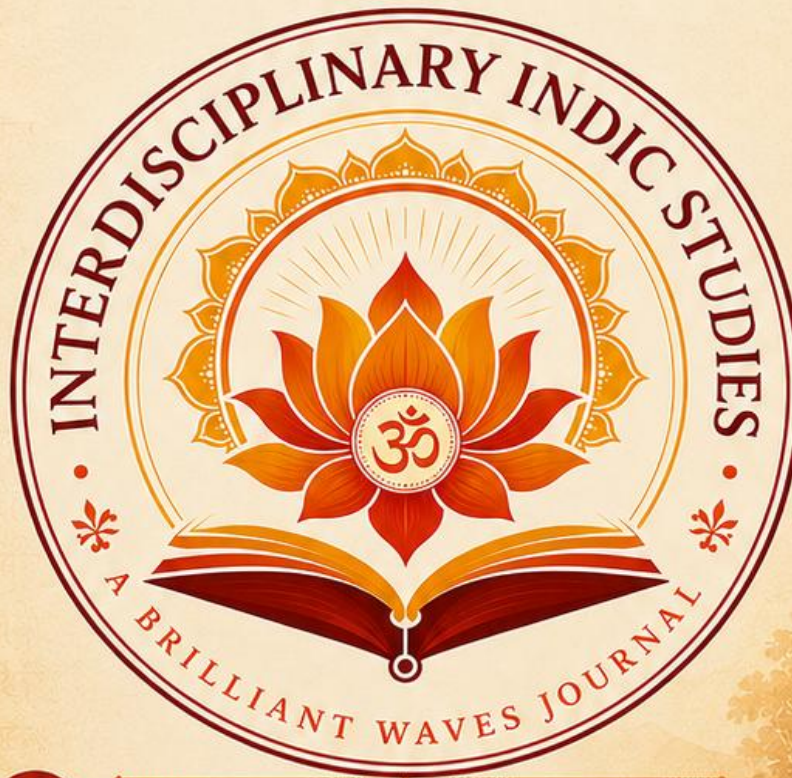


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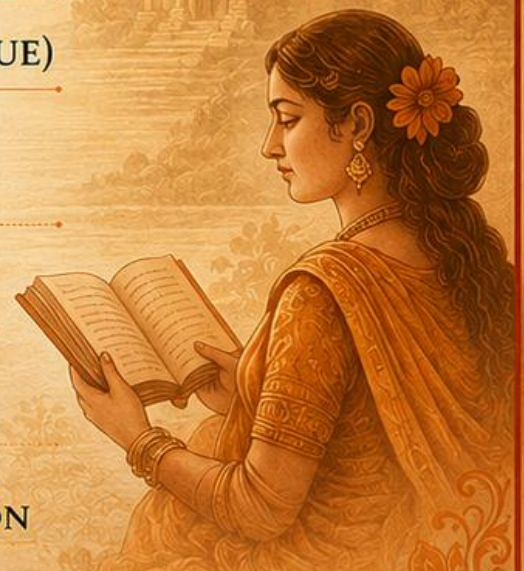
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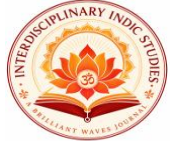
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Women's Contributions to Agriculture

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Abstract

Women's roles in agriculture are diverse and crucial, playing a key part in boosting food production, sustainability, and community strength. All over the world, women participate in various agricultural activities, from planting and harvesting to managing livestock and processing food. Research shows that women handle a significant amount of agricultural work, especially in developing nations where they contribute hugely to food production. Unfortunately, their contributions are often limited by socio-cultural norms that hinder their access to land ownership and financial resources. This lack of access doesn't just diminish their productivity; it also impacts the economic growth of the agricultural sector as a whole. Acknowledging and appreciating women's roles in agriculture is vital for fostering gender equality and strengthening agricultural systems worldwide.

