

# GENDER AND CLIMATE CHANGE



- *Proceedings of Gender and Climate Change event at COP 8*
- *Thematic paper*



**INTEGRATED RESEARCH AND ACTION FOR DEVELOPMENT**

***Gender and Climate Change:  
Vulnerability, Adaptation, Mitigation and  
Financial Mechanisms***

***Proceedings and Thematic Paper  
Prepared for COP8, 2002***

***Prepared by***  
**Integrated Research and Action for Development (IRADe)**  
**ENDA Tiers Monde**

***Sponsors***  
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## **Gender and Climate Change Event at COP8**

**Conveners: J. Parikh, Executive Director, IRADe, New Delhi.  
F. Denton, ENDA, Senegal.**

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*Proceedings of  
Gender and Climate Change event at COP8  
Jyoti Parikh  
29th October, 2002, New Delhi*

## **Background**

The event was attended by men and women from development organizations, women's organizations, funding organizations, specialized agencies such as WHO, the corporate sector and so on. Both men and women participated in roughly equal numbers, perhaps slightly in favour of women (55 : 45). Professor Jyoti Parikh, the convener of the event and Executive Director, Integrated Research for Action and Development (IRADe) welcomed the participants and remarked that while the climate debate has been going on for 15 years, gender issues are seldom on the agenda. This is the only event at COP8 where gender issues are being discussed. She introduced the subject by stressing the extreme vulnerability of poor women to climate change and unreasonably large share of adaptation burden that they may have to bear.

### *How Climate change affects men and women*

It is important to understand how men and women are affected differently, by climate change. The knowledge thus gained would help improve actions taken to reduce vulnerability and combat climate change in the developing world.

### **Food security**

Climate change is predicted to reduce crop yields and food production in some regions, particularly the tropics. Women are responsible for 70–80 percent of household food production. Traditional food sources may become more unpredictable and scarce as the climate changes thus invariably affecting women.

### **Water and other resource shortages**

Climate change may exacerbate existing shortages of water. Women, largely responsible for water collection in their communities, are more sensitive to the changes in seasons and climatic conditions that affect water quantity and accessibility which makes its collection even more time-consuming.

### **Health**

Climate change may affect human health in a variety of ways, including:

- Increased spread of vector- and water-borne diseases;
- Reduced drinking water availability;
- Food insecurity due to reduced agricultural production in some regions; and
- More cases of heat stress and respiratory illness.

As primary caregivers in many families, women may see their responsibilities increase as family members suffer increased illness. Further, in the developing world, women often have lesser access to medical care than men.

### ***Gender and Vulnerability***

It is widely acknowledged that the negative effects of Climate Change are likely to hit the poorest people in the poorest countries the hardest, in other words: the poor are most vulnerable to Climate Change. Since women form a disproportionate share of the poor in developing countries especially in communities that are highly dependent on local natural resources, the women are likely to be disproportionately vulnerable to the effects of Climate Change.

Climate Change could mean extra hardship for farming activities, often carried out by women, especially in Africa but also in Asia where they farm e.g. in paddy cultivation, cash crops such as cotton and tea plantations and so on. Moreover, livelihoods from fishing in which women are equally involved may also be affected as the sea level rises and intrusion of saline water in freshwater systems takes place.

Male out-migration may happen due to resource shortages, generating increased work for women. Typically, the task of supplying water and fuel for the family is the responsibility of women, which will be also affected due to climate change, especially the problem of water supply.

