

## Empowering Women Through Food Processing: A study of Saharanpur District (U.P.)

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In today's fiercely competitive world, empowered women visionaries are crucial to the global struggle for the economy's long-term growth. The fastest-growing segment of the global business community is made up of women entrepreneurs, who have drawn the interest of numerous academics in recent years. Women contribute significantly to venture formation, according to emerging literature. Additionally sustained growth through creating new jobs and opportunities, which have a positive impact on reducing poverty.

In recent years, there has been a lot of research focused on women's roles in social production with the introduction of the women decade which officially acknowledged the significance of researching different aspects of women's roles. In India the years 1975-1985 have observed rise in studies on a number of features of the female gender. Even so the first research was mainly focused on the social features of women's position, the concerning decrease in the proportion of women participating as noted in the committee on women's status. The sustainable development of India, the empowerment of rural women, and the reduction of rural poverty can all be greatly aided by the rural food processing sector. By providing a ready market for farm products, it can increase farm incomes by creating jobs off the farm and lowering rural-urban migration. Small- and medium-sized businesses (SMEs) make up the majority of the food processing sectors in rural areas, and they face challenges such as inadequate infrastructure, a lack of qualified labor, and a lack of entrepreneurial aptitude. Tiny profit margins, erratic demand, and restricted access to suitable technologies. The article outlines the traits and issues of agribusiness for rural development, focusing on the small-sized and medium-sized food processing sector based on agricultural villages. It also offers a means of communication with policy makers and suggests solutions to address these issues.

**Keywords:** *women entrepreneurs, opportunities, growth, development, decision making.*

### Introduction

Saharanpur district has emerged a leading producer of certain food products such as sugarcane, grain, milk, fruits and vegetables. Also Saharanpur's food processing sector primarily covers fruits & vegetables, sugarcane, grain & dairy products, alcoholic, beverages, grain processing & other consumer product group like confectionery, chocolate & cocoa products. Grain & fruit based processing products, mineral water, high protein foods etc. food processing began about many years ago when our ancestors put flame to food and 'discovered' cooking. Time by time

female also start playing a role in food processing by which they came into empowerment and began to self independent. Women empowerment refers to increasing the spiritual, political, social, educational, gender or economic strength of individuals and communities of women. Women's empowerment in India is heavily dependent on many deferent variables that include geographical location (urban/ rural), education status, social status (caste and class) and age. Food grains, pulse, oil seeds, fruit and vegetables are being produced a large scale in Saharanpur's rural areas and both farmer women have important contribution in production. In this way you sources of employment are being created, in rural areas, women groups are establishing employment in the field of processing of grains, spices, fruits and vegetables. Presently the consumption of processed products is increasing from cities to rural areas. Saharanpur district a good place for food processing because there available every type crops, there areas fulfill from water so therefor crops growth nice way. Food processing, encompassing activities such as sorting, cleaning, packaging, and preserving food products, holds significant potential as a means of women's empowerment due to its labor-intensive nature and the demand for locally processed foods. This review paper delves into the various dimensions of empowering women through food processing in Saharanpur District, examining the opportunities, challenges, and implications for gender equality and socio-economic development.

*The entrepreneurial Role of women in Food processing:* Empowering women is not only a matter of social justice but also an essential component of sustainable development. In regions like Saharanpur District, Uttar Pradesh, where gender disparities are prevalent, initiatives aimed at enhancing women's economic opportunities are crucial for fostering inclusive growth. Important sub-sectors of the food processing industry include products made from fruits and vegetables, milk and milk products meat and poultry products, packages and convenient foods, alcoholic and soft drinks and grains. Supplements and health food are two more quickly expanding sectors of this market. Women entrepreneurs will be highly valued in the food processing industry. The significance of post harvest food technologies and value addition to food products has increased in our nation as a result of shifting socioeconomic conditions, and globalization. Better taste and nutrition are just as important as satisfying producers and processors for a profitable return. Perishables can have value added by altering their from, colour and other characteristics to lengthen their shelf life.