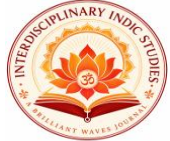
Keywords: *Women, Agriculture, Food Production, Economic Growth*

Introduction

Agriculture is a way of life for the majority of India's society especially rural areas where women are an important but often overlooked population involved in India's agricultural production they represent the majority of the agricultural labour force in India. Women's participation in the agrarian labour force plays out in various ways,

impacting their economic independence, their decision-making abilities, their agency and access to education and health services. Many women in farming communities suffer poverty and marginalization, and issues of gender inequality. Their contributions are often underestimated, but they are essential to the country's food security and rural

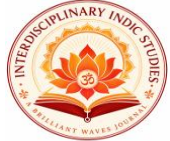




economy. Women in India still have significant disadvantages in terms of wages, access to land, and participation in local farmer organisations with additional their lack of empowerment frequently has unfavourable externalities, such as poorer familial health and lower educational achievement for their children. Giving women access to facilities on par with those provided to males will boost agricultural productivity by about 2.5 per cent while also increasing farm yields by 20 to 30 per cent. The first people to tame the crop and start the art and science of farming, according to historians, were women. Land preparation, sowing, nursery management, transplanting, weeding, irrigation, fertilizer application, plant protection, harvesting, winnowing, storing, and other agricultural duties are all performed by women. Milk and livestock sales help rural women supplement their income. As caretakers, feed gatherers. They are responsible for a substantial portion of food production in India, contributing significantly to the nation's food security. Their role in crop cultivation and animal

husbandry ensures a steady food supply, even they are often the custodians of traditional knowledge related to seeds and crop varieties. They play a crucial role in preserving biodiversity by maintaining native seeds and planting diverse crops and are more likely to engage in sustainable and eco-friendly farming practices, emphasizing organic farming, water conservation, and agroforestry. Their knowledge contributes to environmental conservation. They also gain practical skills in agriculture, which can be a valuable asset for their personal and professional development. They engaged in agriculture serve as role models for the next generation, inspiring girls to pursue careers in agriculture and related fields. Globally and in developing nations, women make up roughly 43 per cent of the agricultural labour force, according to aggregate estimates. The government of India has come up with many schemes and initiatives to empower rural women in Indian agriculture such as Namo Drone Didi, Social Empowerment and Financial Empowerment. In 2023-24, 64% of working women aged 15

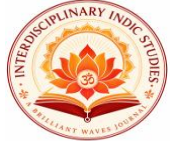




years and above were engaged in agriculture. Some of the challenges faced while working in patriarchal society, women, particularly in rural India, face constraints in economic activities due to gender discrimination and archaic social norms. They are used for menial unpaid jobs and have little or no access to education, healthcare, and basic amenities. Another issue which is known by gender discrimination that is the problem ridden conceptualization of women's and men's work in rural environments, in particular, the failure to recognize the importance of their differing roles. Analysis of the gender division of labour has revealed that women typically take on three types of roles in terms of the paid and unpaid labour they undertake. These three roles can be described as follows as the productive role refers to the market production and home/subsistence production undertaken by women which generates an income. The reproductive role refers to the child-bearing and child-rearing responsibilities borne by women. The community management role

refers to activities undertaken by women to ensure the provision of resources at the community level, as an extension of their reproductive role. Other issue they are forced to accept work in agriculture in their own village under very bad conditions because they cannot migrate as easily as men. They earn fewer wages, especially in joint, informal and private sector even they do not know their legal rights. Implementing policies that ensure women's rights to own and inherit land can significantly enhance their economic security and decision-making power. Developing financial products and services tailored to women farmers' needs can improve their access to credit and investment opportunities. According to the Agricultural Wages in India (AWI) report of May 2020, it is also alarming that in spite of increasing participation of women in farming, the wage gap between men and women is not on par. Regardless of these challenges, women farmers are a source of immense inspiration as they serve the nation with a spark in their spirit. India ought to focus on developing core competencies





around gender issues in agriculture and more so rural India, with inclusion of the women

perspective as an integrated component in policy and research.

Literature Review

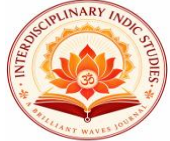
Nisha N's study from 2008 highlights that laborers typically find the most work in weeding, followed by harvesting and post-harvest tasks. During the summer, women workers faced the highest levels of unemployment since it's the off-season for agriculture in that area. This situation forced many of them to look for job opportunities in initiatives like the National Rural Employment Guarantee Scheme (NREGS), construction jobs, tile making, and more. The findings also pointed out that unemployment among women in agriculture has had a significant negative effect on laborers' income, family expenses, savings, and debt situations. Additionally, this led to many laborers migrating to other forms of work and different locations. It's important to note that while an increase in workforce participation rates can seem positive, it doesn't necessarily mean an improvement in

overall well-being. To ensure better outcomes, this growth should go hand in hand with enhanced educational opportunities and improvements in assets and income.

