

# Introspecting Climate Change from the Lens of Feminism

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**Abstract**—Climate change is a widespread problem whose ramifications are felt across sectors, economies and geo-spatial location. But the degree to which one will be affected depends on the power relations, social positioning and the cultural milieu. Though, there are limited studies exploring the nexus between climate change and gender but it is not difficult to discern that the ravaging effects of climate change will have disproportionate impact on women increasing their burden, hardship and vulnerability which will ultimately exacerbate gender inequalities. Therefore, climate justice is nothing without gender justice and feminist epistemologies and standpoint theories help to unravel the layers of climate injustice. Many studies have been conducted at the micro level that explores climate change related vulnerability. But they have been limited to either community level vulnerability or household level. This implies that there is a dearth of gender segregated data that will elucidate the gender specific impacts of climate change. The present paper looks at the vulnerabilities of women in climate change hotspot Satavaya village in Rajnagar block of Kendrapada district in Odisha. Satavaya is under constant threat of coastal erosion due to sea level rise.

The research findings reflect that climate change has aggravated livelihood insecurity, thus, inducing a male dominated mass labour migration. As they leave behind their family, the entire responsibility of running the household remains with the women, who have to carry the “double burden” of care and earning responsibilities. Health risks, especially reproductive problems are very high for women in Satavaya. They are also confronted with water and food insecurities. Climate change induced extreme events further trap them in cycle of poverty and amplifies their vulnerabilities. There is a need to develop women centric coping and adaptation strategies.

**Keywords:** Climate change, Gender Inequality, Vulnerability, Satavaya, Feminism, Migration.

## Introduction

Understanding the different dimensions and aspects of Climate change from feminist perspective is critically important but highly underrated [1]. Climate change which is one of the serious ecological crises continues to remain under the male bastion. Starting from knowledge production, analyzing the impacts and devising strategies to combat climate change, the gender components have been largely ignored which reiterate

the sedimented ignorance that gender faces [2]. It is intriguing for many to comprehend climate change as a gendered issue because it has been projected as a ubiquitous problem affecting all sectors of economy, irrespective of geographies. What they fail to realize is that climate change is a parody of existing global inequalities that further permeates gender inequalities [3].

The present paper focuses on vulnerable women of Satavaya village of Rajnagar block in Kendrapada district in Odisha. The reasons for selecting this study location are the intensity of high disaster risk in the area and coastal erosion due to rising sea level. Satavaya is considered as one of the climate hotspots of Odisha and was once composed of seven hamlets named Gobindpur, Mohinipur, Chintamanipur, Barahipur, Kharikula, Kanhupur, and Satabhaya. But now Satavaya is completely at the mercy of the sea with just a solitary sand dune standing in between the village and the sea. According to the narratives of the villagers, sea was more than 10 kilometers away from the village before 1970. But due to a massive cyclone in 1971, there was a powerful sea surge that washed away three hamlets, another two were submerged in the low pressure of 1982, leaving only Kanhupur and Satabhaya intact. There was a large scale submergence of land. The people who had enjoyed an ideal life depending on agriculture and fishing suddenly found their lives shattered and future uncertain. After three decades of struggle, Government started their rehabilitation work in 2017. But there are massive errors in the procedure as more than 40 percent of the entire village claim of being left out of the procedure. The remaining households have been distributed where some of the households shifted to nearby Magarkanda hamlet. As the coastal erosion is growing intensely, they are threatened by the sea level rise.

Though the entire village is vulnerable, but it is pertinent here to mention that women are more prone to risks and there is a need to understand their versions of risks and vulnerability. Therefore, the researcher has following objectives for the study.

**Objectives**

- To document the perception of women towards climate change
- To enumerate major impacts of climate change as perceived by women on their lifestyle and livelihoods
- To explore the consequences of migration on women due to climate change in the selected area.
- To study the current adaptation strategies followed by the women to combat the effects of climate change.

**Selection and Description of the Study Area**

The study follows exploratory research design. It was necessary to adopt a multi stage sampling procedure for selecting area and then respondents. Purposive sampling was used selecting the study area and random sampling was used for choosing respondents. In-depth interviews and Focus group discussions are used to elicit information from 100 women respondents. Women from core Satavaya hamlet and Magarkanda hamlet of Satavaya village have been taken.

