

Ecofeminist Approaches in Literature to Climate Change: A Study of Indian Women Farmers

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Abstract

This study explores the intersection of gender, environment, and literature through an ecofeminist lens, focusing on how Indian women farmers experience and respond to the impacts of climate change. By combining qualitative literary analysis with quantitative field data from 100 women farmers across rural India, the research investigates both the representation and reality of women's ecological roles. The findings reveal that most women farmers are aware of climate change and its adverse effects on agriculture but continue to face barriers such as limited access to resources, financial instability, and gender-based inequalities. Despite these challenges, they actively engage in adaptive strategies such as crop diversification, water conservation, and the use of traditional ecological knowledge. The study also identifies a growing ecofeminist consciousness, as reflected in both literature and lived experiences, highlighting women's resilience and their critical contribution to sustainable farming. It concludes that empowering women through policy support, education, and community initiatives is essential for achieving climate justice and ecological balance in India.

Keywords: Ecofeminism, Climate Change, Indian Women Farmers, Sustainable Agriculture, Gender and Environment.

1. INTRODUCTION

The growing climate crisis has deepened existing social, economic, and gender inequalities, disproportionately affecting rural and agrarian communities across the globe. In India, women farmers stand at the intersection of gender and environmental vulnerability, bearing the brunt of climate change through unpredictable rainfall, declining soil fertility, and loss of livelihood. Despite their critical role in food production and resource management, their voices often remain marginalized in environmental discourse and policy.

Ecofeminism provides a valuable framework to understand this relationship between women and nature. It recognizes that the exploitation of the environment and the subjugation of women arise from similar patriarchal and capitalist structures. In literature, ecofeminist narratives reveal how women, particularly in agrarian societies, embody both the suffering and the resilience of ecosystems under threat. Through stories of rural life, traditional wisdom, and ecological struggle, such works challenge dominant power structures and propose alternative, sustainable ways of living. In the Indian context, literary representations of women farmers often highlight their intimate knowledge of land, water, and biodiversity. These narratives not only reflect ecological degradation but also portray women's adaptive strategies and their capacity for collective action. From grassroots movements to everyday agricultural practices, Indian women demonstrate an ecofeminist consciousness that links survival with care for the earth.

This study seeks to explore ecofeminist approaches in literature addressing climate change, focusing specifically on the lived experiences of Indian women farmers. By combining literary analysis with empirical data from field surveys, the research aims to bridge the gap between textual representations and real-world challenges faced by women in agriculture.

Ultimately, the study emphasizes that recognizing women farmers as agents of environmental change is essential for achieving climate justice and sustainable development. Through an ecofeminist lens, the paper highlights the intertwined struggles of gender and ecology, calling for a more inclusive approach to both literature and environmental policy.

2. LITERATURE REVIEW

Singh (2023) examines how agroecological farming, indigenous knowledge, and local conservation may work together in Tehri Garhwal, Uttarakhand, India, to mitigate and adapt to climate change in a sustainable way. The study's foundation is fieldwork that examined how women's participation in regenerative agriculture provide them agency between 2017 and 2018. whose nature has not been investigated. Analyzing the extent of women's empowerment is vital, even though mainstreaming such behaviors is necessary to maintain the commons and provide structural, institutional, and financial support. The situation of women farmers is highlighted in this paper because their capacity to exercise agency in the agricultural sphere does not always equate to general empowerment or a change in the hierarchical power relations that are currently based on caste and gender in society; these changes will necessitate interventions on several fronts.

Das & Hossain (2023) The "Third World Woman" (in India) is identified by ecofeminism as an indigenous identity stakeholder. Third World women's understanding of preserving biodiversity is very different from both the Eurocentric and Androcentric approaches to bio-conservation. Since their contribution to conservation is not acknowledged, indigenous women and indigenous plants are both targets of genocidal violence, identity breakdown, and cultural extinction. "The subaltern has no history and cannot speak, the subaltern as female is even more deeply in the shadow," as Gayatri Spivak states in her groundbreaking book *Can the Subaltern Speak?* Renowned Indian author and social activist Mahasweta Devi depicts the disadvantaged Indigenous people and their fight for survival. Indigenous women are considerably more displaced than the rest of the population. Indigenous female characters from the Shabar, Santal, Oraon, and Munda tribes, who are included in Devi's chosen works like *The Book of the Hunter* and *The Witch*, coexist peacefully with the ethnocentric natural system. They are the forest inhabitants that preserve Mother Nature by viewing the forest as a special bio-habitat that coexists peacefully with women.

Tasis (2025) focuses on how women's livelihood, food security, health, and employment are affected by climate change. In order to review the literature, this study primarily uses e-data from two sources, namely Scopus and Google Scholar, covering the years 2020–2024. According to our research, it is imperative that women's concerns be heard through climate policies that are focused on them and that they be given more influence over higher-level decision-making. This can support their general growth, lessen disparities between genders, and ultimately allow them more influence.

