

# **Women and Information for Participation and Decision Making in Sustainable Development in Developing Countries**

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## Introduction<sup>1</sup>

Women in the developing world come into the global debate on sustainable development from a broad range of entry points. Their contributions may take the form of collecting garbage for recycling like women from the city of Porto Alegre in Brazil, planting trees such as in the Green Belt Movement initiated by Wangari Maathai of Kenya to combat desertification and generate income for poor women, or even to save local forests on which their livelihoods depend by hugging trees, as the rural workers from the Chipko movement in India.

About half the world's food is grown by women. In Africa they produce most of the food their families consume, while in Asia and Latin America women carry out key stages of producing and processing crops and are the main producers of vegetables, poultry and livestock for the household. Women's knowledge of local soil conditions and growing cycles make them central in conservation. This perspective, born of everyday experience, differs from priorities laid out by environmental groups.

The reality is that women often bear the worst consequences of industrial logging, commercial fishing, intensive use of pesticides in agriculture, toxic dumping, nuclear testing and other activities that ignore the principle of sustainability. If the water is contaminated or large tracts of forests destroyed or huge dams built, or technology displaces man power, it is women who have to cope with the increased difficulties of day to day survival for their families.

This recognition was critical in giving women the power to mobilize during the process of UNCED (The United National Conference for Environment and Development). Two events addressing the linkages between the global ecological and social crisis were critical in providing information about a gender perspective.

Sponsored by the UN Environment Program and organized by the WorldWIDE network, the Global Assembly of Women and the Environment in November 1991 brought together in Miami, Florida more than 200 women who represented environmental "success stories", grassroots initiatives that demonstrated that women were effective environmental leaders in solving a variety of problems in every region of the world. Their stories were considered visible, sustainable, affordable and replicable.

Immediately following the Assembly, the Women's Environment & Development Organization (WEDO) held the first World Women's Congress for a Healthy Planet, which featured dozens of workshops and a tribunal of five women judges taking testimony from 15 women experts who presented documented analyses of how the environment/development crisis affected and involved women. Attended by 1500 women from 83 countries, the Congress aimed to bring women's perspectives into the discussions and drafting of UNCED's Agenda 21 and other official documents. Congress participants formulated and unanimously adopted their own agenda.

The Women's Action Agenda made recommendations on practical steps that could be taken by the UN, Governments, industry and NGOs on a host of linked issues such as democratic rights, land rights and credit for women, foreign debt and trade, poverty, women's health and reproductive rights, biodiversity and biotechnology, nuclear and alternative energy, environment ethics and use of women's consumer power to protect the environment.

The outcome of this mobilization resulted in the inclusion of 120 recommendations and the whole chapter 24 in the final text of Agenda 21.<sup>2</sup> Women's Action Agenda 21 was also the basis of the advocacy work that women pursued through the global UN conferences that followed UNCED. Governments, NGOs, and development agencies now better understand the complex links between the need to achieve equity and women's participation in social, economic and political life and sustainable development.

While much remains to be done, there are signs that some developing countries are taking important steps not only to increase the availability and dissemination of gender sensitive information on sustainable development, but also to integrate these strategies with policy making designed to meet the

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<sup>1</sup> The research for this paper had the collaboration of WEDO's team, particularly Reena Geevarghese and Rachel Kalman. The authors thank June Zeitlin and Irene Dankelman for their comments.

<sup>2</sup> Chapter 24 is included in the section on Major Groups: "Global Action for Women Towards Sustainable and Equitable Development".

broader needs of women. This paper will examine both current barriers and recent progress in integrating a gender approach to information collection and dissemination in various developing countries, and demonstrate the challenges that still need to be overcome.

## **Challenges to Women's Participation and Use of Information**

Women's increased participation in sustainable development, particularly in developing countries, requires a better understanding on the part of both governmental and non-governmental spheres of the development community of their present status and respective barriers. This varies a lot from country to country, yet, women continue to make up 65% of those worldwide without basic reading skills. High rates of illiteracy clearly affects a women's economic stability and civic engagement, diminishing their ability to understand and transmit important sanitary, environment and health information to the family and community. In most parts of the world, illiteracy among women has been declining, but the rates are still reported to be high in Africa, Asia and the Pacific. In some parts of the world such as South Asia, illiteracy is reported to still be increasing among women<sup>3</sup>.

In both developed and developing countries women often lack basic understanding of governmental processes. Sometimes women lack proper transport to facilitate participation in meetings and trainings. In some cases, family members can also be a barrier, with husbands not allowing wives to participate, and lack of childcare or other care-taking demands making participation difficult. The continued feminization of poverty is another fundamental barrier as it provokes apathy and skepticism about government and a lack of belief that people can change things. For poor women, the urgency of meeting basic needs is paramount, and many mobilizing and training mechanisms have failed because they lack a direct relation with the immediate reality in which people live.

## **Policies for Participation and Access to Information**

Effective gender analysis does more than assure women's participation in sustainable development. It reflects the correct information on how resources are allocated between men and women, highlights constraints imposed by women's socially-constructed and confined roles, and proposes women-empowering policies.

