

Climate Change Through a Gender Lens: Global Perspectives and India's Approach

Introduction

Climate change stands as one of the most critical challenges of our time, with widespread consequences that threaten both biodiversity and human well-being. However, its effects are not experienced equally across society. Marginalized communities, particularly **women, are disproportionately affected, making climate change not only an environmental crisis but also a socio-economic and humanitarian concern.** Traditional gender roles often heighten women's exposure to climate risks, reinforcing the fact that climate change is not gender-neutral. This article explores the gendered dimensions of climate change, shedding light on the unique challenges women face and how socio-economic disparities exacerbate their vulnerability. It explores the concept of ecofeminism, showcasing women-led initiatives that have contributed to climate action. It then discusses the barriers to addressing these gender-specific impacts and underscores the necessity of gender-responsive policies in fostering equitable climate solutions. Finally, it highlights various policies at the global, national (with a focus on India), and organizational levels, including those implemented by Public Sector Enterprises (PSEs) and SCOPE.

The Gendered Impacts of Climate Change on Women

Climate change affects everyone but its impacts are not experienced evenly. Women, particularly in developing countries and Least Developed Countries (LDCs), are disproportionately affected due to social, economic, and cultural factors that exacerbate their vulnerabilities.

In many regions, women are primarily responsible for securing water, food, and energy for their households. As climate change intensifies, resources become scarcer and more challenging to obtain. It demands women's time and energy to manage household resources and care for family members amid climate stressors, as they often have to travel longer distances to fetch water and firewood, exposing them to **increased risks of physical harm and reducing the time available for education and income-generating activities.** This increased workload reinforces the cycle of poverty and limits opportunities for women to improve their socio-economic status. **Changing ecosystems and biodiversity loss induced by climate change directly threatens women's traditional**

livelihoods, such as fishing, herding, and artisanal activities. Additionally, since agricultural practices are heavily impacted by changing weather patterns, and a **significant proportion of women in developing countries are engaged in farming,** their livelihoods are directly threatened. Crop failures, reduced yields, loss of livestock, and loss of livelihood can lead to **food insecurity and malnutrition, with women and children being the most affected.**



Climate-induced displacement and migration also have gendered implications. **Women and children are more vulnerable to economic insecurity, exploitation, trafficking, and gender-based violence during and after climate change induced displacement.** A stark example of this vulnerability was the 2004 **Indian Ocean Tsunami, where 70% of the 230,000 lives lost were women, highlighting the gendered disparities** in disaster resilience. During this time, without the social networks and community support systems, they may rely more on informal housing or in urban areas where they struggle to access adequate shelter, food, healthcare, and social services; leaving them isolated and without protection. Women, particularly in low-income communities, are also **more vulnerable to health risks, including disease outbreaks** and malnutrition, due to changing environmental conditions. Increased frequency of heatwaves, natural disasters, and the spread of vector-borne diseases pose significant health risks. **Women's mental and physical health needs, particularly during pregnancy and childbirth, are often neglected during climate-induced disasters,** leading to higher mortality rates. Women from marginalized groups, including indigenous communities, low-income populations, and ethnic minorities, **face even more severe challenges due to the intersectionality of gender, race, class, ethnicity, age, disability, and socio-economic status.** The overlapping effects of poverty, gender inequality, and social exclusion make these groups particularly susceptible to climate impacts.

Despite the disparities mentioned above, women have consistently played a pivotal role in leading and shaping numerous environmental movements and climate action initiatives. From grassroots activism to global advocacy, they have championed sustainable practices, mobilized communities, and driven policy changes.

Ecofeminism: Connection Between Women and Nature

To understand the role of women in environmental protection and climate action, it is crucial to explore the concept of 'ecofeminism'. **Ecofeminism**

underscores the deep connection between women and nature, highlighting how environmental and feminist issues are intertwined. It advocates for an egalitarian and cooperative society free from hierarchical dominance. The term was first introduced by French feminist Francoise d'Eaubonne in 1974 in her book *Le Feminisme ou la Mort* (Feminism or Death).