V. Vetrivel and R. Manigandan (2013), in their study titled "An Empirical Study of Agricultural Labour in India," point out that nearly half of the global agricultural workforce is made up of women. They play a crucial role in everything from production to sales, as well as food preparation. Despite this, the contributions of women in agriculture have historically been undervalued. Many women work as paid laborers or as unpaid family workers.

Swamikannan and Jeyalakshmi (2015) explored the role of women in the Indian agricultural sector and discovered that the rate of female participation in this field has





significantly dropped over the past few decades. Their findings suggest that many women are shifting from agricultural jobs to non-agricultural ones, largely due to the wage gap between male and female workers for similar roles, which often discourages women from continuing in agriculture. Overall, these studies indicate that women are still a vital part of the agricultural workforce, and their contributions are essential to this sector.

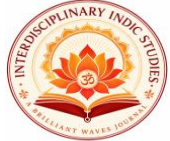
Mahata Kumar (2017) examined the differences across regions in terms of literacy rates, sex ratios, and women's participation in the workforce, particularly looking at how these factors contribute to women's empowerment in Haryana. The authors argue that improving social and educational conditions can only happen through forward-thinking actions from both social organizations and government bodies.

Sudaeshan Bhattacharya (2009) carried out a study on how women in Urban Delhi participate in the workforce. They found that the work participation rate (WPR) is

significantly higher than what the NSSO survey suggested. This paper delves into the key factors that influence women's choices, desires, constraints, benefits, and costs of engaging in paid work outside the home. Decisions around marriage and childbirth have a notable impact on women's labor choices. Consequently, factors like higher education, less time spent on housework due to advancements in domestic technology, accessible childcare arrangements, and improved safety in public spaces (like transportation and lighting) seem to play a crucial role in shaping women's participation in the workforce.

In his **1999 book "Development as Freedom," Sen** argues that women have the potential to be powerful catalysts for social change by stepping into active roles. He emphasizes that a woman's wellbeing is shaped by multiple factors, such as her ability to earn an independent income, secure jobs outside the home, possess ownership rights, and enjoy an improved social standing.





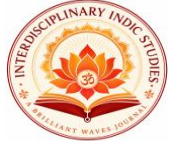
Subrahmanyam (2019) examined how female labor demand has changed in Andhra Pradesh, focusing on the growth in income due to technological advancements, differences in labor absorption across various agro-climatic zones, and how factors like farm size, cropping intensity, and crop types influence labor demand in agriculture. The study relied on two sets of primary data specific to Andhra Pradesh. Notably, the demand for female labor surged by an impressive 85% thanks to the adoption of high-yield variety (HYV) seeds and mechanization in paddy farming. Female labor demand is particularly high for crops like paddy, cotton, and chilies, while it's the lowest for sugarcane. This discrepancy in demand may be attributed to variations in cropping intensity and patterns.

Jha (2020) examined how the socioeconomic conditions of female workers and agricultural laborers were affected by the new economic policy introduced in the 1990s. Key indicators of well-being for agricultural laborers—like per capita food

grain consumption, wage rates, income levels, and access to basic facilities—revealed that this policy actually worsened their situation. Research indicated that from 1991 to 1997, real salaries for agricultural laborers dropped by 15% to 25% in certain villages within the Purnea district of Bihar.

Kapadia (2020) examined the challenges faced by women working in agriculture in the rural regions of Tamil Nadu. By concentrating solely on employment access, there's a real danger of overlooking the gender angle of poverty. While poor women might find job opportunities, the unequal dynamics within their households often leave them in a subordinate position, meaning they have very limited control over their earnings. Development organizations can't just hand over financial authority to women; it goes deeper than that. True control over resources is intertwined with perceptions of gender-specific needs and rights, along with the existing power dynamics related to gender.





