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Gender and Climate Change Policy

Gotelind Alber

Introduction

This chapter describes how the various aspects of discrimination against women are linked to climate change, in relation to both adaptation and mitigation. Based on a rapid assessment of the flaws of international climate policy in terms of gender, guidelines are provided on how to address the gender dimension.

It is widely accepted that women are among the groups most vulnerable to the impacts of climate change. After years of ignoring gender issues, talking about 'systems' rather than people[1] and about power plants rather than consumption, the international climate negotiations are now starting to take up this issue. In the current negotiating text of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA) women are mentioned several times, for example:

> *In providing support, priority [shall] [should] be given to: . . . Particularly vulnerable populations, groups and communities, especially the poor, women, children, the elderly, indigenous peoples, minorities and those suffering from disability* (UNFCCC, 2009b, p. 53).

However, if the underlying reasons for women's (and men's) specific vulnerabilities are not analysed and addressed properly, the results will be merely rhetorical. For a rough overview, the main factors and forms of discrimination against women are given below. The specific vulnerabilities of men are not included, since these still need to be better analysed.

Gender Inequality and Vulnerability to the Impacts of Climate Change

One of the main factors of gender inequality is the *gender division of labour*. A disproportionate share of unpaid care work and other unpaid labour falls on women. Time-use studies show that, in all countries, women spend considerably more time in unpaid work than do men. In rural India, for example, women's unpaid work amounts to more than 36 hours and their paid work some nine hours a week, while men spend 41 hours for paid work and only three-and-a-half hours

for unpaid labour (Central Statistical Organisation of India, 2000). In developing countries, a considerable part of women's unpaid work revolves around natural resources: collecting fuel and water, subsistence agriculture and gathering food and fodder in forests. In South Africa today, for instance, many women spend two hours to collect fuel and about one hour to collect water (Statistics South Africa, 2001). As climate change reduces crop yields and the availability of wood and increases water scarcity, these natural resource-dependent activities will be severely affected.

Even if women have a full-time job—even in forerunner countries in gender equality such as Sweden—the extra time women spend on unpaid domestic work is several hours per week. The ratio between unpaid and paid labour for Swedish women is 1.15, while for men it is 0.56 (Statistics Sweden, 2008).

The impacts of climate change are likely to increase the unpaid work burden of women, due, for example, to longer walking distances to collect water and fuelwood, additional care for the sick and elderly and food insecurity.[2] These tasks are likely to be carried out at the expense of education or income-generating activities. Smallholders are affected the most in relative terms. Many of these women do not have alternatives for income generation, and, with increases in food prices and declines in subsistence production, food insecurity may lead to precarious situations. Moreover, many women, in particular those in female-headed households, cannot avoid the impacts because of their family responsibilities.

It should be noted that the gender division of labour leads to constraints for women in industrialized countries, as well, at least to a certain degree. For example, the time required for family care may increase worldwide with greater climate variability, since the sick and elderly will need more care.

Another underlying reason for women's higher vulnerability is the *difference in incomes and economic resources for women and men.* Though repeatedly cited, the statement that "70 per cent of the world's poor are women" must be considered a myth, for no evidence has yet been provided (see, e.g., Chant, 2006). However, it is indisputable that the proportion of women among the poor is substantially higher than for men and, in general, that women's level of wealth is dramatically lower. The expansion of female-headed households, a trend in both industrialized and developing countries, may add to the 'feminization of poverty', while, for others, the uneven distribution of income within the household, due to imbalances in power relationships, might lead to hidden forms of female poverty (Chant, 2006).

A major factor is the pay gap that exists all over the world in varying degrees. Women are paid less for the same work, and this gap seems to be persisting. In Australia, for example, the ratio of female to male income started to level out during the 1980s, but, during the 1990s, the ratio fell again until it reached early 1980 levels (Stilwell and Argyrous, 2002).

In addition, the gender segregation in occupations leads to lower incomes for women who usually work in jobs that are less valued and lower salaried, for instance, in the service and care sectors. Recent data from the European Commission, for example, show that young women still tend to choose these 'female' oc-

cupations, while their share of engineering, manufacturing and construction jobs is less than 25 per cent (Statistisches Bundesamt, 2009). Consequently, women will benefit less from job opportunities created through investments in renewable energy, one of the main pillars of many countries' mitigation strategies.