Professor Parikh added that an increase in extreme events such as storms, floods, cyclones etc, even today, put the burden of devastation and destruction on women who have to keep the family together. At the time of catastrophe, the burden to nurture the family, especially young children, with daily essentials is often largely borne by women. Warning information was transmitted by men to men in public spaces, but rarely communicated to the rest of the family and as many women are not allowed to leave the house without a male relative they therefore perished waiting for their relatives to return home and take them to a safe place.<sup>1</sup>

### ***Gender and Adaptation***

On the other hand, women's knowledge in adaptation could be used as a resource and needs to be documented. Often, this knowledge may be community-specific. For example, women's specific knowledge of maintaining biodiversity, through the conservation and domestication of wild edible plant seeds and food crop breeding, is key to adapting to climate change more effectively. By documenting these, one could connect various communities around the world. She also highlighted the possible role of women in Clean Development Mechanism (CDM) as women are engaged in a

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<sup>1</sup> Lorena Aguilar (2004) Climate Change and Disaster Mitigation (IUCN) available on-line: <http://www.iucn.org/congress/women/Climate.pdf>

number of activities such as brick making, charcoal making and agro processing where energy efficiency can lead to CO<sub>2</sub> mitigation. CDM, through afforestation and carbon sequestration also can be done by poor rural women.

### ***Way forward in gender and climate change***

She stressed that under the name of climate change, further constraints on women should be discouraged. For example, there are concerns expressed that if women switch to modern fuels, CO<sub>2</sub> emissions will increase. Some even point out problems with balance of payments or fossil fuel scarcity. Whether a woman wants to use traditional biofuels, petroleum products or renewable energy sources, should be entirely her choice as women are not responsible either for excessive GHG emissions or for foreign exchange imbalance, or fossil funds scarcity. Poor rural women have not contributed to any of these problems. These responsibilities lie with those 'rich' who over consume, regardless of where they are. For example, a rural poor person in India emits only 50 to 60 kg of carbon as compared to the world average of 1100 kg and 5000 kg in the USA. Further discussion can be found in the theme paper by F. Denton and J. Parikh.

Ms. Fatma Denton of ENDA emphasized that gender is absent institutionally, in decision making, in semantics and in financial terms. Climate change will pose a challenge to women in terms of land degradation, drought, loss of biodiversity etc and hence, vulnerability, adaptation and mitigation issues are very important. Arun Kashyap, Climate Change and CDM Adviser put the problems in the context of millennium development goals for which energy services will be needed. Along with huge investments, efforts to reduce climate change and to face the challenge of adaptation and mitigation will be needed.

During the discussions, Ms. Gayatri Ramachandran, Director EPTRI and her colleagues said that it is not enough to factor in gender but we must focus on it. They emphasized that poverty reduction through an integrated approach to local resource management is a key to development. Forests are vital for food resources. Their unsustainable use would result in a shortage of non-timber forest products (NTFP) which could lead to malnutrition and infant mortality. Mr. Shrinivas Mishra emphasized gender sensitivity for macro economic policies, ensuring FDI and other measures to benefit women. S. Bera of Sri Ram Institute highlighted the role of women in waste disposal.

There were other suggestions from Ritu Prasad of WHO, Geneva and Urmila Bendre of CIDA who expressed an interest in further work in this area. Many participants from official organizations participated and said that the views expressed are in their personal capacities and stressed the role of gender, particularly in strategies for risk management. Other points made by various participants are summarized below:

- There was consensus among all the participants that there are definite links between gender and climate change
- Gender issues are important but still not mainstreamed.

- There is a need to see gender issues in a broader perspective since they are still seen within rigid and restrictive lenses (gender activists in some ways may have contributed to this misperceptions by narrowly tying it down to women's issues). Women would have to work in partnership with men in most aspects of climate change in countering vulnerability, adaptation and engaging in mitigation.
- Environmental problems in India and poverty were often discussed and how these continue to impact on the livelihoods of the poor, especially women was emphasized. Climate change may make it worse for women, particularly poor women.
- Unless we take gender matters seriously and find effective ways of mainstreaming gender issues, development alternatives of reaching out to the poor will remain incomplete.
- The recurrent problem of poor implementation of development programmes was also mentioned and that they remained largely sectoral is also seen as a part of the problem.
- There are a number of viable development projects on waste management, afforestation, reforestation and energy projects such as charcoal making that could make potentially good CDM projects which can benefit women but these need to be made known, scaled up and replicated for greater impacts.
- Lack of information and understanding is still a problem and unless the relevant information is made available, such opportunities are not going to be exploited by potential beneficiaries
- CDM is not a panacea but it can offer alternative approaches of integrating gender issues into climate change
- Concerns were raised on the lack of synergies between the conventions. Mainstreaming gender is not relevant to climate change alone but to all three conventions.
- There was certainly a lot of interest expressed in having similar discussions and workshops to increase our understanding of the issues and promote further research and action.

