INTER-AMERICAN COMMISSION OF WOMEN

THIRTY-FOURTH ASSEMBLY OF DELEGATES
November 10 to 12, 2008
Santiago de Chile, Chile

OEA/Ser.L/II.2.34
CIM/doc.10/08
23 October 2008
Original: English

GENDER AND CLIMATE CHANGE

(Item 2 on the agenda)

GENDER AND CLIMATE CHANGE

Women's voices are largely absent from discussions and negotiations on global warming policies, as only a small number of them are involved in adaptation and mitigation policies and plans. In both developed and developing economies, the experiences, creativity, and leadership of women should be part of the solution..
***Wangari Maathai**, Nobel Peace Prize*

OBJECTIVE

This paper explores the relationship between climate change and gender, with a view to making recommendations on the best ways and methods to include a gender perspective in public policies regarding climate change. The effects of climate change are described generally and then more specifically within the context of one of the populations most negatively affected by this phenomenon: women. The role and contribution of women in adaptation, mitigation, and risk management is analyzed. Finally, an appeal is made for equity in the development of public policies designed to counter the adverse effects of climate change, including suggestions about some of the factors that should be taken into account during this task.

I. INTRODUCTION

It is only recently that the international community has abandoned its merely marginal treatment of gender issues in discussions about global warming. Feminist studies and campaigns have challenged the invisibility of gender in this arena and highlighted the importance of giving consideration to gender differences in policies and plans for the adaptation to and mitigation of climate change. The international community is beginning to recognize that it is important to consider the experiences, creativity, and leadership of women, as well as men, in this debate, especially regarding the differences in their vulnerability to global warming.

The first process that marked the recognition of the link between environmental issues and gender occurred in 1984 within the context of the United Nations Environment Programme (UNEP). UNEP established a group of women advisors on sustainable development[1/] that began examining and advising the Programme on the links between women's exclusion, their roles, and their real and potential contributions to environmental conservation in a developmental context.

Subsequently, the World Conference to Review and Appraise the Achievements of the United Nations Decade for Women: Equality, Development, and Peace (Nairobi, 1985) addressed the topic for the first time. Thanks to initiatives promoted primarily by nongovernmental organizations, the World Summit on Environment and Development (Río de Janeiro, 1992) adopted a gender perspective in all developmental and environmental policies and programs, thereby establishing an international precedent to include a gender perspective in the promotion of environmental sustainability.

---

1. This Group was known as the Senior Women´s Advisory Group on Sustainable Development.

In 1995, the Fourth World Conference on Women held in Beijing clearly defined the link between gender, the environment, and sustainable development. Chapter K of the Platform for Action set forth strategic objectives and measures on the key issues of poverty, which affects many women, the need for women to participate actively in decisions made on the environment at all levels, and gender-mainstreaming in policies and programs for sustainable development. Later, at the follow-up meeting of the Beijing Platform for Action (2005), the General Assembly pointed to the importance of actively involving women in environmental decision-making at all levels, including their concerns and a gender perspective in policies and programs for sustainable development, and consolidating or creating mechanisms at national, regional, and international levels to determine the impact of developmental and environmental policies on women.

This same approach has been noted in other international meetings and forums that have been addressing and studying the relationship between gender and sustainable development. A clear example of the importance this topic has acquired is reflected in the CIM Work Program for 2006-2008, adopted at the fourth plenary session held on November 15, 2006. On that occasion, CIM delegates recognized profound interest about the impact of natural disasters of women on the part of member states of the Caribbean, Central America, and Mexico. As a result, they requested the Permanent Secretariat to ensure that a gender perspective would be included in all of the work done on this subject in the political forums of the OAS,and provide technical assistance to the Department of Sustainable Development.

II. THE BIODIVERSITY OF THE HEMISPHERE

This Hemisphere has the largest water reserves on the planet, and it possesses an immense cultural mosaic, partly as a result of its location between two great oceans, the Atlantic and the Pacific. In addition, the region is known for its heterogeneity, which can also be attributed to its geographical and geomorphological location, ranging from hyper-arid deserts to tropical rainforests.

The Americas contain some of the richest and most varied geographical zones on the planet. The region is home to six of the twelve countries considered as mega-biodiverse (Colombia, Ecuador, Peru, Bolivia, Venezuela, and Brazil). As a whole, these twelve countries contain around 60-70% of all life forms on the planet. The six mentioned countries from the Americas are not only characterized by their highly rich ecosystems, but also by the presence of indigenous peoples, peasants, and other highly diverse local communities. The Amazon jungle accounts for one-third of the tropical forests and over 50% of the biodiversity in the world. Over 45,000 species of plants, 1,800 species of butterflies, 150 species of bats, 1,300 species of fresh-water fish, 163 species of amphibians, 305 species of snakes, 311 species of mammals, and 1,000 species of birds can be found there.

Examples of Biodiversity in Latin America and the Caribbean

Arable Land	➢ The largest reserves of cultivable land in the world, estimated at 576 million hectares.
Pastureland	➢ In 1998, pastureland covered about 80% of potential agricultural land in the region, and of the 20% cultivated, very little was used for permanent crops. ➢ Out of a total of 1.9 billion hectares of degraded soils on the planet, the region is in third place, after Asia and Africa, with approximately 16%. The impact is somewhat greater in Central America, with 26% of the total (63 million hectares), in comparison with South America, where 14% of the total, or around 50 million hectares, is affected..
Forests	➢ Some 92% of regional forests are found in South America, primarily in Brazil and Peru, which are among the ten countries of the world that contain two-thirds of the world's forests. ➢ A little over 1% of the forested area in Latin America and the Caribbean is plantations, and about half of them are in Brazil. ➢ In 2000, the region had 25% of the forested areas of the world, or some 964 million hectares. ➢ The proportion of forested areas in the region is much greater than the global average: about 47% of the region is covered with forests, while the rate for the world is 30%. ➢ The woody biomass of Latin America and the Caribbean is the highest in the world, 17% more than the world average of 109 tons per hectare. 43% of the world total is found in South America, and essentially in Brazil, with 27% of this total.
Vascular plants	➢ In Brazil, Colombia, Ecuador, Mexico, Peru, and Venezuela , 190 ,000 of the 300,000 known vascular plants in the world have been identified (one-third of the worldwide total is found in Brazil and Colombia).
Water Resources	➢ Latin America and the Caribbean form a region rich in water. With only around 15% of the land and some 8.4% of the population in the world, it receives 29% of the rainfall and has one-third of the world's renewable water resources ➢ There are marked differences in water and its availablility throught the region. Three of its principal hydrographic areas—the river basins of the Gulf of Mexico, the Brazilian Southern Atlantic, and the Parana, Uruguay, and La Plata—contain 40% of the population living in about 25% of the territory, with only about 10% of total water resources. ➢ Current estimates indicate that Latin Amertica and the Caribbean receive on average 1,556 millimeters of annual rainfall, considerably greater than any other region of the world. Renewable domestic water resources, consisting of the annual flow of surface waters and the replenishment of groundwater, total 13.4 cubic kilometers a year, or one-third of global resources. This represents 27,673 cubic meters per capita, or nearly four times the world average.

The rich composition of the region's resources contributes to its high risk of disasters, despite important progress achieved under democratic plans in the Hemisphere. The extensive central portion of Latin America is largely characterized by wet tropical conditions. Large areas, such as in Brazil, are prone to droughts, floods, and frosts. Atmospheric circulation and ocean flows are factors that determine the existence of extensive deserts in northern Mexico, Peru, Bolivia, and Argentina. The forests of Latin America and the Caribbean, which occupy approximately 22% of the area of this subregion and account for around 27% of the world's forest cover, have a strong influence on the local and regional climate and play an important role in the global carbon balance.

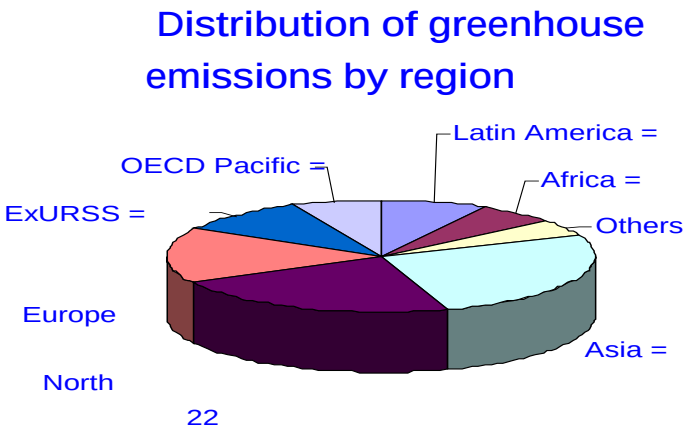
Vulnerability studies indicate that the ecosystems of many countries that comprise the region's natural wealth could be substantially affected by projected climate changes. The Caribbean, where over half of the population lives within a mile of the coast, is facing one of the greatest risks due to climate change.[2/] The Caribbean tourist industry, which supports many economies in the region, must prepare itself for more intense hurricanes, more frequent droughts, and an increase in the sea level as a result of global warming.[3/]

---

2 Caribbean islands should prepare for the effects of climate change, 10/23/07. http://www.terra.com.do/noticias/articulo/html/act1009754.htm

3 Caribbean islands should prepare for the effects of climate change, 10/23/07. http://www.terra.com.do/noticias/articulo/html/act1009754.htm.

Other phenomena, such as population growth, rapid urbanization, the growing environmental vulnerability of large cities, the problems of degradation and natural disasters, together with serious social problems related to inequality and poverty, also contribute to the major complex challenges facing this Hemisphere.