Important efforts have been made to allow women to utilize the UN Commission on Sustainable Development (CSD) as a mechanism for women's communication to government policy makers. These efforts include the organization of dialogue sessions with government delegates around gender concerns and the publication of alternative reports organized by NGOs.

NGOs have been producing information as a way of keeping the governments accountable and challenging their positions. Governments and international agencies are described as slow, bureaucratic, and often ineffective in coping with such community concerns for sustainability. They tend, according to the women's groups reporting, to have a more conservative approach, acting without an appropriate level of consultation with the affected communities. For the purpose of this paper and the analysis of what has been happening in developing countries, we have selected three case studies that express progress made by governments in including gender perspectives for Sustainable Development. They were selected from NGO shadow reports from Beijing +5 and NGO case studies from the Philippines, Ethiopia and Brazil.

### **● The Philippines**

In the Philippines, along with adoption of the Plan for Sustainable Development in 1989, the Department of Environment and Natural Resources created the Technical Working Committee on Women in the central office as well as in six staff bureaus and four regions with the mandate to ensure that agencies policies and programs respond to the needs of women. In 1992 the Committee was strengthened through several gender sensitivity and gender responsive planning and training activities

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<sup>3</sup> Progress Achieved and Persistent Gaps in Female Education and Training in Gender, Education and Development, Expert Meeting on Gender, Education and Training, Turin, Italy 10-14 October, 1994, International Training Center of the ILO.

attended by focal point members. In 1994, a mechanism for further institutionalizing gender concerns included formation of different committees and subcommittees at the central and regional offices and staff bureaus that address a) policy and planning b) information, education and communication c) research and database d) training e) support systems. In 1993 women experts from NGO's and governments were formed into a "Women and Ecology Group", created by the National Commission on the Role of Filipino Women. This group was asked to address issues of women and the environment through concrete policy recommendations and programs that can be institutionalized within a government agency. For example, in response to concerns raised by women, the environment agency set up a day care center at the central office. A similar facility has been established at one of the field bureaus and plans for institutionalization of this service on a national scale are underway.

These institutional changes have had significant impacts. A series of training and trainer's training sessions on gender sensitivity and gender responsive planning among key staff (e.g. decision makers, planners, program/project managers/implementers, trainers, statisticians and WID Focal Point members) of the Department of Natural Resources central office as well as its bureaus and some regional offices have been held. In depth studies by the Women and Ecology Group have resulted in policy recommendations on the integration of gender consciousness into environmental concerns, review and modification of laws and regulations for gender responsiveness, establishment of mechanisms to ensure proportionate representation of women in natural resources management governing bodies, and ensuring compliance with directives for gender responsiveness.

Appropriate recommendations on enhancing women's participation in environment and natural resource management have also resulted, as reflected in a case study on freshwater lake ecosystem in a gender framework for conservation and resource management, and a guidebook for the planning/review/evaluation of ENR programs and projects. A number of projects within the environment agency have built in research components related to gender. In addition, the agency has held several special celebrations/activities to gather women and men for gender awareness raising and to serve as a means to achieve tighter bonding between Department of Environment and Natural Resource women employees and male advocates of gender equality. The agency has also held an agency wide activity called "Araw ng Kababaihan" in December which included free health services for women, environment seminars etc. and regular Friday Women's Forums that tackle a range of issues from health, sexuality and livelihood projects to ecofeminism.

NGO's comment that the Gender and Development Focal Point system in the Division of Environment and Natural Resources is "well established" and that gender sensitivity training has been implemented in a majority of the regions. They point out however, that the effects of such mainstreaming are only slowly being seen, have not yet filtered down to communities and may be in danger of being reversed by the current administration.<sup>4</sup>

- **Ethiopia**

In Ethiopia, The Gender Mainstreaming Strategy for the Conservation Strategy of Ethiopia, begun in 1999, includes a detailed framework for monitoring and evaluation. It identified six critical areas of interventions, each with indicators, means of verification, detailed roles and responsibilities and a time frame for completion. The new approach on gender and environment calls for a) training of key staff in gender sensitivity, b) developing participatory Rural Appraisal Techniques c) promoting the development of procedures and guidelines for program and project planning and d) organizing regular consultations with women and promoting the formation of women's groups and networks to provide avenues for consultation on the issues of conservation, environment and women.

The formulation of the Gender Mainstreaming strategy in 1999 involved extensive outreach by the gender focal point of the environmental agency working with outside consultants. Two five day workshops were organized, which involved experts from the Land Ministry, Women's Affairs Bureau heads and twelve NGO's on the issues of Women and the Environment. A second follow-up workshop was organized in June 1999. In addition, Women and Environment Awareness Raising Workshops workshops were organized in nine out of the eleven regional states. Overall, over 1,800 people partici-

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<sup>4</sup> K. Tanada Philippine Post Beijing Score Board: Women and the Environment.

pated. As a result, eight regional states have formulated their Regional Conservation Strategies and integrated mainstreaming of gender in the process.

