countries, community forestry activities encompass only a minor portion of the forestry sector.

Women must be involved not only in the labour for forestry activities but also in decision-making and the control of resources. Key concerns for promoting women's participation in natural resource development activities focus on their access to and control over resources. Building on women's existing knowledge and environmental management skills is fundamental for their empowerment and their taking control of their lives.

CONCLUSION

Forestry is clearly not just about trees; rather, it concerns the use and management and conservation of the forest ecosystem to meet human needs at local, sub-regional and regional levels for present and future generations. Forestry activities, although requiring a long-term perspective, must provide short-term benefits, particularly at the local level, if they are to be sustainable. Moreover, these short-term benefits must accrue to all sectors of the population that have an influence on the use and management of forest resources. In Africa, a growing recognition of the dominant role of women in the use of forest resources has focused attention on the need to involve them more fully in forestry development activities, and particularly on the need to ensure that they are able to derive a fair share of the benefits from these activities.

NGO Input

BACKGROUND

The United Nations Conference on Environment and Development (UNCED) and preparations for it culminated in the transformation of Women in Development (WID) to Women, Environment and Sustainable Development (WED), based on the recognition of the crucial role of women in sustaining the physical, natural and socio-economic environment, and the need to incorporate this recognition into development strategies. The UNCED process was precipitated by the World Commission on Environment and Development (WCED) Report, Our Common Future. The Brundtland report laid the basis for integrating environment into all activities in the development process.

During preparations for UNCED what emerged clearly as evidence by two documents: *Agenda ya Wananchi* and the *Miami Women's Action Plan*, was the recognition that a consistent gender perspective on the issues of environment and development, was missing. Further, over and above the gender perspective what was needed was a breaking open, a loosening up of the narrowly compartmentalised "issues" of the environment. At governmental UNCED Conference, a women's caucus lobbied the official member countries delegates. This conference adopted a document, Global Action for Women Towards Sustainable and Equitable Development within the UNCED Agenda 21 as Chapter 24. The opening paragraph (24.1) of this chapter states: "The international community has endorsed several plans of action and conventions for the full equal and beneficial integration of women in all development activities, in particular the Nairobi Forward-looking Strategies for the Advancement of Women, which emphasize women's participation in national and international ecosystem management and control of environmental degradation... Effective implementation of these programmes will depend on the active involvement of women in economic and political decision-making and will be critical to the implementation of Agenda 21."

One of the areas identified by Agenda 21 as requiring urgent action (paragraph 24.6) is the need for countries to take urgent measures to avert the on-going rapid environmental and economic degradation in developing countries, that generally affects the lives of women and children in rural areas suffering drought, desertification and deforestation, armed hostilities, natural disasters, toxic waste and the aftermath of the use of unsuitable agro-chemical products. In order to reach these goals, women should be fully involved in decision-making and in the implementation of sustainable development activities.

As women and men prepare for the Africa Regional Meeting and the Fourth World Conference on Women to be held in Dakar in 1994 and Beijing in 1995 respectively, where a common platform of action on women, environment and sustainable development is planned, it is imperative for women to increase networking and collective action, despite inevitable differences, in order to maintain the momentum created during the UNCED process.

WOMEN, ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

In many parts of Africa, women have been active in environmental projects. Women themselves recognise the problems of deforestation, desertification and environmental degradation. They are the first to suffer, as these environmental changes affect their ability to obtain firewood, water,

and other resources for household use and economic activities. Even where environmental projects have not specifically targeted women, they often participate most in providing voluntary labour. In projects in Zimbabwe and Senegal, for example, primarily women were motivated to combat environmental degradation and undertake reforestation efforts.

In Africa, eight types of constraints that might influence women's participation are: restricted cultural and physical mobility, such as religious constraints or lack of transportation; limited access to land, such as land shortages or use restrictions, restricted tree ownership and use rights; lack of other material resources, and training; limited cash resources, income, and credit, lack of formal and informal organizations, such as women's groups or cooperatives, lack of labour, such as women-headed households lacking male labour; and limited time, such as where women have heavy workloads and perform most of the agricultural labour.