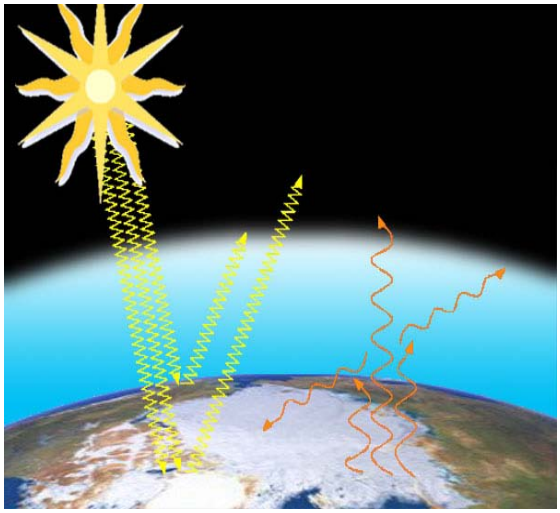


Source:: CO2 Emissions fron fuel combustion. 1971-

III. CLIMATE CHANGE AND ITS EFFECTS

i. General effects of global warming

Increasingly sophisticated instruments and methods have made it possible to make more accurate measurements and link the changes observed in the biodiversity and ecology of the planet with changes in global temperature.



GREENHOUSE EFFECT: Sunlight (visible sun) freely enters the atmosphere (yellow radiation in the left part of the picture). Part of it is immediately reflected by the clouds and dust in the atmosphere and brilliant surfaces (yellow radiation in the center of the picture). The rest reaches the Earth. Greenhouse gases in the atmosphere trap heat and prevent it from flowing freely to the outer atmosphere (red radiation in the figure).

SOURCE: CICERO. Center for International Climate Reseach-Oslo. Noruega.

Global temperatures have increased by approximately 0.7ºC since the beginning of the industrial age, and the rate of increase is accelerating even faster. Overwhelming scientific evidence has also shown a correlation between these temperatures and the increase in greenhouse gases in the atmosphere.

Despite the international community's ambiguous response to the phenomenon of global warming, there is a growing consensus that the poor will be among those most affected by it. According to data from the 2007-2008 Human Development Report drafted by the United Nations Development Programme (UNDP), climate change will most dramatically affect the countries that have contributed the least or not at all to global warming. The most impoverished areas could be devastated by an increase in temperatures, drought, and desertification.

This Report also points out that climate change will have a considerable impact on agricultural production. It is projected that the warming of the planet will influence rainfall, temperatures, forecasting of seasonal trends, and water available to agricultural activities in

vulnerable areas, and this could cause malnutrition figures to increase to 600 million persons by 2080.[4/]

Changes in runoff or drainage patterns (water cycle phase) and the melting of glaciers will increase ecological stress, jeopardizing water for irrigation and human settlements. Towards the year 2025, 1.8 billion persons could live in areas with water shortages. As temperatures rise--higher in the summer, with higher extreme values--and as rainfall diminishes, evaporation and evapotranspiration (evaporation of water through plants) increase and runoff declines. Therefore, not only will it rain less, but even more water will be lost. Moreover, the need for more water for different uses, especially for crops, will be greater during times of fewer resources; both irrigation practices and tourism are essentially at their height during the summer months. The most sensitive regions will therefore be those that currently have a profile of higher temperatures and lower rainfall, where water resources could be reduced by about 50%. They are, in turn, the largest water users; this heightens uncertainty as to the availability of water to guarantee future social and environmental needs.

The Caribbean nations are located in a region of the world where an adequate supply of fresh water constitutes a substantial problem. In many countries within this region, the annual supply of fresh water per capita is well below the 1,000 cubic meter mark that is generally used to measure a shortfall. The Caribbean States are highly dependent on rainfall to supply surface water and replenish phreatic water flows. The local geology complicates water resource management because of the dominance of porous limestone that hinders flows or dense volcanic rock that limits infiltration. Changes in rainfall patterns can cause more severe and prolonged droughts, limiting the flows and storage of reserves, and can increase the rise in water levels and floods. Moreover, the rising sea level can trigger an invasion of salt water in coastal aquifers and affect the quality of shallow well water, two important sources of water for public use.[5/]

It is equally important to recall the critical role of water and sanitation in the transmission of diarrheic diseases. These environmental factors contribute to approximately 94% of the 4 million cases of diarrhea that occur annually in the world, according to estimates from the World Health Organization (WHO).[6/] Children under 5 years of age in developing countries are the most affected, and they account for the majority of the 1.5 million deaths a year from diarrhea. In Latin America and the Caribbean, approximately 77,600 children under 5 years of age die every year as a result of this disease and its consequences, which represents over 200 deaths a day.[7/] Although the countries of the Hemisphere are making progress in achieving the United Nations Millennium Goals for sanitation and clean water, according to WHO estimates, they still need to cover the sanitation needs of 8.4 million people and in the case of drinking water, for 6.1 million people.[8/] In other words,

---

4. 2007-2008 Human Development Report prepared by the United Nations Development Programme (UNDP)

5. IPCC Technical Paper on Climate Change and Water. http://www.ipcc.ch/pdf/technical-papers/ccw/executive-summary.pdf

6. Annette Prüss-Üstün and Carlos Corvalán, Preventing Disease Through Healthy Environments: Towards an Estimate of the Environmental Burden of Disease (Geneva: World Health Organization, 2006), p.34.

7. Pan-American Health Organization (PAHO), Charting a Future for Health in the Americas-Quadrennial Report of the Director (Washington, DC: OPS, 2002), páginas 103 a 119.

8. UNICEF/WHO Meeting the MDG Drinking Water and Sanitation Target: The Urban and Rural Challenge of the Decade (Nueva York: UNICEF y OMS: 2006); and, the World Bank, World Development Report 2006: Equity and Development. (Washington, DC. El Banco Mundial, 2006.

climate change and its impact on the supply and quality of water must be taken into account when developing policies with an aim to reduce these diseases.

The general impact on health is felt most strongly in developing countries because of both their poverty and the limited response capacity of their public health systems. Extreme weather phenomena, such as floods, droughts, and storms, leave in their wake greater sanitary risks that can lead to epidemics, such as cholera and diarrhea, that primarily affect children. Without effective mitigation efforts, deadly epidemics could increase in intensity and number, and another 220 to 400 million persons could be exposed to malaria, a disease that is responsible for the deaths of one million persons a year. At the present time, cases of dengue, a highly climate-sensitive disease, are being discovered primarily in urban areas and at higher than usual rates in Latin America and parts of East Asia.[9/]

As is widely recognized, another effect of climate change is the increase in sea levels and exposure to weather disasters. According to the aforementioned human development report, the increase in global temperatures by 3-4º C could cause flooding, resulting in the permanent or temporary displacement of 330 million people[10/] in addition to an impact on public health and a higher demand for water that usually accompany the displacement of persons, especially when they occur in emergency situations.

Regarding the impact of global warming on the planet's flora and fauna, the aforementioned United Nations report indicates that some species have already been affected, and while some will be able to adapt to the environmental changes, many others will not be able to do so and will become extinct.

The temperature changes in oceans could affect fish populations on which many coastal communities depend for their survival. According to a report by the Inter-Governmental Panel on Climate Change (IPCC), an average global temperature increase of 1.5ºC to 2.5ºC could cause 20% to 30% of the fish populations to become extinct, and it could also affect populations of polar bears and species of fish that feed on coral reefs. In addition, if the warming reaches 3ºC, approximately 277 mammals of medium to large size in Africa will become endangered. These changes could, in turn, affect the livelihoods and social structure of many farm and coastal communities.

In Latin America and the Caribbean, agricultural production, tourism, aquaculture, and fisheries rely on sufficient natural resources. The effects of global warming on these resources call for a serious consideration of this phenomenon, including the formulation of development and investment plans in the most affected areas. More specifically, small low-altitude island states in the Caribbean and in some areas of Latin America are among the countries most vulnerable to climate change. The elevation of the sea level together with the fact that most of their population, for reasons of their economic activity and the location of infrastructure, are living very close to or at that level, increases this vulnerability.

In the case of North America, any of the climate change impacts taken individually would deserve a coordinated response for an entire sector or specific subregion. The complexity of

---

9. 2007-2008 Human Development Report, prepared by the United Nations Development Programme (UNDP).

10. Human Development Report, 2007-2008, prepared by the United Nations Development Programme (UNDP).

evaluating the impact of global warming and selecting the appropriate responses is compounded by projections that indicate that this impact will occur simultaneously and in conjunction with other phenomena, such as changes in the economy, the composition of the population, technology, and other environmental, ecological, and social phenomena.

*Projection of probable risks faced by Latin America and the Caribbean**

In General	Low adaptation capacity of human systems together with high vulnerability. Disappearance and shrinking of glaciers with a negative impact on runoff and water supplies. Frequent floods and droughts; deterioration of layers of sediment and the quality of water due to floods. Increases in the intensity of tropical storms (loss of lives, property, and ecosystems). Reduced crop yields; threat to subsistence farming. Spread of infectious diseases, increase in exposure to diseases such as malaria, dengue, and cholera.
Island States	A generally low adaptation capacity of human systems and high vulnerability. Predicted increase in sea level of 5 mm a year in the next 100 years would cause major coastal erosion, loss of lands and property, displacement of peoples, major risk of storms, reduced resilience of coastal ecosystems, intrusion of saline waters into fresh water sources, and increased cost of resources to respond and adapt to these changes. Increased vulnerability of islands whose water resources are limited. Coral reefs negatively affected by bleaching and reduced calcification due to higher levels of CO2. Mangroves, seagrass beds, and other coastal ecosystems, in addition to the corresponding biodiversity, would be negatively affected by an increase in temperatures and an accelerated rise in the sea level. Negative impact on coral reef fish and threat to populations whose livelihood and important food source are fishing on these reefs. Limits on arable land and salinization of soils make agriculture in small island states highly vulnerable to climate change, with an impact on both national food production as well as on export crops, a source of foreign exchange. Tourism, the main source of income and foreign exchange for many small islands, could be seriously disturbed.

Source: Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Summary for Policymakers, 2007, and Report of Working Group II of the Intergovernmental Panel on Climate Change, Summary for policy makers, approved at the Sixth Session of IPCC Working Group II (Geneva, Switzerland, February 13-16, 2001).