*Food processing types:* When you consider it, there are several option for food processing. Certain foods requires variety of structures. Certain foods will require no preparation at all, such as taking an apple straight from the tree and eating it after giving it a quick wash. Then there are others, which are generally considered to be unappetizing unless they are served in a set recipe. Food processing methods are currently divided into three major categories. Let's investigate that further.

*Primary food processing:* It is one way to turn any unrefined gardening supplies into appropriate food that can be thrown away rather quickly. After the initial processing has finished, food may occasionally be deemed appropriate. Making jerky with smoked meat is one prominent example. In certain cases, processing an agricultural product right away turns it into a firing, which is then processed further to become a consumable food, such as milling grain to make flour.

*Secondary Food Processing:* It's one method of preparing ready-to-eat meals with the ingredients as they are delivered from primary processing. Using flour to make batter and then preparing the mixture to make bread is one example of this.

*Tertiary food processing:* A significant portion of prepared foods, such as frozen pizzas and packaged snacks are processed at the tertiary level. The products made during this tertiary preparation in the new food industries are primarily referenced by the term "handled food". One such instance is when corn is developed and nixtamalized in a way that allows it to dissolve into a soluble mixture even before it is combined to form a better. At this stage better can be heated to form chips or used to make tortillas by cutting it and heating it up. In order to reach the ultimate stages of consumable structures, some of the nutrients will require some kind of processing.

*Food processing methods:* Any method used to convert new nutrients into finished food that results in food development recipes is referred to as food processing. It will consist of one cycle or a combination of different cycles. Let's get right to it and discuss the popular food processing techniques of today.

*Canning:* This is where the food reaches a high temperature. It is said that this cycle is purifying. Using food development technology, the food is packaged and ready for the canned tomatoes at this stage.

*Fermentation:* It involves the use of anaerobic conditions for the breakdown of sugars by a variety of micro-organisms, including yeasts. For this cycle to begin, oxygen is not required. Wine juice is the example of mixed beverages that are used for maturation.

*Freezing:* This technique lowers the temperature of the food to below 0 degrees Celsius to reduce the activity of all harmful microorganisms. The majority of foods, such as meat, fish, vegetables, organic goods and some prepared meals are protected by it.

*Adapted packaging:* In this case, the air inside bundle is subset using a defensive gas blend. It involves the uses of gases that are currently visible everywhere, such as carbon-dioxide, oxygen and nitrogen. It aids in extending the realistic usability period of some of the novel food items, such as organic products, meat and vegetables.

*Pasteurization:* Here the food is first heated and then quickly cooled to kill microbes. To ensure that the product is safe to eat later it is crucial to bubble or sterilize it. It is known that dairy products use this technique more frequently. In addition to these, sanitization is also used to preserve some of the canned goods, such as juices, mixed drinks and more.

*Smoking:* The process of heating food and treating the substance is repeated to preserve the outcome. Using these techniques guarantees that the food is exposed to smoke from burning wood or other materials. The smoked foods mask many types of meat, fish cheese and other food.

## **Objective**

This review paper aims to delve into the literature concerning women entrepreneurs in the food processing sector specifically. It offers an overview of an extensive literature review encompassing women entrepreneurs across various segments of the food processing industry worldwide. The paper delves into crucial themes such as the challenges encountered by women entrepreneurs, financial and marketing intricacies, industry performance metrics, gender biases prevalent within the sector, the multifaceted roles assumed by women, participation rates, empowerment initiatives, self-employment trends, and the overall upliftment of women, employing systematic review methodologies. By evaluating a range of research articles, the paper elucidates fundamental concepts and conducts a thorough analysis of the existing literature pertaining to women entrepreneurship in the food processing sector. The major objectives of this research are:

- To study the economic and social empowerment of rural women through food processing.
- To examine the challenge faced by the women for setting up their own business in Saharanpur.
- This review aims to formulate strategies for fostering women entrepreneurship.

