

Rising Climate Risks, Rising Responsibilities: Farm Women at the Frontline

Subhashree Satapathy^{1*}, Irik Rime² and Jeebanjyoti Behera³

^{1,2}M.Sc. Scholar, ³Assistant Professor, Department of Extension Education,
College of Agriculture, OUAT, Bhubaneswar, Odisha, India -751003

Corresponding Author

Subhashree Satapathy

email id: Subhashreesatapathy019@gmail.com



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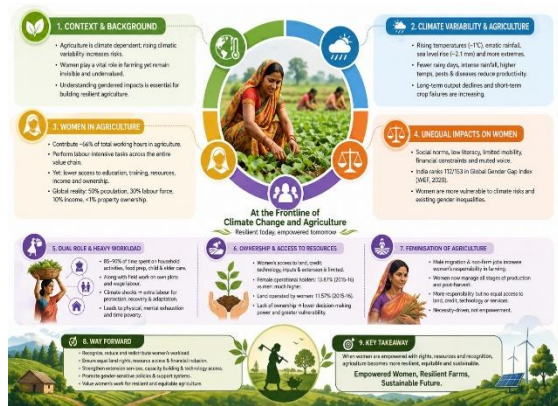
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ABSTRACT

Agriculture is always involved with risk. Among them, climate-related risks are the most important since they might happen suddenly and are unavoidable. Primary climatic factors affecting crop yield probably include rising temperatures, changing precipitation patterns, and increasing atmospheric CO₂. Behind every harvest is a story of resilience, and at the heart of it are farm women whose efforts often go unseen. As climate patterns become more unpredictable and riskier, their everyday lives are changing significantly. Spending longer hours in the field along with responsibilities at home, and the constant need to adapt to riskier situations have made their work more exhausting than ever before. Adding to this burden, male migration has made the scenario worse, leading to feminisation of agriculture. This article explores how these changes are not experienced equally, with women bearing a disproportionate share of the burden due to existing constraints. It brings attention to the growing burden of women in agriculture, the challenges they are facing in accessing resources and support, and the urgent need to recognise and strengthen their role in building climate-resilient farming systems.

INTRODUCTION

Agriculture is the occupation of the majority of the population in India. It's that part which provides us with our staple food, and it forms the basis of various processing industries, ready-to-eat foods and even the tastiest packaged foods. As agriculture is climate dependent, and due to global warming and various reasons, climatic variability is increasing, and the risks associated with these changes are increasing. In the farming community, climate variability affects each individual in a different way; some are more vulnerable, while some are less vulnerable. Women in agriculture play one of the most important roles, and knowing how climate variability affects them is much needed.



Climate Variability and Agriculture-

Climate change is a defining challenge of our present time. Scientific evidence shows that even if greenhouse gases are cut to zero, the world would still be on an inexorable course toward global climate change due to the legacy of past emissions (Stern, 2006). People have had to deal with climate extremes and climate fluctuation throughout history. Nonetheless, phenomena like variations in the amount and distribution of rainfall, as well as variations in temperature and extremes in various regions of the world, are occurring more frequently. Not only are short-term variations occurring, but also various long-term climatic shifts are

following. Crop productivity is dropping as a result of climate change because there are fewer rainy days, more intense rainfall that lowers the water table, higher temperatures, and more pest and disease outbreaks. Long-term output decreases, and short-term crop failures are more likely when precipitation patterns change. This is in line with the historical climate data across the globe that over the past decades, temperatures have risen of about 1 °C, reduction in mean annual rainfall and sea level rise of about 2.1mm (IPCC, 2009).

Women In Agriculture-

Despite women's huge contribution to the global economy, many development initiatives still ignore, exploit and overlook them. Women in developing countries are at the bottom of the work ladder in terms of poverty, education, training and status. In terms of their involvement in agricultural development and their access to resources and services for development, women have clearly fallen behind. Although women do tough and labour-intensive jobs, their work in farming is rarely recognised. In an economy that focuses on work, women's labour is not appreciated. In an economy that prioritises marketable work, their labour is underappreciated. According to the global economic profile of women, they comprise 50% of the population, 30% of the official labour force, 66% of all working hours, 10% of global income, and own less than 1% of global property. Around the world, women work longer hours and still get fewer benefits than men in terms of wages, decision making, ownership and many more.