* This is not an exhaustive list.

A. Political, Economic, and Social Costs Associated with Climate Change

Scientists, especially from Germany and Switzerland, have sounded the alarm on potential political consequences of climate change. Those who agree with this position point out that this phenomenon could destabilize political systems, which could lead to situations of conflict and violence in many cases. According to this argument, the origin or cause of conflicts would primarily revolve around the degradation of water, shortages of food caused by reduced production, an increase in the number of natural disasters, and especially the growing displacement of people to areas with more favorable climates, a phenomenon that would create what has been referred to as "climate refugees," which could expand considerably in the next few years.[11/] The United Nations estimates that 60% of current migratory movements are caused by global warming and natural disasters such as droughts and floods.[12/]

As for the economic impact of climate change, it should be recognized that its computation still poses a challenge to economists; a key factor contributing to the complexity of this task is uncertainty. It is still not possible to accurately predict the physical impact that would occur if temperatures rise beyond 5º C. Moreover, projections must be global and long term in nature, over a period of 50, 100, or 200 years. Of course, although the available data are only approximations, they represent an advance in recent years in the ability to translate natural and social impacts into quantifiable data. Some of the many examples found in literature that are illustrative of the impact of climate change on economies are discussed below.

A report by Nicholas Stern in 2006, *The Economy of Climate Change,* reveals that if nothing is done to contain this phenomenon, the total risk and cost would be equivalent to a loss in global GDP of at least 5% per annum (approximately $2,412,260 million). Since the risks and consequences could be more extensive, the estimated damages could increase to at least 20% of global GDP.[13/]

Another example of economic impact projections takes into account the effect of environmental deterioration on economic productivity. According to ECLAC, every year the region will lose approximately 65 million work days due to illnesses. According to data from that organization, there are currently 80 million persons seriously ill as a result of urban air pollution. If we consider a work productivity rate of $30 a day, the figure would run to $1,950 million, more than what any regional government spends on environmental protection. These costs, together with the growing environmental "vulnerability" of large cities, will further hamper the capacity to meet social needs in a region with 190 million impoverished persons.[14/]

According to ECLAC data, another phenomenon with macro-economic implications related to climate change is the displacement of the rural supply centers of large cities, which will result in an increase in the price of goods due to the increased cost of transport. Moreover, the large cities that are supplied with melt water, such as Lima, Quito, Santiago, and La Paz, will face instability in water cycles, making them more vulnerable. In coastal cities, on the other hand, the advancing sea will contaminate fresh groundwater, also jeopardizing the water supply. These events will heighten the

---

11. Among others, see: UNDP, Guide on Gender Resources for Climate Change (July 2008).
12. Campaign on Climate Change and Combatting Poverty, October 17, 2006, Madrid, Spain, p. 9.
13. Coirncross, F., The Stern Report on the economy of climate change. http://es.wikipedia.org/wiki/Informe_Stern.
14. UN-ECLAC. Millennium Development Goals, a Glance from Latin America and the Caribbean, p. 193. http://www.oei.es/quipu/objetivos_desarrollo_milenio_AL.pdf.

visibility of climate change effects and will require greater investments to help cities adapt, thereby reducing public spending in rural areas. In addition, coastal cities in Central America and the Caribbean will have increased exposure to hurricanes; in the past 30 years, this region has lost $5,600 million in infrastructure due to these disasters. The intensity and frequency of Caribbean hurricanes will have devastating future effects. According to World Bank representatives, the estimated annual cost of the impact of climate change on CARICOM countries for 2080 is close to US$11.2 billion, which represents 11.3% of GDP in 20 countries within that region.[15/]

As can be seen, climate change is no longer exclusively an environmental problem; it has become a phenomenon that threatens to reverse human development. Climate change could magnify inequalities and cause setbacks in the economy, poverty, health, education, food security, and good governance. These effects are further aggravated by the precarious situation in which the most vulnerable populations live. Their low human development levels not only limit their capacity to manage climate risks, but because they live in tropical geographical areas, they are naturally affected more by extreme climate changes.

IV. GLOBAL AND REGIONAL CLIMATE CHANGE MANDATES

Most countries in the world, including all the countries of the Americas, have signed and ratified the United Nations' 1992 Framework Convention on Climate Change. This Convention establishes specific commitments, obligations, and responsibilities for each party in an attempt to deal with the causes and effects of climate change. The parties to this Convention have pledged to prepare national inventories and devise measures to mitigate anthropogenic emissions of greenhouse gases as well as to implement adaptation strategies to cope with the impacts of climate change. In addition, they have taken on the duty to promote the transfer of technologies, practices, and processes to control emissions and exchange relevant scientific, technological, socio-economic, and legal information related to this phenomenon.

On their part, developed countries have made a commitment to provide new and additional financial resources to meet the agreed total costs incurred by developing countries in efforts to comply with these commitments. They also commited to provide assistance to especially vulnerable developing countries to defray the costs of adaptation as well as to facilitate and finance the transfer of or access to environmentally-sound technologies so that they can implement the provisions of the Convention.

In 1997, the parties to this Convention agreed on their first protocol, the Kyoto Protocol, which established emission reduction targets and financial mechanisms for an emissions trading system. One year later, in 1998, they agreed on the Buenos Aires Plan of Action, which established a work plan and timetable for implementing the Convention and the Protocol. Although the Kyoto Protocol does not claim to provide a comprehensive solution to global warming, it signifies an important step forward in dealing with this problem. The Protocol lapses in 2012, so negotiations and debates have been initiated recently to prepare the future multinational agreement to fight global warming that will prevail in the post-Kyoto era.

---

15. World Bank, Latin American Environmental Department, World Bank, Presentation on climate change by Walter Vergara at the Regular Meeting of the OAS Permanent Council on September 10, 2008. http://www.oas.org/OASpage/videosondemand/show/video.asp?nCode=08-0306&nCodeDet=1

On a hemispheric level, countries have taken on various commitments to face the challenges of global warming, both in the context of the Summits of the Americas and in political commitments emanating from OAS General Assembly resolutions,[16/] especially the Inter-American Program for Sustainable Development (PIDS).[17/]

The Third Summit of the Americas, held in Quebec City in 2001, reaffirmed the commitment of member states to strengthen environmental protection and the sustainable use of natural resources, and it defined as priority areas, among others, the following: management of natural disasters; assessment of the vulnerability of small developing island states; agricultural management; efficient transportation systems; energy; management of natural resources; protection of biodiversity; and comprehensive water resource management.

In the course of the Fourth Summit of the Americas,[18/] in the Declaration and Plan of Action of Mar del Plata (2005), a series of measures related to natural disaster management was established. In the Declaration, governments expressed their concern about the risks associated with natural disasters and the devastating impact of these events on the life, infrastructure, and economy of the Hemisphere. Under the Plan of Action, they launched an appeal to increase cooperation so as to improve the national, regional, and hemispheric capacity for risk mitigation, recovery, and reconstruction, in coordination with the relevant international and regional institutions.

The Inter-American Program for Sustainable Development (PIDS, 2006-2009)[19/] established strategic action priorities for the next five years in seven different areas: agriculture and management of sustainable forests and other natural resources; water resources, land, and health; natural disaster risk management; conservation and sustainable use of biodiversity; adaptation and management of coastal zones in the face of climate change; renewable energy and promotion of its efficient use; and training and institutional strengthening for sustainable development and management of the environment.

---

16. In this regard, refer to the following resolutions: AG/RES. 1674 (XXIX-O/99), "Climate Change in the Americas," which recommends that CIDI, through its relevant subsidiary organs, consult with member states on ways to deal with climate change in the Americas, within the framework of the OAS; Resolution AG/RES. 1682 (XXIX-O/99), "OAS Mechanisms for Reduction of Natural Disasters," which establishes the Inter-American Committee for Natural Disaster Reduction (IACNDR) and promotes an exchange of technical and scientific personnel in the field of research to look into adverse events that have a socio-economic and environmental effect harmful to the countries of the Hemisphere; Resolution AG/RES. 1736 (XXX-O/00), “The Socio-Economic and Environmental Impacts of Climate Change on the Countries of the Hemisphere,” which instructed the General Secretariat to mobilize resources to assist member states in their efforts to adapt to climate change; Resolution AG/RES. 1821 (XXXI-O/01), “The Socio-economic and Environmental Impacts of Climate Change on the Countries of the Hemisphere,” which renews its instructions to CIDI to continue studying the subject, and instructs the Inter-American Agency for Cooperation and Development (IACD) to cooperate with the General Secretariat to mobilize and obtain resources to assist member states in their efforts to mitigate the impact of climate change.

17. Adopted at the fourth plenary session of the OAS General Assembly, held on December 5, 2006.

18. Held in Mar del Plata in 2005.

19. Aproved following the Fourth Summit of the Americas and by the OAS General Assembly held on December 5, 2006.

Within the framework of the Declaration, adopted at the First Inter-American Meeting of Ministers and High Authorities Responsible for Sustainable Development,[20/] in the context of the conservation and sustainable use of natural resources, emphasis was placed on the importance of promoting broad-based public participation including representatives of the different sectors of society on the basis of nondiscrimination for reasons of gender, race, ethnicity, nationality, etc. The commitment to foster gender equity and equality and equal opportunities for all vulnerable groups was also reaffirmed.

In response to the mandates stemming from this Ministerial Meeting and the Declaration of Santa Cruz + 10, and recognizing that the work to prepare, respond, and assist in the case of natural disasters requires broad inter-institutional coordination, the Inter-American Network for Disaster Mitigation was created under the OAS. Resolution 2314 of the 37th General Assembly held in Panama on June 5, 2007 recognized this Network as "the permanent hemispheric mechanism for strengthening practical cooperation among intergovernmental agencies in the area of disaster reduction, especially by sharing technical information and best practices."