### **Recommendations:**

- It is the poor women who are vulnerable and will bear the adaptation burden despite their miniscule contributions to GHG emissions.
- Mainstream gender into climate change – adaptation and vulnerability studies needed
- Raise visibility on the potential impacts of climate variability and climate change on vulnerable groups
- Ensure that vulnerable groups i.e. women are not *a priori* excluded from potential CDM and adaptation projects
- Promote CDM projects integrating gender concerns with sustainable development of forests, management of biomass resources and renewable energy.
- Build capacity and resilience to enable women and men to cope with the negative impacts of climate variability and indeed climate change



- Mobilise funds for greater research in understanding the complex links between gender and poverty (with regard to climate change) and how to build the adaptive capacity of the poor.
- While ensuring that, if they wish to use modern fuels, they should not be denied fuels of their choice in the name of climate change.
- *Mainstreaming gender in the climate change debate and negotiation*
  - Climate change bodies like IPCC, SBSTA and especially SBI should ensure that this issue gets attention. A fair balance of gender participation is also needed. Perhaps a special report could be commissioned so that more information and analysis is generated.
  - The future COP should have gender-specific events, not only such as this one, but a more formal discussion is needed.
  - UNFCCC should also ensure gender involvement in CDM projects, technology transfer, capacity building and in other initiatives.

The meeting concluded with a unanimous expression of interest in further work and follow up in this area and with thanks to UNDP, New York for sponsoring the event. Continuous support of Susan McDade, Team Manager, Sustainable Energy Programme of UNDP New York and her active interest were much appreciated.

*Thematic Paper*

*Gender and climate change at COP8: A forgotten element*

**Fatma Dentan**

**Enda Tiers Monde, Senegal**

**and**

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## **Background**

Human activities are having an impact on the composition of the atmosphere. The natural background greenhouse effect is gradually becoming the 'green house problem'. Why should anyone care? It has been estimated that if the current trends continue unabated, the concentration of CO<sub>2</sub> in the atmosphere will reach double the pre-industrial level by 2050. Physical impacts such as rising sea levels will dramatically alter the natural balance of local and global ecosystems and will infringe on human settlements. Consequently, vulnerable groups such as poor women and men will be faced with problems such as food insecurity, loss of livelihood, hardships due to environmental degradation which also lead to displacement and a whole host of potentially devastating economic and social consequences.

Most developing countries especially in Africa, South Asia and small islands have few resources to contend for these impacts. For instance, agriculture will be seriously affected as developing countries, largely characterised by their vulnerability, weak institutional capacity and precarious financial situation, try to grapple with the problems of climate change. As an illustration of this limited capacity, one can review the experience of Mozambique in which extensive floods left hundreds of thousands of citizens homeless and destroyed much of the local infrastructure. If extreme climate events are the tip of the iceberg then it is quite clear that building the necessary capacity to enable the developing countries to adjust is of absolute importance.