## **Methodology**

The present Study considers empowerment through food processing in Saharanpur. Following a selective inclusion and exclusion process, 20 to 25 article related to women in food processing, published and unpublished research articles, policy papers, reviews etc. From the year 2010 to 2023 were collected for the final study. Descriptive statistics such as frequency and percentage have been used to draw conclusions from the data. The estimates are represented graphically using line, bar, column. The paper is descriptive. Secondary data has been collected from various books, journals, websites, reports, research papers.

## **Result**

The rapid expansion of the industrial sector has opened up a plethora of opportunities for women to excel in their careers and fulfill their potential. Small-scale industries, in particular, have

emerged as crucial platforms for women's empowerment. Within the district, Food Processing Industries (FPIs) have absorbed a significant portion of the female workforce, primarily engaged in tasks related to food processing, including handling raw materials and packaging finished products. However, despite these strides, empirical data reveals a stark reality, with female participation in FPIs standing at a mere 21%. This disparity can be attributed to entrenched gender stereotypes, conservative family structures, and a lack of technical education among women. Nonetheless, certain segments within the industry, such as the dried snack sector, witness higher female participation rates (36%), owing to the nature of the work being less physically demanding. Moreover, in spice manufacturing, women leverage traditional knowledge to enhance efficiency, while edible oil manufacturing registers the lowest female participation rates (11%) due to the predominance of technical roles. These findings underscore the need for targeted interventions to address systemic barriers and enhance women's participation and advancement in the industrial workforce.

Table 1. Gender-wise workers in FPIs

Food processing industry	Male	Female	Total
Bakery product	308	82	390
Milk and dairy product	415	88	503
Edible oil	371	48	419
Dried snack	118	66	184
Spice	190	93	283
Beverage	206	51	257
Total	1608	428	2036

Figure 1. Gender-wise workers in FPIs combined

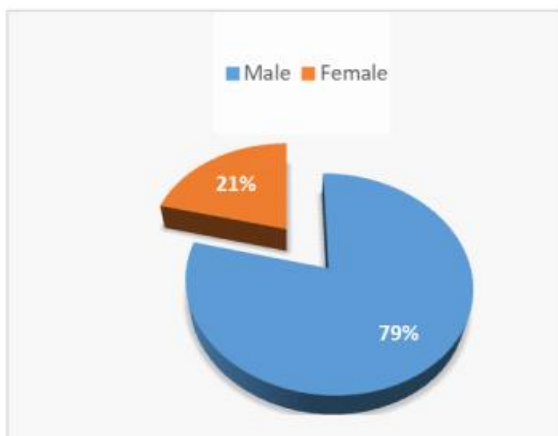


Figure 2. Gender-wise workers in different FPIs.