Even more worrying in terms of vulnerability is the huge gender gap in assets, including financial assets, land and real property. One of the underlying reasons for this gap is the insecurity over, or even the denial of, land and inheritance rights, whether this is based on formal legal restrictions or customary rights or the lack of enforcement of legal provisions for equality. For example, in Pakistan, in 2001, women owned less than 3 per cent of the plots, even though, in most cases, legal regulations allowed them to own land (ICRW, 2005). With respect to other assets:

> *Women are less likely than men to own almost every type of asset. The median value of assets held by women is almost always lower than that of their male counterparts. A smaller percent of women own stocks, bonds, and other financial assets compared to men. Women are also less likely to hold retirement accounts and a woman's pension is typically smaller than a man's* (Jaggar, 2008).

Furthermore, women's access to markets and credit is limited. According to an analysis of some countries, they received less than 10 per cent of loans of male smallholders (FAO, 2001).

As a consequence, due to their paucity of resources, women have fewer options for coping with or avoiding the impacts of climate change. Again, this holds true for women in both developing and industrialized countries. However, for women in the Global South, situations that threaten survival are more likely to occur. Moreover, their informal rights to resources could disappear in times of scarcer land resources as there is likely to be increased competition over the control of land.

A third factor is *differences in power* and the lack of representation and participation of women in public and private decision-making bodies. In national parliaments, less than 20 per cent of the members are women (PARLINE, 2009), and, in national governments, the picture is similar. For instance, in countries of the European Union (EU), 26 per cent of senior ministers are women (European Commission, 2009). Even in Sweden, the share of women among legislators, senior officials and managers is only about one third. At the local level, contrary to common opinion, the situation is no better, as the bias is in a similar range: Only some 20 per cent of city councillors and less than 10 per cent of mayors are female.[3] In most fields, even if they hold a majority of the jobs, as they do in education, the air gets thinner for women at higher levels of the hierarchy. For example, in Europe, less than one third of business leaders are female, while in the highest decision-making bodies of the largest companies, the share goes down to about 10 per cent (European Commission, 2009). In energy companies, a core area for climate change policies, the percentage of women tends to be even lower, with, for instance, a proportion of 4 per cent at the executive level in Germany.

It is therefore not surprising that women are also underrepresented among delegates of Parties attending the United Nations climate sessions. During the last years, their share varied between 25 and 30 per cent, while women's proportion among heads of delegations was substantially lower with a quite large fluctuation (GenderCC, 2009a). As for non-governmental organizations (NGOs), the gender balance seems to be less skewed (except for those of business groups), as can be seen, for example, from the number of postings in relevant list services (see: Eyzaguirre, 2007). Currently, efforts are being made among environmental NGOs to establish an equitable gender balance in working groups and committees.

Would the outcome be different if more women were involved? There are some indications that other, and more ambitious, policies would receive increased attention, for example, a massive increase in renewable energy sources and far-reaching, strong measures to reduce over-consumption. In particular, there is evidence from surveys in various countries that women are less willing than men to accept risky technologies such as nuclear power and ocean fertilization.[4] When it comes to implementing climate policy at the community level, it is incontestable that the increased involvement of women would help to better take their specific vulnerabilities, and that of their entire families, into consideration.[5]

Other consequences of *cultural patterns and social roles* which discriminate against women largely vary from country to country and include constraints on access to information and education and restrictions on personal, social and economic activities outside the home. It has been repeatedly reported that early warnings,— for example, flood warnings in Bangladesh,— have not reached women or have not been understood by them. Moreover, both during and, in particular, after disasters, women are exposed to sexual harassment and violence, especially young women and girls, and especially in temporary shelters and refugee camps. Although some cultural patterns lead to higher risks for men, such as expectations of heroism—for instance, in the aftermath of Hurricane Mitch in Central America—in most cases, women might be more at risk, and there is heavily cited evidence that women are subject to more fatalities during floods, heat waves and post-disaster difficulties. Based on an analysis of some 4,600 natural disasters over a 20-year time span, Neumayer et al. (2007) provided evidence for a stronger decrease in the life expectancy of women than that of men due to these disasters. Biological differences could not explain the gender gap; rather the socio-economic status of women and social norms related to gender were found to be decisive factors.

However, in addition to gender-related causes, sex-related factors stemming from biological differences add to greater vulnerability. These include reproductive health issues, for instance, the need for sanitation during menstruation and after giving birth, constrained mobility during pregnancy and higher nutritional needs during lactation. Women seem to be more sensitive to heat stress, and this was a factor leading to a higher mortality for women during the 2003 heat wave in Europe, with the highest mortality rate among elderly women (Pirard et al., 2005).