Unequal Impacts of Climate Variability on Women-

Climate is deeply ingrained in society, and any study pertaining to climate, climate change, or

climate variability must take into account the co-production of climate-human connections. Women appear to suffer the most from the effects of climate change due to socially established roles and duties. The majority of productive domestic tasks appear to be given to women. Compared to men, women are primarily responsible for tasks like sowing crops and ploughing. As a result, women are disproportionately burdened by the distribution of productive home activities. However, men predominate in occupations involving the actual ownership and consumption of resources. In 2020, India ranked 112 out of 153 countries in the World Economic Forum's Global Gender Gap Index. It also has one of the lowest economic participation levels and opportunities for women, ranking 149 out of 153 countries (World Economic Forum, 2020). Such gender inequalities, coupled with social norms, stigma, limited mobility, low literacy rate, lack of financial resources, restricted rights, and a muted voice in shaping decisions, make women highly vulnerable to climate change, which is likely to magnify existing patterns of gender disadvantage (UNDP, 2007). The three major causes of unequal impacts are as follows-

Dual Role of Farm Women-

It is estimated that women provide 85 to 90 per cent of the time spent on household, food processing and preparation across a wide range of countries. Additionally, women are typically in charge of child care and looking after the elderly people of the house. These duties could take a lot of time, depending on the size and layout of the household. Studies on time allocation have revealed that women put in a lot of tiresome work throughout the day. Along with these household works, women are providing free labour on their own plots. Although the division of labour in agriculture is not very strictly on gender basis, yet women exclusively perform certain tasks. Participation of women varies with the crop.

Men tend to grow cash crops, whereas women grow crops for sustaining food security. Women wage labourers are much higher in number than men. In addition to these labours, the worst scenarios occur when any climatic variability occurs, whether it be excessive heat, erratic rainfall or excessive rainfall, it affects women much more; they have to do extra labour for managing that climatic variability and following adaptation strategies.

Ownership and accessibility to resources-

Gender equality is crucial for crop adaptation to climate change because it shapes men's and women's roles and opportunities, which in turn influence their access to the tools and practices needed to address climate change. The mode of female participation in agricultural production varies with the landowning status of farm households. Women constitute a significant and indispensable share of the agricultural labour force, contributing extensively to farm productivity. From sowing seeds and nurturing crops to post-harvest tasks like threshing and winnowing, women have historically performed a wide range of tasks in agriculture. However, patriarchal norms and cultural biases contribute to their invisibility in agricultural discourse and decision-making processes. (Saik *et al*, 2024). The Indian Human Development Survey (IHDS) findings reported that India is one of 15 countries in the world where patriarchal traditions prevent women from enjoying equal property ownership rights (Mehta, 2018). While the percentage share of female operational holders has increased from 12.79% in 2010-11 to 13.87% in 2015-16, with an increase in the area operated by women from 10.36% in 2010-11 to 11.57% in 2015-16 (Ministry of Agriculture & Farmers Welfare, 2018), the level of ownership continues to remain relatively low as compared to their male counterparts. Thus, due to a lack of ownership of land, accessibility to various resources and their decision-making ability are

compromised, which results in their suffering more due to climate variability.

Feminisation of Agriculture-

Feminisation of agriculture refers to the increasing involvement and growing responsibility of women in agricultural activities, particularly as men are shifting to non-farm occupations or migrating in search of better livelihoods. Over time, women have moved beyond their traditional supportive roles to become key contributors in farming, participating in almost all stages from sowing and transplanting to harvesting and post-harvest processing. However, this rise in participation is often driven by necessity rather than empowerment, as it is not accompanied by equal access to land ownership, credit, technology, or extension services. As a result, feminisation of agriculture highlights a paradox where women's role in agriculture is expanding, but their control over resources and benefits remains limited. In addition to this, when the climate variability hits and keeps on increasing day by day, men found that there is no certainty of receiving 100% productivity from agriculture as the only livelihood, they are preferring to migrate to find something better and as the females have no option left, than to manage everything themselves. They just cannot abandon the land that has been their source of living, so they continue to manage the field, but at the cost of increased excessive workload and poor living conditions.

CONCLUSION:

As the climate is changing, its variability is increasing, and the induced impacts are disproportionate when it comes to farmwomen. They are suffering more; they don't have ownership of the field in which they are working day and night and even their labour is just taken as a helping hand, and they are neither getting paid nor appreciated. They don't even have any decision-making ability

from the beginning and the only time they are told to take decision and manage the whole agriculture is when the males of the house migrate to new places for a better livelihood. This makes them helpless and exhausted from excessive mental and physical pressure. Managing domestic needs is itself a tiring work that solely comes under the responsibility of a woman, and adding all this extra work makes them more vulnerable to climate change. So it's high time women should be treated equally, and their workload pattern should be considered.

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