Key concerns for promoting women's role in natural resource management focus on their access to and control over resources. At the planning meeting and workshop, discussions emphasized the importance of two major types of resources -- land, trees, and other natural resources, and information and knowledge.

A crucial constraint for women's involvement in both agriculture and environmental activities is their lack of land and other natural resource tenure rights. Typically in Africa, when individual property rights have replaced traditional tenure rights, the government registers the rights of families and communities in the name of household heads -- usually the eldest man. Women, thus, have often lost customary rights. In Africa, some non-governmental organizations and development projects have been able to obtain land rights for women's groups on an individual basis.

Another key issue for women's development is their access to education, training, extension, information, and research. Knowledge constitutes a basic source of power. Unlike many other resources, however, it is not limited. Building upon women's fundamental for their empowerment and control of their environments and their lives.

Women's Relations to the Resource Base

One of the major inequalities is associated with gender relations to the resource base. The social, cultural, economic and political structures have relegated women to a subordinate position. In Africa, women's access to, or control over productive resources has been constrained by the fact that development processes are ran by men in an already traditionally patriarchal society. Thus, the process has been one of patrilinealization and consequent marginalization of women.

Despite the fact that women contribute over 60 percent of the labour input into agriculture, they constitute the majority of the rural poor. Developments in the agricultural sector have resulted in the marginalization and increased workload of women. Alleviation of poverty among rural women in Zambia through removal of social and other constraints that make women both victims and contributors to the degradation of natural resources is important, not only for the women themselves, but also for their families and communities.

Land Tenure

Land is a major pre-occupation in Africa and a major concern for women. In some regions, individual women have difficulties in getting access to land. In Cameroon, Zanzibar, Senegal, Sudan and Botswana, women's groups have negotiated, borrowed or rented land for tree-planting or other communal activities. Where land is scarce, as in Sudan, Zanzibar and Cameroon, women farmers have adopted agroforestry practices to raise trees with agricultural crops or grow fodder trees along with raising livestock.

In Senegal, despite the enforcement of the law on National Land, the feudal system persists. Underprivileged people (from lower castes, especially women) still do not have direct access to land. It is in this extremely severe and trying but nevertheless hopeful context that we see the women struggling to ensure their survival and their dignity. In order to better comprehend the scope of the problems which confront them in their daily efforts, we must examine the relationship between production and the social relations which govern this society.

Tree and land-tenure rights often are interrelated. In some African societies women historically have not planted trees, since trees could give them rights to land. In northern Cameroon, some men let their wives plant only papaya trees, which are short-lived and do not confer land rights. In western Kenya, social taboos have historically prevented women from planting trees.

It may be difficult for women to obtain trees to plant. The women, thus, may grow the trees that they need. In Somalia, Sudan and Cameroon, women earn money through selling tree seedlings. In Senegal, women collect seed for, and grow indigenous tree species that were disappearing, especially medicinal plants.

However, access to land is not just a gender issue -- it is shaped by class and other factors. Sometimes rural women do not perceive their own menfolk to be the problem, but government policies, urban interests or powerful elites. In Zimbabwe, for example, most people live in the marginal Communal Lands, left to the indigenous population when the colonialists took the most fertile lands. Despite the changes that have occurred since independence, these areas are still where most Zimbabweans live.

Access to other material resources

Throughout semi-arid Africa, water is a serious constraint for household use, agriculture and for raising livestock. This problem is mainly exacerbated by inadequate government policies. In Sahelian countries, governments encourage citizens to plant trees to combat desertification. These recommendations are not always matched by policies to promote water availability or suitable species. Often the tree species planted may need watering until they become established. Since fetching water is usually women's work, they must add watering trees to their existing workload.

A shortage of tools or technology may also limit women's activities. In some countries tool shortage or/and socio-cultural factors may hamper group activities.

