INTRODUCTION

Long-term awareness of humanity’s dependence on the environment has been reflected in professionals’ and philosophers’ calls for sustainable natural resource use; these appeals date back as far as Plato (430-373 BC), Plinius (23-73 AD) and Von Carlowitz (1645-1714) (Van Zon 2002). However, for a long time interactions between human society and the physical environment were generally neglected.

More recent public and policy maker attention to the relationships between the socio-sphere and the biosphere was drawn by Rachel Carson (1962), Barbara Ward and René Dubos (1972), Dennis and Donella Meadows (1972), Gro Harlem Brundtland (1987), Wangari Maathai (2006) and millions of unnamed natural resources users and managers. Organizations such as the International Union for Conservation of Nature, the World Wildlife Fund and many other international, national and local non-governmental organizations and the scientific community played an important role in raising this awareness. These efforts increased the visibility of our dependence on limited, exhaustible and renewable natural resources, and highlighted the importance of a clean
and well-functioning environment to people’s and the ecosystem’s health.

Most studies, publications, presentations and related activities have not clearly differentiated between the interactions with the natural environment of diverse social groupings (such as women and men, urban and rural populations), except for some basic understanding that impoverished and marginalized groups have a much more challenging point of departure than those living in affluence. This notion was reflected in the policy discussions at the first Stockholm Conference on the Human Environment in 1972, where rich and poor countries—with their diverse interests—took very diverse positions, for example on who should bear the burden of addressing environmental degradation.

In the 1970s, some scholars started to underline that women and men play distinct roles and are affected differently by interactions between humans and the environment. Gender-specific roles, rights and responsibilities in the physical environment were first highlighted by scholars such as Esther Boserup (1970, 1989) and organizations like the Food and Agriculture Organization (regarding agriculture and forestry) and the International Union for Conservation of Nature (regarding biodiversity conservation) (Dankelman 2010). The science historian Carolyn Merchant argued that there is a major parallel between environmental degradation and the oppression of women (1980). She posits that one of the main causes of environmental degradation lies in societies’ changing valuation of nature during the Enlightenment, when societies began seeing nature as something to be used, explored and exploited. At the same time, women were perceived as having inferior and serving positions in communities and households.

Women’s and men’s differentiated roles, rights and responsibilities in using, managing and maintaining the environment became more and more visible—although there were clear warnings by some authors to avoid biological determinism (such as women being closer to nature than men because of their biology). Since the mid-1980s, scholars, activists and development workers have been exploring this nexus between gender, environment and sustainable development (ELC 1985, CSE 1985, Cecelski 1986, Dankelman and Davidson 1988, Shiva 1988).

Although the 1987 report of the UN World Commission on Environment and Development (the Brundtland Commission), *Our Common Future*, discusses topics such as equity, growth-redistribution, poverty, essential human needs and conserving and enhancing the resource base, it pays little attention to women’s rights and gender equality. Its discussion of gender issues mostly focuses on lowering fertility rates, although it occasionally demonstrates a broader awareness (e.g. noting that family planning is a basic human right of self-determination, that women and men should have equal educational opportunities and that housing projects often misunderstand women’s needs) (Dankelman and Davidson 1988).

The notions about women’s and men’s specific relationships to the environment fed into the efforts to incorporate gender perspectives into the international environmental and sustainable development deliberations and agendas of the 1990s, including the 1992
While the Convention on the Elimination of all forms of Discrimination against Women, adopted by the UN in 1979 and commonly known as the first international bill of women’s rights, obliges parties to take necessary measures to ensure that women are involved in all aspects of planning for development, the environmental agenda rarely included references to gender, and women’s participation in developing and implementing these was very limited. Although the Fourth International Women’s Conference in Nairobi, in 1985, recognized women’s contributions to environmental conservation and management, the conference could not directly influence the global environmental agenda. The Women’s Conference did, however, encourage the United Nations Environment Programme and the Environment Liaison Centre (which was headquartered in Nairobi) to become engaged in the UN deliberations in Nairobi and in several regional women and environmental initiatives. In 1988, Dankelman and Davidson published *Women and Environment in the Third World: Alliance for the Future*, which—at the global level—described for the first time the diverse roles and responsibilities of women and men in environmental use and management.