Eventually, the cumulative impact of these factors—gender divisions of labour, income inequalities, power relations and culturally specific gender norms

and roles—will result in a larger number of women severely affected by the impacts of climate change and in a greater vulnerability for individual women and fewer options and capacities to cope with climate variability. Secondary effects might be seen in specific patterns of migration, for example, male outmigration, leaving women and the rest of their families behind in an even more precarious situation. In the long run, due to the increased work burden of women for family care and livelihoods, they may have even less time for involvement and participation in community affairs, and girls may suffer from lower school enrolment and reduced educational opportunities, thus consolidating and aggravating the discrimination against women. As stated in the *Human Development Report 2007/2008:*

> *The trade-offs forced upon people by climate shocks reinforce and perpetuate wider inequalities based on income, gender and other disparities* (UNDP, 2007, p. 86).

Gender and Adaptation to Climate Change

Some of these factors have now been acknowledged in international negotiations, though not necessarily to their full extent. Responses and remedies, however, are still in their infancy, and gender is far from being addressed properly and specifically. This can be seen in the the National Adaptation Programmes of Action (NAPAs) that the least-developed countries (LDCs) are required to set up in order to identify priority activities and receive funding.

NAPAs are expected to organize a national and/or subnational consultative process, guided, among other principles, by sustainable development and gender equality (UNFCCC, 2002, p. 9). However, no further guidance is given on how to operationalize these criteria, for instance, by providing methodologies for vulnerability assessments that are suited to detect gender bias and gender-specific vulnerabilities.

A quick scan of available NAPAs (UNFCCC, 2009a) reveals that gender issues are not explicitly addressed and included when it comes to prioritizing adaptation projects. 'Gender' is mainly understood as the participation of ministries in charge of equal opportunity or women's organizations in the consultations, however, without holding separate consultations with women. Only Tuvalu was striving for a better overall gender balance. Consultations were held at various levels and efforts were made in selecting participants and in monitoring to achieve a balanced representation.

A number of countries have included gender equality or women's empowerment into their list of criteria, and, in some plans (the Bangladesh, Guinea-Bissau, Lesotho, Malawi, Niger and Uganda NAPAs), women were identified as the most vulnerable group. While most countries held consultations at the national level, only Samoa used a method to identify vulnerability at the community level, applying the "Community Vulnerability and Adaptation Tool" (Samoa, 2005, p. 62).

Among other stakeholders, women's councils or women's committees and youth groups were involved in the workshops.

In most NAPA processes, however, gender was hardly mentioned during the elaboration and prioritization of projects, and only a very few projects were left that specifically addressed women's concerns. For instance, in the Burundi NAPA, women's empowerment rated low among various other criteria, such as sustainable environmental management, cost, capacity for adaptation and fighting poverty. In other countries, projects that survived the selection process included a specific action for female-headed households among a package of other action measures (Eritrea; the number of female-headed households is reported to amount to 30 per cent in some areas); empowerment of women through access to microfinance in order to diversify earning potential (Malawi); and sensitization and awareness-raising campaigns on climate-change impacts on women related to the three conventions on biodiversity, desertification and the United Nations Framework Convention on Climate Change (UNFCCC) (Sierra Leone).

Of course, women will benefit from many of the projects, but it appears that NAPAs fail to address both gender aspects as a whole and the specific vulnerabilities of women in a comprehensive way. Bangladesh, in its NAPA, has ranked "poverty reduction and security of livelihoods with a gender perspective . . . as the most important set of criteria for prioritization of adaptation needs and activities" (Government of Bangladesh, 2005). However, gender experts point out that there is neither a gender concern in the programmes prioritized in the NAPA, nor is there an analysis of the differential vulnerability in the National Climate Change Action Strategy undertaken by the Government (Neelormi, 2009). The examples provided by Neelormi (2009) demonstrate that there is a wealth of measures that would respond to women's and girls' specific vulnerabilities and, moreover, would benefit men and boys, too (see Box 9.1). Although these can be simple, straightforward measures, they do not receive proper attention, simply because men do not suffer to the degree that women do, for example, from a lack of proper sanitation facilities.

In the meantime, the Climate Change Cell, under the Department of Environment, Ministry of Forest and Environment, commissioned a team to carry out a study on gender and climate change in Bangladesh (Ahmed et al., 2007). It is still unknown to what degree the Government will incorporate the findings into their strategy.