During the OAS General Assembly in 2007, the representatives of the Hemisphere also adopted Resolution AG/RES. 2429, which urges member states to enhance the Hemisphere's understanding of the impacts of climate change on the communities in the region and emphasizes that the effects of climate change could have repercussions on the full enjoyment of human rights. This Resolution also establishes the link between human rights and climate change, encourages the development of a regional platform designed to enhance understanding on the part of our states regarding this global phenomenon and its impacts, defines priorities and possible solutions, and advocates more effective and better-informed participation by the member states in global negotiations on climate change.

Finally, it is also important to mention that OAS member states adopted the Inter-American Convention to Facilitate Assistance in Cases of Disaster in 1991; the Convention took effect in October 1996. According to its provisions, states parties are to designate a national coordinating authority that is tasked with coordinating assistance within its jurisdiction, among other duties. However, so far this instrument has been ratified by only three states: Panama, Peru, and Uruguay.

V. CLIMATE CHANGE AND GENDER EQUITY: Why include gender in discussions on climate change?

It is impossible to understand climate change independently of the cultural, social, political, and economic contexts that determine it. Natural disasters do not affect all persons equally. The persistent inequities in our societies, differentiated access to resources, opportunities, and capacities affect men and women differently. The traditional roles and different responsibilities associated with each sex are also reflected throughout the spectrum of climate change.

The Intergovernmental Panel on Climate Change has recognized that "climate change will have a differentiated impact on the regions of the world, generations, age groups, socio-economic groups and sexes" *(IPCC, 2001)* and that its impact "will fall disproportionately on developing

20. Held in Santa Cruz de la Sierra, Bolivia, in December 2006.

countries and on the poor in all of our countries, and thus it will exacerbate inequities in health, social status, and access to adequate food, clean water, and other resources."

There is no doubt that persons who live in poverty are the most vulnerable to these changes. Women and girls tend to suffer more from the negative consequences of natural disasters and poverty. It is important to note that 70% of the poor in the world are women, and their vulnerability is increased depending on their race, ethnic group, and age. Women are the main producers of essential foodstuffs in the world (e.g. rice, wheat, and corn).[21/] They are also dominant in world food production (50-80%), yet they are owners of less than 10% of the land. It is well known that the agricultural sector is one of the areas most affected by droughts and environmental changes.

The Guide on Gender Resources for Climate Change,[22/] recently published by UNDP, explains the close interrelationship between meeting the Millennium Development Goals (MDG) (especially the eradication of poverty, improvement in child and maternal health, and eradication of diseases such as HIV/AIDS, malaria, and others) and their close link with the environment and how the effects of climate change have differentiated implications for men and women. For instance, with regard to the eradication of extreme poverty and hunger, it points out how the main efforts at this eradication can be affected by climate change, which can impede subsistence farming and commercial agriculture, among other things, with a corresponding impact on food security and access to safe drinking water. It also refers to the implications this situation has for women in particular; among other reasons, the following are indicated: those that are derived from the loss of domestic animal and plant species used to feed their families; the decrease or disappearance of marine species used as part of their diet or as a productive activity; and the doubly harmful effects that natural disasters have on the female population.[23/]

Also contributing to this situation are the specific patterns of the use of natural resources depending on sex, which influence the impact of global warming on women and men. Because of biological and gender-based factors, men and women relate differently to their environment, and similarly, environmental deterioration and contamination affect them differently. For example, a preliminary study by the Swedish government on transportation shows the differences between the "ecological footprint" of women and men and their contribution to greenhouse gas emissions.[24/] In the spheres of work and recreation, women travel less frequently, in smaller automobiles with fuel-saving technologies, shorter distances, and by air less often then men. Thus, their ecological footprint is smaller. Similar studies conducted by other governments also illustrate the differences in consumption and recreation habits of women and men, and they arrive at similar conclusions.[25/]

A clear sign of the differentiated impact of global warming is the number of deaths around the world as a result of natural disasters, such as floods, landslides, hurricanes, and the like. The effects of extreme climate change cause injuries and deaths that have affected men and women

---

21. FAO Report, 2007.

22. UNDP, Guide on Gender Resources for Climate Change (July 2008), p. 29. Similarly, see Climate Change and the Millennium Development Goals, Campaign on Climate Change and Combatting Poverty, October 17, 2006, Madrid, Spain.

23. UNDP, Guide on Gender Resources for Climate Change (July 2008), p. 29. Similarly, see Climate Change and the Millennium Development Goals, Campaign on Climate Change and Combatting Poverty, October 17, 2006, Madrid, Spain.

24. UNDP, Guide on Gender Resources for Climate Change (July 2008).

25. UNDP, Guide on Gender Resources for Climate Change (July 2008).

differently, depending in many cases on the means available to them to overcome these effects. An example of this was seen in Bangladesh, where restrictions on the mobility of women hampered their access to safe havens or shelters and medical care.

Below is a table to illustrate some of the differentiated impacts of climate change on the female population. These examples show the importance of analyzing and understanding their different roles, priorities, needs, expectations, and views, and they also show the importance of fostering equitable participation in decision-making by women and men in matters related to climate change, especially in aspects pertaining to adaptation and mitigation.

DIFFERENTIATED IMPACTS OF CLIMATE CHANGE		
AGRICULTURE	*Climate change could affect food security and the lives of millions of people, especially in rural, agricultural, and coastal areas.*	Increase in exhausting work for women as a result of droughts, floods, and soil conservation problems. Exposure to certain industrial and agricultural chemicals that increase women's vulnerability to diseases during pregnancy and birth and the risks of child mortality and disabilities.
WATER SUPPLY	*According to the Intergovernmental Panel on Climate Change, approximately 1.7 billion people, or one-third of the world population, live in situations of water shortages.*[26/]	Outbreak of diseases associated with a lack of access to safe drinking water, inadequate sanitation, and lack of hygiene. Deaths resulting from these types of diseases in developing countries number 2.2 million every year. Diseases transmitted by poor quality water are responsible for 80% of disorders and deaths in developing countries.[27/] Greater energy required, with the same or fewer calories ingested, to bring water from streams, rivers, or wells to their homes. Vulnerability to malnutrition and infectious and respiratory diseases for pregnant women, especially if they are very young, are in their last child-bearing years, or have had many pregnancies. Unplanned urban development in land neighboring cities, increasing the limits of reproductive health services in these zones, and the risks of maternal mortality and undesired pregnancies. Inadequate water supplies in health facilities cause a serious public problem.
FORESTS	*Firewood is a scarce resource for 40% of the rural women in Latin America.*	Increase in the number of hours that women devote to transporting water and firewood. Women spend three times more time and transport four times as much firewood and water as men.[28/] Around the world, the average time each family spends transporting water and firewood for domestic activities is 1,320 hours per year (an adult woman contributes 1095 of these hours, or the equivalent of an average of three hours per day).

26. Third Assessment Report. Climate Change 2001. Impacts, adaptaiton, and vulnerability (IPCC, 2001).

27. UNDP Resources Guide. Cross-cutting gender approach to water management. http://www.un.org/esa/sustdev/inter_agency/gender_water/resourceGuide_Spanish.pdf.

Energy. Lorena Aguilar. IUCN - Community Conservation Coalition. 2004. Data sheet on the link of a gender equity appproach to energy initiatives, with the support of lessons learned in international initiatives.

DIFFERENTIATED IMPACTS OF CLIMATE CHANGE		
		Reduction in school attendance of girls, because they have to get water and firewood, and the impact on their potential as actors for change. Transformation of forest areas into pasturelands for livestock and creation of new mosquito-breeding areas. In malaria-infested areas, infected pregnant women are at risk of contracting anemia or of having other sometimes life-threatening health complications.
PLANTS AND FLORA	*Women in various regions of Latin America, Asia, and Africa were in charge of the process of change from wild plants to cultivation of edible plants. This role goes back to 15,000-19,000 B.C.*	Loss of diversity of, or limited access to, medicinal herbs and plants. Loss of ethno-botanical and medicinal knowledge. Most of the gatherers of plants, gardeners, herbalists, seed conservators, and unofficial growers of plants are women, despite the fact that their ethno-botanical and medicinal knowledge is frequently ignored and underestimated. Negative impact on traditional medicine. According to the World Health Organization (WHO), 80% of the people in developing countries rely primarily on traditional medicine for primary health care.[29/] Medicinal plants are also used to a great extent to treat the secondary effects of AIDS, such as diarrhea and pneumonia. Women have to gather more and more plants in an unsustainable way and go further to find them.[30/] Reduction in the production of modern pharmaceuticals. At least 25% of these products are derived from plants, and the ingredients in many others are synthetic replacements created on the basis of compounds obtained from plants. Reduction in employment derived from production and processing of medicinal plants, especially in poor populations with few opportunities for education, infrastructure, and health services.
TOURISM	*Climate is a key resource for tourism and especially for the segments of beach tourism, nature tourism, and winter sports.*	Effect on development sources, employment rates, and foreign exchange in many countries, especially in the Caribbean, that depend on tourism as a source of income.[31/] Redefinition of decisions on travel and tourist destinations based on climate variability, changing weather patterns, and the well-being of tourists. Change in patterns of demand and tourist movements with consequences for both tourist enterprises and receiving communities and secondarily on other sectors, such as agriculture, handicrafts, or construction.
CONTAMINATION	*Traditional roles expose women to higher levels of POPs[32/] (E.g., pesticides and, household cleaning products). Women have a thicker subcutaneous layer of fat that retains POPs and other residues of toxic chemical substances; as a result, the impact of*	Higher and more hazardous levels of air and water pollution in addition to daily contact with chemical substances. According to WHO, approximately 1.6 million persons die as a result of air pollution in closed places due to the burning of solid fuels, where women and children in rural areas run the highest risk.[34/]

29. Siles, J., Medicinal Plants, International Union for Conservation of Nature, httpp://www/generoyambiente.org/ES/articulos esptudios/factsheets/Medical.pdf.