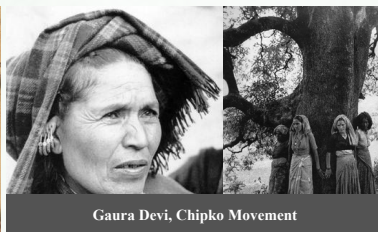
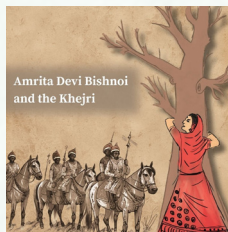
Ecofeminism intersects with various social justice movements, including anti-colonialism, indigenous rights, economic justice, and environmental protection, emphasizing the need to address multiple forms of oppression collectively. Over time, the movement has continued to evolve, integrating more intersectional and structural perspectives to strengthen its impact.

Environment Protection and Climate Action: Historic Role of Women

Environment protection and climate action are closely related, as preserving ecosystems, particularly forests and other natural habitats, is a crucial strategy for combating climate change. It is a key strategy to combat climate change, as these natural systems act as carbon sinks, absorb greenhouse gases from the atmosphere, protect and enhance biodiversity, positively impact human health; therefore, **actions taken to safeguard the environment directly contribute to mitigating climate change impacts.**

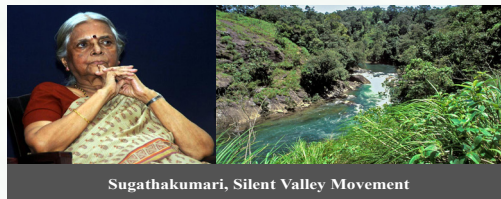
Women have historically played a vital yet often unrecognized role in environmental stewardship. Across various cultures, Indigenous women have served as custodians of traditional ecological knowledge, preserving natural resources through sustainable practices. **The earliest recorded instance of women's participation in environmental conservation dates back**

to 1731 near Jodhpur, Rajasthan, with the Bishnoi women leading a resistance against deforestation. The villagers seized wood-cutting equipment from government officials attempting to exploit the forests for commercial purposes. **Amrita Bai (Devi) of Khejarali village, recognized as India's first documented female environmental activist, sacrificed her life by embracing the sacred Khejri tree, sparking a widespread movement within the village. Her actions, along with those of other Bishnoi women, are considered the first environmental movement in history. In 1972, the iconic Chipko Movement (derived from the Hindi word Chipko, meaning "to hug") emerged in the Chamoli district of Uttarakhand. Spearheaded by rural women with the support of environmentalist Sunderlal Bahuguna, the movement became widely recognized for its distinctive method of protest i.e., embracing trees to prevent deforestation. Prominent figures such as Gaura Devi and Sudesha Devi, along with other women leaders and activists, played a crucial role in safeguarding the region's forests. The movement's success inspired similar conservation efforts across the country such as the Appiko Movement (1983) in Karnataka, reinforcing the importance of community-led forest protection initiatives.**



The **Silent Valley Movement (1978)** in Kerala's Palakkad district was led by poet-activist **Sugathakumari**. She opposed the construction of a hydroelectric dam that threatened to submerge the region's biodiverse moist evergreen forests. Her activism was instrumental in raising awareness and mobilizing public support to protect the

fragile ecosystem. **The Jungle Bachao Andolan (1982)** in Bihar's Singhbhum district (now Jharkhand) was a tribal-led resistance against the government's plan to replace native Sal forests with commercially valuable teak plantations. Often referred to as the "Greed Game of Political Populism," the movement later spread to Orissa and Jharkhand. Tribal leader **Suryamani Bhagat played a key role in mobilizing resistance and leading negotiations**, significantly contributing to the eventual enactment of the Forest Rights Act in 2006.



In 1984, environmentalist **Vandana Shiva launched the Navadanya Movement** to advocate for sustainable agricultural practices in India. Named after the term meaning "nine crops," the movement involves women farmers and champions traditional farming techniques, biodiversity conservation, and opposition to genetically modified organisms (GMOs). **The Narmada Bachao Andolan**, one of India's most influential environmental movements, had women at its forefront. Initiated in 1989 under the **leadership of Medha Patkar**, the movement opposed the construction of the Sardar Sarovar Dam on the Narmada River in Gujarat. The project posed a severe threat to the displacement of 320,000 tribal residents and the submergence of over 37,000 hectares of forest and agricultural land.