Furthermore, Neelormi (2009) identifies the most relevant policies and documents with the potential to address climate change in Bangladesh, all of which would need to undergo a gender analysis in order to incorporate the gender dimension: National Water Policy, National Strategy for Economic Growth and Poverty Reduction, Standing Orders on Disasters, Environmental Policy and Implementation Programme, National Agriculture Policy, National Seed Policy, National Land-Use Policy, National Forest Policy, National Fish Policy, National Policy for Safe Water Supply and Sanitation 1998, Coastal Zone Policy and National Tourism Policy.

Box 9.1: What Needs to be Done on the Ground to Address Gender Concerns Properly?

The Case of Cyclones

Concerns related to the women:

- Economic and social insecurity due to the destruction of houses;
- Food insecurity because of damaged crops and loss of livestock;
- Higher death rate for women, because many do not use cyclone shelters since they do not provide security for women, the stairs are too high for women with children, sanitation is inadequate;
- Warning information is not disseminated in a timely manner to women, and most women are unaware of the meanings of different warning signals.

Measures to be taken for adaptation:

- Adequate number of cyclone shelters to be provided, especially in cyclone-prone areas;
- Strengthening of security in the cyclone centres;
- Major improvement of sanitation systems in the cyclone shelters;
- Women should be made to understand the warning system, and timely dissemination is also necessary;
- Government should rehabilitate the actual victims by creating employment opportunities and by helping in reconstruction efforts.

National policy:

- The National Five-Year Strategic Plan for the Comprehensive Disaster Management Programme (2004-2008) envisages bringing a paradigm shift in disaster management from conventional response and relief practices to a more comprehensive, risk-reduction culture. The plan incorporates programmes to strengthen the capacity of the Bangladesh disaster management system in order to reduce unacceptable risk and improve response and recovery management at all levels.

Barriers to policy implementation:

- The main barrier is lack of governance: Corruption, defective administrative structures, lack of accountability and transparency are the root-level constraints of policy implementation.

Recommended response measures:

- Improvement in the management of cyclone shelters;
- Increase in the number of cyclone shelters according to population;
- Timely dissemination of information about cyclones to women through effective media;
- Supply adequate tools for early warning;
- Strengthen local-level capacity in handling massive cyclones;
- Raise awareness about the entire community's right to shelter.

Source: Abridged extract from Neelormi, 2009. Note: Similar analyses for the other most important hazards in Bangladesh (drought, flood, salinity, flash flooding and water logging) are provided in this briefing paper.

It is obvious that an integrated climate policy, addressing both adaptation and mitigation, would be even broader in its cross-cutting character. Here, the main challenge of gendering climate policy is becoming apparent: Both gender issues and climate change require mainstreaming, and, consequently, 'double-mainstreaming' is needed to integrate climate into all relevant sector policies and day-to-day administrative procedures, while simultaneously integrating gender aspects at all stages.

Squaring the Mainstreaming Circle

Has mainstreaming worked so far? Gender mainstreaming—understood as integrating equality between women and men into all policies and activities and into every stage of policymaking—was adopted in 1996 as official European Commission policy to promote equality between women and men[6] shortly after the Beijing Platform for Action introduced gender mainstreaming. Whereas the mainstreaming approach is working fairly well for social policies, it is actually not fully implemented in the Commission's research activities and policies, and it is completely absent in environment and energy policies. This does not come as a surprise, since these are policy areas where the gender aspects are not often obvious and thus need careful analysis. Women are under-represented in these areas, anyway, making things even worse if the gender aspects are not explored.

As for the climate policy of industrialized countries, the response to the current economic crisis demonstrates that mainstreaming of climate considerations has not been achieved at all. Counterproductive subsidies benefiting harmful fossil fuel industries and the call for massive economic growth to counterbalance increasing national debts are mushrooming. The vast potential for emissions reductions from energy efficiency, which would require consideration of climate issues for any investment, still remains untapped.

International climate policy has not even given a signal that mainstreaming efforts would be more useful than merely relying on singular projects, either for climate policy itself or for gendering it. It is difficult to anticipate whether the fact that climate policies are not yet fully established will make them more open to the inclusion of gender issues, or if an effort of double mainstreaming would end up in an attempt to square the circle. In any case, first steps at the international level are urgently required: to acknowledge the need for mainstreaming, draw from national and even local experience and build capacity on gender and climate mainstreaming.