30. HIV/AIDS AND ENVIRONMENT, Lorena Aguilar.

31. Although the percentage of women employed by the tourist industry varies enormously among countries, this is a particularly important sector for women, as about 46% of the labor consists of women, and in some countries it exceeds 80%, greater than the labor force in general, according to ILO data. http://www.earthsummit2002.org/toolkits/women/current/gendertourismrep.html

32. Persistent Organic Pollutants.

	environmental hazards on the health of women is greater.[33/]	
OTHERS	*The poorest regions of the world could be devastated by an increase in temperatures, natural disasters, droughts, and desertification.*	Increase in diseases in climatic conditions conducive to their spread, such as diseases spread by insects before and after the rainy season or by vectors (malaria, dengue, yellow fever, diarrhea, and cholera).[35/] Reduction of the time spent by children in schools due to natural disasters, displacement, and/or migration associated with climate changes (natural disasters and droughts, for instance). Women and children remaining in their villages with limited access to places of refuge or shelters, since 90% of the care of children and the elderly is done by women, which complicates the situation or prevents them from leaving. Increase in migration of the male population causing a considerable increase in the responsibilities of women. Increase in HIV/AIDS infections and other sexually transmitted diseases, in view of the separations afflicting families and the frequent overcrowding in shelters and improvised settlements. A study by IPCC in 2006 estimated that by 2050, there could be 150 million climate refugees.

The foregoing table also shows that in addition to the poverty phenomenon, there are other reasons why women are more vulnerable to climate change. These reasons include biological factors, different relationships with the environment, cultural values and norms, and social roles. These factors not only mark the impact of women on their environment, but they also show how the environment, for natural and social reasons, affects them differently.

Another factor that detracts from the synergy between women and the environment and limits their role in the adaptation to and mitigation of climate change is the discrimination they frequently face and their limited participation in public decision-making processes. As aforementioned, many women confront social exclusion with varying ramifications. First, cultural restrictions prevent or limit them from moving outside their households. Second, closely related to the previous factor, women have less access to information, a phenomenon whose effects are especially notable in the early warning system and weather forecasting. Third, many women and girls do not know how to read or write, a limiting factor that is much more detrimental in monolingual indigenous

34. Kirby A. Pollution a life and death issue. BBC News Report,, October 1, 2004.

33. INSTRAW. The Woman and the Environment, New Challenges, Beijing + 10: from policies to practice, p. 6.

35. Carol Boender and Melissa Thaxton, REPRODUCTIVE HEALTH AND ENVIRONMENT, with the assistance of Angela Martin, Loretta Sherwood, Maureen Vargas, Lorena Aguilar, Jackie Siles, and Silvia Lara.

populations.[36/] Their lack of schooling also has an impact on the degree to which they participate in decision-making processes regarding the environment at community, national, and international levels. Despite the many international commitments and agreements that urge equal participation of women in administrative and political decisions, little has been done at local or national levels or in political or administrative decision-making bodies regarding matters related to the adaptation to and mitigation of global warming.

VI. WOMEN AS POLITICAL AND SOCIAL PLAYERS WHO INFLUENCE MITIGATION AND ADAPTATION STRATEGIES. BEST PRACTICES

Women have proven to be powerful agents in revitalizing communities and have played an active, leading role in managing natural resources, in spite of the traditional exclusion to which they are often subjected due to their social, cultural, or economic conditions and despite their limited participation in the public decision-making process.

The experiences related below, especially from our Hemisphere, illustrate their role as protagonists in the mitigation, adaptation, and decision-making associated with climate change, a role being taken on by thousands of women around the world. There are many examples of women leaders whose daily efforts and experiences help create strategies for sustainable human development; their leadership and vision have advanced activities aimed at adaptating to and mitigating global warming, and they have helped build communities with a greater degree of human development and democracy. Their individual and collective efforts, actions, and trials have transformed them into influential political and social players in policies related to climate change and environmental protection.

36 Accordingto UNESCO data, the female illiteracy rate in Latin America and the Caribbean in 2000 was 56%, and projections for 2015 are slightly less, estimated at about 54%.
http://portal.unesco.org/education/en/files/25425/10669996365table2.21.pdf/table2.21.pdf For indigenous women, this rate is around 38% , in contrast to the rate for males at about 14%.
http://www.ungei.org/gap/reportLatin.php

A. Female leaders

1. Promoting the beauty of nature and alternative energy: Hilda Liria Domicó Bailarín, Colombia

a) The situation

Since the 1960s, over 200,000 Colombians have died, and three million have lost their homes in the guerilla war, which began as a struggle for land rights and social equality. Racism and poverty are inextricably linked in Columbia, as the majority of the poor are of indigenous, African, and multi-racial descent. In recent years, anti-drug campaigns have been pushing for the increased destruction of coca fields in order to reduce the production of cocaine and stop the drug flow. The toxic chemicals used to destroy the coca plants have poisoned the soil, destroying all non-target crops as well, and the effects of the chemicals on the environment, human health, and productivity have negatively affected farmers.

b) The female leader: Hilda Liria Domicó Bailarín

Hilda Liria Domicó Bailarín has dedicated her life to helping and advocating for indigenous cultures and assisting victims of Colombia's aforementioned forty-year struggle. She fights for the rights of the indigenous community and promotes education for and about the indigenous community. She has worked with many nonprofit organizations to teach indigenous persons agricultural and trade skills in order to augment their incomes.

Bailarín is a professor at the University of Antioquia. She teaches her native tongue Embera- katio and the appreciation of nature, and she promotes alternative energy. In collaboration with local NGOs, Bailarín travels into the jungle and conflict areas to teach locals techniques for farming alternatives, soil protection, and water preservation. The organization introduces new crops in order to reduce dependency on coca and better stoves in order to help women reduce their dependency on coal and wood. As the president of the Multi- ethnic Organization of Antioquia, Bailarín has worked to promote the empowerment of women, cultural preservation, and literacy for indigenous and African women.

c) In the words of Hilda Liria Domicó Bailarín

"The indigenous people are always fighting because their rights are violated every day, every single day. The people of our ethnic groups are only happy in the forest, where we have our roots. The forest keeps our traditions alive. We want to return. We cannot live in villages or urban places. Only in the jungle is the native happy. Our past is there. The jungle keeps our traditions alive. We want to return to our roots. It is very sad to me to see my people suffering from hunger, when in the jungle we had everything."

2. Protection of groundwater: Case of Nimboyores Aquifer and the Conflict between coastal communities and hotel developers in Guanacaste, Costa Rica

The States and Peoples of Latin America must achieve a comprehensive and diversified water policy, that guarantees the broadest participation of all social stakeholders in tasks related to conservation, management, control, and administration of bodies of water and water supply systems. Social participation is the foundation for the effective protection of water systems.... Consultation with citizens should be required in these cases. ***Latin American Water Declaration, Latin-American Water Tribunal, March 2006***

a) The situation

In the Canton of Santa Cruz, Province of Guanacaste, Costa Rica, the inhabitants of Lorena de Cartagena, together with twelve other communities, initiated action to defend the Nimboyores aquifer over six years ago, which was done in response to the interest expressed by a powerful transnational hotel business to extract ground water resources in one of the most arid zones in the country as part of a megaproject designed to supply water to golf courses and realize other similar hotel functions. The extractions were projected to draw down the level of the wells in those communities substantially and affect the water supply adversely.

The twelve communities in the coastal area of Santa Cruz mobilized to defend their water supply, and, among other activities, including legal action, they protested for one month at the bridge over the Chorro River to prevent the pipes to tap into the water from being laid, thus paralyzing the project. At present, construction has come to a halt, thanks to the fight and sacrifice of the communities and the leadership of one of the teachers in the community, María Rosa Angulo.

Pressure placed on the Nimboyores aquifer continues and is increasing, as the water resources of neighboring areas are close to depletion or already depleted. Over-exploitation, contamination, lack of planning, and tourism projects by the local villagers and officials in the region have caused this situation.

b) The leadership of María Rosa Angulo, elementary school teacher

School teacher **María Rosa Angulo** has become the visible leader of the aquifer defenders, gaining important recognition nationally and internationally. On October 15, 2002, she received the "Creativity of Rural Women" award granted in Switzerland, as one of the five representatives in the World Summit on Women, where she represented the Americas. This award was granted by the Women's Summit Foundation, attached to the United Nations Economic and Social Council, with headquarters in Switzerland. Her participation in this event gave her an opportunity to explain to the international community the conflict over the Nimboyores. Her report was very well received, and she received many expressions of international support for finding a solution to the conflict. She was awarded recognition on January 9, 2003 as an exemplary citizen

from the "Folkloric City" Santa Cruz Cantonal Culture Association for her work to reclaim Guanacasteco values, cultivate artistic development, and serve the interests of her fellow citizens. She also received accolades from the Municipal Council of Santa Cruz Canton on October 28, 2002 as a woman with great moral and spiritual values who has been part of the history and development of the Canton of Santa Cruz. She was also recognized for her notable presence in political and development activities, her strong support for the family and the environment, and her fight to protect the water resources in the coastal community of the Canton of Santa Cruz.

The process of raising awareness about the value of water in one of the driest regions of the country has encouraged the union and active participation of communities in the management and administration of natural resources. The first steps have been taken to prepare an Alternative Development Plan based on integral and sustainable management of water resources in the Canton of Santa Cruz, and a Sustainable Development Committee has been established with representatives of the towns in order to protect and ensure the sustainable use and maintenance of the Nimboyores aquifer. It is worth noting that all of these initiatives have arisen from the local residents of this area under the leadership of María Rosa Angulo.

c) In the words of María Rosa Angulo

In this Guanacasteca society, machismo is widespread. Being a mother and wife brings many problems (for a community leader), since you have to be at home and you are responsible for the children. There are times when you might say that it would be easier if a man would do this, because men supposedly have more freedom. Men do not manage to occupy the place of women in the home.

Being a mother and imagining myself and my children with no water in the future gave me strength to carry on and continue our defense. Something that also drove me forward to a great extentl was the school and the children there. Seeing them in the classroom when I was teaching, so innocent, and knowing what the future holds for them. When I thought about what the future of these children would be like, it gave me strength to keep going.