Today, numerous women environmental activists continue to lead efforts in ecological conservation. Among them is **Jamuna Tudu, known as the "Lady Tarzan" of Jharkhand**, who has mobilized a group of 100 Adivasi women to protect forests from illegal logging for over two



Vandana Shiva
Navadanya Movement



The Narmada Bachao Andolan, Medha Patkar

decades. **Radha Bhatt**, another influential environmentalist, launched the Nadi Bachao Abhiyan in 2008 to oppose hydroelectric projects threatening the Ganga River and its tributaries. **Madhu Bhatnagar** is an accomplished Climate Reality Leader and among the notable educators in India who made environmental education mandatory in schools. Padma Shri awardee **Sunita Narain** is another prominent voice for sustainable development and climate action.

While history is rich with examples of women-led environmental and climate movements, **women continue to play a crucial role in driving ecological conservation and climate action today.** Despite their significant contributions, women's efforts in climate and environmental issues often receive limited formal recognition. **Challenges remain across all levels**, from grassroots initiatives to global policy-making, including insufficient funding for gender-responsive climate initiatives, entrenched structural inequalities, and the underrepresentation of women in decision-making roles.

Challenges in Addressing Gendered Impacts on Women

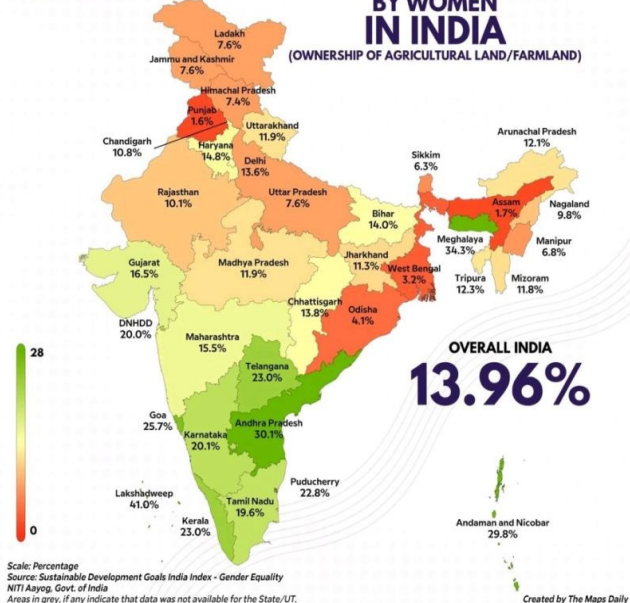
Addressing the gendered impacts of climate change is **challenging due to a combination of structural, cultural, economic, and political barriers** that prevent the full integration of gender considerations into climate policies and actions. **One of the major barriers to addressing the gendered impacts of climate change is the lack of gender-disaggregated data.** Climate change research and policies often focus on aggregate impacts, without considering the nuanced ways in which men and women experience climate change differently. Without

gender-sensitive data, it is difficult to develop targeted solutions to mitigate the specific risks faced by women.

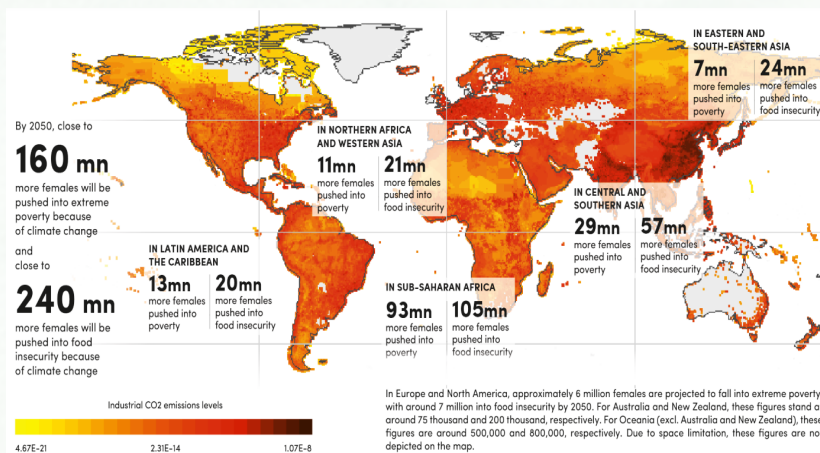
Another significant barrier to addressing the gendered impacts of climate change is the deeply rooted traditional gender norms and cultural practices. In some cultures,

women are expected to prioritize domestic (e.g., fetching water) and caregiving responsibilities (e.g., cooking). Climate change exacerbates their workload, as water scarcity forces them to travel longer distances for household needs, while reliance on biomass fuels for cooking exposes them to severe respiratory diseases.