Making Use of What is Already There

There is a wealth of proven and tested methods and tools to address gender issues that are either suited for or can be adapted to climate policy. For instance, the Gender and Disaster Network (GDN) has developed "Gender Equality in Disasters: Six Principles for Engendered Relief and Reconstruction" (2009), which highlights, inter alia, that gender analysis is imperative and that actions must rely on women

in grassroots organizations, building on their capacities and knowledge of the specific contexts, without, however, increasing their work burden. The observation of such rules, and the application of the related methods and tools offered by GDN and other networks, such as the Gender and Water Alliance,[7] would make the oft-quoted slogan "women are powerful agents of change" a reality. This would also build on the existing coping strategies of women to address climate variability and disaster, by, for example, switching to drought resistant crops, using traditional medicine and health care and organizing collective action. Methods and tools are available from development policy or other policy fields that can easily be adapted to suit climate policy purposes, such as Gender Impact Assessments and Gender Budgeting.

An interesting tool for a Gender Impact Assessment of transport has been proposed by Spitzner et al. (2007) (see Box 9.2). It is unique in its far-reaching approach, addressing both the above-mentioned factors of discrimination and the deeply rooted underlying causes such as androcentrism and symbolic order, thus contributing to bringing about more in-depth change. It can easily be translated to sectors other than transport and can in principle be used for policies and other measures, as well.

A further important field of action in terms of gender is women's access to information, education and capacity building. Article 6 of the UNFCCC (United Nations, 1992) covers this, requiring parties to promote and facilitate public awareness and participation, education and training. Although this is a key area for both adaptation and mitigation, the efforts under Article 6 play only a minor role in the international process and have not yet been gendered. Such activities are first steps, providing entry points to reducing vulnerability, and are a prerequisite for meaningful contributions.

Reaching women and men requires awareness of their different roles, attitudes, preferences and skills. There are no neutral means of communication, since neglecting gender differences might lead to exclusion or at least to less effective communication. Therefore, outreach and other activities related to Article 6 require awareness on gender and diversity and need to include gender (and social) differences in all phases of planning and implementation.

Gender-sensitive communication refers to the contents and topics that are to be transmitted, and whether they meet the needs of women and men, taking into account, for example, differences in education or even illiteracy. Moreover, it needs appropriate media and communications channels and gender-sensitive and inclusive language and design. Eventually, it should also contribute to overcoming the limitations of gender roles and to avoiding gender stereotypes.

However, as yet all these rules, guidelines, resources and tools seem to be unknown by climate policymakers. GenderCC is seeking to address this gap and is currently preparing a "Toolkit for Decision-Makers" that is intended to shed light on existing methodologies that are useful for exploring, and addressing, the gender dimension of adaptation, mitigation and financing (GenderCC, 2009b). But more needs to be done to bring gender from rhetoric to implementation, for

Box 9.2: Dimensions of the Gender Impact Analysis for Transport Projects (brief version)

1. Care economy: Does the project take a balanced view, compared with other economic sectors, of the mobility requirements of the care economy, for which women, because of the role assigned to them, bear a disproportionately large share of responsibility (while too little responsibility is borne by men), for example, by reducing the time taken, time horizons, physical and social appropriateness of transport between the home and place of work and everyday shopping facilities, the location of the workplace, self-determined social contacts, family members, schools, medical health centres, etc., and not place too much importance on the traffic requirements of the work economy, which is the main concern of men (transport between the home as a place that is free from work and places of gainful employment, business commuters)?

2. Resources: Do the financial resources and measures of a project benefit women to the same extent as men? Does the project lead to a more balanced distribution of public space and public money between men and women? Is economic development required which takes as much account of the interests and priorities of women as of those of men?

3. Androcentrism: Does the project promote the view in institutions and situations relevant to the decision-making process that male lifestyles and ways of thinking are central and the norm while women's lifestyles and thought patterns are seen as a deviation and hence as 'other', 'specific' and 'an exception to the rule'? Does the project support the need to revise previous generalizations of the male perspective and their claim to 'objectivity' or 'general usefulness' or contribute to their institutional enshrinement (revision/adjustment of conventional methods, definitions, procedures, criteria, etc.)?

4. Gender composition: To what extent does the project contribute to giving women and gender-mainstreaming representatives greater influence in the design, planning and decision-making processes? What contribution does the project make to increasing the share of women and gender-mainstreaming issues in important positions?

5. Symbolic order: Does the project create or reinforce symbols which enhance the importance of women or do pejorative symbols weaken or undermine it completely? Does the project stabilize a gender-biased allocation of duties or rights or does it promote individualization opportunities for women and men sharing the duties?

6. Harassment: Does the project contribute to reducing male harassment and the exploitation of women? Does it contribute to making this the object of political, public, infrastructural or entrepreneurial problem solving? Does it contribute to relieving women of threats, restrictions and sanctions?

