



## Towards Gender-transformative Climate Change Adaptation Policies

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### Purpose

This climate policy research demonstrates that in India's agriculture-dominated and gender-biased economy, the future of India's adaptation strategy hinges on how well gender is integrated into agriculture-related policies and programmes. India's National Action Plan on Climate Change, which lays out India's strategy for mitigation and adaptation, recognises that women suffer more from climate change impacts than men. However, it fails to recognise that women are also integral to climate solutions. The research concludes with a set of policy recommendations for policy-makers and other actors.

### Why Should India Focus on Gender-responsive Adaptation?

There is growing scientific and anecdotal evidence in India that climate vagaries are affecting the life and work of its people, especially the 72% of its population that lives off climate-sensitive agriculture and related activities. An overwhelming 60% of India's agriculture is rain-fed and prone to recurring natural disasters like floods, droughts and cyclones, which, according to climate scientists, will become more frequent, intense and unpredictable. These rain-fed areas are also home to a majority of the poor and marginalised farmers. India's 11<sup>th</sup> Five-year Plan (2007-2012) notes the increasing 'feminisation' of Indian agriculture and a dominance of women workers in livestock rearing and collection of minor products from forests.

While India is the world's fifth largest greenhouse gases emitter and the sixth largest carbon emitter, these constitute just 4% and 3% of the global emissions respectively; also, India's per capita emissions are 70% below the world's average. Following a low-carbon growth strategy is important, and India has already embarked upon one, but there is far less policy focus on adaptation. As the Stern review (2006) notes: 'adaptation policy is crucial for dealing with the unavoidable impacts of climate change, but it has been under-emphasised in many countries. Adaptation is the only

response available for the impacts that will occur over the next several decades before mitigation measures can have an effect.'

### Overcoming Gender-specific Disparities

Without an effective adaptation policy, India cannot achieve its Millennium Development Goals (MDGs) or its MDG-based National Development Goals as set out by the Indian Planning Commission. Climate change impacts often threaten to erode or inhibit development gains. Women are typically responsible for providing their household with climate-sensitive resources like water, food crops, fodder and firewood; they are also less likely to have the education, opportunities, authority and productive resources to adapt to climate change impacts. Without gender-specific disparities being addressed by adaptation policies, climate change will add another layer of gender inequality, especially in the farming sector.

The fourth assessment report of the Inter-governmental Panel on Climate Change (IPCC) notes that gender differences affect the vulnerability and adaptive capacity of women and men. After decades of gender-blind climate negotiation texts under the UN Framework on Climate Change Convention (UNFCCC), women and gender concerns were mentioned in the December 2010 Conference of Parties (COP 16) text adopted in Cancun.



## Understanding Gender-specific Impacts of Climate Change

Using a gender lens, the research (a) analysed adaptation policies and programmes as laid out in the National Action Plan on Climate Change (NAPCC, 2008) and (b) gathered evidence from four disaster-prone, rain-fed agro-climatic zones in four states (India consists of 28 states and 7 Union Territories) for evidence-based policy recommendations. The four agro-climatic zones were:

- The Himalayan eco-system in Himachal Pradesh (HP).
- The flood plains of Eastern Uttar Pradesh (UP).
- The Sunderbans coastal area in West Bengal (WB).
- The drought region of Andhra Pradesh (AP).

The research objectives were:

- Understanding some of the socio-economic impacts of climate change at the local level where gender-specific disparities are most intense.
- Identifying some of the gender-responsive policy gaps in the national adaptation missions and in specific state-level climate change plans, and suggesting possible corrections.
- Identifying some areas where women and men can both participate in, influence and benefit from scientific work on adaptation.
- Assessing how gender-responsive the work of grassroots NGOs working on adaptation is and how this can be upscaled in a gender-responsive manner by the central and state governments' climate-related policies and plans.

The research employed a range of tools and techniques. These included:

- Literature review
- Participatory collection of field data by four grassroots NGOs, each in one of the above agro-climatic zones.
- Consultations with gender/climate experts
- Policy analysis
- A Delphi exercise

## How Women and Men Are Affected Differently by Climate Change

There is little evidence to show the different impacts of climate change on men and women. The need to identify and study these differences is critical for making gender-responsive adaptation policies and programmes.

This research gathered data from the four agro-climatic zones and used a gender lens to show how

the same climate change impact affected women and men differently. The research revealed that men's primary way to adapt is to migrate from farms, which means that women are left behind to both till the unproductive land and to continue their care roles. This puts an additional burden on women because they have to till the unproductive land or labour in other fields while continuing to shoulder their caregiver responsibilities with no support from the spouse. The table below captures the gender differences observed in the four zones.