I think that we women are capable of doing this, what we need is better communication and for men to understand that women's place is not just to stay at home and take care of the children, but to share everything, because we are equal to them.

3. Providing Resources and Tools for Development: Josette Perard, Haiti

a) The situation

Haiti is the poorest country in the Western Hemisphere and one of the twenty-five least developed countries in the world; seventy percent of the population earns less than a dollar a day. The water quality is poor, and over one-third of the population does not have access to safe, potable water. The country has experienced deforestation at an accelerated rate due to the need for fuel and income generation. Women are in charge of household tasks that are extremely labor intensive; they have to cook over charcoal fires, wash clothes by hand, and tote water for drinking and bathing. Women play a central role in agriculture; they plant, harvest crops,

and raise livestock. Additionally, women are expected to work outside the home to increase household income.

b. The female leader: Josette Perard

In 1994, Josette Perard, along with fellow Haitians and Americans, founded the Lambi Fund of Haiti. Since its establishment, Lambi has helped over 1.2 million Haitians. In collaboration with grassroots organizations, the Lambi Fund has accomplished the following: an increase in the availability of potable water and food, an improvement in economic conditions and democratic functioning, a reduction in soil erosion, and an increase in gender equity.

The organization promotes bottom-up development and focuses on four major projects: sustainable development, community micro- credit, the environment, and women's empowerment. They travel throughout various communities in Haiti to provide organizational and leadership training in order to enhance self-sustainability. Communities petition for money and support from Lambi to fund their projects, which include pig- breeding, irrigation, reforestation, goat breeding, micro- credit, and potable water. In the northwest, Lambi purchased manioc seeds, tools, organic pesticides, and ten thousand seedlings to build a tree nursery, and they provided community training on management and sustainable-agriculture techniques. In the south, they provided one community with twenty-seven pigs, a veterinary pharmacy, and food for the animals in addition to training farmers and two veterinary technicians.

In the northwest region, the Women's Association of Tet Kole, the largest women's organization in Haiti, wanted to create community cisterns in five communities to increase the supply of potable water. Lambi provided the production labor and skills, and they provided hygiene education to decrease water-borne diseases and improve children's health.

Another project in this region has helped women gain control of coca production. Initially, speculators controlled the coca production and paid female workers a few cents per pound. In response, seventy women's organizations asked Lambi to help them purchase hand mills, which quickened the production process and improved the product quality. This initiative helped women gain direct control over the coca they manufactured and how they sold it.

Every year, Josette organizes women's groups and holds conferences and seminars in the north and south to teach women and those who are impoverished. The goal is to teach women about their legal rights and crucial role in society. One seminar in 2007 was named "Women, Organizing and the Environment," which taught women to use alternative energy sources, such as solar ovens. This year, the seminar "Families, Health, Environment" taught women how water quality and hygiene relates to health and how they can protect their children from illnesses.

c. In the words of Josette Perard

"*Women in Haiti often face daunting challenges. I recognize that women must be equal partners in the process of economic and democratic development in Haiti. As activists*

and leaders, the contributions of women are crucial to building a strong and vibrant society. In working with peasant organizations and women's associations, I help women understand and take control of their destiny. For example, local decision making about water access, water quality, sanitation and hygiene are critical to the economic well-being of rural peasants in Haiti. Without these important rights, families spend a disproportion amount of money on health care. Children, especially girls, receive no education because they spend their days walking long distances to get water. Community driven solutions to water create health and a hope for the future."

4. Empowering Women through Skills Training: Construction Resource for Development Centre (CRDC), St. Thomas, Kingston, Jamaica.[37/]

a) The Situation

Climate change has been increasing the intensity of tropical storms, hurricanes, and other natural disasters, and the devastation following these storms has been negatively affecting many Caribbean communities. Due to changing weather patterns, many communities are unaware of their specific vulnerabilities, and this contributes to their poor disaster preparedness.

Homes that are not prepared for specific types of damage are much more susceptible to destruction during natural disasters, leading to the displacement and homelessness of many people. When Hurricanes Gilbert (1988) and Hugo (1989) struck, ill-prepared communities suffered extensive human, material, and resource losses, and it became clear that they needed to improve their strategies to mitigate future disasters.

b) The organization: An NGO called Construction Resource for Development Centre (CRDC), St. Thomas, Kingston, Jamaica

Construction Resource for Development Centre (CRDC) became the first women's construction collective in Jamaica in 1984, and it began working with communities to rebuild houses in a safer way, mitigate disasters, conduct training, and improve water and sanitation programs. Not all communities are faced with the same threats (i.e.,

37. More information can be found at:
http://practicalaction.org/docs/shelter/wuf04_surviving_disasters.pdf
http://www.unisdr.org/eng/about_isdr/isdr-publications/09-gender-good-practices/gender-good-practices.pdf

wind, flooding, and soil erosion), which makes vulnerability mapping a critical part of the disaster-preparedness process.

The initiative, which was implemented in 28 communities in St. Thomas, Kingston, Jamaica, focused specifically on training and supporting women as community leaders in disaster mitigation, vulnerability mapping, and safer house construction. The grassroots women were taught how to construct disaster-resilient homes in order to prevent structural damage from hurricanes, which would reduce injuries and deaths. One unique benefit of training and developing women as leaders is that they are indigenous to the communities and do not leave after the projects have terminated, rendering the strategies sustainable and replicable.

The CRDC saw that many reconstruction programs did not include community involvement or gender sensitivity. The Safe-Roof Retrofitting Project of 1994 developed educational and hands-on training programs in 17 hurricane-prone communities, reaching 1,050 households; fifty percent of the projects were headed by women. Since 1994, the project has been adapted to four other Caribbean countries, Peru, and Honduras. CRDC works in a vibrant network of Caribbean organizations, interest groups, and other grassroots organizations involved in disaster mitigation, including the Office of Disaster Preparedness and Emergency Management (ODPEM), National Housing Trust, and the Caribbean Disaster Emergency Response Agency. CRDC also collaborates with local authorities on training programs and construction standards.

CRDC is currently working to strengthen the participation of women and poor communities in 8 parishes across Jamaica with regards to water and sanitation programs.

5. Fighting poverty and environmental deterioration through music and teaching: Maria Isabel "Pati" Ruiz Corzo. México

a. The situation

In the mountains of Mexico, the surface water is polluted from a lack of public sewage and solid-waste management systems. Trees are used as the sole fuel for cooking and heating, which contributes to rapid deforestation; approximately 6,000 hectares of forest a year are cut down. The government initially ignored the regional issue and did not provide proper funding and support for forest protection.

b. The female leader: Maria Isabel "Pati" Ruiz Corzo

Maria Isabel "Pati" Ruiz Corzo is a musician-turned-environmentalist who fights against poverty and environmental deterioration. She has built a bottom-up civil conservation movement for farmers in central Mexico, Sierra Gorda, with her husband and friends. The Sierra Gorda Ecological Group has conducted workshops in the mountain communities to help villagers realize the importance of environmental protection, to teach them forestry management, and to boost the economy. They have promoted communities to dispose of garbage and

recycle plastic and paper. They built and installed over 480 cooking stoves that consume less firewood, and they have constructed over 11,000 odorless composting latrines, thereby reducing water contamination. To further reduce contamination, they have provided organic fertilizer for gardening. The biggest project the Sierra Gorda Ecological Group implemented was reforestation; the organization successfully planted over four million trees in five years. The organization has focused community-development programs at women who are the heads of impoverished households.

From the beginning, Pati believed that to change society, she had to educate the youth. She began visiting the region's schools with her accordion, teaching children about nature through songs. Pati began a radio show that reached isolated communities and was heard throughout the mountains. In this radio show, Pati exposed environmental abuses and lack of governmental support, and through her criticism, Pati forced the government to become involved.

In 1997, Pati's social movement persuaded the government to create the Sierra Gorda Biosphere Reserve, and Pati became the director. As a member of the government, she has stopped corrupted loggers and forced politicians to pay attention to the environment.

c. In the words of Maria Isabel "Pati" Ruiz Corzo

"We have been completely changing our way of life and making an enormous effort to escape the modern world and its illusions. We have decided to try another alternative, natural cures for diseases, self-sustainability, and to focus more on ourselves. The simple, healthy life helps us to feel at one with the land and to live a more significant life. We are seeking real goals and answers, paths to a present that looks like a labyrinth to us. We have developed an alternative strategy, a great rural project, and all of this is possible because of the energy of love, because of the hope this region gives us, so that we can make this labyrinth lead to victory."

6. Providing shelters for the victims of the 2007 earthquake. Maria Esther and Elvira Landa, Lima, Peru

a. The situation

On August 15, 2007, an earthquake measuring 8.0 on the moment magnitude scale devastated the central coast of Peru, near Lima. The three-minute earthquake killed at least 514 people and injured 1090 people, and an estimated 35,000-40,000 families lost their homes. Victims of the earthquake depended on tents as temporary shelters, but as in-country tent supplies diminished, many families were forced to live either on the streets or in poorly-constructed shelters.

Women were among the people most negatively affected by the earthquake due to their traditional household chores, including childcare, food preparation, and house upkeep.

b. Two female leaders: **Maria Esther Landa and her sister, Elvira Landa, welding entrepreneurs in Lima, Peru**

In a society where women generally hold traditional and marginalized roles, Maria Esther Landa, age 31, and her sister Elvira Landa, age 33, have emerged as female leaders in Lima, Peru. Always interested in construction and repair, these women received skills training in welding from CARE in 1994. Throughout the 1990's, Maria and Elvira practiced their craft by making model airplanes, toy cars, chairs, doors, and window frames during the day, and they continued studying at night. Eventually, they expanded their skills by welding engines for real airplanes.

When Maria decided to open her own business venture, she applied for a bank loan to help her with the overhead costs, but she was denied the loan due to being young and having little collateral. In 2004, she received a loan through CARE's in-country Edyficar microfinance program, and she paid off the loan, amounting to US$10,000, in just one year.