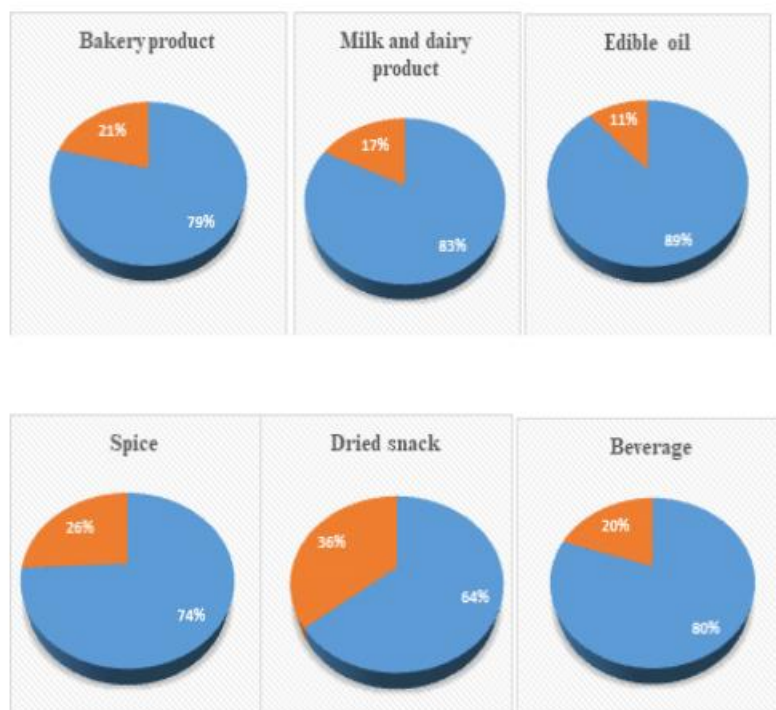


Table 2. Type of employment (woman) in different FPIs.

S.no.	Food processing industry	Permanent	Casual	Contractual	Seasonal	Total
1	Bakery product	62	8	12	0	82
2	Milk and dairy product	70	18	0	0	88
3	Edible oil	34	14	0	0	48
4	Dried snack	36	10	20	0	66
5	Spice	69	7	17	0	93
6	Beverage	47	4	0	0	51
Total		327	68	33	0	428

Figure 3. Type of employment (woman) in different FPIs



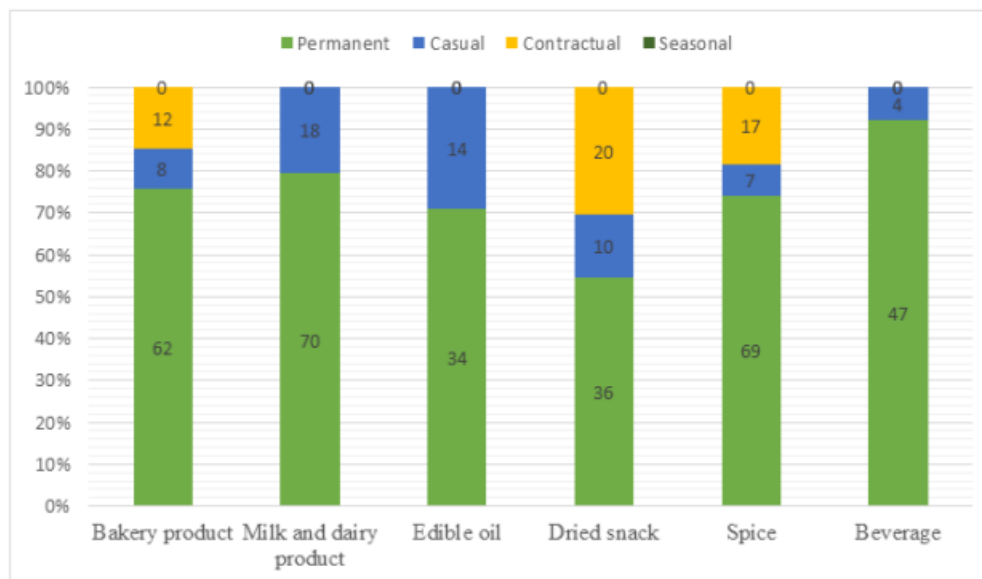
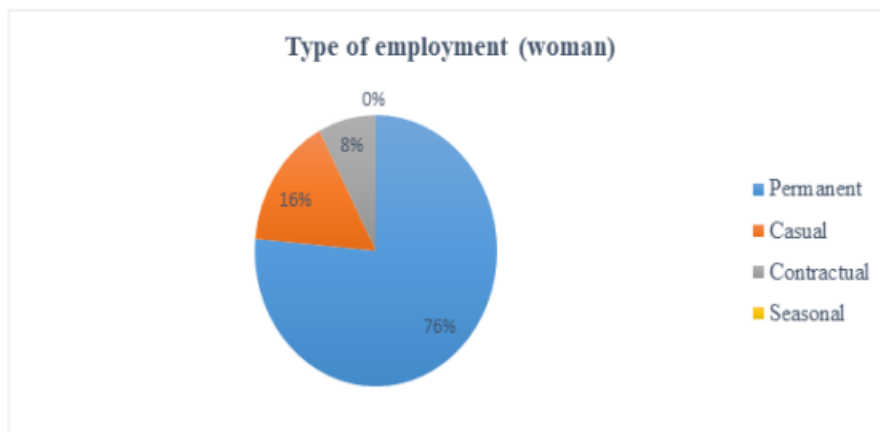