Initial attempts to link gender and climate change may seem rather far-fetched especially for the sceptic. Publications on the linkages between gender and climate change have been few although *Energia News*<sup>2</sup> has dedicated considerable coverage on the issue and recently Oxfam's quarterly periodical, *Gender and Development*<sup>3</sup>, has devoted a whole edition on climate change. However, analysing the issues from a poverty, vulnerability, environmental resource management, equity and sustainability angle, the links become inherently obvious. Climate change has largely been conceived as a scientific process. The human aspect of a potential sea level rise and other equally

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<sup>2</sup> F. Denton. 'Gendered Impacts of Climate Change – A human security dimension', *Energia News*, Volume 3, Issue 3, October 2000  
N.Wamukonya and M.Skutch 'Is there a gender angle in the climate negotiations?' Paper prepared for *Energia* for the CSD9 (Commission on Sustainable Development, Session 9, New York, 16-27 April 2001 and 'COP 6: the gender issue forgotten?' *Energia News*4(1): March 2001

<sup>3</sup> *Gender and Development, Climate Change*, Volume 10, Number 2, July 2002 – Oxfam Journal

potentially damaging environmental hazards remain under-analysed. Proponents of the sustainable development debate have been lobbying hard to ensure that the sustainability component of the climate negotiating process does not remain a commitment on paper. Ensuring that key development issues such as poverty, adaptation and equity are given a primary role within the overall climate policy is equally important. Nations stand divided on the very principle of climate change, on who should undertake the burden of mitigation and a number of procedural issues. Within this maze of fragile consensus and deep-rooted divergence, addressing gender disparities in an environment where the very notion of gender remains alien is a huge challenge. Raising the visibility of gender issues at COP8 is immensely crucial in order to ensure that gender issues adaptation and vulnerability are mainstreamed into the debate. More importantly, since a number of key strategic decisions on climate change and its policies are reached at different COP meetings, it is important to ensure that the gender component is getting the relevant attention and that poor women and men do not become the big losers within the wide range of stakeholders and competing interests. While the climate debate has been going on for nearly 15 years, gender issues are seldom discussed.

Vulnerability and adaptation to the adverse impacts of climate change is one of the most crucial concerns of many developing countries, particularly the Sahelian countries. More gender-disaggregated research is required in order to shed more light on levels of vulnerability and coping mechanisms of different social groups. These findings should feed into the climate negotiating process so as to enable decision makers to have a better understanding of how different people are affected and what kind of capacity and support is needed.

Adaptation - In addition, adaptation to climate change or indeed climate variability is dependent on issues such as wealth, technological power, access to information, all of which are major problem areas for women. Resilience or vulnerability to climate change will largely dependent on the adaptive capacity of different stakeholders, their social and environmental context and their ability to draw on one or all of the above components<sup>4</sup>. Climate change will inevitably mean loss of livelihoods from vital productive sectors, i.e. agriculture, fisheries, tourism and the like. It is not simply that the effects of climate change will be devastating for both women and men – what is needed is an inventory of vulnerability to distinguish the various coping mechanisms of both groups and ways of ensuring and evaluating that the potential economic or capacity building spin offs from adaptation projects are not enjoyed by one group only. Women will face an unlikely large burden of adaptation despite their insignificant contribution in the emissions.

Mitigation : If the climate change problem requires the reduction of use of fossil fuels, then different stakeholders, are required to play a key role in mitigating GHG emissions rather than poor women. This is perhaps even more relevant since a number of women are faced with problems relating to indoor air pollution and bear the huge health burdens as a result of high incidences in

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<sup>4</sup> Rachel Masika, Editorial Gender and Development , Volume 10, Number 2, July 2002, p4

bronchitis, emphysema, miscarriages and other health problems. Consequently, projects on potential renewable options should not leave women yet again on the margins of decision-making. Part of reducing vulnerability to climate change would mean finding appropriate technologies that take into account the specific socio-economic realities of different rural areas, reduce women's workload, free up time and enable them to become rural micro or macro entrepreneurs.

The bottom 50% rural poor persons in India emit only 60 kg emissions<sup>5</sup> per person that include embodied emissions in various materials they use. The world average is 30 times more and the US average citizens' average is 150 times more than their Indian counterpart.

Women can choose whether they wish to have traditional fuels, petroleum products or renewable energy. This choice should be theirs and should not be taken away in the name of climate change problem<sup>6</sup>.