Maria Esther Landa is the owner and general manager of Santa Maria Eventos, which constructs and supplies a comprehensive package of metal scaffolding and structures for tents and outdoor events along with all the other necessities related to the particular event. Landa's work is now considered to be the best in Peru, which is quite an accomplishment considering that the field is dominated by men.

In the aftermath of the 2007 earthquake in Lima, Maria Esther Landa and Elvira Landa were commissioned by CARE to fabricate hundreds of tents for the local families living without shelter; they accomplished this task by welding heavy steel frames and stitching durable covers for six-person tents.

Because of her entrepreneurial skills, Maria Esther Landa was selected as one of 17 emerging women leaders from around the world who attended a month-long program earlier this year with FORTUNE's Most Powerful Women Leaders. Among Landa's other accolades are the following: she received public recognition from the Peruvian government "In Merit of Her Business Spirit and Her Contribution to the Economic Development of the Country" in 2004 and the "Miss Micro-Entrepreneur of Lima" Award in 2006; her success story is mentioned in Mujeres Batalla (Women Fighters), published in 2007; she received the Female Small Business Person of the Year Award for the Lima Region; and she received the Young Business Person of the Year award in her village of Villa El Salvador.

c. In Maria Esther Landa's words.

"*The earthquake has caused a lot of fear and need in Peru…I think a lot about people who were affected by the earthquake*," says Landa. "*I don't have a lot of resources,*

but by making these tents we can provide some comfort to people in their time of need. We can make big things happen with a lot of little things."

Speaking to women survivors, who have been severely affected by the quake due to their traditional roles, including taking care of their families and acquiring and preparing food, she remarks, "*Being a woman is a big responsibility and we have to define our own roads in life. Together, we have the power to make things better*."

Landa's proud father notes, "*These are girls who can do it…They are setting an example that girls can get out of the house and achieve whatever they set out to do*."

7. Disaster recovery and preparedness; women's empowerment. Sharon Hanshaw, Mississippi, United States

a. The situation

On August 29, 2005, Hurricane Katrina hit the Gulf of Mexico, and it became the most destructive hurricane the United States had ever experienced. Eighty percent of New Orleans was flooded to a depth of up to 8 meters, affecting over 15 million people due to the collapsed local economy, lack of access to fresh water, cost of gas, and relocation. The disaster area that Katrina left in its wake was 90,000 square miles, almost reaching the size of the United Kingdom, and the most damage occurred in Alabama, Mississippi, and Louisiana.

In addition to a death toll of 1,836 people, 400,000 people lost their jobs, 275,000 homes were destroyed, and approximately US$110 billion was paid in damages, making it the most expensive hurricane in US history.

Three years after Hurricane Katrina, some coastal areas have not yet recovered; a number of people are still living in temporary shelters provided by FEMA, and many remain unemployed.

b. The female leader: Sharon Hanshaw, executive director of Coastal Women for Change in Biloxi, Mississippi

The daughter of a respected Baptist preacher, Sharon Hanshaw worked as a cosmetologist for 21 years in her own salon in Biloxi, Mississippi, but the salon, in addition to her house, was irreparably damaged during Hurricane Katrina. Hanshaw moved to a government-issued trailer and began working with the US Army Corps of Engineers.

After three months of working, Hanshaw became involved in a community organization that was comprised of a group of 50 women who met in a funeral home to organize the community to rebuild and strengthen. Due to a need for leadership, Hanshaw volunteered to be the secretary after four meetings.

Although she did not think of this as a long-term position, Hanshaw became increasingly involved with community efforts; she became a community organizer and activist while working on reparation efforts. In 2006, the organization created the nonprofit group Coastal Women for Change, and the members asked Sharon Hanshaw to be executive director. Despite a lack of formal training, she accepted the responsibility based on a strong motivation and dedication to help those in need.

Coastal Women for Change began by having a meeting with the mayor to obtain voting rights. Although the women in the group never thought they could have access to the mayor, official forums, and lawmakers, several members gained seats on the mayor's subcommittees in Biloxi.

The work of Coastal Women for Change centers on securing and revitalizing neighborhoods through the timely dissemination of information and adequate disaster plans; in this way, the community can better recover and develop in the future. The entire community is brought together to participate in the decision-making process and help identify specific problems, including gender-related issues. Through individual outreach, Hanshaw effectively engages the community to identify critical needs, such as a library, employment, housing, and accessible, reliable childcare. As one method of disaster preparedness, Hanshaw created a database of senior citizens and assisted citizens to make disaster preparedness kits in their homes.

CWC still exists through the efforts of volunteers and a small grant, and it offers support groups for the elderly, teens, and single parents and training for child-care providers and young entrepreneurs. CWC facilitates education and awareness programs and creative development projects in the community.

c. In the words of Sharon Hanshaw

Hanshaw never planned on becoming the executive director of CWC. "*It was not a choice. It was like God had this already planned for me to do.*"

She empowers women to use their voices through leadership opportunities and community involvement, which is just as important as repairing the physical features of the community. "*Women have a special mission and a special opportunity in the wake of the crisis. I want voices to be heard. I want women to know that people hear them. Men didn't always listen to women*."

Speaking about the aftermath of Hurricane Katrina, Hanshaw remarks, "*The women were already sort of oppressed, and so they had to find childcare, transportation, work, and housing. A lot of them were under domestic violence, so they couldn't easily get a job. Women put double burdens on themselves*."

"*We're not healed yet, but we know that life goes on. I'm not dead, so I have to keep moving*."

8. Disaster preparedness: Protection against monsoons, cyclones, and floods. Bangladesh. Sahena Begum, elected president of the local women's committee in Kunderpara, Bangladesh

a. The situation

In 2007, Bangladesh experienced the worst floods in decades, affecting nine million people. Climate change has induced more extreme and erratic weather patterns in Bangladesh, and some of the effects of these extreme weather events include the proliferation of disease, loss of material goods and resources, damage to homes and property, and scarcity of fresh food and water. Additionally, due to unpredictable temperatures, people do not know when to plant crops.

Women tend to be affected more and in larger numbers than men. For example, the 1991 cyclone and floods in Bangladesh killed 71 of every 1,000 women compared to 15 of every 1,000 men. Women tend to have different roles in the community, such as gathering fuel and water, growing and preparing food, and caring for the family, and these roles are severely jeopardized during natural disasters. Also, women are not always able to leave their homes without the accompaniment of a man, which prevents them from seeking more secure shelter during storms.

b. The female leader: Sahena Begum, elected president of the local women's committee in Kunderpara, Bangladesh

At the age of 24, Sahena Begum has emerged as a leader in disaster preparedness. In her village of Kunderpara, Bangladesh, located in the eastern rural Gaibandha district, Begum was elected as the president of her village's 25-member women's committee. She is featured in Oxfam's Sisters on the Planet, and she now travels to lecture on the destructive effects of global warming in her community.

Begum left school at the age of seven, and she became a young housewife and mother. Despite a lack of formal education and initial support from her husband and brother, Begum now leads the local disaster committee. She helps to organize her community, build elevated homes, construct portable clay ovens, and preserve vegetables as methods to avoid devastation from extreme floods.

She also has a radio, which enables her to warn the community about coming floods and to start responding early to the weather patterns. She is able to include women, and therefore a greater representation of the community, in the disaster-response and warning system.

Begum has earned the respect of her community, including the men.

c. In the words of Sahena Begum

"*If women work together, sharing learning on how to cope with new weather conditions, diseases can be avoided, poultry can be saved, children are properly looked after. The fact that we have created a women's committee is really a matter of pride for us women.*"

Begum's desire is to lead women to empowerment and away from the acceptance of disasters as a "way of life." "*We are not born to suffer. We are born to fight*".

"*I'm proud because I am a mother who can teach her children how to survive a disaster,*" she says in the film. She adds, "*Just imagine what I could have done if I had an education.*" Begum advocates education for girls by encouraging families to educate their daughters.

B. Local/International Non-Governmental Organizations Led by Women

1. Local Women Led Organization: ANAMURI, Chile

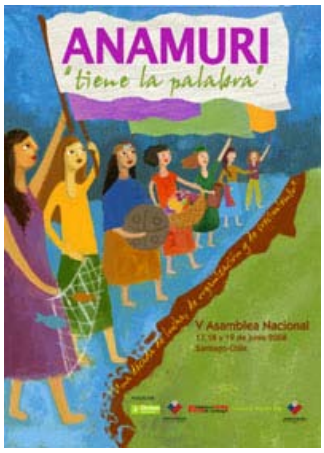
a) The situation

The rural and indigenous Chilean women have been discriminated against in various aspects of private and public life, which has impeded their socio- economic development. Without money, poverty levels increase, and these women are unable to feed themselves or their families adequately. As invisible citizens, women cannot fight for their rights or gain access to food, water, medicine, or other basic necessities. The Mapuche population, the largest indigenous community of Chile, has been uprooted from their native lands.

In five regions of Atacama, bleach, magnesium, and ammoniac nitrogen from coal mines contaminate potable water sources, and the air is contaminated by carbon dioxide and PM10 emissions from factories and mines.

The coastal region is suffering vast deforestation and vegetation destruction, leaving various communities without food.

In Bio Bio, rivers and lakes are contaminated by industrial plant waste. The industrial plants also emit pollutants into the air, affecting the health of many villagers. Soil erosion in the region has led to an increase in cattle, livestock and crop mortality.



b. The female organization: ANAMURI

ANAMURI contributes to the development and social integration of rural and indigenous women. Their goals are to help the community and preserve the culture, heritage and traditions of rural indigenous women. They strive to return land and protection to indigenous communities, and they advocate for the environment. ANAMURI has traveled to numerous regions to provide communities with seeds and organic soil in order to produce healthy crops.

ANAMURI organizes and promotes the development of the following groups: women workers, temporary workers, artisans, fishers, and farmers. They work to develop and promote equity and equality within gender, class, and ethnicity, and they defend and promote the rights of rural and indigenous women at national and international levels. ANAMURI believes in giving a louder voice to the community, and they start with the youth.