3. RESEARCH METHODOLOGY

3.1. Research Design: In order to investigate ecofeminist responses to climate change and the experiences of Indian women farmers, this study uses a mixed-methods research strategy that combines quantitative survey research with qualitative literary analysis. This makes it possible to comprehend literary representations and actual perceptions holistically.

3.2. Data Sources:

- Primary Sources (Qualitative): Selected novels, short stories, and poems by Indian authors portraying women farmers and environmental issues.
- Primary Sources (Quantitative): Structured questionnaires administered to 100 Indian women farmers to collect data on their experiences with climate change, agricultural practices, and socio-economic challenges.
- Secondary Sources: Scholarly articles, reports, and books on ecofeminism, climate change, and gendered agriculture.

3.3. Sampling

Purposive sampling of texts relevant to ecofeminist and climate change discourse. Stratified random sampling of 100 women farmers across rural regions in India to ensure representation of diverse socio-economic and ecological contexts.

3.4. Data Collection Methods

- Qualitative: Textual analysis of literary works to identify ecofeminist themes, portrayals of climate change, and women's agency.
- Quantitative: Structured survey questionnaires with Likert-scale and multiple-choice questions to quantify perceptions of climate impacts, adaptive strategies, and awareness of ecofeminist principles.

3.5. Data Analysis

The study employs a mixed-methods approach for data analysis. Qualitative data from literary texts are analyzed using thematic and content analysis to explore ecofeminist narratives and the depiction of women farmers' resilience. Quantitative data from surveys of 100 women farmers are examined using statistical tools in SPSS to identify trends, correlations, and patterns in their experiences, adaptation strategies, and perceptions of climate change challenges.

3.6. Ethical Considerations

Consent will be obtained from all survey participants, ensuring anonymity and confidentiality. Literary sources will be properly cited to maintain academic integrity.

4. RESULTS

Table 1: Awareness and Perceptions of Climate Change

| Aspect | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|--|----------------|-------|---------|----------|-------------------|
| Awareness of Climate Change | 40 | 35 | 15 | 7 | 3 |
| Impact of Climate Change on Crops | 50 | 30 | 10 | 8 | 2 |
| Perceived Risk to Livelihoods | 45 | 35 | 10 | 7 | 3 |
| Access to Government Support | 15 | 30 | 25 | 20 | 10 |
| Women's Role in Agricultural Decisions | 20 | 35 | 25 | 15 | 5 |

The results indicate that a majority of the surveyed women farmers are aware of climate change, with 75% either strongly agreeing or agreeing to its existence. Similarly, most respondents recognize the impact of climate change on their crops (80%) and perceive it as a risk to their livelihoods (80%), highlighting their firsthand experience with environmental challenges. However, access to government support is limited, as only 45% of respondents reported agreement or strong agreement, suggesting gaps in institutional assistance. Regarding women's participation in agricultural decision-making, 55% acknowledged their role, indicating moderate empowerment in farming practices.

Table 2: Adaptive Strategies Adopted by Women Farmers

| Strategy | Number of Respondents (n=100) | Percentage (%) |
|-----------------------------------|-------------------------------|----------------|
| Crop Diversification | 45 | 45% |
| Water Conservation Techniques | 30 | 30% |
| Use of Organic Fertilizers | 25 | 25% |
| Participation in Community Groups | 20 | 20% |
| Reliance on Traditional Knowledge | 35 | 35% |