Women are increasingly getting involved in agriculture, food-processing industry, etc – all of these are potential income generating activities. An increasing number of women depend upon forest resources as a major source of their livelihood. Forest products also serve as a source of nutritional and food supplement thus providing alternative nutrients, minerals and vitamins to the usual staple food. Land clearance for agriculture and commercial purposes is causing deforestation, restricting access to forestry products and placing women increasingly under strain given the fact that a large amount of time is spent trekking in search of diminishing fuelwood. Consequently, this will lead to severe adverse changes in soils, arid-lands, coastal zones and tropical and boreal forests<sup>7</sup>. In addition, wetlands and vulnerable species would be under severe threat. Climate change is also predicted to exacerbate existing shortfalls in water resources. The large river basins of the Niger, Senegal and Lake Chad as well as those of South Asia have experienced a 40-60%.<sup>8</sup> reduction in the water level.

Taking preventive measures well in advance has more benefits than simply reacting to unexpected catastrophes. Already there are a number of forest management programmes in Burkina Faso, Mali, Nepal and India that are contributing a lot to agricultural and community forest management.<sup>9</sup> The Developing Countries Fund can be seen as a good enough vantage point to implement climate adaptation and as such target women and men in reducing deforestation, promoting cleaner biomass projects and assisting poorer households to reach more sustainable options.

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<sup>5</sup> Parikh J. Murthy N., Panda M. (1995) consumption pattern of rural and urban income groups in India (1995), WRI paper.

<sup>6</sup> J. Parikh., Mainstreaming gender issue in rural energy(2002) ENERGIA paper prepared for WSSD.

<sup>7</sup> Downing T .E., Sokona Y and Smith J.B., Action on Adaptation to Climate Change, Presentation to the UNFCCC Workshop on Article 4.8 and 4.9 of the Convention: Adverse Effects of climate Change 9-11 March 2000, Bonn, Germany, Oxford Environmental Change Institute, University of Oxford, 2000.

<sup>8</sup> «Water resources» in **Climate Change, Information Sheet** 13, Geneva, UNEP Information Unit for Conventions, <http://www.unep.ch/conventions>.

<sup>9</sup> Margaret M. Skutsch, 'Protocols, treaties, and action : the 'climate change process' viewed through gender spectacles' in **Gender and Development**, Volume 10, No 2, July 2002, p 31.

Women's contribution and participation can help or hinder environmental resource management.<sup>10</sup> High dependency on agriculture, forest sectors and bio-fuels could increase vulnerability and heighten the risk of environmental depletion. Women's active involvement in agriculture and their dependence on biomass energy would mean effective environmental management. The need to diversify energy resources and facilitate the introduction of substitution fuels for household energy consumption could well constitute the essential part of adaptation strategies and potential CDM projects.

Poverty - Development literature is prolific with references, indicators and figures that clearly point to an increase in poor, women-headed households. However, empirical findings that clearly substantiate that poor women are poor, simply because they are women are few and far between. Nonetheless, it is true that women, due to power dynamics within the household and the gender division of labour are more likely to be affected from incidences of poverty and vulnerability. However, it is worth noting that more and more people find themselves socially excluded and men are just as likely to be made redundant in the face of growing economic austerity.

Equity- Climate change is often perceived as a result of unsustainable patterns of consumption and production. Yet there are inherent inequities - three quarters of the world's poor are faced with energy poverty whilst the remainder bask in over-consumption and unsustainable lifestyles. To put it in figures, eight countries in the Sahel are using only 1% of the total energy consumption of the entire New York agglomeration<sup>11</sup>. Also, due to high dependency on biomass as the main fuel in most developing countries, women (who are the primary end-users) and children, are mainly at the receiving end of energy shortage and inefficiency. Climate change is about mitigating the harmful effects of greenhouse gases but it is also about helping countries especially those most vulnerable to negative and harmful effects of climate change to build their adaptive capacity and develop a sense of preparedness. Climate change is also about injecting social equity within the overall climate policy so that vulnerable people are not worse off as a result of environmental degradation. However, the key development issues such as poverty, adaptation and equity have been sidetracked at best and patently omitted at worst in the general climate policy, which is seemed to be driven by economic payoffs and considerations. Assessing the degree of vulnerability of poorer communities is essential to addressing some of the stark asymmetries that are present particularly in key areas such as the productive sectors where womens' contributions remain undervalued and invisible.

