



# Gendered Impacts of Climate Change on Indian Fisheries

A sectoral analysis of how climate change disproportionately affects women in India's fisheries-dependent communities through systematic legal and policy examination.

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# The Scale of India's Fisheries Sector

14M

People Dependent

Lives supported by fisheries sector across India

47%

Women Workers

Female participation in fisheries workforce

4.5MMT

Marine Production

2023-2024 marine fisheries output

₹61K

Export Value

Crore rupees in fisheries exports

India's fisheries sector represents a critical intersection of economic vitality and climate vulnerability, supporting millions while facing unprecedented environmental pressures.



# Climate Stressors Reshaping Marine Ecosystems

## Rising Sea Temperatures

1.2-1.5°C increase in Arabian Sea and Bay of Bengal (2023-2025)

## Intensified Cyclones

20% frequency increase on east coast since 2000

## Marine Heatwaves

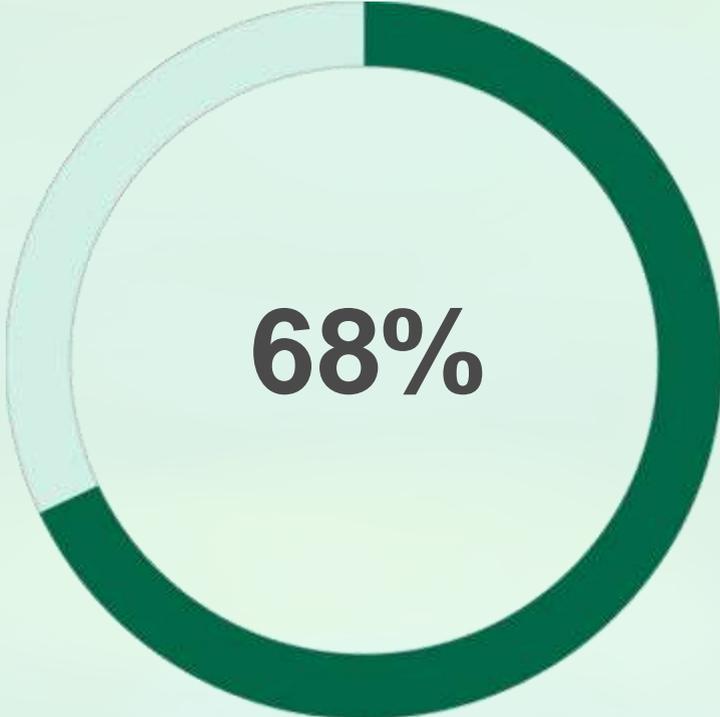
30+ days of extreme temperatures recorded in Kerala waters

# The Gendered Division of Fisheries Labor

Women constitute 47% of India's fisheries workforce but are concentrated in lower-value post-harvest activities, earning 40% less than men despite their critical role in the value chain.