The study area Satabhaya is a cluster of hamlets located in Rajnagar block of Kendrapada district in Orissa and is selected on the basis of literature review which accords these locations as intense disaster prone and climate change areas. It is situated 26 km away from sub-district headquarter Rajnagar and 66 km away from district headquarter Kendrapara . The village is very close to Gahirmatha Turtle Sanctuary, Bhitarkanika Wildlife Sanctuary. The total geographical area of village is 299 hectares.

**Demographic/ Socio-economic characteristics of the village**

It is important to analyse the socio-economic profile of the village to estimate the overall risks and insecurities they face. The demographic characteristics with gendered orientation has been presented in Table no. 1

**Table No. 1. Demographic characteristics of Satavaya village**

Total number of Households	255
Total Population	1169
Total Males	616
Total Females	553
Main Occupation	Agriculture
Subsidiary Occupation	Fishing
Female Literacy	54.07 %
Number of Households surveyed	100
Total Female Schedule Caste	88
Total Female Schedule Tribe	06
Total Female Workforce	06

Source: Census 2011

The village has mixed population with heterogeneous social groups. Schedule caste (SC) and Scheduled tribe (ST) women constitute 16 percent and 1 percent respectively. General caste and other backward classes (OBC) constitute the rest of the

population. The female literacy rate is lower than national and state average and female workforce participation is just 1.7 percent of total workforce population of the village. Majority of the households are below the poverty line. Mud houses with thatched roof lack basic amenities like toilet and lighting. Solar panels and traditional lamps are used in every household for lighting. The road to village is kutcha (muddy and masy) and the village becomes isolated during rainy days and disasters. There is only one country boat which connects them to the rest of the world; it stops by between 5:30 pm and 6:00 pm depending on the season and festivals. After crossing the creek, one has to walk on narrow muddy road for 8 km to reach their hamlet. There is no hospital in this region. As the village is prone to coastal erosion and submergence due to sea level rise, the government and even the villagers refrain from investing in infrastructure.

Women in this village prefer not to work in fields or go anywhere for other menial work and are mostly dependent on men folk for family maintenance. Labour migration, especially male out-migration is very rampant in this village.

**Perception of women respondents towards climate change**

It is important to judge the knowledge or awareness about climate change of women.

**Table No. 2. Distribution of Respondents on basis of Perception towards climate change**

Perception	Summer season		Rainy Season		Winter Season	
	Onset	Offset	Onset	Offset	Onset	Offset
Comes Early	92 (92)	16 (16)	12 (12)	50 (50)	04 (04)	80 (80)
Delays	00	64 (64)	82 (82)	40 (40)	90 (90)	16 (16)
No change	08 (8)	20 (20)	06 (6)	10 (10)	06 (6)	04 (4)

Source: Primary source. The figure in parenthesis presents the percentage

As evident from the table, women are well aware of climate change and the seasonal changes that is taking place. Most respondents experienced changes in the onset of the winter season (94 percent), the summer season (92 percent) and the rainy season (94 percent). Similar trend was observed on the offset of seasons. However, women are more concerned about the erratic and uncertain trend of rainy season and monsoon rainfall. They have a paradoxical situation where they face both drought and heavy rainfall leading to flood in a single year.

There is a clear indication that knowledge and awareness of climate change is not a function of education for women in this village rather it is their experience that has helped in shaping their views. They identified Super Cyclone of 1999 that hit the coasts of Odisha as the key turning points after which they started observing changes in climate. However, even though the respondents were aware about climate change, their perception was just limited to one risk i.e. sea

level rise and lacked understanding of the wider impacts and potential consequences.

Poor awareness and understanding of the risks, and lack of local preparedness, are in part due to lack of effective communication of climate change impacts.

Next the researcher was interested in knowing the perceived impacts of climate change by the respondents.

