Acknowledging the Linkages
Gender and Climate Change

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Over the past two decades climate change has increasingly become recognized as a serious threat to sustainable development, with current and projected impacts on areas such as the environment, agriculture, energy, human health, food security, economic activity, natural resources and physical infrastructure. While previously cast as a future condition to be avoided, there is mounting evidence that climate change is already happening and that its impacts are growing (IISD-IUCN, 2006).

Unfortunately most of the debate has been gender blind. In order to establish the linkages between gender and climate change it is first necessary to "put a human face" on the climate change debate.

As you all well know, the IPCC has predicted that "climate change impacts will be differently distributed among different regions, generations, age classes, income groups, occupations and genders" and that "the poor, primarily but by no means exclusively in developing countries, will be disproportionately affected. Their reliance on local ecological resources, coupled with existing stresses on health and well-being (e.g. HIV/AIDS, illiteracy) and limited financial, institutional and human resources leave the poor most vulnerable and least able to adapt to the impacts of climate change" (IPCC 2001).

This can be illustrated in the following manner: If we were in a poor community in the Yucatan Peninsula in Mexico and a hurricane struck, the ratio of deaths during and immediately after the disaster would be: for every one man dead, there would be three to four women dead.

Why this difference?

First we have to avoid being simplistic and just seeing women (because of their sex) as **victims**. Women are not vulnerable because they are "naturally weaker": women and men face different vulnerabilities due to their gender condition. Many women live in conditions of social exclusion. For example:

- In many Asian and Latin American countries, skills such as swimming and tree climbing are taught mainly to boys; these skills help them survive and cope better during floods.

- Dress codes can restrict women's ability to move quickly, while behavioral restrictions can hinder their ability to re-locate without their husband's, father's or brother's consent. For example, the clothes that women wear in rural Bangladesh hamper running and swimming, and some women cannot leave their household without a male relative. Some of these circumstances were responsible for the

fact that in the 1991 cyclone disaster, 90% of the 140,000 people killed in Bangladesh were women.

- Women face discrimination over access to resources and the breakdown of social order. There is a good deal of evidence from all over the world that food is often distributed very unequally within the family – with a distinct sex bias (against the female) and also an age bias (against the children). When disaster strikes, these pre-existing discriminatory practices become exacerbated and their detrimental health impact on women and girls is intensified. Sen (1988) reports how women and girls were systematically disadvantaged by food relief in the aftermath of flooding in West Bengal that destroyed crops and farmland.

Some people may say this is only anecdotal or subjective evidence.

However, last year a study carried out by the London School of Economics that analyzed disasters in 141 countries provided decisive evidence that gender differences in deaths from natural disasters are directly linked to women's economic and social rights. That is, when women's rights are not protected, more women than men will die from disasters. The study also found the opposite to be true: in societies where women and men enjoy equal rights, disasters kill the same number of women and men (Neumayer and Pluemper 2007).

So what does this means for all of us that are working in climate change: **That the empowerment of women should be one of the priorities in adaptation and risk reduction strategies.**

But what are the other linkages in relation to gender, adaptation and mitigation strategies?

W**omen are powerful agents of change** and their leadership is critical. Women have always been leaders in community revitalization and natural resource management. For example:

- Women are the main producers of the world's staple crops, providing up to 90% of the rural poor's food intake and producing 60–80% of the food in most developing countries. Maize, sorghum, millet and groundnut yields have a strong association with the year-to-year variability of ENSO (El Niño/Southern Oscillation) in Africa. For southern Africa the productivity is expected to drop by 20–50% in extreme El Niño years. If global climate changes move more towards El Niño-like conditions, crop production in Africa will decline (Stige *et al.*, 2006).

- In 2007, according to FAO, about 35 million people worldwide were directly engaged in fishing and aquaculture. In the Pacific region alone, it is estimated that women catch about a quarter of the total seafood harvested. For example, in Cambodia, Laos, Thailand, Viet Nam and the Philippines, there are communities where women play a greater part in aquaculture production and harvesting of littoral organisms than men. Changes in fish communities can have a severe impact on fisherwomen. If the greenhouse gas emissions scenario remains as present, climate warming could result in biannual thermal stress spells causing coral bleaching (Donner *et al.*, 2007). This phenomenon could result in the loss

of a key marine ecosystem that supports many marine resources essential to women's livelihoods (e.g. their fishing and tourism activities).

- Men and women often have different roles with regard to forest resource management. They play different parts in planting, protecting or caring for seedlings and small trees, as well as in planting and maintaining homestead woodlots and plantations on public lands. Men are more likely to be involved in extracting timber. Women typically gather non-timber forest products (NTFPs) for commercial purposes and to improve the living conditions within their households (e.g. medicines, fodder for livestock). For example since 2001, under the Maya Nut Program supported by The Equilibrium Fund, women in Guatemala, Nicaragua, El Salvador and Honduras have planted 400 000 Maya Nut trees (*Brosimum alicastrum*). The Equilibrium Fund is trying to participate in carbon trading with the USA and Europe to show how specific projects could help improve women's lives, adapt to changes caused by climate change and reduce greenhouse gases (The Equilibrium Fund, 2007).

- In England the National Federation of Women's Institutes (NFWI) and Women's Environmental Network (WEN) supported the Women's Manifesto on Climate Change. The survey shows 80% of women are very concerned about climate change; women want more green products and carbon labelling of goods (85%); lower prices for environmentally friendly products (85%); and more government grants and incentives for energy efficiency and micro-generation to reduce carbon emissions.

Despite these facts, women have not been afforded an equal opportunity to participate in decision making related to adaptation and mitigation policies and initiatives at the international and national level related to climate change. There is a feeling amongst some of our colleagues that more data and evidence are needed, before we can act. I partially disagree with this.