Source: Adapted from Spitzner, 2007.

example, a workshop within the official United Nations climate agenda that deals with the implementation of gender mainstreaming in climate policy. In any case, these efforts should not be narrowed down to adaptation; they need to cover all issues under debate.

Gender and Mitigation

As for core issues of the climate negotiations other than adaptation—mitigation, technology transfer and financing—the gender dimension is completely absent. However, gender roles and division of labour, access to and control over resources as well as gendered attitudes and consumption patterns are also very likely to play a role in mitigation. A few examples to illustrate the gender and mitigation link follow.

Even the causes of climate change have a gender dimension. Since emissions are linked to consumption, and men's higher incomes allow for more consumption, it is plausible to come to the conclusion that greenhouse gas emissions generated by men might be higher. A detailed study showed that this estimation is true for one-person households in European countries, regardless of age, social status and absolute income levels. The carbon footprint of men, calculated from their expenditures in different consumption categories, was significantly higher than that of women, primarily because of car use (Carlsson-Kanyama and Räty, 2008).

It is particularly in the transport sector that gender differences are the most visible, be it the preferences when purchasing a vehicle—in Germany, men pay attention to comfort, design, technical innovations and branding, and women to costs, fuel consumption and environmental acceptability—or be it the intensity of car use or the disposition to switch to less carbon-intensive transport modes (BMU, 2007, 2008; LeasePlan 2008). Moreover, the care work done by women has impacts on their mobility patterns, creating the need for gender-sensitive transport planning (see Box 9.2).

If climate policy is focusing on fiscal instruments such as taxation and emissions trading, both eventually leading to higher energy prices, economically disadvantaged groups are penalized, directly and also indirectly since most of them, as tenants, have less options to save energy than house owners. Today already, energy costs make up a disproportionally high share of poor households' expenditures since they often live in rented apartments lacking reasonable energy efficiency standards.

Significant gender differences in attitudes towards climate policies and measures can be observed in many countries.[8] In general, women are more concerned about the environment and about climate change which fits very well into their greater risk awareness, and they tend to favour changes in consumption patterns and life styles rather than technological approaches.

Not only climate policies and measures, but also their impacts may involve gender aspects. For example, in the businesses that benefit from climate policy, such as construction and the production and installation of low-carbon technologies, women hold a minority of jobs. In Germany, where renewable energy sources are a booming sector due to the favourable national policy framework, the average

percentage of female workers in renewable energy companies is some 25 per cent, and, in vocational training, it is only slightly higher (Wissenschaftsladen Bonn, 2007). Among energy advisers, women's share is less than 20 per cent. On top of the gender bias in job opportunities, this underrepresentation might lead to a neglect of women's needs for adequate information, and will in any case constrain their participation in decision-making and implementation in the energy sector.

From these brief examples, it can be concluded that gender mainstreaming and the application of adequate instruments for analysis and participation should be a part of mitigation policies and measures, as well as those for adaptation. This could, for instance, in some cases mean that regulation would be preferred to market-based instruments, in order to avoid disadvantages for women due to their lower incomes and limited access to markets.

Conclusions

It should be noted that improving the participation of women in climate policy and the endorsement of the strategy of gender mainstreaming would only be a first step in integrating gender equality issues. In order to achieve gender justice within climate justice, societal structures and patterns that perpetuate injustices have to be addressed. As noted:

> *[t]he challenges of climate change and gender injustice resemble each other—they require whole system change: not just gender mainstreaming but transforming gender relations and societal structures. Not just technical amendments to reduce emissions, but real mitigation through awareness and change of unsustainable life-styles and the current ideology and practice of unlimited economic growth. Not the perpetuation of the current division of resources and labour but a responsible cooperative approach to achieving sustainable and equitable societies* (LIFE and GenderCC, 2009).

Finally, the question is how all this is related to population issues, except for the fact that "babies come from ladies."[9] Two main lines of argument are put forward to support addressing these issues in international climate policy: First, it is evident that emissions will inevitably rise with the growing population. However, the size of the effect is disputed as population growth in the developing world is occurring primarily in countries with very low per capita emissions. Second, there is a large unmet need for family planning (WHO, 2009), and some advocates hope to revive the attention of donors if this is connected to climate change.

But as long as industrialized nations do not demonstrate that they are willing and capable of achieving deep emissions cuts, initiating a discussion on population within the international climate negotiations seems to be neither adequate from an ethical point of view, nor wise from a tactical perspective. Moreover, in consideration of the performance of the mechanisms under the Kyoto Protocol, the prospect of climate policymakers' designing a population control mechanism

would simply be frightening. After all, due to its character of causes and impacts, climate change is linked to nearly every policy domain. However, this does not necessarily mean that there is a primacy of climate policy in the sense that all other policy fields should be subsumed and addressed under climate policy. Instead, sustainable development, including aspects of well-being and welfare, equity and justice, is still the overarching issue.