In 2005, ANAMURI held a three day seminar to educate 22-year old men about appropriate treatment for women; they taught the men about women's rights and gender equity and equality. In January 2008, AMAMURI's Department of Youth held a four day training seminar for the children in the Atacama region. The purpose of the training was to teach and train youth to become responsible leaders for the future. The training and seminars reinforced, with a gender focus, positive attitudes toward rural and indigenous people. The children worked together as teams to plant trees and learn about the dangers of soil and water contamination.

c. In the words of ANAMURI

"In Chile, seasonal farm workers, including 250,000 women, are among the hardest-hit by precarious working conditions. More than 60 percent have no labor contract. Hired by unscrupulous contractors, they suffer numerous forms of maltreatment and run the risk of diseases and death from the intensive and indiscriminate use of toxic chemicals. Most of the chemicals used in Chile's agricultural sector can cause miscarriages, cancer, neurological damage, and reproductive and congenital defects. We need to help these women and save the community."

2. International Women-Led Organization: MADRE

a. The situation

Throughout the world, women are generally considered to be second-class citizens, especially if they are indigenous, poor, or of an ethnic minority. Women are primarily responsible for ensuring their families' and communities' access to food and water, which makes climate change one of today's key human rights concerns with respect to gender.

b. The female organization: MADRE

In 1983, a group of American women visited Nicaragua during its Civil War. They saw murders, child soldiers, and horrible living conditions. When they returned to the United States, they decided to develop an organization to help women around the world. The organization has existed for 25 years and has helped millions of women around the world. The four main categories of their programs are the following: humanitarian aid, human rights, public education, and indigenous rights. They have directly impacted the following countries: Colombia, Peru, Cuba, Guatemala, Haiti, Nicaragua, Mexico, Iraq, Kenya, Burma, Rwanda, Palestine, and Sudan.

When Hurricane Mitch hit Nicaragua in 1998, MADRE moved quickly to deliver food, medicine, and other necessary relief. They delivered over US$500,000 worth of aid—enough for 30,000 people to survive for several months. Through collaboration with partnering organizations, they were able to assist the indigenous and African- descent communities and target households that had infants or disabled elders.

In 2002, MADRE supplied clean water to thousands of people in Rwanda. Thousands of children die each year, because they do not have access to potable water. MADRE worked with BENIMPUHWE, an organization in Kinyarwanda, to build a water system for Rilima, a village for households headed by women that became homeless during the genocide of 1994. They installed sixteen water taps, which had two main effects on the community: the project reduced waterborne diseases and it freed up hours of time women had previously spent hauling dirty water great distances every day. MADRE also provided health and hygiene workshops that further improved overall family health.

From August through September, 2008, Haiti was hit by four major storms, leaving more than 1,000 people dead and about one million homeless. Haiti's third- largest city, Gonaives, suffered severe floodings; over 200,000 people were left stranded without food or drinking water. MADRE's Emergency and Disaster Relief Fund worked in collaboration with Zanmi Lasante and KOFAVIV to deliver drinking water, food, medicine, and other emergency aid to the victims of the storms, in addition to providing shelters.

When the tropical cyclone Nargis hit Burma in 2008, MADRE, in partnership with the Women's Human Rights Defenders Network and Burmese women's organizations, provided support food, water, medicine, and therapy to thousands of people.

c. In the words of Vivian Stromberg, co-founder and current Director of MADRE:

"*Solidarity is a shared value. Since 1983, MADRE has shared so much in our friendship with women from around the world. Solidarity is trust, commitment, shared hope, and resolve. Solidarity is the richness between peoples determined to build the communities, the countries, and the world that we dream. A just world in which each and every one of us shares equally.*"

VII. STRATEGIES TO ACHIEVE GENDER EQUALITY IN CLIMATE CHANGE

Despite widespread recognition of the importance of preserving a healthy environment as essential for the survival of mankind and sustainable development, the deterioration of the health of the planet, especially in the past ten years, and the increasingly frequent catastrophic natural disasters throughout the world, global warming remains a marginal issue on international political agendas.

Despite the fact that many mandates demand gender mainstreaming in all spheres of development, human rights, and the environment, it is frequently absent from international policies on

global warming.[38/] We have to acknowledge that efforts to integrate these two marginalized issues—sustainable development/environment and gender—and to advance them on the list of priorities could be a colossal task.

However, it is also important to recognize the advances that are occurring both hemispherically and globally in linking climate change with other broader issues, such as human rights, as seen in resolutions adopted by the OAS General Assembly this year, such as AG/RES. 2429 (XXXVIII-O/08) on Human Rights and Climate Change in the Americas, and Resolution 7/23 on Human Rights and Climate Change, adopted by the United Nations Human Rights Council. Advances of this sort allow us to remain optimistic with regard to the recognition of gender in global warming.

However, at the present time there is no universal legal instrument that offers a legal and conceptual framework for the need to implement strategies that give equitable and balanced consideration to the interests of both women and men in response to climate change. International negotiations on global warming have focused on reducing greenhouse gases. Neither the United Nations Framework Convention on Climate Change, the Kyoto Protocol, the Intergovernmental Panel on Climate Change, or other such mechanisms have given real importance to the gender dimension of adaptation and mitigation of climate change.

A comprehensive debate on this issue should take into account a gender perspective as well as other broader issues, such as poverty and inequality.

The invisibility of a gender perspective in these debates could be partly attributed to the fact that the differentiated impact of a global phenomenon such as climate change on men and women may not always be obvious. An understanding of this disparity and the difference in resources, responsibilities, privileges, and stratification that affect men and women differently would represent a huge step forward in enhancing the effectiveness of responses developed in this area, especially in the impact of public policies designed to counter its effects. By just incorporating the experience, knowledge, and contributions of women in this area, we could expect there to be a better understanding of the impact of this phenomenon on our society and a clearer idea of its different dimensions and responses.

As we have seen throughout this study, women are usually more aware of the causes and consequences of climate change in their communities, and they are also usually more affected, especially by natural disasters. It is important to recognize what is discussed in Chapter VI of this paper, that women are far from remaining in a passive role as observers or victims of these phenomena. Their position in society and their unique capacity as leaders in the community and beyond should be recognized consistently in debates and public policies addressing the mitigation of and adaptation to climate change. This recognition will make it possible to highlight not only their role, but also their contributions as key participants in sustainable environmental management.

The following are some points that we believe could help increase the visibility of gender considerations and the participation and responsibility of women in this area, and we hope that they will help ensure a comprehensive approach in efforts to deal with the global warming that affects our

---

38. See: UNDP. Human Development Report 2007/2008. Fighting climate change: Human solidarity in a divided world, p.1 ff.. International Council on Human Rights Policy. Climate Change and Human Rights, A Rough Guide. Available at http://www.ichrp.org/en/projects/136, among others.

planet, taking into account the responsibilities, capacities, and vulnerabilities of the persons affected by it:

- Development and Human Rights Policies: Include climate change in a development and human rights policy within the framework of international and national policies.

- Priority on the Inter-American Agenda: Promote greater attention to a gender perspective in issues related to global warming and natural disasters on the Inter-American Agenda, especially in the context of Inter-American Meetings of Ministers and High Authorities Responsible for Sustainable Development and in activities developed by the Inter-American Disaster Mitigation Network.

- Access to Natural Resources: Advocate and guarantee equitable access to natural resources.

- Gender-sensitive mitigation and adaptation activities: Create and advance gender-sensitive strategies in mitigation and adaptation activities so as to identify, prevent, and mitigate problems of degradation, environmental hazards, and natural disasters, among others.

- Recognition of efforts: Recognize and support efforts made by women and their organizations in the field of biodiversity, especially contributions by indigenous and rural women.

- Best practices: Compile, disseminate, and promote good practices related to gender mainstreaming in environmental policies and programs.

- Gender mainstreaming in public policies: Incorporate gender mainstreaming in national public policies on the environment and climate change.

- Inter-institutional cooperation: Guarantee that national mechanisms for the advancement of women take into account environmental issues and promote synergies, better communication, and cooperation between them, other ministries and government offices, and civil society organizations involved in the environment and its protection.

- Participation in public decisions: Promote the participation and inclusion of women in decision-making processes by consultating with them at community, municipal, state, and national levels. Analyze obstacles to women's participation, and encourage their participation in environmental decisions and protection, defense of biodiversity, and action against environmental hazards and deterioration

- Indicators: Develop gender indicators for environmental aspects, and disseminate their use at local, state, and international levels.

- Budget: Audit the budget for gender considerations in the environmental sector.

- Data base: Prepare data bases and information systems that are sensitive to gender issues. Create or improve information systems on environmental matters, including separate data by sex, especially in national information systems.

- Gender mainstreaming in international organizations: Promote and guarantee implementation of programs that promote gender mainstreaming in international organizations that are involved with the environment and sustainable development, including composition of their staff.

- Research: Promote research on matters such as the resources for which women are responsible, use of biodiversity, the impact of climate change on women, gender aspects in mitigation and adaptation, the capacity of men and women to deal with this phenomenon, and gender vulnerability patterns, among other subjects.

- Education: Include gender issues in formal and informal education on the environment.

- Training: Promote, as part of mitigation and adaptation strategies, equitable conditions and opportunities for education, information, and training of women on climate change, taking into account the following: i) the knowledge, skills, and cultural values they possess; ii) the need to reduce the gap between men and women in their access to and control and distribution of natural resources; and iii) the importance of promoting increased productivity and adaptation to imminent or potential climate changes.

- Public information campaigns: Promote, through information campaigns and other mechanisms for dissemination, a greater perception and awareness of climate change on the part of the public, including its impacts and gender dimensions.

- International commitments: Implement in the domestic law of every country the international commitments contained in conventions, resolutions, and plans of action, and promote full compliance with them.

- Negotiations on international commitments: Promote the adoption of the principles of gender equity and equality at all levels in the design of mitigation and adaptation strategies in the framework of international negotiations on climate change, especially in the framework of post-Kyoto commitments.