The first broadly supported efforts to build a gender perspective into the sustainable development agenda started with the preparations for the 1992 Rio Conference. A broad coalition of non-governmental organizations, including the Women’s Environment and Development Organization (WEDO), Development Alternatives with Women for a New Era and Worldwide, and Brazilian women’s organizations such as Rede de Desenvolvimento Humano, started a broadly supported discussion on the main themes for Rio, and undertook an extensive advocacy process to mainstream gender and reshape that agenda. These efforts were reflected in the Women’s Action Agenda 21, which was developed and adopted by participants from 83 countries during the WEDO-organized 1991 Miami World Women’s Congress for a Healthy Planet.

The Women’s Action Agenda 21 exceeded the existing scope of the women and environment agenda and criticized ongoing economic thinking and existing models and practices of development. It formed the basis for women’s efforts to profoundly influence the Earth Summit negotiations. In that sense, it left the Women in Development approach and developed into a Gender and Development approach.1

Although women’s groups were disappointed with the Earth Summit’s overall outcomes, from a gender perspective the results were notable. Rio Principle 20 acknowledges women’s “vital role in environmental management and development. Their full participation is therefore essential to achieve sustainable development” (UNCED 1992). Women were recognized as an important major group and ally for sustainable development, and in addition to many references throughout the text, a specific chapter on women’s roles was adopted in Agenda 21. The Convention to Combat Desertification and the Convention on Biodiversity referred to the importance of gender aspects in environmental conservation and management efforts. Further, the contents of the overall
Rio outcomes changed because of a strong women’s lobby: “women do not want to be mainstreamed into a polluted stream: they want the stream to be clean and healthy” (Bella Abzug, 1920-1998, US congresswoman and co-founder of WEDO).

Given these positive results at the Earth Summit, it is remarkable that the 1992 United Nations Framework Convention on Climate Change (UNFCCC) lacks any reference to gendered aspects or the differentiated roles and positions of women and men in climate change.

During the 1995 Fourth World Conference on Women, the Beijing Declaration and Platform for Action reflected the importance of the interface between gender equality and sustainable development. It recognized that “women remain largely absent at all levels of policy formulation and decision-making in natural resource and environmental management, conservation, protection and rehabilitation, and their experience and skills in advocacy for and monitoring of proper natural resources management too often remain marginalized in policy-making and decision-making bodies, as well as educational institutions and environment-related agencies at the managerial level” (UN 1995). Three strategic objectives were identified to overcome these shortcomings: involving women actively in environmental decision-making at all levels; integrating gender concerns and perspectives into policies and programmes for sustainable development; and strengthening or establishing mechanisms at national, regional and international levels to assess the impact of development and environmental policies on women.

GROWING UNDERSTANDING OF THE NEXUS BETWEEN GENDER AND CLIMATE CHANGE

Climatic changes have always been around us, and people and ecosystems have adapted to these over millennia. It has only recently become accepted that natural fluctuations and trends are influenced by human activities. The physical effects of climate change (e.g. rising mean temperatures, variations in rainfall patterns, increased likelihood of extreme
weather events) will directly and indirectly impact on peoples’ and environmental health and security. In addition to being natural incidents, climatic changes also comprise manifestations of the failing arrangements and priorities of human societies.

Disasters tend to impact more heavily on those living in poverty, and other disadvantaged groups. Not only do these groups lack the assets and capacities to resiliently cope with the consequences of disasters, they also tend to live in more vulnerable situations (e.g. in disaster-prone areas or with ecologically insecure livelihoods and a great dependency on natural resources). This results in poorer health and lack of resources to avoid or escape these insecurities.