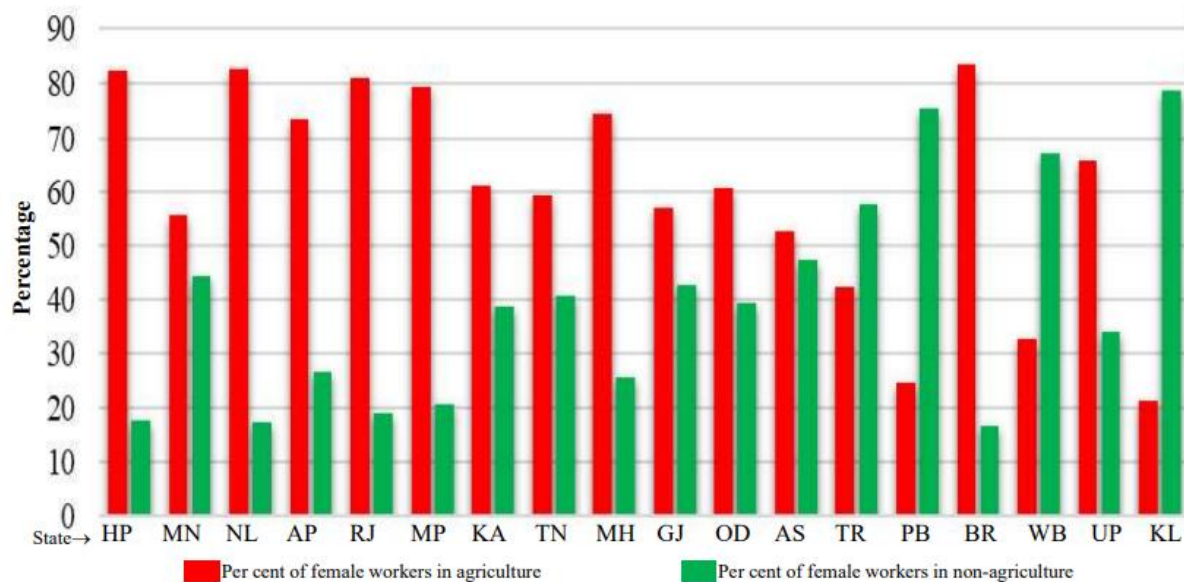
Figure 4. Type of employment (woman) in FPIs combined.



#### Gender inequalities in resource management :

*Access to land:* Globally, there persists a stark gender disparity in access to land, with women accounting for less than 15% of agricultural landholders, while men dominate the majority with 85%. Particularly pronounced discrepancies are evident in regions like North Africa and the Near East, where women represent only about 5% of landholders, indicating significant gender gaps in land ownership (FAO, 2018). In India, a similar pattern emerges, with substantial gender-based disparities in land ownership between men and women. Despite legal reforms aimed at rectifying this imbalance, deeply entrenched socio-cultural norms continue to impede women's ability to own and control land (Jain et al., 2023). These systemic challenges underscore the pressing need for

concerted efforts to address gender inequities in land access and ownership, ensuring equitable opportunities for women in agricultural and rural economies