Women also have **limited access to essential resources such as land, agricultural extension services, and finance.** According to NITI Aayog, nearly 80% of rural women in India are engaged in agriculture, ~ 33% as agricultural laborers and ~ 48% as self-employed farmers, yet only 13.96% own land. Consequently, many are **forced to rely on outdated or inefficient agricultural practices, reducing their resilience to climate challenges and increasing their risk of poverty and food insecurity.**



The UN Women's Gender and Climate Data predicts that in a worst-case climate path scenario where average temperature rises more than the current path suggests i.e., by 3-4°C by year 2100, close to **160 million women and girls globally may be pushed into poverty by year 2050** as a direct result of climate change. Additionally, climate-induced **food insecurity is expected to affect approximately 240 million more women and girls**, compared to 131 million more men and boys, highlighting the disproportionate impact on women.



Gender-based economic inequalities heighten women's vulnerability to climate change. Women often receive lower wages than men and are more likely to be employed in the informal sector. These financial inequalities limit women's ability to save, obtain insurance against climate-related disasters, and invest in adaptive technologies. Additionally, **gender disparities in education and access to information limit women's ability to acquire the knowledge and skills needed for effective climate adaptation.** This lack of access perpetuates vulnerability, undermining women's ability to make informed decisions and implement adaptive strategies during climate crises.

Women are often having less access and sometimes excluded from decision-making processes at all levels, from the household to national and global arenas. For example, despite increasing number of

delegations at UNFCCC conferences, women's representation remains stagnant or has even declined in some areas. At COP28 (2023) in Dubai, only 15 of the 133 world leaders were women, and women comprised just 34% of national delegates. Furthermore, only 2% of delegations achieved gender balance. Last year, COP29 host Azerbaijan took steps toward gender inclusivity by expanding its originally all-male 28-member organizing committee to include 12 women and two additional men. However, gender disparities persisted, with **only 8 out of 78 government leaders speaking during the opening segment being women**, and just 4 of them explicitly addressing the impact of climate change on women. This underrepresentation diminishes their influence for integrating gender considerations in climate policies and actions, leading to solutions that do not address their specific needs and perspectives.

Furthermore, **integrating gender into climate policies faces resistance** due to entrenched biases and lack of awareness that weakens women's rights. Even **when gender-sensitive frameworks exist, implementation remains inconsistent.** Many countries struggle to incorporate gender perspectives due to limited expertise or competing priorities, leading to adaptation and mitigation strategies that overlook gender-specific impacts. Additionally, **climate finance mechanisms often neglect gender-sensitive projects and fail to recognize women as key actors**, resulting in inadequate resource allocation for their needs.