Gendered Impacts of Climate Change		
Climate Change	Impacts on Women	Impacts on Men
Lower food production	The least to eat; sleep on an empty stomach. Need to take on additional work as wage labour, which also leads to the greater feminisation of agricultural labour (WB, UP, AP).	They get first priority to available food in the family
More natural disasters – cyclones, floods, waterlogging and droughts; infrequent rains; intense rains	Longer distances to walk to get water and fuelwood. Loss of fodder and livestock. Drought/infrequent spells of rains – harder ground to do agricultural work on. Intense rains – more weeds, and weeding is a woman's job.	Distress migration
Higher summer temperatures; longer summers	Lower milk production among animals. More tiring work in fields even in April (HP). Longer waking hours to work in the field early in the morning and late in the evening to beat the heat (AP, HP, UP).	Lesser tasks in the field. Distress migration
Effect on the regeneration of species and upward shift of the forest tree-line	Medicinal herbs and fodder unavailable in forests now (HP).	No effect
Social impacts	Higher indebtedness – women are sent on behalf of the family to take loans and are responsible for paying them off! Increased male migration results in more women and child trafficking and HIV/AIDS spread. Greater poverty and frustration among men leads to increase in domestic abuse/violence.	Distress migration

## Adaptation Interventions Involve Women More and Affect Them Differently

Most grassroots development organisations involved in activities to improve the farm-based livelihoods of rural men and women have willy-nilly adopted techniques that help small and marginalised farmers adapt to climate vagaries. ***Adaptation can be understood to be ‘development plus’, development measures that take into account climate-proofing, or climate change adaptation interventions that help in also achieving development gains.*** According to a World Resources Institute study (2007), ‘adaptation uses the same toolbox as development measures, is more integrated than development interventions and factors in the dimension of “additionality” on account of climate variability.’

Most NGOs that this research study examined have similar approaches to integrating adaptation measures into farming practices. They build on traditional knowledge, adopt a diversified livelihoods basket, and add value through applied scientific and technological interventions. All this is done by first mobilising groups of farmers – both men and women but more women farmers. The reason for making women active players is that NGOs acknowledge that women farmers are more responsive than men farmers and achieve greater success. So women, more than men, are the main mobilisers of peer groups, recipients of knowledge and skills, and risk-takers. Yet, these roles are hardly acknowledged by NGOs in documents, meetings and advocacy initiatives.

Working with women also does not usually translate into women owning more productive assets, accessing more government schemes or participating more in government or community-level decision-making bodies. While women do reap some benefits and are also more empowered than earlier in some respects, many adaptive interventions put a greater time and labour burden on women as compared to men. The table below illustrates a few of the differential impacts of on-the-ground adaptation interventions on men and women and some of the policy gaps that need to be addressed.

Gender Analysis of Adaptation Interventions		
Adaptive Interventions	Gender Analysis	Policy & Programme Imperatives
Organic/low chemical input agriculture with diversified products	Improved food security for both women and men. Women put in more labour and time to prepare bio-fertilizer and bio-pesticide. Higher fodder and fuelwood yields for women. Less information/knowledge/inputs accessed by women. Less participation in decision-making bodies.	Incentives to promote availability of bio-inputs. Incentives to promote joint farmland titles to spouses and leasing public land to women farmers groups. Development of women-friendly technology to reduce drudgery. Availability of local weather-related information to women farmers.
Increased use of traditional saline-/drought-/flood-resistant seeds and local livestock varieties	More food security for both women and men. Gives women fodder/fuelwood. Enables women to store and exchange seed, not buy from seed markets. Opportunity for women to reclaim traditional knowledge.	Promote farm-to-lab in addition to the current lab-to-farm approach. Make local varieties available. Popularise seed banks, grain banks and fodder banks. Recruit women and men farmer trainers in extension work.
Rainwater harvesting	Benefits women more because it ensures improved food security and availability of water for livestock and homes.	Promote water harvesting structures for kitchen gardens, roof rainwater harvesting and for small farms. Revive traditional ponds and wells.

## Empowerment of Women

Women need to be at the core of planning and implementation of adaptation interventions. This includes collection of gender-disaggregated data at all levels, gender-based monitoring and evaluation, and gender-budgeting. The four-C framework given below sums up the main policy recommendations.

- **Counting women in** at the planning, design, implementation, resourcing and evaluation stages of all programmes and schemes. *Currently, there is a huge deficit on gender-disaggregated data for policy-making.*
- **Converging** programmes and schemes at the planning and design stage through multi-sectoral and multi-ministerial bodies and at the implementation stage through local government agencies and local elected bodies. *A specific need is to mandate gender-responsive 'Local Action Plans on Adaptation' (LAPAs) integrated with the Village Development Plans made by local elected bodies.*
- **Capacity building** and empowerment of women and men at the level of local elected bodies, local

government agencies, within scientific institutions working on adaptation and within relevant NGOs and community-based organisations. *Gender-responsive decision-making institutions are basic building blocks for egalitarian adaptation policies.*

- **Collaborating** with key stakeholders – adaptation science researchers, government agencies and departments, local elected bodies, user groups, civil society groups and legislators – to build resilience among the most vulnerable people through participatory innovation, utilisation of traditional and local knowledge, adding value through scientific and technological interventions and converging all resources.

Within this framework, the research identifies policy-level recommendations for specific actors – legislators, government planning bodies, government officers, local elected bodies, adaptation research scientists, civil society organisations and community-based groups.

These policy recommendations form a blueprint of what India's approach and policies must be in the coming decades to ensure that both men and women are able to reap the benefits of a climate-resilient path to development.

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