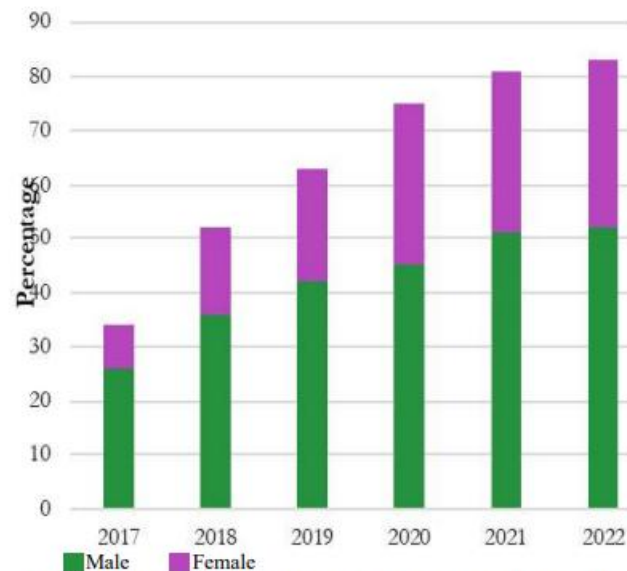
**Fig. 3. State-wise trend of Women Participation in Agricultural & Non-Agricultural Activities (2010)**

HP-Himanchal Pradesh; MN-Manipur; NL-Nagaland; AP-Andhra Pradesh; RJ-Rajasthan; MP-Madhya Pradesh; KA-Karnataka; TN-Tamil Nadu; MH-Maharashtra; GJ-Gujarat; OD-Odisha; AS- Assam; TR-Tripura; PB-Punjab; BR-Bihar; WB- West Bengal; UP-Uttar Pradesh; KL-Kerala.

Source: Census India, 2011

*Access to technology:* Access to technology remains a persistent challenge for women, as indicated by the Mobile Gender Gap Report of 2023. While there has been an increase in the adoption of mobile internet among women from 2017 to 2022, the growth rate lags behind that of their male counterparts, with women trailing by 21% in mobile internet adoption in India. This disparity underscores gender inequalities in technological proficiency, with men generally possessing greater expertise. Additionally, state-wise trends reveal varying patterns of women's participation in agricultural and non-agricultural activities across India. States like Himachal Pradesh and Nagaland demonstrate a higher proportion of women engaged in agriculture, with Himachal Pradesh particularly noteworthy for women's empowerment in land ownership due to male migration for work. The Pradhan Mantri Mudra Yojana and improved financial conditions have also contributed to the increasing participation of women in the workforce. In Nagaland, women play a significant role in preserving genetic agro-biodiversity through traditional agricultural practices. Conversely, states like Kerala, Punjab, and West Bengal exhibit a higher percentage share of women in non-agricultural activities, attributed to their high literacy rates (Census of India, 2011). However, gender inequalities persist in resource management, with women worldwide comprising less than 15% of agricultural landholders, highlighting substantial disparities in land ownership. North Africa and the Near East face the most significant gender gaps, with women accounting for only about 5% of landholders. Economic challenges further impede women's access to technology (GSMA, 2023). Efforts to bridge these disparities are essential to ensure gender equality and empower women economically and technologically.