Study tours were also organized to Kenya and Tanzania (in 1997), Zimbabwe (in 1997) and again to Kenya (in 1999) to gather information about other regional gender/environment strategies and extend networking. Participants of the study tour were men and women experts from the regional and federal bureaus of women, agriculture, planning, water resources and staff of the environmental and conservation bodies. As part of the Gender Mainstreaming strategy on Conservation, the government has produced promotional materials such as brochures, newsletters, calendars, posters and calico bags with messages on the need for involving women in natural resources and environmental management and protection.

NGO's comment that while the Gender Conservation Strategy in Ethiopia represents an ambitious and well thought out plan for moving forward, critical to the success of the strategy will be overcoming fundamental challenges of implementation over time. These include maintaining the political will to carry out the programs outlined and the extent to which funding is allocated for strategies which have been developed.<sup>5</sup>

- **Brazil**

As an outcome of the Platform of Action of the UN Fourth World Conference on Women, the Brazilian National Council for the Rights of Women organized a series of regional and local consultations that resulted in a National Plan containing a series of recommendations aimed at mainstreaming gender policies in the government as a whole. Several specific programs resulted from that effort. At the Ministry of Education, gender issues were integrated into the curriculum of basic education; at the Ministry of Health, a major campaign to prevent cervical and breast cancer was launched; at the Ministry of Justice, a specific program that provided financial resources to construct shelters for battered women was created; and at the Ministry of Labor, the action was more at the level of policy with an attempt to integrate gender guidelines into loan programs to combat poverty.

In spite of the fact that those have been considered important initiatives, in terms of a sound integration of gender policies, the most important step was implemented in partnership with the State Department in its attempts to implement the mandate of UNCED, Agenda 21. After the inception of the Brazilian National Council on Sustainable Development Policies and Agenda 21, in January 1997, a supra ministerial body with the participation of representatives of NGOs and the private sector was formed. The five non-governmental representatives were appointed based on representation of national sectoral constituencies, such as for example the Forum of NGOs for Sustainable Development and the National Business Forum for Sustainable Development, two academic institutions and one non governmental entity that works with local governments.

The first step was to design the process for development of the National Plan for Sustainable Development or National Agenda 21. Six major topic areas were addressed: 1) Reduction of Social Inequalities 2) Sustainable Cities 3) Science and Technology 4) Infra-structure for Sustainable Development 5) Land Resources and Agriculture and 6) Natural Resources Management. Specific gender recommendations are present in the final document that resulted from consultations with experts and specialized organizations in each one of the topics, having as a basis the National Beijing Platform of Action in which women's groups were fully involved.

## **Engendering Local Participation for Sustainable Development**

WEDO and the International Council for Local Environmental Initiatives (ICLEI) have worked to understand the specific role that women are playing in Local Agenda 21 processes worldwide. Local Agenda 21 programming at the municipal level represents a special opportunity to increase women's participation in sustainable development, however few localities have made efforts in this area. To a large extent to date, there has not been an explicit approach to gender in most countries as part of LA

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<sup>5</sup> H. Giorgis, Ethiopia Center for Human Environment "Environmental Decision Making: Are Ethiopian Women Ready to Take the Challenges" Case Study for WEDO, 1999.

21 however, surveys conducted both WEDO and ICLEI showed there is ample room for development of such an approach.

Ongoing efforts are being made by ICLEI and WEDO to work with Local Agenda 21 communities to implement enhanced gender sensitive approaches. In a 1996 survey of Local Agenda 21 projects in 2,500 municipalities, 53% reported that they include women in their processes and important models exist of cities that have proactive approaches to incorporating gender concerns in these strategies.

A WEDO workshop held in July 2000 brought together women from various parts of the world to understand unique approaches to gender in Local Agenda 21 planning processes worldwide. The workshop identified barriers to increased gender sensitivity in LA 21 communities including a general lack of awareness by both women and men about the information that makes the connections between environment and women's roles, lack of interest and political will among local authorities and a lack of desire to change the balance in current power relations.

NGO's have also been active in strengthening women's participation in local governments. For example, the Trinidad and Tobago Network of NGO's has developed a new project entitled "Engendering Local Government". A pilot training workshop was held in 1997 for activists and elected women discussing gender balance in political structures. Since then, the project has targeted local government and has held numerous workshops training more than 300 women in political skills, with sessions on laws, the history and function of local government and strategies to introduce a gender perspective, for example through gender analysis of budget allocations. In addition, the project has also held training sessions for local government representatives and administrators on gender analysis and planning skills. Some of these activities have addressed environmental planning issues and concerns.

The concept of "engendering local governments" was also applied in Brazil under the mechanism of Local Agenda 21. REDEH (Network for Human Development), which works at the national level, in cooperation with women's local groups has developed a strategy for enhancing women's leadership in local participatory processes. The methodology covers several issues required for the full political participation of women, combining content as well as skills capacity building such as understanding planning, budgets and the use of indicators. After eight years of hard work many local governments have started integrating the concept and women are considered important players in the design of local policies.