Climatic change will impact on all aspects of human security: on people’s security of life, their security of livelihood (including food, water, energy and shelter, economic and ecological security), and on people’s dignity—including meeting basic human rights, development of capacities and societal participation (Dankelman 2010). By impairing these securities, climatic changes will increase existing social inequalities.

Gender inequalities are among the most pervasive inequalities in the world. Although women are crucial actors in managing households, bearing and raising children, in food production and managing land, forest and water resources, their roles and responsibilities are often taken for granted. Women do not receive equal rights, opportunities or decision-making opportunities as men do. Even though in many countries remarkable progress has been made over the past decades, gender inequalities are still reflected in women’s poverty, lack of resources, and the violence they meet in many societies. Because climate change impacts will mirror—and exacerbate—these disparities, it is essential that policy makers, planners and scientists take gender differentiations into account in their climate change and related energy and land-use planning, decisions and activities.

Within the context of climate change, not all women are the same. There are major differences among women of different ages, socio-economic status, race, caste, ethnic and educational backgrounds. For example, a recent study by Plan International showed that not only adult women but adolescent girls, in Ethiopia and Bangladesh in particular, were vulnerable to climatic changes (Plan 2011). When poor women lose their livelihoods, they slip deeper into poverty, and the inequality and marginalization they suffer from increases. Therefore, in debates on sustainable development and climate change, the subject of intersectionality (between factors such as gender, welfare, ethnicity, age and education) needs specific attention.

Women living in poverty are more likely to become direct victims of climate-related disasters. In this context important lessons can be learned from gender dimensions of natural disasters. Neumayer and Plümper (2007) studied natural disasters in 141 countries from 1981 to 2002 and found that poor women were more likely than men and richer women to be direct victims through mortalities and injuries. During hurricane Katrina in the US Gulf Coast in 2005, women from African-American descent (often in poorer, female-headed households), were particularly affected. In that case apart from
gender, ethnicity and poverty played an important role (Harris 2010). In Thailand, after the 2004 tsunami, landless women workers from Burma who had been working informally in the tourist industry lost their complete livelihoods as they did not have any (land and labour) rights, government support and social network to fall back on after the disaster (APWLD 2006). The socially constructed gender-specific vulnerabilities of women lead to the relatively higher female disaster mortality rates compared to those of men, and the lower their socio-economic status, the greater this effect. For example, in Banda Aceh in Indonesia, women made up to 70 percent of the 2004 tsunami death toll (UNIFEM 2005, Oxfam 2005).

FROM COPING TO ADAPTATION AND MITIGATION STRATEGIES

Strategies to cope with climate variations include changing cropping patterns, crops or livestock; changing diets and food preparation; adjusting energy and water use and management; adapting infrastructure (e.g. building high safe places or stronger houses); enhancing disaster preparedness, warning systems and rescue efforts; diversifying income; and migrating to less-impacted areas. When coping strategies add to communities’ resilience, they contribute to climate change adaptation. With their livelihood expertise, knowledge, roles and responsibilities, women play important roles in promoting and implementing local coping and adaptive strategies. For example, women in areas of northern India in which traditional agriculture is practiced, are adopting sustainable agriculture strategies and practices such as conserving local seed varieties that add to resistance to weather fluctuations. Isravati Devi from Uttar Pradesh said, “We small landholder farmers are no longer depending on single crop farming. In a situation of drought, we also cultivate maize and groundnut, but if there is a flood situation, we erect a platform on which we spread out vegetable vines. So at least harvest is not lost entirely.” Addressing climatic changes means seeing them in the totality of environmental degradation and social disintegration, and countervailing those developments by strengthened, more diverse livelihood systems, and women’s and men’s own agency (Negi et al. 2010).

In the semi-arid north eastern area of Bahia, Brazil, women (many in female-headed households) faced limited access to technology and technical assistance to irrigate their crops, a lack of low-cost agricultural inputs and a lack of access to capital. More than two decades ago, women took the lead in social mobilization for land rights in Pintadas. With the support of national non-governmental organizations, Rede de Desenvolvimento Humano and the Communication, Education and Information on Gender organization and the SouthSouthNorth network, women implemented the Pintadas Solar Project, an adaptation strategy focusing on solar-energy irrigation for small-scale sustainable agriculture and commercialization practices. They won the 2008 Seed Awards and became...
Known as a promising model to adapt local populations to climatic changes in semi-arid regions (Corral 2010).

