

# Political Economy of Gender and Climate Change

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## Abstracts

Gender Concerns in Climate Change need serious attention of all interested in sustainable development. Women in many developing countries are responsible for climatically sensitive tasks such as securing food, water and energy which ensure the life and well-being of the households. The effects of climate change have been droughts, floods, coastal erosion, sea level rise and rising temperatures. Devastating impact of climate change puts greater pressure on women to shoulder the adverse consequences on the households.

Women have to face double challenges when faced with climate change as they are at the receiving end and at the same time saviors of survival needs and nurturers. Women often have unequal access to information and resources, and are under-represented in decision-making which makes them even more vulnerable to natural disasters and extreme weather events. Despite women's vulnerabilities, women's knowledge and social practices could be used to build community resilience if women were included in adaptation and mitigation efforts. For this to happen we need to train our decision makers to identify strategic gender needs and practical gender needs in the matter concerning climate change and sustainable development.

## Introduction

Economics of Gender and Development sees a connection between the exploitation and degradation of the natural world and the subordination and oppression of women. Ecofeminism emerged in the mid-1970s alongside second-wave feminism and the green movement. Ecofeminism brings together elements of the feminist and green movements, while at the same time offering a challenge to both. It takes from the green movement concern about the impact of human activities on the non-human world, and from feminism the view of humanity as gendered in ways that subordinate, exploit and oppress women. It is both an activist and academic movement which see critical connections between the domination of nature and the exploitation of women. Ecofeminist activism grew during the 1980s and 1990s among women from the anti-nuclear, environmental and women's rights

movements.

"Ecofeminists say 'no more waiting'... We are in a state of emergency and must do something about it now... around the world, economies, cultures and natural resources are plundered, so that 20 percent of the world's population (privileged North Americans and Europeans) can continue to consume 80 percent of its resources in the name of progress." [1] Our aim is to go beyond this narrow perspective and to express our diversity and, in different ways, address the inherent inequalities in world structures which permit the North to dominate the South, men to dominate women, and the frenetic plunder of ever more resources for ever more unequally distributed economic gain to dominate nature... Everywhere, women were the first to protest against environmental destruction. It became clear to us, activists in the ecology movements, that science and technology were not gender neutral. As with many other women, we began to see that the relationship of exploitative dominance between man and nature (shaped by reductionist modern science since the 16<sup>th</sup> century) and the exploitative and oppressive relationship between men and women which prevails in most patriarchal societies, even modern industrial ones, were closely connected."

### **Male Domination in the Discourse on Climate Change**

The impacts of climate change on women are not a mainstream focus in the key international agreements on climate change such as the Kyoto Protocol and the UNFCCC (United Nations Framework Convention for Climate Change). All key decision-making institutions related to climate change have a male-dominated hierarchal structure.

The report, Facing a Changing world: Women, Population and Climate, released on 9-11-2009 by the UN highlights "With the possibility of a climate catastrophe on the horizon, we cannot afford to relegate the world's 3.4 billion women and girls to the role of victim," United Nations Population Fund chief Thoraya Ahmed Obaid said. "Wouldn't it make more sense to have 3.4 billion agents for change?"

### **Gender as a Factor of Vulnerability to Climate Change**

The UNFPA study reveals that the poorest populations while having contributed the least to climate change are the most vulnerable to the crisis. Women are the poorest of the poor. It is estimated that women produce over 50% of all food grown worldwide. Climate disaster is perhaps the most inequitable threats of our time. Worst sufferers are women because they constitute major share of agricultural work force and also because they tend to have access to fewer income-earning opportunities.

The impact of climate change on women is of particular significance in Pacific Island Nations. Climatic conditions and extreme events - droughts, floods, sea level rise and coastal erosion, rising temperatures - will hurt food security and the well-being of Pacific Islanders, with women bearing the brunt of the impact due to the responsibility held by women with Pacific communities in relation to food security and the well-being of a household.

Plight of Asian women has been aggravated by climate change. Noting that about 2.2 billion Asians rely on agriculture for their livelihoods, the sector is now threatened by falling crop yields caused by floods, droughts, erratic rainfall and other climate change impacts. The UNFPA Report avers, "Current climate models indicate food prices may increase sharply, rice prices by 29-37 per cent, maize prices by 58-97 per cent and wheat prices by 81-102 per cent by 2050". In this context, women are forced to shoulder the heaviest burden of food inflation as provider of food in the family.

