

3

Women's Role in Environmental Sustainability: Challenges, Contributions and Future Perspectives

Dr. Ritu Chauhan*

Assistant Professor, S.S Jain Subodh P.G. College (Autonomous), Rambagh, Jaipur.

*Corresponding Author: chauhanritu2601@gmail.com

Abstract

Environmental sustainability has emerged as a critical global concern due to increasing climate change, biodiversity loss, pollution, and resource depletion. Women play a fundamental role in achieving environmental sustainability through their involvement in natural resource management, sustainable agriculture, water conservation, biodiversity protection, and climate adaptation. This research article examines the multidimensional contributions of women toward environmental sustainability and explores the barriers that limit their participation in environmental governance. The article further analyzes contemporary research findings on gender-responsive environmental policies and sustainable development initiatives. The study concludes that empowering women and integrating gender perspectives into environmental decision-making are essential for achieving long-term sustainability goals.

Keywords: Sustainability, Sustainable Development, Gender Equality, Natural Resource Management, Environmental Governance.

Introduction

Environmental sustainability refers to the responsible management and conservation of natural resources to ensure ecological balance and meet present and future human needs. The growing challenges of climate change, deforestation, environmental degradation, and resource scarcity have highlighted the importance of inclusive approaches to sustainability.

Women are among the most important stakeholders in environmental conservation due to their direct interaction with natural resources in daily life. In many developing countries, women are responsible for food production, water collection, fuel management, and household waste disposal. These responsibilities provide women with practical ecological knowledge and make them essential contributors to sustainable development.

Recent sustainability research increasingly recognizes gender as a central factor influencing environmental governance, resilience, and resource management. Studies indicate that women's participation improves environmental outcomes at local, national, and organizational levels. ([Springer](#))

Literature Review

The relationship between women and environmental sustainability has been explored through ecofeminist theory, sustainable development frameworks, and gender studies. Ecofeminism argues that the exploitation of nature and the marginalization of women are interconnected social processes.

A systematic review published in *Sustainability Science* highlighted the growing integration of gender perspectives within sustainability research and emphasized the need for stronger representation of women in environmental decision-making. ([Springer](#))

Research on environmental governance demonstrates that organizations with greater female participation often exhibit stronger environmental performance and sustainability commitments. ([Springer](#))

Recent studies further suggest that women contribute significantly to climate adaptation, environmental resilience, and community-based conservation initiatives, particularly in vulnerable regions facing ecological stress. ([Sage Journals](#))

Women's Contributions to Environmental Sustainability

- **Sustainable Agriculture**

Women account for a substantial proportion of the agricultural workforce worldwide. They contribute to:

- Organic farming practices
- Crop diversification
- Seed conservation
- Soil fertility management
- Integrated pest management

These practices support sustainable food systems while minimizing environmental degradation.

- **Water Resource Management**

Women play a central role in household water management and community water conservation programs. Their participation enhances:

- Rainwater harvesting
- Efficient water utilization
- Watershed protection
- Community sanitation programs

Sustainable water management contributes directly to environmental health and climate resilience.

- **Biodiversity Conservation**

Traditional ecological knowledge maintained by women contributes significantly to biodiversity protection. Women often preserve indigenous seed varieties, medicinal plants, and local ecological practices that support ecosystem stability.

- **Waste Management and Circular Economy**

Women contribute extensively to recycling, waste segregation, composting, and sustainable consumption practices. Recent research on circular bioeconomy systems highlights the transformative role women can play in promoting sustainable organizational and community practices. ([Springer](#))

- **Climate Change Adaptation**

Women actively participate in:

- Climate-smart agriculture
- Community disaster preparedness
- Renewable energy adoption
- Afforestation and reforestation initiatives

Their involvement strengthens community resilience against environmental risks.

Women's Leadership in Environmental Movements

Women have led several influential environmental movements across the world.

Notable examples include:

- Vandana Shiva, who advocates biodiversity conservation and sustainable agriculture.
- Wangari Maathai, founder of the Green Belt Movement.
- Gaura Devi, who mobilized women to protect forests during the Chipko Movement.

These movements demonstrate the importance of women-led environmental activism in achieving conservation goals.

Challenges Limiting Women's Participation

Despite their contributions, women face several barriers:

- **Limited Access to Resources**

Many women lack access to:

- Land ownership

- Financial services
- Agricultural technologies
- Environmental training programs
- **Gender Inequality**

Socio-cultural norms often restrict women's participation in environmental governance and policy-making processes.
- **Climate Vulnerability**

Climate-related disasters disproportionately affect women because of economic dependence on natural resources and unequal access to adaptation resources.
- **Educational Constraints**

Limited educational opportunities reduce women's representation in environmental science, policy development, and leadership positions.

Emerging Trends and Future Directions

Recent studies increasingly emphasize gender-transformative approaches to climate action. Researchers argue that environmental sustainability policies should integrate women's experiences, leadership, and indigenous knowledge systems. ([The Times of India](#))

Future sustainability strategies should focus on:

- Gender-responsive climate policies
- Women's participation in environmental governance
- Green entrepreneurship among women
- Sustainable livelihood programs
- Environmental education and leadership training

These measures can enhance environmental outcomes while promoting social equity.

Conclusion

Women are indispensable agents of environmental sustainability. Their contributions to sustainable agriculture, biodiversity conservation, waste management, climate adaptation, and environmental governance significantly strengthen global sustainability efforts. Contemporary research demonstrates that gender-inclusive environmental policies lead to more effective and resilient sustainability outcomes. However, structural barriers such as gender inequality, limited resource access, and inadequate representation continue to restrict women's participation. Therefore, empowering women through education, leadership opportunities, economic support, and policy inclusion is essential for achieving sustainable development and addressing future environmental challenges.

References

1. Sanz-Hernández, A., Zarauz, I., Jiménez-Caballero, P., et al. (2025). Women Harmonizing Sustainability Practices for a Circular Bioeconomy. *Journal of Business Ethics*. ([Springer](#))
2. Fernández-Torres, Y., Gallego-Sosa, C., & Gutiérrez-Fernández, M. (2025). Do Women Board Members Contribute to Companies' Superior Environmental Performance? *Review of Managerial Science*. ([Springer](#))
3. Chakrovorty, A. (2026). Gendered Dimensions of Environmental Security. *SAGE Journals*. ([Sage Journals](#))
4. Sustainability Science Review (2024). A Systematic Review of Peer-Reviewed Gender Literature in Sustainability Science. ([Springer](#))
5. Pandey, B., & Verma, S. (2025). Sustainable Gardening Among Urban Women Homemakers in India. *Discover Sustainability*. ([Springer](#))
6. Sinha, A. (2024). Feminist Perspectives on Women's Agency in Environmental Conservation and Sustainability. *Journal of Chemical Health Risks*. ([Journal of Chemical Health Risks](#))
7. Alshammari et al. (2025). The Role of Saudi Women in Advancing Environmental Sustainability. *International Journal of Climate Change Strategies and Management*. ([ScienceDirect](#)).