In Viet Nam, women play a crucial role in replanting mangrove forests in coastal areas; for example, in its Xuan Thay National Park, women became central actors in promoting ecotourism (UNDP Viet Nam 2011). Women in Nigeria’s Niger Delta became extensively involved in mobilizing for social justice and for protecting their environment from wasteful oil exploration and exploitation (Odigie-Emmanuel 2010). In El Salvador, women planned to organize a hearing before the 2011 UNFCCC COP-17 in Durban, but at that time the country was hit by a severe tropical storm, so the meeting was postponed. Only women presented at that meeting, and according to Vidalina Morales, a 43-year-old woman with five children, it is self-evident that “if there is a shortage of food or lack of clean drinking water, we are the ones that need to look for solutions.” The Salvadorian women asked for climate change measures that take women into account, along with recognition of their water rights and the halting of large-scale projects that negatively affect rural communities (Ayolo 2011).

Women play crucial roles in raising their voices for climate change adaptation and mitigation, but they are not fully heard or engaged yet and climate justice is still failing. Policies and projects that neglect the gender aspects of such realities not only obstruct the full potential of a gender-specific and a women’s empowerment approach in reaching their adaptation and mitigation goals, but they also threaten to enlarge existing

Source: WEDO 2011.

Coordinated activism organizations in the Women and Gender Constituency, supported by ally governments and UN organizations, made this advancement towards gender equality a positive outcome of Durban. Two days after the talks were scheduled to conclude, countries agreed upon a process from 2012 to 2015 to “develop a protocol, another legal instrument or an agreed outcome with legal force under the UNFCCC applicable to all Parties,” which would come into effect after 2020. There remains a question of whether or not the outcome of COP-17, this “Durban Package,” is a success. The legally binding agreement that many had hoped to achieve has now been pushed to 2015. Success will be difficult if none of the efforts of this process improve the lives of the billions of women, men and children most severely impacted by climate change or protect the environment.
inequalities, thereby opposing gender justice and gender equality. Another risk is that such an approach does not benefit women the way it could or should; this is obvious, for example, in the problems local women and their organizations have in accessing climate mitigation or adaptation resources or insurances, such as the financing mechanisms that stem from UNFCCC processes.

**GREEN GROWTH OR SOMETHING ELSE?**

Although it was developed in 1991, the Women’s Action Agenda 21 can help to identify the impending climate change crisis and other related environmental concerns (biodiversity, water, energy) as manifestations of a non-sustainable development model, one based on enlarging financial profits and wealth for a few, while increasing claims over and exploitation of an ever-decreasing pool of limited resources. Such a model increases inequality, environmental pollution and degradation and is economically unsustainable. In a critique of the dominant economic system, the Women’s Major Group argued that the current system harms women and the environment, is inequitable and unsustainable, and uses indicators that are socially and environmentally blind (Women’s Major Group 2011).

In order to counteract these developments, mitigate and adapt to climate change and enhance social equality, a fundamental transformation of economic paradigms, power and practices is needed that also advances women’s rights and global justice. Such a transformation needs strong and inspirational global, regional and local governance.

The main themes of the Rio+20 Conference—‘the green economy’ and ‘the institutional structure for sustainable development’—suggested that important progress was made in understanding the determining role that economy and governance play in shaping present-day global and local sustainable development challenges. However, the outcomes of the Rio+20 process left the strong feeling that the global community will soon return to a ‘business as usual’ approach.

In their contributions towards the Rio+20 process, members of the Women’s Major Group shared their positions on many occasions (Women’s Major Group 2012, 2011). Their input to the Zero Draft Outcome Document contribution starts with a clear vision for an equitable and sustainable world: “Social equity, gender equality and environmental justice must form the heart of sustainable development, and the outcomes of the Rio+20 UN conference in 2012.”