Duvury (2021) assessed the trends in Indian women's labour force participation. Since the worrisome drop in female involvement, there has been an increase in research on many areas of women's existence in India. It analysed existing research on women in

agriculture, pointing out gaps and suggesting potential directions for future research that might be productive. They represent the poorest of the poor and have been the focus of numerous government programmes aimed at reducing poverty.

Rationale of the Study

Research shows that women handle a significant amount of agricultural work, especially in developing nations where they contribute hugely to food production. For example, women take on vital tasks like land preparation, planting, weeding, and harvesting, which are critical for keeping agricultural productivity high. Unfortunately, their contributions are often limited by socio-cultural norms that hinder their access to land ownership and financial

resources. This lack of access doesn't just diminish their productivity; it also impacts the economic growth of the agricultural sector as a whole. Research emphasizes how important it is for women to be involved in decision-making, both in households and at the community level. By addressing the challenges they face and supporting their empowerment through targeted initiatives, we can promote more sustainable agricultural practices and better livelihoods

Aim and Objectives of the Study

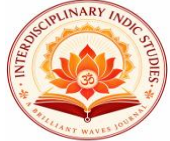
The main focus of this research involves the following objectives:

- To find out the barriers faced by women in agriculture, including

access to the resources and markets.

- To promote gender equality in agricultural practices





Research Methodology

The research is designed on a qualitative study. Qualitative research is a process of naturalistic inquiry that seeks in depth understanding of social phenomena. The researcher has used multiple systems of inquiry for the study of human observations including case study, findings, interpretations, concepts etc.

Information orientated sampling

method- The type of sampling used in this research is non-probability purposive sampling. Purposive sampling is a non-probability sampling where the researchers select units to be sampled, based on their knowledge and their interpretations.

Sample Area – The case study of this research is Kolkata and some other parts of West Bengal.

Data collecting method- In the present study, the method of data collecting was primarily composed Qualitative research is a great fit for this investigation because it provides a deeper insight into the social and cultural factors that influence women's positions in the agricultural sector has been used to collect the data for this study.

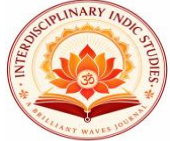
Data Analysis Method- In the present study, the data is qualitatively analyzed which are based on case-studies and Interpretations

Duration – This research was conducted

Sample size- This research is constructed by from March 2025 to April 2025.
gathering data from 5 Case Studies

Findings





Diverse Roles - Women play a variety of roles in agriculture, ranging from subsistence farming to commercial operations. They often take charge of household gardens and small farms, and they also help with livestock management, which is essential for their family's nutrition and income.

Gender Bias and Discrimination- Women in the agricultural sector often face significant challenges due to gender bias, which hampers their ability to get equal treatment in business dealings and access important advice. Additionally, they are commonly underrepresented in leadership positions and decision-making processes within agricultural organizations.

Leadership and Decision-Making- Promoting gender equality encourages women to take on leadership positions in agricultural organizations and cooperatives. Their involvement results in fairer decision-making processes and policies that cater to the needs of both men and women.

Increased Productivity- Research indicates that when women receive equal access to resources, training, and opportunities to participate in decision-making, agricultural productivity can see a notable increase.

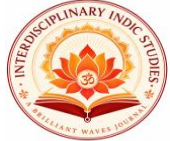
Bridging the gender gap in agricultural inputs might lead to yields rising by 20-30% in certain areas.

Discussion

In Kolkata, a group of women's rights organizations came together to push for agricultural policies that take gender into account. Their case study highlighted how they worked to persuade local government officials to consider women's perspectives

when it came to farming plans and resource distribution. Thanks to their efforts, the government rolled out programs designed to help women farmers gain access to training, resources, and credit. This not only boosted women's involvement in agriculture but also





helped create a more inclusive policy framework that acknowledged the significance of gender equality in agricultural growth.

Interpretation- This case study is a compelling illustration of how collective action can result in significant policy changes that positively impact marginalized communities. It emphasizes the crucial role of gender inclusivity in development projects and the power of collaborative advocacy to foster social change. The achievements of this initiative in Kolkata could set a precedent for similar efforts in different areas, showcasing the ongoing need to focus on gender issues in agricultural policies around the globe.