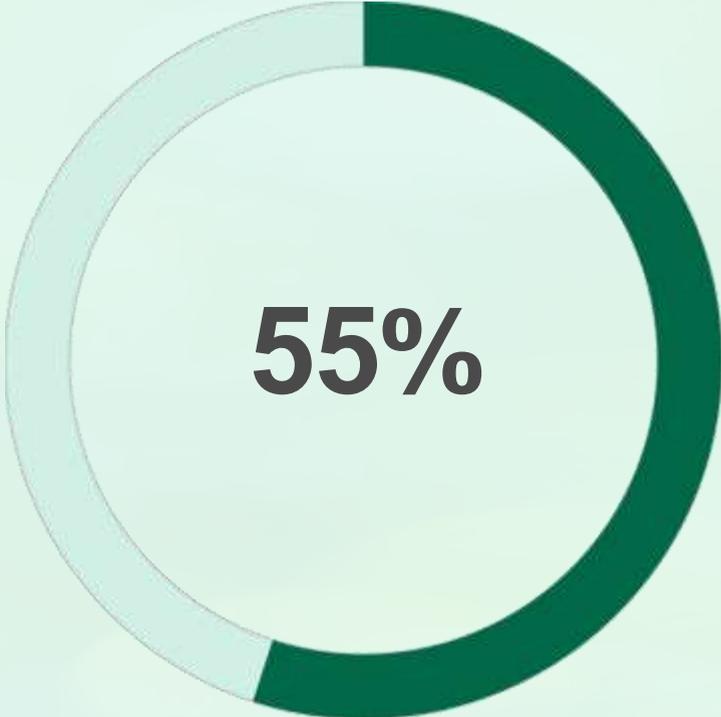


# Disproportionate Climate Impacts on Women



**Income Loss**

Women's economic losses vs. 52% for men from 2024 heatwaves



**Health Impacts**

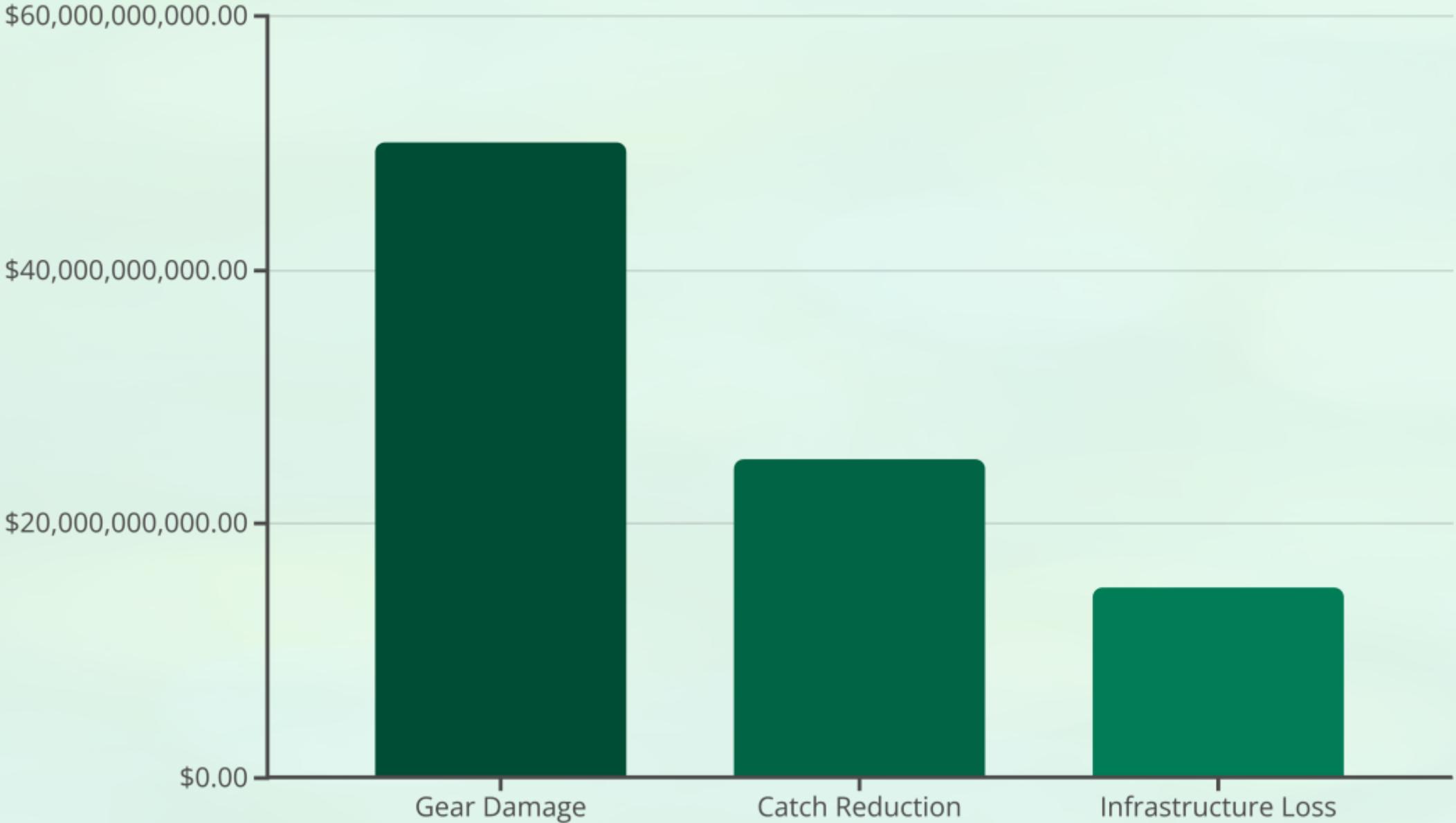
Heat-related illness incidence among women vs. 35% for men



**Additional Hours**

Daily time burden increase during climate disruptions

# 2024-2025 Climate Disasters Impact Assessment



Cyclones Dana, Fengal, Remal, and Asna caused massive economic losses, with women bearing disproportionate recovery burdens due to their post-harvest roles and limited access to insurance and credit.

# Major Challenges: Persistent Gendered Disparities

## Economic Marginalization

Women face 68% income losses from stock shifts and climate events, leading to forced diversification into precarious low-wage urban work for 30% of young women post-cyclones.