Over the past three decades extensive research has been carried out on topics such as gender and water, gender and forestry, gender and agriculture, to mention but a few. On the other hand all the major conventions and meetings dealing with the environment have pointed out the importance of addressing and promoting gender equality.

There is a need to act now, to put actions to commitments, to make the scientific community, and governments, accountable.

Climate change and gender inequality are inextricably linked. Notably, they share a similar role of creating obstacles to achieving poverty reduction and development goals. Both climate change and gender inequality limit the ability of countries to fulfill their commitments to reduce poverty and promote sustainable development.

In addition, climate change and gender inequality are intertwined. Climate change exacerbates existing inequalities and slows progress toward gender equality. Given that gender equality is a prerequisite for sustainable development and poverty reduction, the inequalities that are magnified by climate change slow down progress toward these development and poverty goals as well. In a similar manner, gender inequality worsens

the impacts of climate change and a society's move toward gender equality reduces the impacts of climate change. This can be exemplified in the following table:

Establishing the linkages between MDGs, climate change and gender (MDG 3 has been mainstream throughout the analysis)

Millennium Development Goals	Threats due to climate change	Gender implications
MDG 1: Eradicate extreme poverty and hunger	• Reduction of agricultural production for survival and commercial ends • Food security at risk • Less access to safe water	Loss of domestic species of plants and animals used by women to ensure food security of their families. Reduction, mobilization, or extinction of marine species used by women for household consumption or for productive activities. Increase in women's workload due to decline in availability of water and other resources.
MDG 2: Achieve universal primary education	• Increases the workload needed for agricultural production and subsistence activities • Environmental changes are likely to drive migration	Generally, girls and women are responsible for the collection of water and fuelwood. If the time they invest in these tasks increases, their capacity to attend school is at risk. According to UNHCR, 80% of refugees in the world are women and children. Migration of populations, given extreme changes and disasters, could interrupt and limit the opportunities for education. Men are more likely to migrate, either seasonally or for a number of years. Female-headed households left behind are often the poorest. The workloads of these women, their children and the elderly increase significantly as a result of male emigration.
MDG 4: Reduce child mortality MDG 5: Improve maternal health MDG 6: Combat HIV/AIDS, malaria and other diseases	• Environmental effects can aggravate the risk of contracting serious illnesses • Increased prevalence of some vector-borne diseases • Increase in temperatures (heat waves)	Increase in women's workload due to their role as primary carers in the family. Loss of medicinal plants used by women. Pregnant women are particularly susceptible to water-borne diseases. Anaemia – resulting from malaria – is responsible for a quarter of maternal mortalities. Women and children are fourteen times more likely to die than men during a disaster (Peterson, 2007). The high mortality rates of mothers/women/spouses during disasters result in an increase in: the numbers of orphans and mortality rates; early marriages for young girls (new spouses) causing them to drop out of school; trafficking and prostitution which in turn increase exposure to HIV/AIDS (Oxfam, 2005). Migration enhances the risk of getting HIV/AIDS, given that families are separated and they are forced to live in overpopulated spaces. In developing countries, the poorer households affected by HIV/AIDS have less resources to adapt to the impacts of climate change. The need to adopt new strategies for crop production (such as irrigation)

		or mobilization of livestock is harder for female-headed households and for houses with HIV-infected people.
MDG 7: Ensure environmental sustainability	• Extinction of species, changes in species composition, disruption of symbiotic relationships, changes in trophic cascades, among others. • Changes in the quantity and quality of natural resources could reduce the productivity of ecosystems. • Floods, droughts, rising sea levels, melting of glaciers and polar icecaps.	Without secure access to and control over natural resources (land, water, livestock, trees), women are less likely to be able to cope with climate change impacts. Less available drinking water means women have to expend more effort to collect, store, protect and distribute water. Adaptation measures, related to anti-desertification, are often labour-intensive and women often face increasing expectations to contribute unpaid household and community labour to soil and water conservation efforts. Decrease in forest resources used by women. Women often rely on a range of crop varieties (agro-biodiversity) to accommodate climatic variability, but permanent temperature change will reduce agro-biodiversity and traditional medicine options. Lack of representatives and women's participation in the decision-making spheres related to climate change at all levels (local, national and international).

If this is the case **what can be done?**

- Analyze and identify gender-specific impacts and protection measures related to floods, droughts, heat waves, diseases, and other environmental changes and disasters;.

- Guarantee that women and gender experts participate in all decisions related to climate change.

- Take action in order to ensure UNFCCC compliance with human rights frameworks, international and national commitments on gender equality and equity, including the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW).

- Support the development of a gender strategy or plan of action within the UNFCCC.

- Establish a system for the use of gender-sensitive indicators and criteria for governments to use in national reporting to the UNFCCC Secretariat.

- To ensure gender equity in all phases and aspects of funding mechanisms: when designing, implementing, evaluating proposals, and reporting on programmes. A series of gender-responsible criteria for programmes/projects should be developed, which vary according to the instrument concerned.

- Increase equitable access by poor women and men to climate change market-based approaches such as the Clean Development Mechanism.

- Facilitate the exchange of technologies that offer ecologically sustainable and socially equitable solutions for developing countries and for women and men within these countries.

Aware of the challenges ahead of us, the gender specialists of a group of organizations – UNDP, UNEP, IUCN and WEDO – have launched the Global Gender and Climate Alliance. The main goal of the GGCA is to ensure that climate change policies, decision-making, and all initiatives at the global, regional and national levels are gender-responsive. We invite you all to join us in this new challenge. We cannot afford to make the same mistakes. By neglecting the importance of gender we are responsible for the deaths and impoverishment of thousands of people.

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