## **Capacity Building and the Dissemination of Information**

It is important to recognize that women have to be considered producers as well as users of information. As information users, the full engagement of women in the design of appropriate tools that will generate the information that meets their needs is fundamental. *Women Transform the Mainstream*, for example, was an alternative WEDO report published in cooperation with the CSD. Eleven studies provided a sampling of cases demonstrating threats to local communities water sources and women's actions to cope with the situation. This report was distributed to women's groups all over the world as a source of inspiration for other groups stimulating them to take similar action.

Gender sensitive mass communication strategies have been found to be an important tool in reaching out and building the capacity of poor and often illiterate women. In Brazil, women's NGO's have effectively used radio for disseminating gender sensitive information and increasing women's participation. Women have been found to be great radio listeners and radio makes participation easy for women since they can listen to it while carrying on domestic tasks and they can easily participate in the programs.

Ten years ago, CEMINA (Communication, Education and Information on Gender), an NGO based in the city of Rio de Janeiro, started a local radio program that enabled the group of women that initiated the project to build a methodology that soon became very popular among women's groups and radio communicators all over the country. Over the years CEMINA expanded the radio project by helping other women's groups to start similar projects. Today this network is very active and includes around three hundred participants. Broadcasting is carried for one hour daily in the state of Rio de Janeiro, reaching an audience of approximately one million listeners. Another program is broadcast on short waves, daily, to the Amazon Region, reaching an audience of five million listeners. It is important to

note that for some of the people living in the rainforest, radio is the only means of communication; therefore its educational impact is critical. The network of women's radio communicators is considered one of the most effective initiatives.

Another great example of providing grassroots women tools to better understand and disseminate information about their situation is provided by the "Community Report Card" reporting process stimulated by WEDO involved women's groups worldwide in self-assessment of community environmental, health and political conditions. In many countries of the world and particularly in Latin America, the Women's Action Agenda 21 and the Community Report Cards were distributed as a kit. Participatory process of working with women NGO network partners worldwide on enhanced monitoring of government commitments to UN Conferences represent important examples of women's empowerment through information exchange. At the UN Fourth World Conference on women itself, women's NGO's created a WEDO initiated concept of a "scorecard" to track and display government commitments, which were also posted electronically on the worldwide web. The Equipo Media Committee organized a group of volunteers who prepared and distributed a summary of government commitments made during the conference.

The concept of involving women in community reporting has effectively been used by NGO's in specific sectoral areas at the local level as well. FUNDAECO (Foundation for Eco-development and Conservation) in Guatemala developed a strategy of forest conservation based on a series of activities designed to solicit greater input from women. The Allies in Conservation: Environmental Education with Gender Perspective in the Tropical Rain Forest project started with four communities, involving women in drawing up "Community Resource Maps" to give their unique perceptions of the community's environment. As the community became more comfortable with the process, more formal tools were used including "Community Evaluation Cards" to identify the most critical areas of concern to women about the environment. Project staff were also involved participating directly with women, helping them with their tasks and understanding the specific issues related to their use of time.<sup>6</sup>

In the Philippines, the Center for Legislative Development which has worked both nationally and locally, has held workshops on legislative agenda setting, which starts by teaching elected women about gender as an organizing principle of society, and how all public policies from social welfare to foreign trade have gender implications. A wide range of popular education techniques including theatre, arts, community singing, role playing and games, are used to identify women's issues, examine why there is a need to address them, and consider why women legislators must take the initiative.<sup>7</sup> Training on legislative proposals teaches skills related to policy analysis, policy research and legislative drafting.

Governments have also been active in information dissemination to women on sustainable development issues in a wide range of countries including Mexico, Iran, Bahrain, Ethiopia, Nigeria, China, Costa Rica, Liberia, Philippines, Zambia, Gambia to name only a few. In many cases these efforts are in response to critical problems in natural resource management. In Bahrain, for example, government authorities have organized educational field campaigns to train women on how to properly dispose of domestic waste and have organized continuous courses to inform women about the decline in the quantity and quality of water. These courses give women practical steps that can be applied at home for reducing water consumption. Desertification is the main environmental problem in a country like Eritrea, where emphasis is being placed on mobilization of women to plant trees, integration of desertification issues in skills training programs and awareness campaigns on environmental protection.

Policy makers need to employ strategies that allow grassroots women to give more direct feedback to government about programs and policies and the impact on their lives. The "Listening to Women" campaign in the UK, involving postcard feedback and national meetings on government policy and the community Right-to-Know strategies which help empower community based leadership represents a concept that could be replicated in all parts of the world. While the final outcomes of this process have been questioned by NGO's, the strategy is an interesting model. There is a need for further analysis to examine the effectiveness of initiatives of this type which invite public input, to examine the best

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<sup>6</sup> M. Rodriguez "Women as Conservation Allies: A Guatemalan Case Study" in Gender and Sustainable Development A. Brasileiro Ed. UNIFEM

methods of ensuring long term impact on policy, decision-making and attitudes of women. While there is a need for transparent mechanisms, with the full involvement of stakeholders, unless these processes have clearly demonstrated results they may increase public disengagement with government as mere “public relations gimmicks”.