COP29: Only 8 out of 78 world leaders attending were women



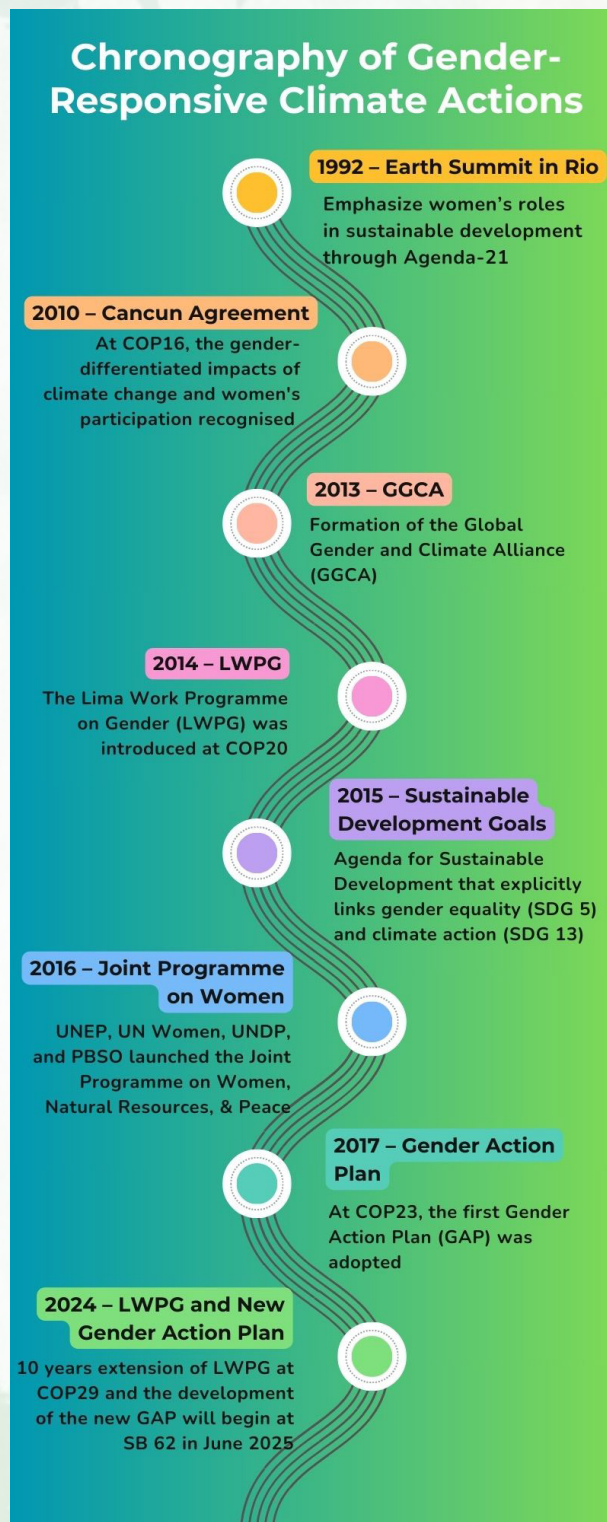
While gender-responsive climate action frameworks remain insufficient worldwide, significant progress has been made over the years, and efforts continue to strengthen them. Compared to the past, the current landscape presents the most advanced and comprehensive approach to integrating gender considerations into climate policies, reflecting a growing commitment to inclusive and equitable climate action.

Progress in Gender-Responsive Climate Action: A Global Perspective

Over the years, there has been growing recognition of both the vulnerabilities women face and the critical role they play in climate mitigation and adaptation efforts. **The link between gender and environmental sustainability was first highlighted at the 1992 Earth Summit in Rio, where Agenda 21 underscored women's contributions to sustainable development. The Millennium Development Goals (MDGs), adopted by the United Nations in 2000, further emphasized gender equality and women's empowerment, though they did not explicitly address climate change.**

A significant breakthrough came in 2010 at the 16th Conference of Parties (COP16) in Cancun, where the United Nations Framework Convention on Climate Change (UNFCCC) formally acknowledged the importance of gender equality in climate action, particularly in adaptation and capacity-building efforts. That same year, **UN Women was established**, launching several initiatives, including the Care and Climate Entrepreneurship Accelerator (2024), which supports women-led businesses in care and green economies across Asia-Pacific and Latin America. At COP29 (2024), UN Women further reinforced the need for gender-responsive climate finance, advocating for investments that directly address the needs of women and girls, especially in the Global South.

Key milestones in gender-inclusive climate policy followed, including COP18 (2012) in Doha and the **creation of the Global Gender and Climate Alliance (GGCA) in 2013. The Lima Work Programme on Gender (LWPG), introduced at COP20 (2014), set the stage for**



gender mainstreaming in the **Paris Agreement (COP21, 2015), which explicitly calls for gender-responsive climate action.** This period also saw the launch of the 2030 Agenda for Sustainable Development, which explicitly

links gender equality (SDG 5) and climate action (SDG 13). Aligned with the Paris Agreement, many countries have since integrated gender considerations into their National Adaptation Plans (NAPs), Adaptation Communications, and Nationally Determined Contributions (NDCs). **By December 2022, 97.5% of NAPs, 77.1% of Adaptation Communications, and 75% of NDCs submitted to the UNFCCC included references to gender.**