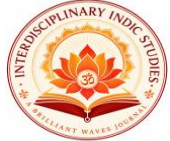
In Bankura, women's Self-Help Groups (SHGs) have become a significant force in advancing gender equality within agriculture. A case study on one of these SHGs, which emphasizes collective farming practices, highlighted how women came together to share resources and knowledge, leading to enhanced agricultural

productivity. The group organized training sessions on organic farming and helped its members gain better access to markets. Many members noted a noticeable boost in their income and a deeper sense of community, illustrating the power of collective efforts in empowering women.

Interpretation- This case study underscores how crucial it is for people to come together, to learn, and to gain access to markets in order to improve the lives of women farmers. This, in turn, helps create a fairer and more sustainable agricultural landscape. Such a model could motivate similar efforts in different areas, showcasing how grassroots movements can effectively bring about social change.

In the North 24 Parganas district, a microfinance project specifically targeted toward women farmers was launched to tackle their struggles with accessing credit. This case study highlighted how women frequently found themselves shut out of conventional banking systems. The program offered small loans along with financial





literacy training, which empowered women to invest in higher-quality seeds and farming tools.

Interpretation- By tackling the unique challenges that women farmers encounter and offering them access to credit along with financial education, the microfinance project enables these women to take charge of their farming operations and shape their economic destinies. This approach stands out as a strong example of how customized financial solutions can spark social change and elevate the status of women in agriculture.

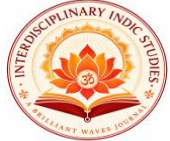
In West Bengal, women frequently encounter difficulties when it comes to land ownership, primarily because of traditional inheritance customs that tend to favor men. A local NGO conducted a case study that revealed the struggles of women farmers who were unfairly denied their rightful inheritances. In response, the organization initiated a campaign to shine a light on women's legal rights concerning land and offered legal help for land registration.

Thanks to these efforts, more than 200 women were able to successfully assert their land rights, which in turn boosted agricultural productivity and fostered economic independence.

Interpretation- By helping women stand up for their rights, the NGO is not just promoting personal empowerment but also driving broader social and economic transformation. This example highlights how crucial legal structures and community backing are in pushing for gender equality and improving agricultural output.

This study conducted in Purulia looked at an agricultural training program specifically aimed at empowering women farmers. Previously, standard training had a tendency to ignore the unique needs of women. The program featured workshops on sustainable farming, pest management, and effective marketing strategies. Thanks to this approach, women's participation in the training surged by 70%, which not only boosted their crop yields but also their confidence in farming. This initiative played





a significant role in challenging traditional gender roles and encouraging women to take a more active part in agriculture.

Interpretation- By creating an inclusive atmosphere that promotes involvement and skill-building, this initiative has not only boosted crop production but also

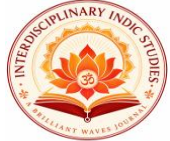
empowered women to defy traditional gender roles. This example stands out as a helpful blueprint for other programs in different areas, showcasing how focused training can lead to social change and strengthen the position of women in agriculture.

Conclusion

Women play an essential role in agriculture, which is vital for sustaining life on Earth. By empowering women in this sector, fostering gender equity, and enhancing their leadership and innovative capabilities, we can make significant strides toward sustainable development and food security. Tackling gender inequality in agriculture calls for a combined effort at both global and local levels, engaging policymakers, the private sector, civil society, and women directly. Promoting gender equity in agriculture not only contributes to decarbonization but also helps reduce poverty and advance human rights. One of the biggest challenges is the limited access to resources like land, credit, and

agricultural supplies. In many areas, cultural norms and legal systems often prevent women from owning land, which puts them at a disadvantage. This lack of access not only hampers their ability to farm but also makes it tough for them to get loans and financial help since land is typically needed as collateral. Without the chance to invest in their fields, women struggle to boost their productivity or implement modern farming techniques, ultimately leading to lower yields and less income. To tackle this problem, we need thorough legal reforms to guarantee women's rights to land ownership and inheritance, along with policies that make it easier for them to access credit and financial services that meet their specific