## **Information and Communication about Risks and Hazards**

Communication about risks and health hazards has been found to be one of the most critical and controversial areas of public communication. There are complex issues of gathering enough information to ensure that risks are understood, and disseminating information in an accurate, objective and timely way, without causing undue alarm in cases where this is inappropriate. There are critical gender issues in terms of susceptibility to risks from toxic substances and in women as active players in understanding and communicating environmental health concerns. Women increasingly want to be actively involved in identifying, characterizing and solving problems impacting their lives. While gender differences in susceptibility to the risks of various types of toxic substances are still poorly understood, there is a growing understanding that health risk communication involves a range of skills to be effective.<sup>8</sup>

Collection and dissemination of information on environmental health hazards for women can be an important part of self-empowerment. WEDO's public hearings for the Action for Cancer Prevention Campaign were one methodology which actively involved women not only in publicly “telling their stories” about environmental health hazards in their communities, but also in laying out concrete proposals for desired public policy changes to affect community response to rising rates of cancer.

As women are mobilized to articulate the health risks they are experiencing as individuals, it can become a powerful tool for helping them make the connection to environmental hazards impacting their lives. This methodology has been expanded through projects such as the “Putting Breast Cancer on the Map” Project of the Women's Environmental Network in the United Kingdom, which involves in women mapping potential environmental health risks in their community. Women's NGO's were also active partners in collecting and disseminating information on environmental health risks for women in 50 countries as part of the information compiled by WEDO in *Risks, Rights and Reforms* published in 1999. While women identified and prioritized environmental risks, it was clear through this process that there is limited institutional capacity of NGO's for sustained monitoring and a lack of transparency by many governments.

Other important examples of women's empowerment through collection of data about environmental health risks exist from a range of developing countries. In Argentina for example, the Biological Conservation Regional Economy Pilot Project involved the participation and input of local women in data collection related to pesticide use in tobacco production, and related birth defects and cancers. A major goal of this project is to become part of a national database on agrochemical use and its effects on both sexes. Organizations such as the Farm worker Women's Leadership Network-Lideres Capesinas and Pesticide Action Network in Malaysia have compiled information and personal stories to document pesticide related health problems faced by women workers in 1998.

In spite of these efforts, research and information dissemination on environmental health risks for women is still inadequate. In Latin America for example, researchers are highlighting the fact that the majority of women work in unregulated, unorganized “informal” and nontraditional industries and services lacking occupational and environmental regulations. Nonetheless, there remains a marked lack of gender focused health studies examining possible hazardous exposures.

One researcher writes that “the paucity of published epidemiological studies warrant deep concern” calling for urgent, multidisciplinary research into the health effects of the combined, multiple assaults of hazardous industrial waste, inadequate water and sewage treatment, and occupational exposures which needs to be conducted within a social-etiologic framework of gender analysis.<sup>9</sup> This is also a

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<sup>7</sup> Reyes, Socorro WEDO Primer on Political Participation 2000

<sup>8</sup> WHO Third European Ministerial Conference on Environment and Health, London, June 1999.

<sup>9</sup> Wasserman, E “ Environment, health, and gender in Latin America: trends and research issues.” Environmental Research, 1999, April 80(3), 253-73.

critical problem for women in many other developing countries, where women play an increasingly important role in the labor force in industrial areas.

Since they were developed over twenty years ago, environmental impact assessment tools are being increasingly used by governments, industry and development assistance organizations. As part of risk analysis governments and multilateral lending institutions are increasing mandatory requirements for preparing these assessments. The importance of ensuring that additional steps are taken to integrate gender considerations in these instruments has been stated in a wide variety of forums in various developing countries. Speaking at a Commonwealth Environmental Journalists Association and Asia-Pacific Forum of Environmental Journalists Congress, the Director of Women from Fiji Alafina Vuki, pointed to the importance of utilizing this tool when she commented that, "Women can be positive agents of change in both development and environmental causes, but are too often excluded from decision-making processes in environmental impact assessments for development projects, the added gender analysis is an essential ingredient of any formula." <sup>10</sup>

The importance of this issue has also been highlighted by NGO's in Pakistan and in the Environment workshop of the Beijing +5 regional meeting for Africa. It should be also noted that in 1992 the OECD Development Assistance Committee produced guidelines for *Good Practices for Environmental Impact Assessment of Developing Projects*. This document stresses the importance of including equal input from both men and women as part of preparation of environmental assessments and that analysis of the impact of projects on the local population should give special attention to gender.

## **Indicators for Women, Environment and Sustainable Development**

Indicators can serve as important tools of evaluation on the role of women in sustainable development. Most indicators of women's status are based simply on census statistics which measure overall socioeconomic development of the economy. For indicators of sustainability to be truly effective, they must examine a range of measures relating to overall quality of life in a community including the economic, social and environmental factors that make a community liveable. The term indicator traces back to the Latin roots of the word meaning to "disclose or point out". Efforts have been made to define an "effective" indicator, with studies showing that they must be relevant; easy to understand, even by people who are not experts, reliable, and based on accessible data; and information should be available or be gathered while there is still time to act. <sup>11</sup>