**Table No. 3. Distribution of Respondents on basis of Perceived Impacts of Climate Change**  
Multiple choices

Areas where negative effects have been noticed	Numbers	Percentage
Poor crop production	97	97
Increase in frequency of extreme events	92	92
Increase in household food insecurity	82	82
Water scarcity	56	56
Coastal Erosion	100	100
Transportation has become difficult	80	80
Working has become difficult due to hotness	52	52
Increased suffering and poverty	64	64
Increased health risks	90	90
No negative effects cited	00	00

Source: Primary Survey

The major impact of climate change as stated by the respondents unanimously was coastal erosion. There is no doubt in the minds of the respondents regarding this. This is a matter of their survival, life or death. It was followed by poor crop production (97percent) and increase in frequency and intensity of extreme events (92 percent). According to the respondents as the sea level is rising and coastal erosion is rapid, every year they have move few meters back from their place. At times of flood or cyclone, they remain completely cut off from the main land. With salt water intrusion, salinity is also increasing making the fields unfit for cultivation. For last three years, there has been no production. This has intensified male out migration, where they leave behind their families and women have to carry the “double burden” of care and earning responsibilities. As most of the families are below poverty line, they have very low financial capital and assets. With women not working, the entire family is dependent on remuneration from migration. Therefore, 72 percent of the respondents reported that low agricultural production and excessive dependence on earnings from migration has led to increasing food insecurity. Further, 64 percent said that livelihood and food insecurity gradually pushes them into poverty. As male members stay outside, women have to deal with different insecurities with limited finance.

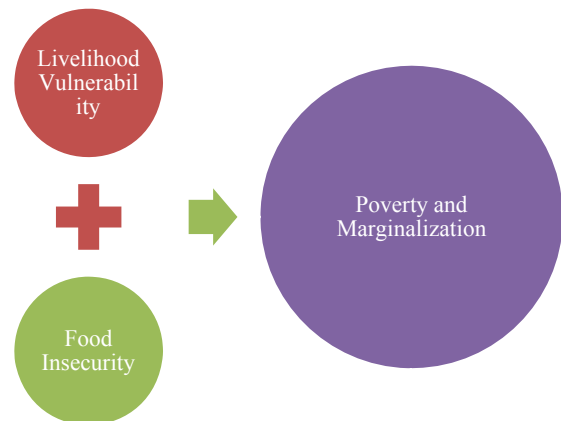


Figure 1

Transportation has always been a problem for the women as pointed out by 82 percent of the respondents. This is because of the kaccha road stretching for 8kms. Young girls are bereft of education and the drop out ratio is rising because there are no good schools nearby and they have to walk everyday for 16 kilometres to get schooling and it usually becomes dark while returning. As there is no hospital women and children face a lot of problem and at times this has cost many lives. The health insecurities are gradually rising for women as reported by 90 percent of the respondents. During pregnancy, they are devoid of basic health checkups as they cannot travel in that situation to any nearby hospital which is 20 kilometres away. There has been a rising trend of maternal and infant mortality rate. At the time of child delivery, women have to be carried on a cot and during rainy season, even that is not possible. There is no possibility of availability of any emergency services.

Rise in extreme events not only creates financial troubles but is a matter of safety and security for women. As male members are absent, women folk have to ensure that every family member is rescued and is safe, before her security. Many respondents also reported about harassment at shelter homes. Problem starts in post disaster period where the entire responsibility of bringing two times meal comes on the women. When the sea intrudes little inside the land, women have to shift their houses all by their own along with elders and children.

As there are instances of increasing salinity, drinking water scarcity (56 percent) has become a major problem. Women have to travel longer distance to get drinking water. Not only this, rise in temperature affects their daily routine by decreasing their working capacity (52 percent).

None of the respondents said that they never experienced any negative impacts of climate change. This implies that the respondents are well aware about the impacts of climate change on them as well as the community. But most of the

respondent's focused on direct impacts of climate change and were less aware about the indirect impacts.

**Livelihood and Migration**

Major livelihood options available for the villagers are farming, daily wage labour and fishing. Bhaga chasa or farming based on partnership dominates the village scenario. As agriculture is mostly water intensive job, farmers mostly dependent on rainwater for harvesting paddy between July and December. The researcher observed that though majority of the respondents said that they are not into farming but they indirectly perform many agricultural activities. Again post harvest operations are only performed by women. Because of erratic monsoon rainfall and increasing salinity of the soil, agriculture no longer remains viable and remunerative. Earlier, male members migrated only during lean season for three to four months and returned back. But now due to unsustainability of agriculture, they have to migrate throughout the year. Many people migrate to nearby villages or even to Gujarat and Kerala for informal labour. The Mahatma Gandhi National Rural Employment Guarantee Act does not provide enough job security. The physical isolation makes them highly resource-dependent and reduces access to alternative livelihoods; this makes them especially vulnerable to any climatic disruptions. They also do not have adequate skills to go for other jobs.