Women's Groups

Virtually, all activities carried out by women groups in Africa have something to do with the environment. In Zimbabwe, Mali and Zanzibar,, some government departments such as water, forestry and agriculture work with existing women's organizations. In some countries, women's groups did not previously exist but are now very active in the sector.

However, it is noted that women's groups often fail to reach poor women, who may lack the time or resources for group activities. Thus, if a major concern is to empower poor women, alternative approaches may be needed. For example, in Botswana, existing extension efforts do not reach many individual women farmers.

A major problem, is not the participation of women per se, since the women already are planting trees and rehabilitating degraded environments. More important may be the need to organise and involve the men to help build up male commitment to rural communities. Furthermore, if women perceive men to be part of the problem, i.e. controlling resources or limiting the activities of the women, then women and men need to work together to find viable solutions.

Education, training and extension needs

Education is key to women's survival and adapting to changing environmental circumstances. Extension programmes, therefore should employ audio-visual materials. In Mali cooking demonstrations, live theatre and radio and television extension messages have been used to reach women. In Cameroon, rural women value training in new skills as a primary reason to engage in forestry activities. Women lack land rights, moving from their parents' to their husband land, and losing use rights to their husband's land upon divorce or widowhood. therefore, they feel that education -- particularly in income-generating skills -- is key to their survival and adapting to changing social circumstances.

There is the need to develop women's groups to operate more autonomously with training in project development, management, accounting and fund-raising. Some projects have considered the need to supply women with training in small business management or marketing.

Education and training of women goes beyond the level of environmental projects. the more fundamental question is that women receive practical education, suited to their day-to-day lives. Projects and programmes could design extension and training materials that could be used to support literacy training, basic education and environmental education. For example, extension booklets on forestry topics, such as starting a tree nursery, collecting tree/seed or managing trees as live fences, could be designed for use in functional literacy courses. Efforts should be made to produce materials in local languages.

ACTION PLANS

Individual Actions

Many people work with women in natural resource and environmental issues. They include grassroots women, development workers, foresters and other technicians, teachers, journalists, researchers, and staff of NGOs, governments and international organizations.

1. Individual women and women's groups undertaking environment related activities often need information and support. Development agents should help these women gain needed technical support and inputs, such as access to water. Women can define their own problems and implement solutions, but they may need training in needs identification and better access to information.
2. Development workers can function as facilitators, promoting information flow and exchange of experiences among the community groups, researchers and government policy-makers. Another important area is promoting contacts between grassroots groups, for exchange visits.
3. Environmental programmes and policies should consider the gender impacts. They can actively seek ways to enhance women's participation and ensure that women benefit from their activities. Girls should be encouraged to study science and consider issues to do with the environment as a possible career field. Environmental education maybe promoted in schools. Better use can be made of the media, as a way to inform and involve the public.
4. Journalists have a key role to play. The press should focus more on women's issues, and women's perceptions of resource use and management. Such information can support grassroots women's initiatives, and the efforts of NGOs to lobby on their behalf.

Non-Governmental Organisation Actions

1. NGOs have several important roles. First, field-oriented NGOs have staff members that work closely with grassroots communities and groups, speak the local language(s) and understand the issues and perspectives. They have a vital role in promoting development that begins with local priorities. They can share these grassroots perspectives with governments, international organisations and donors.
2. NGOs can be a vital link in information flows and networking. Often a major problem for field-level natural resource activities, especially for women, is the lack of information -information about technical issues, about availability of government resources, policies and support, and information about what other groups are doing, what has been successful and what has not. Such information is also needed by NGOs, governments, international organizations and donors to plan more effectively their programmes and policies. NGOs should work more closely with the media.
3. NGOs can advocate policy changes, to facilitate local control of resources and women's participation in natural resource management. Such work may require publications, case studies, applied research, analysis of issues or sponsoring of seminars and workshops. NGOs can provide guidance to governments and donors or programme and funding priorities, and to researchers on local research needs.
4. Some NGOs should undertake research. In field-oriented programmes and projects, applied research is needed to identify local needs. Research-oriented NGOs, such as the Association of African Women for Research and Development (AAWORD), can focus

research attention on natural resource priorities of women, forge links between grassroots women and women researchers, and advise governments and United Nations organizations. They can also provide information to those who lobby for policy change.