Some innovative strategies for development of indicators of sustainability, shows that the most effective process for formulation of truly relevant indicators, should involve a participatory, dynamic, interactive process, involving full participation of community members. The Crossroads Resource Center in the U.S, for example, has developed an approach using lay people to develop indicators instead of relying on researchers or evaluators. This process emphasizes the need to involve stakeholders in thinking about indicators for a specific community in terms of sustainable development. Public roundtables are held to bring together people with a wide range of skills and viewpoints, with individuals encouraged to put aside their individual narrow perspectives and give thought to what types of measures would be needed to determine how sustainable their community will be in the long term, e.g. 50 years. Committees are also formed and trained to see the linkages across issue areas, for example, linking housing to economics. <sup>12</sup>

The CSD Indicators of Sustainable Development include only one indicator (ratio of female wage to male wage) specifically relating to gender. The working group preparing this list, shortened the list of indicators from 134 to 58. While a series of the social indicators in the final list mention disaggregating statistics by gender (See Appendix A), out of an original working list at least seven useful indicators related to gender were cut. An analysis of the relationship of gender to various composite indicators that have been developed is also included as an appendix. Table 1 has been developed to show

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<sup>10</sup> Hear What Women Have To Say, Fiji Islands Environmental Journalism Conference Hears Pacific Islands Report. Pacific Islands Development Program/East-West Center. Center For Pacific Islands Studies/University Of Hawaii At Manoa, <http://pidp.ewc.hawaii.edu/PIReport/2000/July/07-26-11.htm>

<sup>11</sup> Sustainable Measures, M. Hart, <http://www.sustainablemeasures.com/>

<sup>12</sup> WEDO Report on Engendering Local Agenda 21 Workshop, May 2000, Dessau, Germany.

many of the themes in sustainable development and suggested indicators that have been proposed as a guide to future work in this area.

**Participation in Environmental Decision Making:** Indicators of participation in environmental decision making relate both to issues of women in management of environmental agencies, including NGO's and government, but also attempted measurements of the extent of community involvement through mechanisms such as outreach, training and use of participatory tools. The extent and use of gender analysis studies was also added to this category, although this measure could be included in any of the sections here.

**Water:** Indicators related to gender and water include a series of measures related to women's both access and ease of access (e.g. time spent collecting) to water. Most of the other indicators are efforts to identify the extent of women's involvement in planning and management of water projects, both within agencies and at the community level.

**Energy:** The comprehensive list of indicators on energy includes those that have been suggested by various groups. These include three categories of indicators including 1) many non "gender specific" basic measures of energy sources such as "quantity/use of gas stoves" and "% of population using traditional fuel's" etc. 2) women's access to alternative or improved energy sources and 3) women's involvement in energy planning and implementation.

**Forests:** This category shows indicators of women and women NGO's involvement in forestry activities, and gender related activities in forestry agencies.

**Human Settlements/Environmental Health/Urban Environment:** A variety of types of indicators are grouped together here, in the interest of this paper's brevity, although each warrants separate development. In terms of settlement programs, equity of access is the principle measure while a variety of indicators relate to environmental health including a series of indicators attempting to measure gender sensitivity through EIS processes and environmental health training.

**Land and Credit:** Women's access to land is a critical issue in many developing (and developed) countries and a series of measures are proposed attempting to analyze equity of access. In terms of credit, in many developing countries women do not have adequate access to credit through formal institutions, which needs to be identified through systemic measurements that identify the "gender gap".

## Conclusions and Recommendations

Overcoming barriers to women's access to information and participation in sustainable development encompasses a rigorous analysis of women's needs at the different levels in each country. The creation of gender disaggregated data systems is a critical tool to start crafting the adequate policies that will meet the minimum requirements for women to be integrated as full citizens. Currently, very few developing countries have developed those tools in their national data systems. Progress can be recognized in the areas of health, education and political participation but gender disaggregated information continues to be rare in areas related to environment and sustainable development.

Illiteracy and extreme economic poverty are fundamental problems that prevent women's full engagement in civic participation, but sensitivity to childcare needs, meeting hours and appropriate transportation also plays an important role in encouraging women's participation, even in developed countries.

Overcoming women's apathy and lack of understanding of government processes means that special types of outreach must creatively involve women in all phases of program development and design.

These programs must be carried by governments as well as NGOs. From each of the topics and examples in this paper a variety of lessons can be learned. We highlight some of them as recommendations for future action:

1. Implementation of communication strategies needs increased funding for women's NGO's and for government policymakers to continue these efforts. New information and communication technologies should be supported, with increased funding and strategies for access.
2. Formal and informal education needs to make increased efforts to assess progress in integration of gender strategies in environmental educational curriculums. Strategies also need to increasingly reach out to young women to guide them towards careers that will increase their chances of moving into important roles as decision makers in environment and sustainable development.
3. Local Agenda 21 planning processes represent another important structure through which gender sensitive strategies can be implemented. The municipal level offers the opportunity for building stronger alliances among stakeholders and giving better visibility to the needs of women in terms of information for participation in Sustainable Development.
4. Greater efforts also must be made to facilitate transfer of "best practice" between governments and NGO's on effective gender sensitive strategies for information and participation by women.
5. Clear strategies need to be developed to identify environmental risks, building environmental educational programs that equip women with the information and the necessary tools to cope with potential problems. Creative means of regularly engaging community members in identifying real and perceived risks are essential.
6. An interactive approach in developing indicators should be used, and women should be involved in developing indicators for a specific community in terms of sustainable development. Public roundtables may bring together people with a wide range of skills and viewpoints, with individuals encouraged to put aside their individual narrow perspectives and give thought to what types of measures would be needed to determine how sustainable their community will be in the long term, e.g. 50 years.