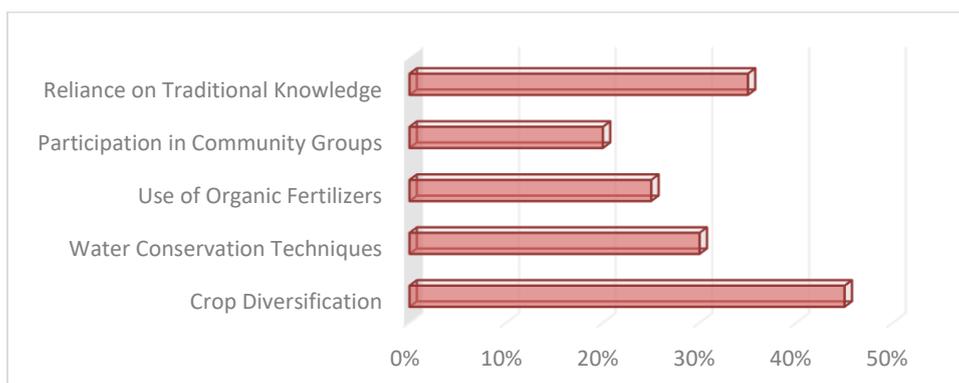


Figure 1: Adaptive Strategies

The data reveals that women farmers employ a variety of adaptive strategies to mitigate the effects of climate change on agriculture. Crop diversification is the most common strategy, practiced by 45% of respondents, indicating farmers' efforts to reduce the risks associated with mono-cropping and climate variability. Reliance on traditional knowledge (35%) also remains significant, reflecting the continued importance of indigenous practices in sustaining agricultural productivity. Water conservation techniques are adopted by 30% of the respondents, suggesting growing awareness of the need to manage scarce water resources efficiently. Meanwhile, 25% of women farmers reported using organic fertilizers, showing a gradual shift toward eco-friendly farming methods. Participation in community groups is relatively lower (20%), implying limited engagement in collective adaptation initiatives.

Table 3: Challenges Faced by Women Farmers Due to Climate Change

| Challenge | Number of Respondents (n=100) | Percentage (%) |
|------------------------------|-------------------------------|----------------|
| Irregular Rainfall / Drought | 55 | 55% |
| Crop Failure / Loss of Yield | 45 | 45% |
| Limited Access to Resources | 40 | 40% |
| Financial Constraints / Debt | 35 | 35% |
| Gender-based Restrictions | 30 | 30% |

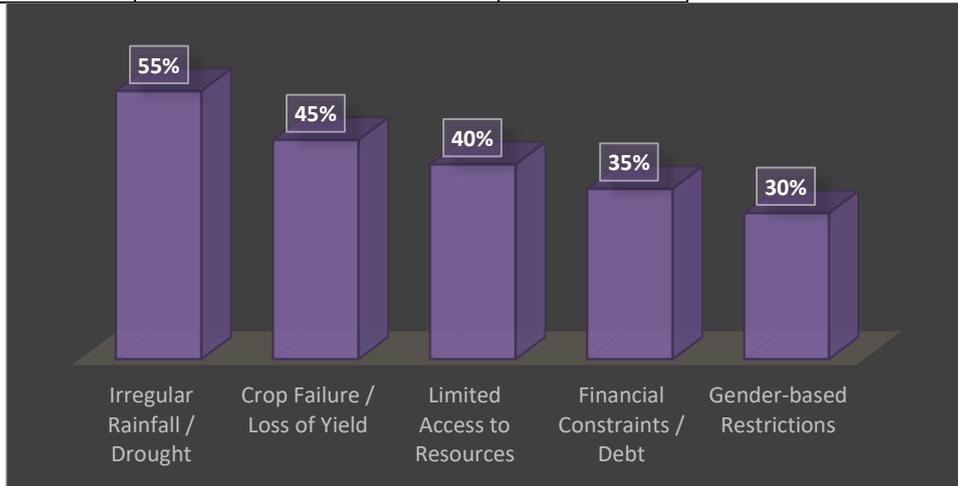


Figure 2: Challenges Faced by Women Farmers

The data reveals that irregular rainfall and drought constitute the most significant challenge faced by women farmers, affecting 55% of respondents. This is followed by crop failure and loss of yield (45%), reflecting the direct impact of changing climatic conditions on agricultural productivity. Limited access to resources, such as irrigation facilities, quality seeds, and fertilizers, affects 40% of the participants, while 35% face financial constraints and debt, indicating the economic vulnerability of women engaged in farming. Additionally, 30% of respondents reported gender-based restrictions, highlighting the persistent socio-cultural barriers that limit their decision-making and access to agricultural inputs. Overall, the findings suggest that climate change intensifies both environmental and gender-related challenges, making women farmers disproportionately vulnerable.

Table 4: Awareness and Adoption of Ecofeminist Practices

| Ecofeminist Practice / Awareness | Number of Respondents (n=100) | Percentage (%) |
|---|-------------------------------|----------------|
| Awareness of Women's Role in Environmental Protection | 50 | 50% |
| Participation in Community-led Eco-initiatives | 35 | 35% |
| Adoption of Sustainable Agricultural Methods | 40 | 40% |
| Reliance on Traditional Ecological Knowledge | 30 | 30% |
| Advocacy or Sharing Knowledge on Climate Issues | 25 | 25% |