5. Many NGOs need to develop their skills to work with local populations. For example, some NGOs may need training in, or development of, communication (animation) and extension skills, e.g., use of puppets or drama, picture (comic) books or role playing.
6. Many grassroots groups and NGOs also need training in management, accounting and fund-raising skills. NGOs need to define their objectives clearly, and to work in solidarity with one another. They should seek funding to support their activities, instead of just responding to donor initiatives.
7. Some NGOs working on environment and development issues are still not yet sensitive to gender issues, or the importance of working with women. Staff members of NGOs with experience in this area can help sensitise colleagues in other NGOs.
8. Women, Environment and Development Network (WEDNET) and other existing networks in Africa should ensure regular flow of information.

Government Agency Actions

1. To ensure that governments, in the implementation of economic development programmes do not 'dilute' laws resulting from UN resolutions. They are also urged to put pressure on governments so that their programmes on environment and development do not create gender bias or violate women's rights;
2. Government departments, especially those dealing with management of natural resources should review carefully their programmes and policies, to enhance women's participation in these activities. Where women are the principal actors in protection of the environment, policies must be changed to primarily address women. These policies must not only consider the specific needs of women, but also their family and social situation.
3. Research is needed to understand the socio-economic situation of project communities, and the social impacts of forestry activities. Cost-benefit analyses of forestry activities must consider gender impacts, and assess whether women will gain knowledge, skills, control of resources, income or other material gains.
4. Designing and implementing specific development projects must involve the full participation of local women and men. Local people should provide more than just labour to environmental projects. They should be full participants in all phases of such project, as active decision-makers, planners, implementors and evaluators of activities.
5. Women must be granted legal guarantees to benefits from the activities in which they participate. If women produce resources, they must be assured of rights to use and control those resources. Furthermore, women not only need long-term benefits, but also short-term gains from their activities in protecting the environment.

6. Policies in certain areas, such as land and tree tenure, need to be carefully reviewed and assessed. Traditional tenure systems may be adaptable to current circumstances, to provide equitable access to resources at the community level. Traditional systems need to be harmonised with other rights, such as ensuring women equitable access to resources, education and development.
7. Resources must be viewed in an integrated system. It is of no use to promote planting of trees that need watering, for example, if people lack access to water. Governments must work to limit factors that hinder women's mobilisation, such as the lack of water or distance to water points. Furthermore, broader integrated development projects and programmes, in which forestry and environmental issues are only a component, may be more beneficial to rural women than narrow sectoral projects.
8. Governments should introduce in schools, a curriculum that enables school children to become aware of the environment, development and human rights issues;
9. Education and training policies are key to greater involvement of women in development activities. Conventional literacy programmes often do not respond to women's basic needs. Extension programmes, such as in agriculture and forestry, often do not reach women. Policies and programmes must be redirected to make education and extension more useful and accessible to women.
10. Environmental education also must be promoted. Where possible, environmental projects should design extension materials, such as brochures, posters and booklets that can complement literacy and education programmes. Women need to understand the environmental implications of environmental activities. School children can learn about the importance of planting trees and other ways to manager natural resources.
11. Local authorities should make full use of their capacities to have women involved in the decision-making process on environmental and development projects;

Laws relating to the environment and development should be enacted bearing in mind women's rights and implemented in a democratic way, and that all laws relating to environment and development which are detrimental to women's rights be repealed.

Donors, Bilateral and Multilateral Organisation Actions

Donors, bilateral and multilateral organisations should modify their programmes, policies and funding to promote women's participation in natural resource and environmental management. More women professionals are needed to work in such organisations on these issues. Support to women can be provided in six areas.

1. Financial support is needed for training of women in natural resource management, from technical training of grassroots women to professional training.
2. Donors should fund environmental projects that empower women to manage resources,

beginning with women's own priorities.