In 2016, UNEP, UN Women, UNDP, and PBSO collaborated on the Joint Programme on Women, Natural Resources, and Peace to enhance women's political and economic empowerment in climate governance and natural resource management. That same year, **COP22 extended the Lima Work Programme on Gender (LWPG)** for three years, with a review at COP25. The first Gender Action Plan (GAP) was introduced at COP23 (2017), aiming to promote gender-responsive climate action by increasing women's participation in decision-making, improving access to climate finance, and strengthening gender-inclusive adaptation and mitigation efforts. The momentum continued with the enhancement of the LWPG and GAP at COP25 (2019) and COP28 (2023), culminating in a **10-year extension of the Lima Work Programme on Gender at COP29 (2024)**. COP29 marked a step forward in gender representation, with preliminary figures indicating that 40% of national delegations comprise women, the highest proportion in COP history. Looking ahead, the development of a new Gender Action Plan is set to begin at the 62nd Subsidiary Body (SB62) meeting, with a draft decision to be considered at COP30 in 2025.

Beyond UN initiatives, organizations such as the World Bank, Asian Development Bank (ADB), African Development Bank (AfDB), Green Climate Fund (GCF), Global Environment Facility (GEF), and Women4Climate (C40 Cities)

continue to advocate for gender-responsive climate policies. These institutions emphasize the crucial link between gender equality and environmental sustainability, advocating for women's active participation in climate governance, inclusive policy frameworks, and equitable access to resources.

India's Approach to Gender-Responsive Climate Action

India acknowledges both the heightened vulnerability of women to climate risks and their essential role in addressing these challenges. While a dedicated policy on gendered climate impacts is yet to be established, the country is making progress through various national and state-level inclusive policies and programs that promote gender-responsive climate action. India's **National Action Plan on Climate Change (NAPCC) and State Action Plans on Climate Change (SAPCCs)** emphasize gender inclusion in key initiatives, such as sustainable agriculture and solar energy. **The National Rural Livelihoods Mission (NRLM)** supports women's economic empowerment through Self-Help Groups (SHGs), while programs like **MGNREGA** and the **National Biodiversity Action Plan (NBAP)** involve women in ecological restoration and conservation. The **Draft National Policy for Women (2016)** advocates for women's active

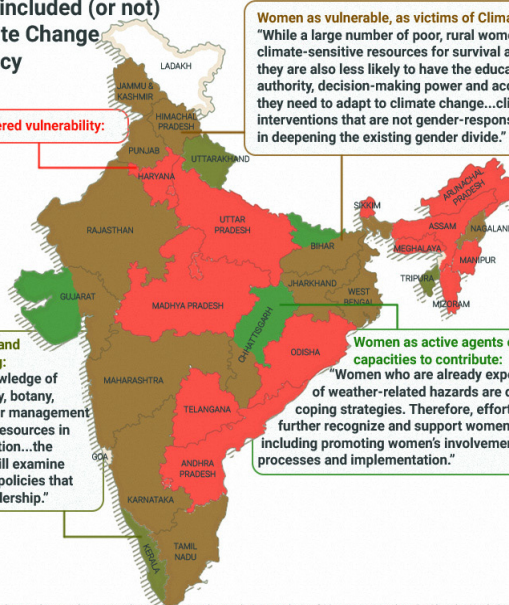
How gender is included (or not) in India's Climate Change adaptation policy

No recognition of gendered vulnerability:

Women as vulnerable, as victims of Climate Change:
"While a large number of poor, rural women depend on climate-sensitive resources for survival and their livelihoods, they are also less likely to have the education, opportunities, authority, decision-making power and access to resources they need to adapt to climate change...climate change interventions that are not gender-responsive often result in deepening the existing gender divide."

Women as 'virtuous' and amenable to adapting:
"The specialized knowledge of women about forestry, botany, biodiversity and water management makes them critical resources in combating deforestation...the Forest Department will examine options for adopting policies that support women's leadership."

Women as active agents of change with key capacities to contribute:
"Women who are already experiencing the effects of weather-related hazards are developing effective coping strategies. Therefore, efforts will be made to further recognize and support women's role in adaptation including promoting women's involvement in decision-making processes and implementation."