## Time Poverty & Health Risks

Increased post-harvest burdens expose women to heat-related illnesses (55% incidence) and add 4-5 hours/day for foraging and care roles during climate disruptions.

## Resource Exclusion

Less than 20% of women access crucial subsidies and training under programs like PMMSY, with caste exacerbating vulnerability for marginalized groups.

## IUU & Habitat Loss

Illegal fishing depletes stocks, while mangrove erosion (1.3 km<sup>2</sup>/year) destroys vital ecosystems, disproportionately impacting women's gleaning and traditional livelihoods.



# Key International Legal Instruments

International law on climate change and fisheries has evolved to address gendered impacts, though explicit provisions remain limited. This framework spans climate treaties, fisheries agreements, and human rights instruments, with increasing emphasis on gender mainstreaming.



## UNFCCC & Paris Agreement, 2015

Mandates "gender-responsive" adaptation plans and integrates gender into NDCs and adaptation reporting, with fisheries as a priority. Links women's vulnerabilities in fisheries to human rights, addressing income losses from climate events.



## FAO SSF Guidelines, 2024

Promotes human rights-based approaches to small-scale fisheries (SSF) with explicit gender equality requirements, including women's participation and equitable access. Helps mitigate climate risks for women in processing roles.



## WTO Fisheries Subsidies Agreement, 2022

Prohibits harmful subsidies that contribute to overfishing and IUU fishing. Indirectly aids women by reducing IUU, which often displaces them from markets, and supports gender-disaggregated monitoring.



## UNCLOS & Related Treaties, 1982

Mandates sustainable fisheries management and pollution prevention. While lacking explicit gender clauses, interpretive guidelines are urging integration to address women's disproportionate exposure to habitat loss.



## Human Rights Instruments

Treaties like CEDAW and the Beijing Platform for Action doctrinally link gender equality to environmental rights. General Recommendation 37 and the SDGs integrate climate impacts on women and equity in SSF.

# Legal Framework Gaps in India

## National Policies

National Fisheries Policy (2020) prioritizes sustainability but omits gender-specific provisions despite women's 47% workforce participation.

## State Regulations

Marine Fisheries Regulation Acts criminalize women's nearshore gleaning activities without providing alternative livelihoods.

## International Agreements

India's NDCs under Paris Agreement lack fisheries-specific gender measures despite UNFCCC mandates.

# Research Methodology: Doctrinal Analysis

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## Secondary Source Review

Analysis of legal texts, policy documents, and scholarly articles from FAO, CMFRI, IPCC, UNFCCC, and WTO (2023-2025)

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## Interpretive Framework

Feminist legal theory applied to unpack gender hierarchies within environmental and fisheries doctrines

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## Thematic Analysis

Systematic examination of gendered impacts through climate justice and feminist political ecology lenses

# Challenges in Implementation

India's efforts to implement gender-responsive climate and fisheries policies face significant hurdles spanning legal, institutional, and socio-economic domains, disproportionately impacting women.



## Doctrinal & Policy Gaps

- Lack of gender mainstreaming in NDCs and national fisheries policies.
- Tension between Common But Differentiated Responsibilities (CBDR) and equity delays specific gendered adaptation.



## Implementation & Capacity

- Limited funding and resource constraints hinder gender-responsive programs.
- Institutional silos between fisheries and gender ministries fragment effective integration.



## Socio-Economic & Cultural

- Patriarchal norms and caste discrimination exclude marginalized fisherwomen from aid and scaling Self-Help Groups.
- Critical data gaps in gender-disaggregated fisheries information impede accurate reporting.



## Geopolitical & Enforcement

- Delayed ratification of international agreements (e.g., WTO subsidies) perpetuates harmful practices like IUU fishing.
- Transboundary challenges in shared fish stocks complicate regional cooperation due to disputes.



# Policy Recommendations for Gender-Inclusive Reform



## Mandatory Gender Audits

Implement systematic gender impact assessments for all fisheries and climate policies



## Financial Inclusion

Expand women's access to credit, insurance, and climate adaptation funding mechanisms



## International Synergies

Align national laws with FAO SSF Guidelines and UNFCCC gender mandates

# Toward Equitable Blue Economy Resilience

Achieving climate resilience in India's fisheries requires recognizing women not as victims, but as agents of change whose knowledge and leadership are essential for sustainable adaptation.

This research contributes to the GAF Conference discourse by providing doctrinal tools for mainstreaming gender in climate adaptation, aligning with SDGs 5, 13, and 14 for Asia's blue economies.