3. These organizations should conduct research on women's activities, and require gender-disaggregated data in area studies and impact studies. They should do this in their own activities, and fund national governments and NGOs to undertake such studies.
4. Financing and support is needed for communicating, networking, and disseminating information from experiences and research, through audio-visual materials, publications, workshops, exchange visits, and technical cooperation between and among NGOs.
5. International organizations and donors must ensure that international policy issues, explicitly consider women's participation and the impact of programmes and projects on women.
6. International Organizations should take concrete steps to facilitate women's participation in international conferences and debates on development issues.
7. International organizations should ensure that none of its activities are undertaken without first implementing an Environmental and Social Impact Assessment.
8. International organizations should ensure that, when global issues such as bio-diversity, climate change, forests and intellectual property rights are debated at international fora, the resulting resolutions are not questioned by GATT or other mainstream institutions. the United Nations should also ensure that social and environmental clauses feature in international agreements such as GATT and, particularly in proposals such as the Dunkel Proposals, which might have adverse effects on women's rights and their livelihood;
9. They should ensure that international laws relating to women, environment and development are drawn up bearing in mind women's human rights and that they are implemented in a democratic way;
10. National and international level, development aid should not be linked to economic progress alone, but also to socio-economic indicators as expressed by the United Nations Development Programme (UNDP) and that these indicators be improved to reflect more effectively the situations of women;
11. International organizations should analyze problems arising from the relationship between population and the environment within the framework and boundaries set by ethics and human rights. The men and women of this Encounter insisted on the strengthening of women's power to control their own lives and condemn policies and programmes - whether undertaken by governments or international institutions or employers - that attempt to deprive women of their freedom to exercise their reproductive rights, including the right to interrupt unwanted pregnancies.

CONCLUSION

NGOs can promote women's involvement in natural resource management and development in

many ways since they work closely with rural populations. They can support development based on local priorities. NGOs can provide information and network among grassroots groups, other NGOs, governments, donors, and international organizations. Some NGOs can advocate policy changes to empower women and local communities in resource management. NGOs may suggest priorities for, or themselves conduct, applied and policy-oriented research. Some NGOs can provide technical support and training to other NGOs in technical forestry skills, managerial skills, and approaches to working with women or communities. NGOs themselves may need training, particularly in communications strategies, management and accounting. It is vital for African NGOs to define clearly their objectives and to work together.

Governments must re-examine whether their policies have different impacts on women and men. Women must have legal rights to the resources that they produce and manage. Forestry sector priorities and use of finances and personnel should be reviewed, to consider how forestry could better meet women's needs. Forestry training needs reorientation to stress participatory approaches to forest management and to improve the communication and extension skills of foresters. More women should be trained and employed in all areas and all levels of forestry. Research on socio-economic issues of forest management, and on tree species that women use, are urgently required. Forestry projects should focus more on socio-economic benefits, and should address environmental concerns. General policies for development, land-tenure rights, and education should be adapted to women's needs.

Bilateral and multilateral organisations and donors can support greater training and employment of women in forestry, natural resource, and environmental fields. These organizations themselves should employ more trained women. They should provide technical and financial support to projects and programmes that empower women and maximize their participation. They should not support activities that merely mobilize women as labour. These organizations should improve communication and research on participatory development and resource management. They must ensure that international policies,

Much valuable experience has already been gained concerning women and management of natural resources in Africa. The challenge, now, is to translate this knowledge into more effective action -- to change mainstream, natural resource, and environmental management and development projects, programmes and policies. Documenting and sharing of information is a necessary first step. But, for significant change to occur, this knowledge must be used to advocate reforms -- in land and tree tenure, education, training, extension, development, and environmental policies, other legal rights, and designing and funding of development projects and programmes.

Women in Africa are a key factor to solving the continent's natural resource and development problems. Women have already done much to rehabilitate and protect the African environment. More support for their efforts is needed.

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Conclusions and Recommendations

CONCLUSIONS AND RECOMMENDATIONS

The plight of Africa has been labelled drought, famine, natural and environmental disasters. Development means agricultural technology, industry, housing, production of all kinds that will supply jobs and amenities for growing numbers of people. Poorly executed development can also lead to over cropping of lands, over-dependence on cash crops, pollution of water and air, deforestation, desertification and the squandering of energy.