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## APPENDIX A: Current Indicators on Sustainable Development

The current CSD Indicators of Sustainable Development<sup>13</sup> working list shortened the group of indicators from 134 indicators to 58. The decision to shorten the list was borne out of the numerous expert consultative meetings and regional and national workshops done over the course of the indicator program as well as feedback from the testing process undertaken on these indicators<sup>14</sup>. Only one indicator relates specifically to gender, which is in the Social Area (out of Social, Economic, Environmental and Institutional Indicators) the Theme: Equity; Sub theme: Gender Equity; with the indicator being the "Ratio of Female Wage to Male Wage".

Other Social Indicators mention disaggregating statistics by gender:

- Unemployment rate
- % Population living below poverty line
- % pop. With access to health care
- Immunization against childhood diseases
- Contraceptive prevalence rate
- Adult literacy rate
- Secondary or primary school completion ratio<sup>15</sup>

Out of original working list, several useful indicators relating to gender were cut:

- Representation of major groups in national councils \*
- contribution of NGO's to sustainable development (disaggregated) \*
- maternal mortality
- poverty gap index (disaggregated)
- male/female school enrollment ratios
- net migration rate (disaggregated)
- women per 100 men in the labor force

Other relevant sources of indicators include the OECD Development Assistance Committee List of 24 Core Indicators<sup>16</sup> there are 40 indicators in all, most of which have a commitment to be disaggregated by sex. However, only two indicators relate to gender equity specifically, which are the a) ratio of girls to boys in primary and secondary education and b) ratio of literate females to males (Ages 15-24).

The UN Common Country Assessment Indicators<sup>17</sup> include only three relevant to gender including, a) ratio of girls to boys in secondary school enrolment<sup>18</sup>, b) female share of employment in non-agricultural activities<sup>19</sup> and c) % of seats held by women in national parliament<sup>20</sup>

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<sup>13</sup> <http://www.un.org/esa/sustdev/worklist.htm>

<sup>14</sup> personal email from Maria Lourdes Lagarde" <lagarde@un.org>

<sup>15</sup> methodology pages go into depth on indicators, why, how, etc.

<http://www.un.org/esa/sustdev/indisd/english/english.htm>

<sup>16</sup> taken from UNIFEM Progress of the World's Women Report 2000, ch. 3

<sup>17</sup> taken from UNIFEM Progress of the World's Women Report 2000, ch. 3, see

<http://www.unifem.undp.org/progressww/2000/index.html>

<sup>18</sup> UNSD Worlds Women 2000:progress and Statistics, p. 68-72

<sup>19</sup> Ibid, p. 73-76 (ILO data)

<sup>20</sup> Ibid, p. 76- 80, country profiles found on [www.ipu.org](http://www.ipu.org)

These three indicators are somewhat problematic, although widely accepted as the three most applicable indicators to use for international comparison and monitoring. Education, employment, or economic activity, and participation, as measured by the three indicators above, are the most common areas in which to measure gender equity. This is because of the availability of data, however it is worth noting that for education indicator, enrollment is not equal to completion. For the economic indicator, the “share” of jobs held by women also does not indicate the share of wages, since women earn less than men throughout the world. Increased workforce representation does not mean better quality of life, because a paid job may overwork and burden women who already have the responsibility of taking care of family obligations. Furthermore, this indicator does not measure quality and security of jobs, since it is rarely broken down by sector. The participation indicator also does not measure participation at all levels, only official government representation. NGO, non-profit, government agency representation would be a better indicator of women’s involvement in decision making and their impact of environmental decisions could be better measured.

UNIFEM has identified other indicators that can be used to measure gender equity and women’s empowerment including:

- Prevalence of violence against women
- % of and change in women’s wages compared to male wages (by sector)
- % of and change in women in managerial roles
- unpaid male and female family workers as % of male and female labor force (and change over time)
- employers and own-account worker- change in female share
- time spent in unpaid care work-- GEI
- prevalence of HIV/AIDS

Many of these areas are covered in the composite indicators, mentioned below.

- **Composite Indicators**

**HDI (Human Development Index)**

UNDP’s Human Development Report has created the HDI (Human Development Index)<sup>21</sup> which includes the following:

- *Longevity* (life expectancy at birth indicator)
- *Knowledge* (adult literacy (2/3 weight) and average primary, secondary and tertiary school enrolment (1/3 weight)),
- *Access to resources* (per capita income, adjusted for PPP)

The 3 measurements combined, form the country’s “score” form 0-1. 1 represents the best social condition<sup>22</sup>

**Gender Development Index (GDI)**

The Gender Development Index (GDI) is the same as the HDI, only discounted for gender inequality— one MUST LOOK at GDI relative to HDI to get an accurate picture of gender equity.