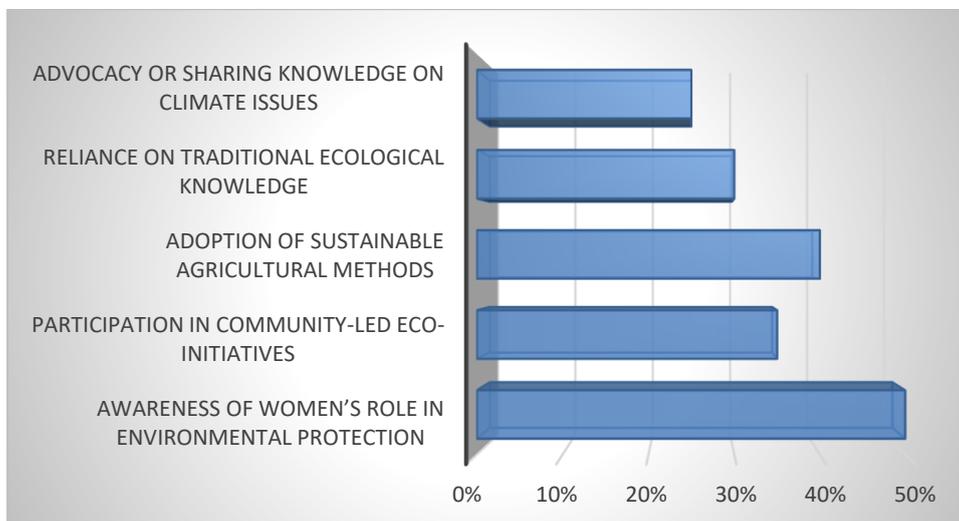


Figure 3: Awareness and Adoption of Ecofeminist Practices

The data indicates that half of the surveyed women farmers (50%) are aware of the vital role women play in environmental protection, reflecting a growing ecofeminist consciousness within rural communities. Around 40% have adopted sustainable agricultural methods, demonstrating an increasing inclination toward environmentally responsible farming. However, only 35% participate in community-led eco-initiatives, and 30% rely on traditional ecological knowledge, suggesting that while awareness exists, collective action and traditional wisdom are yet to be fully integrated into modern agricultural practices. Notably, only 25% of respondents engage in advocacy or knowledge-sharing related to climate issues, pointing to a gap in women's participation in broader environmental discourse.

5. DISCUSSIONS

The findings reveal that a majority of Indian women farmers are aware of climate change and its direct impact on their crops and livelihoods. Most respondents recognized irregular rainfall, drought, and declining productivity as major concerns. However, despite this awareness, access to government support and decision-making opportunities remains limited. This indicates a gap between climate consciousness and institutional empowerment, reflecting the broader socio-economic marginalization of rural women in India. In response to these challenges, women farmers have adopted various adaptive strategies such as crop diversification, water conservation, and the use of traditional ecological knowledge. These practices highlight women's resilience and practical understanding of local ecosystems. Yet, the relatively low participation in community groups and sustainable technology adoption suggests that structural barriers—such as financial limitations and lack of training—continue to restrict broader implementation of climate-smart practices. The challenges identified—irregular rainfall, resource scarcity, and gender-based restrictions—underscore the intersection of environmental and social vulnerabilities. Climate change not only threatens agricultural productivity but also deepens existing gender inequalities. Women's restricted access to land, credit, and extension services amplifies their exposure to environmental risks, aligning with ecofeminist arguments that link women's oppression and nature's exploitation under patriarchal systems.

The results on ecofeminist awareness show a growing recognition of women's role in environmental protection, with half of the respondents acknowledging their contribution to sustainability. However, fewer women participate in community-led eco-initiatives or advocacy efforts. This suggests that while ecofeminist consciousness is emerging at the individual level, it has yet to translate into collective leadership and broader policy engagement.

Overall, the discussion highlights that Indian women farmers embody both vulnerability and agency. Literature analyzed through an ecofeminist lens reinforces this duality, portraying women as key agents of ecological balance despite social constraints. To strengthen their role in climate adaptation, policies must enhance women's access to resources, education, and decision-making platforms. Integrating ecofeminist perspectives into agricultural and environmental programs can bridge the gap between awareness and action, fostering sustainable and gender-inclusive climate resilience.

6. CONCLUSION

This study highlights the vital yet often overlooked role of women farmers in addressing the challenges of climate change through sustainable and adaptive practices. The findings reveal that while women possess significant traditional knowledge and a deep connection with the environment, they continue to face barriers such as limited access to resources, financial constraints, and gender-based inequalities. Despite these challenges, women demonstrate resilience by adopting practices like crop diversification, water conservation, and the use of organic methods.

The research also underscores the growing awareness among women of their role in environmental protection, aligning with ecofeminist principles that link women's empowerment with ecological sustainability. However, this awareness must be supported through institutional recognition, training programs, and community-based initiatives to translate individual efforts into collective impact.

In conclusion, empowering women farmers is not only a matter of gender equality but also a key pathway to achieving environmental sustainability. Integrating ecofeminist perspectives into agricultural policies can help strengthen both women's socio-economic position and the health of the environment. Sustainable development, therefore, depends on valuing women's contributions as central to ecological balance and climate resilience.

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