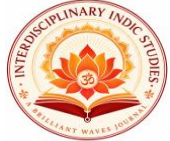




needs. Access to markets is a significant challenge that women in agriculture often face. Many women struggle to reach markets because they lack information, reliable transportation, and networking opportunities. This limited access can lead to lower prices for their products, as they are frequently forced to sell to middlemen who take advantage of their lack of market knowledge. To advance gender equality in agricultural practices, it's crucial to improve women's access to market information and create chances for networking and collaboration. One effective approach is to support the establishment of women-led cooperatives, which can boost their bargaining power and give them a platform to share resources and knowledge. By helping connect women farmers with buyers, we can empower them to secure fair prices for their products and lessen their dependence on exploitative intermediaries. Cultural and social norms have a big impact on maintaining gender inequality in agriculture. Often, traditional roles assign women the tasks of household chores and

caregiving, which leaves them with little time or energy to get involved in farming activities. Because of these societal expectations, women may feel discouraged from taking on leadership positions in agricultural organizations and might not be included in decision-making processes. To combat these norms, it's really important to raise awareness about the valuable contributions women make in agriculture and to advocate for their rights. It's also crucial to engage men and boys in these conversations since they can be strong allies in the fight for gender equality and can help challenge discriminatory practices. By fostering a culture that appreciates and acknowledges the vital role of women in agriculture, we can build an environment that supports their empowerment and active participation. It's essential to raise awareness about the significant contributions women make in agriculture as well as the challenges they encounter. We need advocacy efforts that not only highlight these issues but also work to change societal norms that sustain gender inequality. By promoting a culture

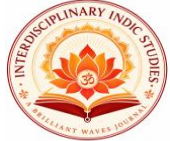




that acknowledges and values women's vital roles in agriculture, we can create a more supportive environment. Involving men and boys in these conversations is just as crucial; they can serve as strong allies in the fight for gender equality and help challenge discriminatory practices. In a lot of rural areas, land ownership tends to be dominated by men, leaving women with little to no legal rights when it comes to owning or inheriting land. This lack of rights seriously limits their ability to make choices about how land is used and which crops are grown, ultimately impacting both their productivity and their chances for economic independence. When we empower women in agriculture, we not only improve their livelihoods but also enhance food security and boost economic growth for entire communities. In terms of land rights, creating policies that secure women's rights to own and inherit land can greatly improve their economic security and decision-making capabilities. Additionally, fostering financial inclusion by developing financial products and services specifically designed for

women farmers can help them gain better access to credit and investment opportunities. This paper examines the situation of women farmers in India, bringing attention to the important challenges and opportunities they encounter in agriculture. The findings reveal the complex nature of gender inequalities and underscore the urgent need for thorough solutions to tackle these issues. The review points out that women farmers are crucial to the Indian agricultural sector, making up a significant portion of the workforce. Yet, despite their vital contributions, women still confront various obstacles and discrimination, such as restricted access to resources, land ownership, credit, and technology. These disparities negatively impact their productivity, income, and overall quality of life. Women make up around 43 percent of the global agricultural workforce, but this number hides significant differences across different regions and within countries, varying by age and social class. Their contribution to agriculture and food production is undeniably important.





Yet, it's difficult to accurately measure what share of food production is specifically attributed to women, as agricultural work is often a joint effort among household members and involves various resources that can't easily be divided by gender. While women are a crucial part of the agricultural labor force and engage in farming activities, the extent of their involvement varies. This means their impact on agricultural output is certainly considerable, but hard to pin down

Limitations

The study is limited by small sample size and geographic concentration in West Bengal.

Implications

The study highlights policy-level interventions necessary to address gender inequality in agriculture.

Recommendations

It is recommended that strengthening land rights, improving access to credit, expanding training programs, and promoting women-

with precision. Most of the food produced doesn't come from women or men working alone; instead, it's a collective effort where both genders collaborate. At its core, for development to be truly sustainable, it needs to empower individuals to become agents of change—acting both independently and together. This involves tapping into their creativity to explore ideas, practices, and knowledge in their pursuit of potential, aspirations, and overall growth.

led cooperatives might cater to the needs of Women involved in agriculture.





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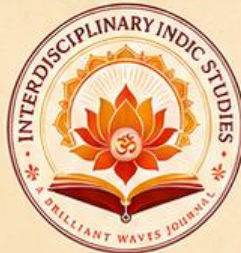
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