## **Indian Experience**

In India, more than 84% of women are involved in agricultural activities, and as a result they become the greatest victims of climate change's impact. In addition, gender inequality makes them disproportionately vulnerable to environmental alterations.

Indian women are extremely vulnerable to climate change. As women are often responsible for providing daily essentials such as food and water, when climate-related disasters strike the poorest families, the workload of women and girls increases and they tend to miss out on opportunities. Studies have shown that Indian women born during a drought or a flood in the 1970s were 19% less likely to ever attend primary school. As climate change intensifies India's poorest women and girls are at risk of losing opportunities to participate equally in development. At the same time, many poor women are involved in "climate sensitive" activities such as paddy cultivation or fishing. Climate change has affected their livelihoods.

### **Gender Differential Impact of Climatic Threats to Life:**

It is predicted that climate change will lead to increasing frequency and intensity of extreme weather conditions, precipitating the occurrence of natural disasters around the globe. A London School of Economics study in 2007 examined natural disasters that had occurred in 141 countries from 1981-2002. The study found that natural disasters lower the life expectancy of women, and as the disaster intensifies so too does this effect.

### **Higher Risks during Disasters:**

Women and children are 14 times more likely to die than men during natural disasters and are otherwise disproportionately adversely affected and 85% of people who die from disasters are women. (<http://www.wedo.org/category/learn/campaigns/climatechange>). It was reported that 70-80% of casualties in the 2004 Asian tsunami were women and 90% of the casualties in the 1991 cyclone in Bangladesh were women. [2] It was found that 83% of low-income, single mothers were displaced in the wake of Hurricane Katrina. [3]

### **Increased Workload/Household Burdens:**

Because of women's role in the household, women have to cope with swift environmental changes for centuries. However, climate change is lessening women's capacity to cope with these changes. And when women are not able to adapt to their environment entire communities suffer. (Source: WEDO)

Climate change exacerbates issues of scarcity and lack of accessibility to primary natural resources, forest resources, and arable land, thereby contributing to increased workload and stresses on women and girls as well as increased conflict and instability which often leads to increased violence against women and girls.

### **Limited Ownership:**

Women possess a unique capacity and knowledge to promote and provide for adaptation to and mitigation of climate change, but often have insufficient resources to undertake such initiatives.

Women are constrained by a lack of economic freedoms, property and inheritance rights, as well as access to financial resources, education, and new tools, equipment, and technology. Women are underrepresented in the development and formulation of policy and decision-making in regards to

adaptations and mitigation of climate change.

### **Political Inequality:**

Compounding this reality is the widespread gender inequities existing throughout the policy- and decision-making spheres, leaving women to struggle against restricted access to information and education, restricted mobility, and in many cases laws restricting or prohibiting land ownership.

Women are producing 60% of food in Asia and 80% in Africa, yet women have access to 1% of agricultural credit worldwide. (Source: WEDO)

Martina Longom, Village Woman, Karamuja, Uganda states, “we travel further and further for firewood every year, and it takes us to less safe places...”. Deforestation in Uganda amplifies already dire conditions. The local women’s group in Caicaoan addresses this problem by planting evergreen and mango trees to replace ones cut down for fuel and charcoal reducing erosion and helping people earn a living Martina Lungom is a strong advocate of the role education can play in the fight against climate change. States Blogger Pricilla Stuckey, in *This Lively Earth*, “Discrimination against women also plays an enormous role in how women experience the effects of climate change. In India, for example, where women have seen their crop yields cut in half and the quality of grain diminishes because of climate changes, women’s health is impaired from the double whammy of inferior crops and inequality.

### **Acute survival struggle**

Climate Change has made the search for livelihoods tougher, created greater food insecurity, caused sharp declines in the quality of life, and triggered mass migrations The HDR also highlighted micro-level studies which had revealed that Indian women born during floods in the 1970s were 19 per cent less likely to have attended primary school. So clearly the vagaries of climate change have the potential to make life a high-risk venture for those whose capacity to manage these risks, in terms of both personal choice and personal income is minimal.

### **Lessons of Chipko and Appiko**

The women of Reni village in Chamoli district who took on the forest mafia through their Chipko movement in the mid-70s, or the Bhil tribal women of Madhya Pradesh’s Sondwa Block, who are today patrolling their forests to defeat the designs of those intent on denuding them. With able-bodied men searching for livelihood opportunities in the cities, more women than ever are left to do low paying agricultural jobs, including activity earlier prohibited to them, like ploughing.