Source Report: How does climate change adaptation policy in India consider gender? An analysis of 28 state action plans By Chandni Singh, Divya Solomon, Nilaya Rao.

participation in environmental conservation and climate adaptation strategies, while the **National Policy on Disaster Management (2009)** prioritizes gender-sensitive disaster preparedness.



Recognizing the need for inclusive disaster response, the **National Disaster Management Plan (NDMP)** has expanded the **training of women as Aapda Mitra** (disaster response volunteers). Additionally, the Mahila Contingent of the Central Armed Police Forces (CAPFs) is now being **trained and deployed under the National Disaster Response Force (NDRF) to enhance disaster resilience.**

To support women farmers, the **Mahila Kisan Sashaktikaran Pariyojana (MKSP)** equips them with skills in sustainable agriculture, while initiatives like **Solar Sahelis** train rural women as solar entrepreneurs, promoting renewable energy adoption. A notable example of gender-responsive climate action in India is the **Pradhan Mantri Ujjwala Yojana (PMUY)**, which provides subsidized LPG connections to women from low-income households. This initiative aims to **improve women's health by reducing exposure to hazardous smoke from traditional cooking fuels.** The Give It Up campaign encouraged financially stable individuals

to voluntarily surrender their LPG subsidies, enabling funds to be redirected to those in need. Additionally, the **Pratyaksh Hastantarit Labh (PAHAL) scheme** ensures the direct transfer of LPG subsidies to beneficiaries' bank accounts, enhancing transparency and preventing black-market sales. Programs like **Har Ghar Jal** also play a crucial role in reducing the water-fetching burden on women by ensuring piped water access to every rural household.

Beyond government efforts, **non-governmental organizations (NGOs)** have played a **pivotal role in advancing gender-inclusive climate resilience.** Organizations such as the Self-Employed Women's Association (SEWA), along with various government-NGO collaborations, focus on empowering women through climate-resilient livelihoods, including organic farming, renewable energy initiatives, and water resource management. One such example is the **Bhungroo Project in Gujarat, a rainwater harvesting technology that enables women-led self-help groups to combat recurring droughts and floods.**

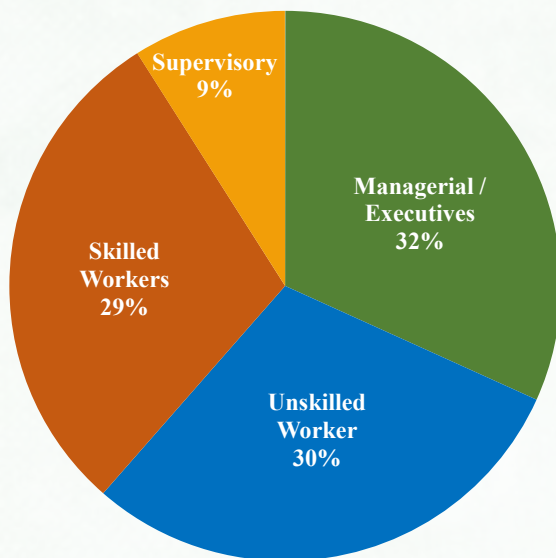
India's commitment to gender-responsive climate action also extends to international cooperation. Partnerships with organizations like UN Women contribute to integrating gender considerations into climate policies and disaster risk reduction strategies. These collective efforts align with India's updated Nationally Determined Contributions (NDCs), reinforcing the nation's pledge to promote gender equity in climate governance and sustainable development.

Empowering Women for Climate Action in Indian Public Sector Enterprises (PSEs)

Indian PSEs play a crucial role in India's economic and environmental landscape, driving key sectors such as energy, transportation, agriculture, and infrastructure. Contributing around 12% to the national GDP and employing nearly 1.5 million people, PSEs are instrumental in implementing government-led climate mitigation and adaptation initiatives. **Beyond reducing carbon footprints and enhancing resource efficiency, PSEs adopt an inclusive approach that empowers women,** particularly those from

marginalized communities, to actively participate in the green transition. By addressing gender gaps in traditionally male-dominated industries like renewable energy, manufacturing, and infrastructure, PSEs are creating new employment opportunities for women. **In FY 2023-24, women constituted 9.5% of the total workforce in Central Public Sector Enterprises (CPSEs),** with their numbers rising from 74,867 in FY 2022-23 to 77,625 in FY 2023-24, indicating a positive trend in gender inclusion.