The burden of environmental degradation has always fallen and is still falling on women, especially in the developing countries. We should be looking for more sound alternative patterns of development, new patterns which use the natural resources of the earth (land, trees, soil, air, water) more rationally for the benefit of human kind.

One of the solutions at hand, should be restoring the balance between people and resources, between environment and development in order to adhere to sustainable development which is the new approach quoted by Agenda 21.

The achievement of sustainable development requires the formulation of clear governmental policies, strategies and guidelines including women in the decision making process to ensure their participation in the implementation of the national and regional plans of actions and in the management of the environment, particularly as it pertains to their access to resources, by facilitating better training.

At the regional level, as a matter of urgency, attention should be focused on creating women groups networks (regional institutions and non-governmental organizations) which will define a programme of action for sustainable development in accordance with country specific conditions.

The information dissemination system should include womens' specific concerns to enable them to exchange experiences and voice their needs through communication (inter-governmental, regional and international).

The establishment of regional mechanisms should be given attention with a view to enhancing capacity building for better implementation of sustainable development.

STRATEGIC AND KEY ISSUES

Popular participation, women involvement and the democratization of environmental action presupposes the situation wherein there is consultation and involvement of the people in all actions. This includes the identification of local or national environmental problems, the solutions for those problems, paving out the modalities for action and participating in the implementation of those modalities. It assures the involvement of the people in all development action.

Hence measures to improve the effectiveness of women, environment and development policies need to take into account factors such as the following:

- (a) active participation of all sections of society particularly women in various aspects of national environment and development programmes;
- (b) appropriateness of policy and policy instruments to support the implementation of programmes aimed at promoting popular participation and enhancement of the role of NGOs, women and youth in environmental management;
- (c) the effects of basic education and literacy campaigns on opening up avenue of productive employment for women and on changes on resource use practices;
- (d) the effects of more equitable land ownership, and direct measures to improve the access of disadvantaged groups such as women to essential services, on the conservation and productivity of natural resources, on improvement of environmental conditions and on population capabilities, distribution and growth;
- (e) the effects on natural resource use practices and the quality of life in rural and urban areas of government-sponsored incentives and disincentives relating to women family size, settlement and territorial development patterns, and migratory movements;
- (f) the effects on per capita incomes, efficiency in resource use (e.g. fuelwood), fertility rates and environmental conditions, including natural resource availability, of raising the status of women through increased opportunities for their paid employment, better education and legislative enactment of their rights;
- (g) the effects of labour productivity, incomes, infant mortality, life expectancy, family size and the quality of the environment of improved provision of drinking-water and sanitation facilities;
- (h) the effects of waste-land development and the relocation of settlements from densely populated fragile ecosystems to sparsely populated and underdeveloped areas on employment, incomes, levels of living and the spatial distribution of population densities.

SUGGESTED ACTIONS

(i) *Managing demographic pressures and changes*

A better understanding of population dynamics and their full integration into national planning, policy and decision-making is essential to the promotion of the active participation of women environment and development programmes. This calls for a holistic approach which addresses all facets of human development and public welfare, such as the protection and promotion of human health. In these areas focus should be on meeting primary health care needs, reducing health risks from environmental pollution and protection of groups such as youth and women.

(ii) *Drinking Water and Sanitation*

The global goals of universal access to water and sanitation by 2000 can be achieved if

programmes set the following priorities:

- . reaching the unserved in rural and peri-urban areas;
- . empowering communities, especially women;
- . using appropriate technologies;
- . greater equality for poor in charges and subsidies

In the light of the issues raised in this paper and other experience, the following points should be considered for improved participatory approaches in planning, implementation and sustainability for more active involvement of women.