### **Testimonies at public hearing**

Gouri Bai belongs to a small hamlet in Bundelkhand. Being a part of the farming community, her life and livelihood depend on agriculture. But changing weather and decreasing water for irrigation are threatening her survival. The vagaries of nature have left her steeped in debt and poverty.

Shyamali Das from the Sunderbans in West Bengal has been witness to many cyclones that have struck the area in recent times. Cyclonic storms flooded vast tracts of farm land, which remained inundated for a long time. As member of a fishing community, she has suffered losses of 20 fish species. “Accept us and our knowledge as a base to adapt and mitigate climatic changes.”

### **Global Success Stories**

Wangarai Maathai, Winner of the 2004 Nobel Peace Prize successfully implemented The Greenbelt Movement in Kenya, one of the leading worldwide climate change projects.

Sahena Begum spearheads community efforts in her village in Bangladesh and focuses on preparing women for disasters, giving them tools and basic skills to survive and prepare for the floods and cyclones that frequent her village and that are getting increasingly worse and more unpredictable.

Women are pivotal to the efforts to control erosion due to land degradation in the rural community of Keur Moussa, Senegal under the framework of the Agrobio Niayes Program by ENDA Pronat.

Women are also involved in building vegetation fascines, infiltration ditches, and open trenches to slow water speed. This has not only helped to save the agriculture but also reduced the time women spend getting water and women have been able to trade herbal plants. Adaptation programs like these that specifically target and involve women allow women to develop capacity as well as increase the capacity of the communities these women support.

### **Respect collective wisdom of women**

Gender economists firmly believe that aggregating local knowledge and recent breakthroughs in agricultural and environmental R&D, and using the insights so gained for better management of natural resources. The sharing of information as efficiently as possible emerged as an urgent and pressing requirement, whether it was in the form of advance bulletins on weather patterns or timely data on market trends. Farmer Sita Debi says in blog Find Your Feet, “When there is no rain, we women have to work really hard in the fields to try and grow crops. Our nutrition also suffers because we are the last to eat at the family table. A lot of us are anemic as a result. Women have to walk long distances for potable water, Fodder becomes scarce and Fuel wood cannot be availed.”

#### **Increased Burden of Care Giving:**

As primary caregivers, women may see their responsibilities increase as family members suffer increased illness due to exposure to vector borne diseases such as malaria, water borne diseases such as cholera and increase in heart stress mortality. Increased malnutrition and Stressful life enhance morbidity levels among women.

### **Women Farmers Response to the Corporate World**

Food is a human right & not a corporate commodity for speculation. Mother nature does not operate on a boardroom profit. Corporate profit will merely lead to more food crisis.

An inspiring experience of Indian women to mitigate the effects of Climate Change merits attention. In Zaheerabad, dalit (the suppressed) women forming the lowest rung of India's stratified society, now demonstrate adaptation to climate change by following a system of interspersing crops that do not need extra water, chemical inputs or pesticides for production. They grow 19 types of indigenous crops to an acre, on arid, degraded lands that they have been regenerated. A collective of 5,000 women spread across 75 villages in this arid, interior part of southern India is now offering a chemical-free, non-irrigated, organic agriculture as one method of combating global warming.

Vast Renewable Energy Potential could help in responding to this scenario, provided “policy and finance measures quickly scale-up proven technologies for the poor, including small hydro and solar power”. Promotion of Rain water harvesting, decentralised water bodies, recycling and reusing

resources must become our way of life. Efforts such as Green Belt movement in Africa and Bhoogyan in South Asia need to be universalized. Bhoogyan as an Integrated Knowledge System on Climate Change Adaptation by Oneworld.org is designed to cater to the needs of communities vulnerable to the dangerous impacts of climate change. This web-based technology solution provides contextual knowledge on local and indigenous coping strategies to grassroots communities through multiple delivery channels, including the mobile, internet and radio. Communities in turn access on-demand knowledge through mobiles, based on geographical specifics and in local language, on crucial adaptation and risk reduction measures.