Notes

1 See, for example, the Intergovernmental Panel on Climate Change's (IPCCs) definition of vulnerability in the Third Assessment Report (IPCC, 2001):

> *Vulnerability is the degree to which a system is susceptible to, or unable to cope with, adverse effects of climate change, including climate variability and extremes. Vulnerability is a function of the character, magnitude, and rate of climate change and variation to which a system is exposed, its sensitivity, and its adaptive capacity. (2001, p. 6).*

2 See, for instance, the article by F. Denton (2002) in Oxfam's journal, *Gender, Development and Climate Change*, which was one of the first publications to present gender and climate change to a wider audience.

3 See the website of United Cities and Local Governments: http://www.cities-localgovernments.org, accessed 1 September 2009.

4 See, for example: Finucane et al., 2000; Kiljunen, 2008; European Commission, 2007; and BMU, 2008.

5 See, for example: Chattopadhyay et al. (2004), who present evidence for the different priorities of local female policymakers compared to mainstream male-dominated policies.

6 See the European Commission website: http://ec.europa.eu/social/main.jsp?catId=421&langId=en, accessed 7 October 2009.

7 See the GWA website: www.genderandwater.org, last accessed 4 October 2009.

8 See, for example: BMU, 2008.

9 *Faith and hope and charity / one for you and one for me / money doesn't grow on trees / but babies come from ladies* (Fun Boy Three, 1982). This might sound flippant, but it does point out the common notion that population issues are primarily women's issues. Women's needs are for access to reproductive health and contraceptives, but these should not be mingled with population issues.

References

Ahmed, A. U., et al. 2007. "Climate Change, Gender and Special Vulnerable Groups in Bangladesh." Draft Final Report. Dhaka: BASTOB - Initiative for People's Self-Development and Center for Global Change (CGC).

Government of the People's Republic of Bangladesh. 2005. National Adaptation Programme of Action (NAPA). Dhaka: Government of the People's Republic of Bangladesh.

Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit (BMU). 2007. Umweltbewusstsein in Deutschland, Vertiefungsstudie. Berlin: BMU.

_____. 2008. Umweltbewusstsein in Deutschland. Berlin: BMU.

Carlsson-Kanyama, A., and R. Räty. 2008. "Kvinnor, män och energi; makt produktion och användning." FOI Report. No. FOI-R- 2513-SE. Stockholm: Swedish Defence Research Agency.

Chant, S. 2006. "Re-visiting the 'Feminisation of Poverty' and the UNDP Gender Indices: What Case for a Gendered Poverty Index?" LSE Gender Institute Working Paper. No. 18. London: London School of Economics and Political Science.

Central Statistical Organisation of India. 2000. Time Use Study. Delhi: Central Statistical Organisation of India, Ministry of Statistics and Programme Implementation.

Chattopadhyay, R., and E. Duflo. 2004. "Women as Policy Makers: Evidence from a Randomized Policy Experiment in India." *Econometrica* 72(5): 1409-1443.

Denton, F. 2002. "Climate Change Vulnerability, Impacts, and Adaptation: Why Does Gender Matter?" *Gender and Development* 10(12): 10-20.

European Commission (EC). 2009. "Gender Equality." Brussels: EC. Website: http://ec.europa.eu/social/main.jsp?langId=en&catId=418, accessed 1 September 2009.

_____. 2007. *Special Eurobarometer 271: Europeans and Nuclear Safety.* Brussels: EC.

Eyzaguirre, J. 2007. "Climate Change and Canada: An Untapped Opportunity to Advance Gender Equality?" *Women and Environments International Magazine* 74/75: 18-20

Food and Agriculture Organization of the United Nations (FAO). 2001. "Project Cycle Management: Technical Guide: Socio-Economic and Gender Analysis Programme (SEAGA)." Rome: FAO.

Finucane, M. L., et al. 2000. "Gender, Race, and Perceived Risk: The `White Male' Effect." *Health, Risk and Society* 2(2): 159-172.

GenderCC. Forthcoming. "Toolkit for Decision-Makers." Berlin: GenderCC.

_____ . 2009. *UNFCCC Conferences and Meetings of the Parties to the Kyoto Protocol.* Berlin: GenderCC. Website: www.gendercc.net/policy/conferences.html, accessed 1 September 2009.