Planning Stage

- a) When involving communities in the planning process, ensure women are involved from the beginning. This will increase a sense of responsibility and encourage ownership.
- b) Learning from past lessons. Review the history in a country of community participation and women's involvement and problems encountered prior to development of new programmes for provision of services.
- c) Undertake research to collect information on women's needs, ability to pay for services, present beliefs and attitudes to use in designing suitable projects.
- d) Motivate governments to see the advantages of increased community and women's participation. This lessens the burden on limited financial and manpower resources leading to improved delivery of services.
- e) Involve women from the onset in the development of programmes. They should be consulted in the design of service provided and where these will be located.
- f) Encourage a decentralised planning approach involving continuous information feedback to the community, sub national and national level.
- g) Develop monitoring systems that actively involve communities especially women. This will encourage increased responsibility and commitment to ensuring facilities are maintained.
- h) Maximise the financial contribution from the community. This encourages ownership of facilities whilst alleviating the burden on government. This is especially important for sanitation since facilities should be provided on a household basis for improved health benefits.
- i) Standardise technologies and procedures to encourage rapid development of services and development of a decentralised maintenance system. Ensure technologies are women friendly in ease of operation and maintenance.

Implementation Stage

- a) Train communities not only in effective use and maintenance of facilities, but also in financial and management aspects. This facilitates integrated development and empowers communities to resolve their own problems.
- b) Use existing village committees where possible to provide project training. This encourages integrated village development activities and avoids creating parallel village structures.
- c) Test different methods and approaches before taking these to scale. These can be closely monitored and the results used to influence national policy changes.
- d) Encourage active involvement of local NGOs and the private sector to assist governments especially in the software aspects.

Post-Project Stage

- a) Provide the necessary tools and equipment for communities to upkeep facilities.
- b) Use the momentum of water supply projects to generate interest in sanitation and improved hygiene behaviour. The communities are more likely to be interested if confidence has already been generated by providing what may be the most felt need at the community level. It also provides the necessary forum to listen to the views of women through the committee established who frequently are the ones who consider sanitation important for reasons of privacy and convenience.
- c) Perform rapid assessments surveys of projects undertaken for their effective functioning and utilisation through interviews and observation methods. Ensure women are involved in the collection of information. This will allow project managers to feed this back into the planning process for improved project design.
- d) Local entrepreneurs can be used to develop an effective delivery system for spare parts for water supply systems and for construction of household latrines since they will be financially motivated to respond promptly.
- e) Use water and sanitation projects as an entry point for the introduction of other development activities. This has been frequently quoted but insufficient programmes have successfully used this strategy since water supply is important in alleviating women's workload.

(iii) Land Tenure and Food Security

It is increasingly recognised that efforts to alleviate rural poverty and to improve food security through measures to enhance food production and employment opportunities cannot be successful without taking into account the issues relating to women as producers and providers of food in developing countries. the major issues which call for specific policy attention in order

to enhance the contribution of rural women to food security and ensure their full participation in development include:

- a) Improving women's access to land and agricultural services such as credit, agricultural inputs, training and extension, and marketing services. These services should be geared to the specific needs of women.
- b) Increasing wage income of rural women, notably to meet the needs of poor households, and of landless and near landless households which depend on wage income to ensure their food security. Improved food security can be achieved through encouraging the production of food crops and providing remunerative prices and economic initiatives such as improved inputs, transport and marketing services.
- c) The introduction of appropriate labour-saving technology in order to reduce the time and effort spent by women on remunerated and un-remunerated activities, such as wood, water for the household. Attention has also to be paid to ensure that new technologies are introduced in consultation with the targeted beneficiaries (men and women) to ensure that they do not have negative impacts on women through either resulting unequal division of labour within the household or through displacement from income-earning work.
- d) Initiatives to stem the growing migration of rural men to the cities or to other countries in search of income-earning opportunities since this leaves an increasing number of female headed households which are particularly prone to poverty and food insecurity.
- e) The collection and analysis of comprehensive gender sensitive data on the division of labour within households and the contribution of women to food and agricultural production and the consideration of the gender issues in the design and implementation of food and agricultural development policies and programmes.
- f) Improving the household status of women through poverty alleviation programmes, increased food production, and improved education and access to health and welfare services. These are all aspects which tend to be negatively affected by structural adjustment programmes and efforts are required to reorient government policies to ensure that the problems that constrain the role of women in food security (access resources, services, institutions and employment opportunities) are fully addressed.
- g) The promotion of women's participation in development activities to promote food security and alleviate poverty through promoting women's organizations such as producer, marketing and service cooperatives and through increasing women in business or management skills in order that they hold managerial positions in such organizations.