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<sup>21</sup> see <http://www.undp.org/hdro/Backmatter1.pdf> , and <http://www2.qeh.ox.ac.uk/pdf/qehwp/qehwps10.pdf> for in depth analysis  
<sup>22</sup> <http://www.socwatch.org.uy/indicators/query.htm>,

(Notes on this indicator state that the income indicator in the GDI does not aim to reflect women's access to income for consumption or other uses, as women who earn money may not have any control over it within the household. In other cases women who do not earn income may control what is earned by male members of the household. But the wage ratio part of the income indicator in the GDI is not standardized by skill, which makes it ambiguous to interpret. Recall that the components of the GDI were not chosen with the precise intention of assessing gender differentials. Rather, components of the HDI were retained, so as to give an index that was able to combine information about the level of human development with that of gender differentials in well-being. If the prime purpose is assessing gender differentials as in this paper, it would be expected that other indicators would be preferred above those currently incorporated in the GDI...Such as... to replace the present income indicator by a 'drudgery' indicator which captures the differential in the number of hours (paid and unpaid) that males and females work. The GDI makes the normative assumption that differentials in income reflect inequality or discrimination. Countries with high differentials in income therefore have high overall inequality ranks. They raise questions about the extent to which basic functioning's are utilized by women towards taking advantage of other opportunities (like economic and political participation, decision making power and control over economic resources, as defined by the GEM.<sup>23</sup>)

### **The Gender Empowerment Measure (GEM)<sup>24</sup>**

The function of this indicator is to assess more inequalities and examines whether men and women are able to actively participate in economic and political life and take part in decision-making. This indicator uses a set of measures including: seats in parliament held by women; the proportion of administrators and managers who are women; the proportion of professional and technical workers who are women;<sup>50</sup> and woman's share of earned income.

For 60 countries the GDI rank is higher than the HDI rank, which reflects a more equitable distribution of human development between men and women. These countries include industrialized countries such as Australia and Sweden, transition economies in Eastern Europe and the CIS such as the Czech Republic and Slovenia and developing countries such as Thailand and Uruguay. These results show that greater gender equality in human development does not depend on income level or stage of development, and can be achieved in many types of cultures."<sup>25</sup>

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<sup>23</sup> <http://www2.qeh.ox.ac.uk/pdf/qehwp/qehwps10.pdf> p.43

<sup>24</sup> <http://www.socwatch.org.uy/indicators/query.htm>, type "gender" to see relevant indicators

<sup>25</sup> <http://www.undp.org/hdro/Backmatter1.pdf>

**\*GEI (gender equity index) <sup>26</sup>**

This is a very comprehensive measure, developed by the International Statistical Institute, but not all countries have the necessary data, however, which has prevented the full elaboration of this index.

**Table 2: Gender Equality Index**

Area of life concern	Indicator(s)
Autonomy of the body	<ul style="list-style-type: none"><li>• Legal protection against and incidence of gender-based violence</li><li>• Control over sexuality</li><li>• Control over reproduction</li></ul>
Autonomy within the family and household	<ul style="list-style-type: none"><li>• Freedom to marry and divorce</li><li>• Right to custody of children in case of divorce</li><li>• Decision-making power and access to assets within the household</li></ul>
Political power	<ul style="list-style-type: none"><li>• Decision-making in supra-household levels (municipalities, unions, government, parliament)</li><li>• Proportion of women in high managerial positions</li></ul>
Social resources	<ul style="list-style-type: none"><li>• Access to health</li><li>• Access to education</li></ul>
Material resources	<ul style="list-style-type: none"><li>• Access to land</li><li>• Access to houses</li><li>• Access to credit</li></ul>
Employment and income	<ul style="list-style-type: none"><li>• Distribution of paid and unpaid labor</li><li>• Wage differentials for men and women</li><li>• Division of formal and informal labor by gender</li></ul>
Time	<ul style="list-style-type: none"><li>• Relative access to leisure and sleep</li></ul>
Gender identity	<ul style="list-style-type: none"><li>• Rigidity of sexual division of labor</li></ul>

Source: Wieringa, Saskia. 1999. "Women's Empowerment in Japan: Towards an Alternative Index on Gender Equality." Paper presented at the First Global Forum on Human Development, sponsored by the Human Development Report Office, United Nations Development Program, New York, 29-31 July 1999.

<sup>26</sup> see table 2 at <http://www.unfpa.org/swp/2000/english/ch05.html#6>

**TMWS (threshold measure of women's status)**

This indicator has been developed by the Demographic and Health Surveys (DHS), and covers six areas of life concern — socio-economic status, female household headship, education and exposure, employment and workload, marriage and childbirth, and ascribed status — and defines thresholds of successful performance on specific indicators in each area. TWMS has a finer mesh than other summary or aggregate measures. But it still does not capture many details of decision-making within families; that would require survey questions about who decides about household purchases, for example, or whether a woman needs permission to travel outside the home.<sup>27</sup>

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<sup>27</sup> <http://www.unfpa.org/swp/2000/english/ch05.html#6>