Share of Women Employees at Different Levels in Indian CPSEs



PSE-led programs such as ‘Samarth’ equip women with technical and non-technical skills in solar panel installation, sustainable agriculture, and energy management, fostering economic independence and strengthening their role in the green economy. Moreover, **PSEs prioritize women’s leadership in community-driven climate initiatives,** supporting self-help groups (SHGs) in afforestation, waste management, and renewable energy projects. These efforts not only enhance women’s participation in climate governance but also ensure equitable access to resources and economic opportunities.

Recognizing that climate change disproportionately impacts marginalized communities, **PSEs integrate intersectional approaches to address socio-economic vulnerabilities.** They

facilitate access to clean energy technologies, microfinance, and policy participation to create resilient and inclusive solutions. **Programs like the Pradhan Mantri Ujjwala Yojana, backed by PSEs in the oil and gas sector,** have improved women’s health by reducing indoor air pollution while also fostering entrepreneurship in sustainable practices.

Additionally, **PSEs collaborate with NGOs and grassroots organizations to tailor climate initiatives to the specific needs of women in rural and underserved regions,** ensuring their active engagement in climate governance. These initiatives yield long-term benefits such as improved livelihoods, stronger community resilience, and accelerated progress toward the Sustainable Development Goals (SDGs), particularly SDG 5 (gender equality) and SDG 13 (climate action). **By embedding gender inclusivity within their climate strategies, PSEs demonstrate that effective climate action must be equitable, inclusive, and sustainable.** Their commitment to a just transition sets a benchmark for corporate social responsibility (CSR) and sustainability, inspiring private enterprises to adopt similar gender-responsive practices.

SCOPE’s Contribution to Women’s Empowerment

As the apex body representing Indian PSEs, Standing Conference of Public Enterprises (SCOPE) has been instrumental in advancing climate action and promoting gender inclusivity. **SCOPE actively facilitates capacity building and training for PSE executives, including a substantial number of women, by organizing workshops, regional training programs, research studies, and publications aimed at strengthening sustainable practices and environmental resilience.** Alongside its climate initiatives, SCOPE plays a pivotal role in empowering women within PSEs through the **Forum of Women in Public Sector (WIPS),** which operates under its umbrella.

WIPS is dedicated to enhancing the visibility, professional development, and leadership prospects of women in PSEs. By focusing on career advancement and succession planning, it equips

women with the skills and confidence needed to navigate their professional journeys effectively, fostering a more inclusive and equitable workforce within India's public sector.

Conclusion & Future Perspectives

The impacts of climate change are not gender-neutral, with women disproportionately affected due to traditional gender roles and the lack of gender-sensitive policies. Structural, cultural, economic, and political barriers continue to hinder the full integration of gender considerations into climate policies, further exacerbating both physical and mental burdens on women. However, despite these challenges, women have emerged as leaders, driving effective solutions to both climate and societal issues, demonstrating the power of ecofeminism. While these challenges persist, progress is being made globally, including in India, where national initiatives are actively working to empower women, particularly in climate action. Indian PSEs and SCOPE are also contributing to national climate commitments while ensuring gender inclusivity and equal opportunities for women in sustainability efforts.

The future of gender-responsive climate action hinges on collaborative, innovative, and intersectional strategies. Integrating gender considerations into climate policies and governance at both national and global levels is essential to ensure women are not just heard but actively influence decision-making. Conducting gender analyses, adopting gender-responsive budgeting, and aligning policies with equity goals can help bridge systemic gaps and empower women in climate action. Education and capacity-building will be key to equipping women with the skills needed for leadership in renewable energy, agriculture, and water management. Strengthening legal frameworks, promoting inclusive climate finance, and fostering women's leadership will drive a just, low-carbon future. **Gender-responsive climate action is no longer an ancillary concern but a fundamental pillar of sustainable development. Recognizing women as agents of change, rather than mere victims, is key to designing effective climate solutions and ensuring a more equitable and resilient future.**