(iv) *Women in Human Settlements Development*

Women are disadvantaged with regard to access to goods, secure housing as well as safe

and clean neighbourhoods. At the same time, they bear an inordinately heavy burden in providing their families with food, personal care and clean homes. They are also active in organizations that are engaged in improving communities and neighbourhoods. This often means hard work for women for almost no tangible rewards.

It is important to emphasize the quality and the strength of women in the human settlements process. Enabling shelter strategies, sustainable human settlements development, institution building, urban management, community participation, and settlements operation requires the following main lines of action:

- (a) **Training** in gender awareness and community-oriented approaches to human settlements development (directed specifically towards senior officials in government, and non-governmental and community-based organizations, both men and women);
- (b) **Capacity-building** for women already involved in the sector, through workshops that provide special training in managerial and strategic planning skills;
- (c) **Improvement** of the access of women to land tenure and housing finance, by changing existing requirements and laws or by enacting new ones on the basis of positive experiences;
- (f) **Supporting** the forging of links amongst grassroots women from community-based organizations and non-government organizations, which are part of the movement for housing the poor.

(v) *Women and Disaster Management*

In the efforts at addressing disasters and their management in Africa, there is an imperative need to integrate women into the development process at all levels. Considering the severe socio-economic impact of disaster on national development efforts, the problem of disaster should be an integrated part of the entire national economic planning process.

- (a) It should be emphasized that it is of fundamental importance that a framework for African Women's Disaster Management plan be developed deriving from all the stages in disaster management, namely, preparedness, prevention, mitigation and response. In this connection, the starting point in this exercise should be a statement of the desired objectives of disaster management in Africa. This should entail all conceivable actions at local/community, national and regional levels. Such a strategy should address issues at both the internal/endogenous and external/foreign levels.
- (b) Additionally, there exists the need for strong networking among the various women's organizations at local/community, national and regional levels, all intended to inform, harness existing resources, avoid duplication and exchange available expertise at all levels for a meaningful and realistic disaster management and thereby enhance the socio-economic development process in the continent.

(vi) Energy and Forestry

In many developing countries environmental degradation and natural disasters have pushed great numbers of families into marginal environments. As a result of the growing recognition of the crucial links between the environment and rural women in their role in ensuring household food security, there is an increasing trend for policy measures, especially in the area of forestry and energy supply to enhance participation of women. One major policy approach that aims to promote participation of women is "agro-forestry" which integrates the husbandry of trees with that of crops and livestock, especially in fragile situations such as upland watersheds where shifting cultivation is destroying forest cover and arid areas in danger of desertification. Another policy approach is "social or community forestry". These policy approaches fully take into account gender issues as important for their success.

- (a) In order to ease the burden for both the women and the environment it is of great importance to involve the women in both project design and implementation to secure the women's needs, knowledge and suggestions are being incorporated in project proposals - along with other involved/affected parties (men and children) and the extension of workers experience in the field;
- (b) to generate and implement an integrated low energy national plan and policies which are grounded firmly in energy efficiency, conservation and an aggressive new and renewable energy programme;
- (c) involving local people in conservation activities;
- (d) encourage plantation of woodlots by local people;
- (e) appropriate land-use regulations and economic incentives should be encouraged;
- (f) involvement of women not only in the labour for forestry activities but also in decision-making in the control of the natural resources;
- (g) training of women in technics in afforestation and agro-forestry in order to conserve and to renew the natural resources;
- (h) designing and implementing demonstration projects and improvement of methods for the management of natural resources based on prevailing ecological systems.