## **Mainstreaming of Gender Concerns in Discourse on Climate Change**

As women bear a disproportionate burden of climate change consequences, women's groups working with rural and tribal organizations are lobbying for gender mainstreaming of women's concerns in discourse on climate change. Women's groups in India are seriously concerned about impact of climate change on women's survival struggles in rural and urban areas. Women scientist such as Dr. Jyoti Parikh and Dr. Vandana Shiva played crucial role in engendering the discourses by coming out with World Peoples' Conference on Climate Change and The Rights of Mother Earth Indigenous Peoples' Declaration on Wednesday, April 28, 2010. This declaration has been rallying point for highlighting gender concerns in Climate Change debate advocated by United Nations Population Fund (UNFPA).

Practical Gender Needs are those that Women identify in their socially accepted roles in society. Practical gender needs do not challenge the gender divisions of labour or women's subordinate position in society, although rising out of them. Practical gender needs are a response to immediate perceived necessity, identified within a specific context. (Moser, 1993, p40)

Strategic Gender Needs are the needs women identify because of their subordinate position to men in their society... They relate to gender divisions of labour, power and control and may include such issues as legal rights, domestic violence, equal wages and women's control over their bodies. Meeting strategic gender needs helps women to achieve greater equality. (Moser, 1993, p39).

The distinction between these two types of needs can provide a useful tool to aid us in analyzing how gender is being addressed in proposed policy or project interventions when faced with challenges arising due to Climate change. .

**Decreased food security:** With changes in climate, traditional food sources become more unpredictable and scarce. This exposes women to loss of harvests, often their sole sources of food and income.

**Impact on livelihoods:** Women are more dependent for their livelihood on natural resources that are threatened by climate change. For instance, climate change causes a rise in the sea level, affecting the fishing community (both men and women) not only in terms of fish-catch but also with regard to water scarcity, as seawater gets into fresh water. Besides, when the land is inundated, infrastructure (roads and houses) are damaged. Large scale migration from inundated areas is expected and much of the burden of migration falls on women.

**Water resources - shortage and access:** Climate change may exacerbate existing shortages of water. Women are largely responsible for water collection in their communities and therefore are more affected when the quantity of water and/or its accessibility changes.

**Increased burden of care giving:** As primary caregivers, women may see their responsibilities



increase as family members suffer increased illness due to exposure to vector borne diseases such as malaria, water borne diseases such as cholera, and increase in heart stress mortality.

Women are particularly vulnerable because they are more prone to the adverse impacts from climate change. Their limited adaptive capacities arise from prevailing social inequalities and ascribed social and economic roles that manifest in differences in property rights, access to information, lack of employment and unequal access to resources. Further, changes in the climate usually impact on sectors that are traditionally associated with women, such as paddy cultivation, cotton and tea plantations, and fishing. This means increased hardship for women. For example, studies show that climate change has an adverse impact on fishing, as the sea level rises and saline water enters into freshwater systems, making fishing difficult. Further, in extreme events more women deaths are observed for women's inability to swim or run or lack of strength to withstand physically demanding situation such as storms, floods, typhoons, etc. From a long term perspective, this will have serious implications for gender relations, as women may end up spending more time on tasks that reinforce stereotypical gender roles. Thus, women are faced by a situation where their ability to adapt is low but the share of the adaptation burden falling disproportionately on them. This makes the consideration of the impact of climate change on gender most imperative.

### **Adaptation**

The fundamental goal of adaptation strategies is the reduction of the vulnerabilities to climate induced change in order to protect and enhance the livelihoods of poor people. Experience shows that vulnerability is differentiated by gender. 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. However, women can be key agents of adaptation and mitigation to climate change. Their responsibilities in households, communities and as stewards of natural resources position them well to develop strategies for adapting to changing environmental realities.

### **Mitigation**

Women also have a role deriving from their own strength. Women are engaged in a number of activities such as brick-making, charcoal-making, waste management and agro-processing where energy efficiency can lead to Carbon Dioxide (CO<sub>2</sub>) mitigation and their role in mitigation in these areas can be vital. The development of Clean Development Mechanisms (CDM), through carbon sequestration from afforestation and reforestation can also be done by poor rural women. Women in urban areas can implement energy efficiency programmes at the household level - lighting, the use of appliances, etc., while women in rural areas may be encouraged to use biomass and biogas (for fuel generation), and switch to solar energy. Poor women, without access to modern energy fuels are faced with problems relating to indoor air pollution and bear huge health burdens as a result - there is a high incidence of bronchitis, asthma and other health problems. While women should not be denied the use of fossil fuels like LPG or Kerosene, yet at the same time 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 pursue income generating or other activities that need to be developed.