## Objectives

- It is the poor women who are vulnerable and will bear the adaptation burden despite their miniscule contributions to GHG emissions.
- Mainstream gender into climate change – adaptation and vulnerability studies needed

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<sup>10</sup> Fatma Denton, 'Climate change vulnerability, impacts and adaptation: why does gender matter?' **Gender and Development**, Volume 10, Number 2, July 2002, pp 10-18

<sup>11</sup> Jean-Paul Minivielle, 'La question énergétique au Sahel', Editions Karthala, Paris, p23.

- Raise visibility of the potential impacts of climate variability and climate change on vulnerable groups
- Ensure that vulnerable groups i.e. women are not *a priori* excluded from potential CDM and adaptation projects
- Promote CDM projects integrating gender concerns with sustainable development of forests, management of biomass resources and renewable energy.
- Build capacity and resilience to enable women and men to cope with the negative impacts of climate variability and indeed climate change
- Mobilise funds for greater research in understanding the complex links between gender and poverty (with regard to climate change) and how to build the adaptive capacity of the poor.
- While ensuring that if they wish to use modern fuels, they should not be denied fuels of their choice in the name of climate change.

### **Main topics to be covered**

- A general discussion of climate change negotiating process. Now, it is a time to consult stakeholders.
- Vulnerability and adaptation issues: Integrating gender into National Adaptation Programme of Action (NAPA)
- CDM – the sustainability component – how can we inject the gender into the CDM energy project?
- How do we ensure that institutions such as the Global Environment Facility and other UN specialised agencies start mainstreaming gender into adaptation programmes?
- Way forward – How to engender key negotiating issues at COP8
- Mainstreaming gender in the on-going processes, such as, Inter-Governmental panel on Climate Change (IPCC), Conference of Parties (COP) and various discussions relating to vulnerability adaptation and mitigation.



*It is a 'think tank' that works with 'action tanks'*

The New Delhi based **Integrated Research and Action for Development (IRADe)** was established in 2002 by eminent persons in India. The institute was set up as a fully autonomous advanced research institute with the idea that the development process that increases the welfare of all its citizens, especially the poor and the disadvantaged, requires innovation and change and new thinking, activities and approaches. It requires perspectives from several disciplines. It is a multistakeholder process including government, NGOs, industry, corporations, academic and financial institutions. Thus IRADe involves them as partners at all stages of the research process.

The objectives of IRADe are:

- To develop understanding that integrates multi-stakeholder perspectives concerning issues of development.
- To promote a wider consensus through research and analysis on effective policies among stakeholders and policy makers.
- To develop capacities among professionals for multi-disciplinary multi-stakeholder policy analysis.
- To promote ideas and initiatives for inclusive development at the local and global levels
- To provide research support to developing countries to negotiate international agreements better.

The focal areas of the institute are:

- Energy systems, policy and planning
- Natural resources and environment management
- Infrastructure, industry and institutions
- Rural and urban areas
- Global and local issues especially poverty alleviation programmes
- Climate change and Clean Development Mechanism

In a short span of time, IRADe has started working with Government, non – government and multilateral agencies such as Stanford University – USA, Self Employed Women's Association, Winrock International – India, Energia International – Netherlands, Ministry of Environment and Forests (MOEF), Government of India, South Asia Network of Economic Institutes (SANEI), Central Statistical Organisation, United Nations Environment Programme (UNEP) – Geneva, Petroleum Federation of India (Petrofed India) etc. as well as private sector such as Pricewaterhouse Coopers (PwC) – New Delhi and Reliance Industries Ltd.