The Group identified measures that should promote:

- Gender equality in all spheres of our societies;
- Respect for human rights and social justice; and
- Environmental conservation and protection of human health.
The major group was “critical about the use of the term ‘green economy’. We are concerned it is too often separated from the context of sustainable development and poverty eradication. We are concerned it will be used and misused to green-wash existing unsustainable economic practices that lead to inequities and infringe on the rights of affected peoples and future generations, because it does not fundamentally and adequately question and transform the current economic paradigm.”

The Group recommended using the term ‘sustainable and equitable economy’ instead of ‘green economy’, and identified principles, objectives and indicators for its success. Principles they suggested included:

- Promotion of social equity, gender equality and intergenerational equity;
- Democracy, transparency and justice;
- Application of the precautionary principle;
- Ethical values, such as respect for nature, for spirituality and culture, and harmony, solidarity, community, caring and sharing;
- Global responsibility for global common goods;
- Environmental sustainability; and
- Common but differentiated responsibilities.

It is a positive development that the Rio+20 Outcome Document regularly mentions the green economy in the context of sustainable development and poverty eradication. Enhancing social inclusion and human welfare—particularly of women, children, poor and other vulnerable groups—is mentioned as an important aspect of such a green economy, as is maintaining the healthy functioning of the earth’s ecosystems, promoting sustained and inclusive economic growth, respecting all human rights, and benefiting and empowering all. According to the Rio+20 Outcome Document, a green economy in the context of sustainable development and poverty eradication should address concerns about inequalities and promote social inclusion (including establishing social protection floors), mobilize the full potential and ensure the equal contribution of both women and men, and continue to strive for inclusive and equitable development approaches to overcome poverty and inequality. Also in line with the concerns of many women’s groups, the Outcome Document states that governments should “reaffirm that social policies are vital to promoting sustainable development.”

In an analysis of the Rio+20 outcomes, women expressed disappointment that the Outcome Document does not clearly ensure free, prior and informed consent for all communities impacted by so-called ‘green economy’ investments. They are concerned that “a ‘green economy’ will be no more than ‘green washing’ if it is not firmly planted in a legally binding implementation of the precautionary principle” (Women’s Major
Group 2012). Also, the document lacks a clear roadmap for promoting green economies in the context of sustainable development and poverty eradication.

At a high-level event at the Rio+20 conference, women heads of state and government signed a Call to Action with concrete policy recommendations on integrating gender equality and women’s empowerment in all sustainable development frameworks. Further, they pledged to use their leadership positions to advance gender equality and women’s empowerment in the context of sustainable development, carrying this vision forward at Rio+20 and beyond (UN Women 2012).

Such efforts and the principles identified by the Women’s Major Group could be important anchor-points for transforming dominant economic systems into a much more comprehensive and sustainable system, compared to a ‘green economy’. These principles could also become important guidelines for climate change deliberations and actions. Adopting these principles would avoid failures in climate change mitigation and garner widespread support for adaptation measures that enhance women’s empowerment, human rights and equality.

References


UNDP: United Nations Development Programme Viet Nam, 2011. ‘Outcomes of Workshop on Good Practices in Gender Mainstreaming in Climate Change Adaptation (CCA) and Disaster Risk Reduction (DRR), 5-6 December 2011’. UNDP Viet Nam, Ha Noi.


Women’s Major Group, 2011. ‘Summary Input to Zero Draft Outcome Document’ 1 November. UN Conference on Sustainable Development.


**Endnotes**

1 The Women in Development approach evolved in the 1970s, calling for the treatment of women in development projects and targeting women, thereby seeing women’s issues in isolation. The Gender and Development approach (which emerged later) is more integral and focuses on the relationship between women and men, their differences, inequalities and similarities, and tries to provide solutions for the creation of a more equitable society (IFAD 2012).