During the researcher's visit, it was observed that from every household one or two adult male members has migrated leaving behind elders and children at the helm of women folk. The respondents reported that they have formed Self Help Group (SHGs) and they are able to earn something out of it. They send the remuneration back home which helps in the sustenance of their family. It was observed that the villagers are no more interested in practicing their tradition occupation.

While the current paper focuses on labour migration but there are instances where the entire household has migrated due to rising sea level. Though they shifted due to life risks but there are facing many psychological and financial problems. In these cases, women have to stay at a new place without any support which at times is a risk to their safety and security.

**Intersectionality**

There is a need to inculcate intersectional dimension to shed light on the different interlocking knowledge practices within the same gender group. There is a need to examine and critically reflect on the "social positioning" to understand the different levels of knowledge, inequalities and layers of vulnerability existing in the same gender group. A scheduled caste or scheduled tribe women will face "double vulnerability", first, for being a woman and second for belonging to marginalized group. They have to follow the cultural rules before safeguarding themselves from any hazardous event. Vulnerability experienced by a tribal woman is different from vulnerability of upper caste woman. Further,

age as a factor of vulnerability should also be accounted. It is very difficult for aged women to face any disaster because of agility factor. Menstruating or lactating women are further constrained by their condition. Climate change not only exacerbates their existing vulnerability but also adds new risks to their kit.

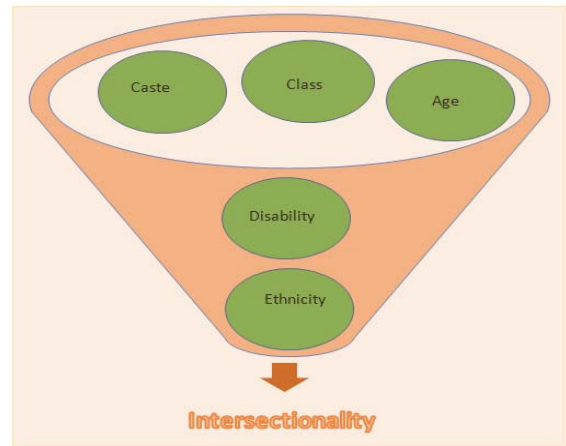


Figure 2

**Adaptation Strategies**

According to researcher's observation, the damage done to Satavaya is to a point of no return. No structural adaptation or mitigation strategies can help them. As they are under the constant threat of sea submergence, they are left with only two alternatives for survival. First is to migrate along with the entire household to a new place or second, to shift every few meters. As it is not possible to tame the sea, Government too does not have any sincere efforts to support the villagers of Satavaya. With men remaining outside, most of the time, it is the women who bear the entire burden of negative impacts of climate change. During FGD, the researcher discovered that earlier there was mangrove forest that protected the villagers from any natural disasters but with growing destruction of forests, their adaptive capacity has also eroded. It can be judged that more than relying on the technical adaptation strategies the natural or locally driven strategies should be given more prominence [5]. Government has not been able to provide any technical strategies to Satavaya villagers. There is a plan to rehabilitate the villagers to a safer place called Bagapatia, which is in the pipeline.

**Conclusion**

From the above discussion it is evident that climate change induced sea level rise is a serious concern in Satavaya. It has not only jeopardized the livelihood options but has also promulgated mass labour migration and Women are left as silent sufferers. Though climate change impacts everyone but it is quite evident that it has penetrated gender inequalities more into the society. In the current situation, the respondents find it difficult to prepare for the risks or respond to specific

events. Government policies and action plans mostly miss out the gender component of an issue and belittle the vulnerabilities faced by women. Gender and climate injustice are connected and climate change disproportionately affects the women more. There is a need to develop better frameworks where gender concerns are raised and there is gender parity in decision making process.

### Suggestions

1. Rather than considering women as vulnerable victims, they should be considered as resourceful actors who can bring radical transformation
2. Women should be given equal opportunity in decision making process.
3. Government should focus on skill development and capacity building exercises
4. Good communication and transmission of knowledge is required to raise awareness of the social impacts of climate change and what actions can be taken to respond and adapt to it.
5. Government should devise rescue and rehabilitation plans that are gender sensitive and gender friendly
6. Government should ensure everyone is rehabilitated and the process should start immediately.

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