Gender and Disaster Network (GDN). 2009. "Gender Equality in Disasters: Six Principles for Engendered Relief and Reconstruction." Website: www.gdnonline.org, last accessed 5 October 2009.

Intergovernmental Panel for Climate Change (IPCC). 2001. *Climate Change 2001: Impacts, Adaptation, and Vulnerability.* Contribution of Working Group II to the Third Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge, U.K.: Cambridge University Press.

International Center for Research on Women (ICRW). 2005. *Property Ownership for Women Enriches, Empowers and Protects: Towards Achieving the Third Millennium Development Goal to Promote Gender Equality and Empower Women.* Washington, D. C.: ICRW.

Jaggar, K. 2008. "The Race and Gender Wealth Gap." *Race, Power and the Environment 15*(1). Website: http://urbanhabitat.org/node/2815, accessed 1 September 2009.

Kiljunen, P. 2008. "Finnish Energy Attitudes 2008." Research Report. No. 15. Helsinki: Finnish Energy Industries. Website: www.energia.fi/en/publications/finnish%20energy%20attitudes%202008.html, accessed 12 September 2009.

LeasePlan. 2008. Hintergrundtext LeasePlan Studie Auto & Umwelt. LeasePlan Deutschland GmbH. Website: http://www.leaseplan.de/fileadmin/template/main/files/2008-07-14_Hintergrund.rtf, last accessed 23 October 2009.

LIFE and GenderCC. 2009. "Gender Mainstreaming and Beyond: 5 Steps Towards Gender-sensitive Long-term Cooperation." Submission by LIFE e.V. and GenderCC – Women for Climate Justice to the AWG-LCA. Website: http://unfccc.int/resource/docs/2009/smsn/ngo/140.pdf, accessed 1 September 2009.

Neelormi, S. 2009. "Briefing Paper: Bangladesh." Unpublished strategy paper prepared for GenderCC – Women for Climate Justice.

Neumayer, E., et al. 2007. "The Gendered Nature of Natural Disasters: The Impact of Catastrophic Events on the Gender Gap in Life Expectancy, 1981-2002." Final version of unpublished paper. London.

PARLINE. 2009. PARLINE Database on National Parliaments for Lower and Upper Houses. Website: www.ipu.org/parline, accessed 1 September 2009.

Pirard, P., et al. 2005. "Summary of the Mortality Impact Assessment of the 2003 Heat Wave in France." *Euro Surveillance* 10(7): 153-156.

Samoa Ministry of Natural Resources and Environment. 2005. "National Adaptation Programme of Action." Apia: Ministry of Natural Resources and Environment, Government of Samoa.

Spitzner, M., et al. 2007. "Urban Mobility and Gender: Promoting the Regional Public Transport System in the Greater Jakarta Area." KfW Entwicklungsbank Position Paper. Berlin: KfW Entwicklungsbank.

Statistics South Africa. 2001. *A Survey of Time Use: How South African Women and Men Spent Their Time.* Pretoria: Statistics South Africa.

Statistics Sweden. 2008. *Women and Men in Sweden: Facts and Figures 2008.* Stockholm: Statistics Sweden.

Statistisches Bundesamt. 2009. *Jugend und Familie in Europa.* Wiesbaden: Statistisches Bundesamt.

Stilwell, F. J. B., and G. Argyrous (eds.). 2003. *Economics as a Social Science: Readings in Political Economy.* North Melbourne: Pluto Press Australia.

United Nations. 1992. *United Nations Framework Convention on Climate Change.* New York: United Nations.

United Nations Development Programme (UNDP). 2007. *Human Development Report 2007/2008: Fighting Climate Change: Human Solidarity in a Divided World.* New York: UNDP.

United Nations Framework Convention on Climate Change (UNFCCC). 2009a. "NAPAs Received by the Secretariat." Bonn: UNFCCC. Website: http://unfccc.int/cooperation_support/least_developed_countries_portal/submitted_napas/items/4585.php, accessed 21 August 2009.

_____. 2009b. "Revised Negotiating Text" (FCCC/AWGLCA/2009/INF.1). Bonn: UNFCC.

_____. 2002. *28/CP.7: Guidelines for the Preparation of National Adaptation Programmes of Action.* Bonn: UNFCCC

Wissenschaftsladen Bonn. 2007. "Ausbildung und Arbeit für erneuerbare Energien." Bonn: Wissenschaftsladen Bonn.

World Health Organization (WHO). *WHO Statistics 2009.* Geneva: WHO.