### **What is the way forward?**

It is clear that gender differences must be taken into account to understand the impact of climate change. Gender differentiated strategies for responses and capacity-building are needed due to differences in gender specific roles and responsibilities created by society. These findings should

feed into the climate negotiations as well as national debates to enable decision-makers to have a better understanding of how different groups of people are affected and what kind of capacity and support is needed.

More specifically the following actions are required:

- *Recognise that women are more vulnerable in climate change driven scenarios:* Government should analyze and identify gender-specific impacts and protection measures related to floods, droughts, diseases, and other environmental changes and disasters. An inter-ministerial task force could be set up towards this end.
- *Understand and address gender-specific natural resource use pattern:* Government should develop strategies to enhance women's access to and control over natural resources, in order to reduce poverty, protect environmental resources, and ensure that women and poor communities can better cope with climate change.
- *Identify women's particular skills and capacities that lend themselves to mitigation and adaptation:* Given that women's knowledge and participation has been critical to the survival of entire communities in disaster situations, government should take cognizance of women's specialized skills in different aspects of their livelihood and natural resource management strategies and utilize those that lend themselves to mitigation and adaptation.
- *Increase women's participation in decision-making at all levels in climate change mitigation and adaptation.*

## Conclusion

The women's studies acknowledges the contribution of rural and urban women as "Guardians and Promoters of Life-Centered Cultures", seed savers, leaders of resistance movements (Chipko in Himalayas, Appiko in South India) & Alternative farming/market/etc. models (Green-belt Movement in Africa). Women's full humanity becomes the healing force that can break the vicious cycle of violence based on treating the inhumanity of man as the measure of being human, of greed as the organizing principle of the economy. What has changed is greater awareness. Women, even in rural India, now understand better the larger issues like climate change that affect them directly, as is evident in this declaration adopted at a training programme on Gender, Climate Change and Food Security on November 16, 2011, at Saharanpur in UP: '... Women hold the key to food security, and it is important that women's contributions to agriculture and food security be documented, recognised and celebrated.'

Women are refusing to be part of the culture of hate and violence. Women, in and through their lives, are showing that love and compassion, sharing and giving are not just possible human qualities; they are necessary qualities for us to be human. Living cultures are cultures of life, based on reverence for all life - women and men, rich and poor, white and black, Christian and Muslim, human and nonhuman. In India are involved in 11 types of environmentalism: wildlife management, conservation, preservation, reform environmentalism, deep ecology, environmental justice, environmental health, ecofeminism, ecospiritualism, animal rights and green movements.

For promoting gender-responsive and inclusive state climate change plans in India, we as economists will have to seek answers to questions like (a) is there gender disaggregated data on impacts of climate change? (b) Are the gender differential impacts of adaptation measures understood and addressed? (b) Do the adaptation programmes reach poor women? (c) Are there



'additional' financial resources for women and men? (d) Are women present in the decision-making structures in climate-sensitive areas? (e) Is there recognition of rights/entitlements for poor women and men in adaptation programmes?

Crucial mandate for us is to initiate an inter-disciplinary public debate involving pure scientists, social scientists, practitioners, planners and policy makers on gender and climate change, including catalysing more research on the subject and wide dissemination of the outputs of these researches through niche scientific journals and popular media, including the new media.

**Dr. Vibhuti Patel**, Professor and Head

P.G. Department of Economics, S.N. D. T. Women's University, Mumbai

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· Energy and Gender Issues in Rural Sustainable Development  
[http://www.fao.org/sd/dim\\_pe1/docs/pe1\\_060501d1\\_en.pdf](http://www.fao.org/sd/dim_pe1/docs/pe1_060501d1_en.pdf)

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## **P.S.**

\* Prof. Dr. Vibhuti Patel (Ph. D. Economics)  
Head, Dept of Economics, 4<sup>th</sup> Floor, Annex Building,  
SNDT Women's University, Smt Nathibai Road  
Churchgate Campus, Mumbai 400020, India

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## **Footnotes**

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[2] ([www.norden.org/en/publications/publikationer/2009-765](http://www.norden.org/en/publications/publikationer/2009-765)).

[3] ([www.iwpr.org/publications/pubs/...wake...Katrina.../file](http://www.iwpr.org/publications/pubs/...wake...Katrina.../file))