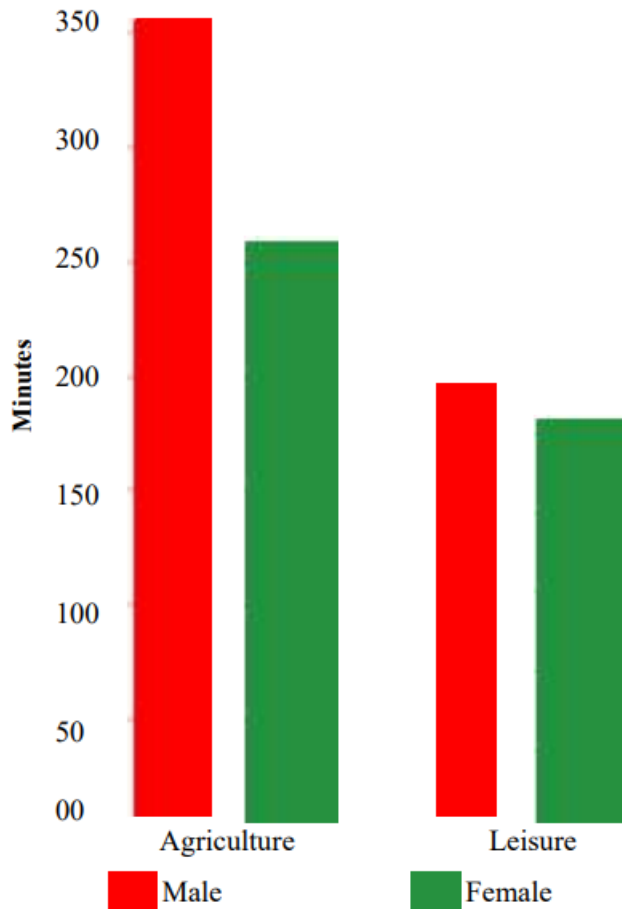




**Fig. 5. Percentage distribution of male and female based on adoption of mobile internet**

Source: Mobile Gender Gap Report 2023

*Pay disparities in agriculture:* Women play a crucial role in ensuring the nation's food security as farmers and agricultural workers. However, despite their significant contributions, pay disparities persist within the agricultural sector. According to a report on agricultural statistics released by the Minister of Agriculture and Farmers' Welfare, women labor twice as long as men, yet they are paid 22% less than their male counterparts. Despite an increase in the salaries of both male and female farmers from 2006 to 2017, the wage gap persists, with women agricultural workers consistently earning less. This wage disparity is perpetuated by a prevailing perception in male-dominated rural communities that male laborers are inherently more productive than female laborers. Such stereotypes contribute to the underpayment of female agricultural workers relative to their male colleagues (GoI, 2022). Addressing these pay disparities is essential not only for gender equality but also for the fair recognition of the invaluable contributions made by women to agriculture and food production.



**Fig. 7. Average time spent in minutes on various activities in a 24-hour day**

Source: Time Use Survey in India, 2019, NSO

## Discussion

Food processing initiatives in Saharanpur District have emerged as a promising avenue for empowering women by providing them with opportunities for income generation, skill development, and entrepreneurship. Various governmental and non-governmental organizations have implemented programs focusing on training women in food processing techniques, establishing community-based processing units, and facilitating access to markets for locally processed food products. These initiatives not only enhance women's economic independence but also contribute to the diversification of rural livelihoods and the promotion of sustainable agriculture practices.

*Impact on Women's Economic Empowerment:* The engagement of women in food processing activities has led to tangible improvements in their economic status and well-being. By earning income through processing agricultural produce, women can contribute financially to their households, thereby gaining greater autonomy and decision-making power. Moreover,

participation in value addition activities enhances women's marketable skills and entrepreneurial abilities, paving the way for long-term economic sustainability.

*Socio-Cultural Implications:* Despite the potential benefits, women's involvement in food processing is often constrained by socio-cultural norms and gender roles prevalent in Saharanpur District. Traditional perceptions of women's roles as homemakers and caregivers may limit their mobility, participation in training programs, and access to productive resources. Addressing these cultural barriers requires a multi-faceted approach involving community mobilization, awareness campaigns, and targeted interventions to challenge gender stereotypes and promote equitable opportunities for women in the food processing sector.

*Challenges and Opportunities:* Several challenges hinder the effective empowerment of women through food processing in Saharanpur District. These include limited access to finance, inadequate infrastructure, technical know-how, and market linkages. Additionally, seasonal fluctuations in agricultural production and lack of post-harvest management infrastructure pose significant constraints to scaling up food processing activities. However, there are opportunities for synergies between government schemes, private sector investments, and community-based organizations to address these challenges and foster a conducive environment for women's entrepreneurship and empowerment.

## **Conclusion**

Empowering women through food processing represents a viable pathway towards achieving gender equality, poverty reduction, and sustainable development in Saharanpur District, Uttar Pradesh. By leveraging the potential of food processing to create employment opportunities, enhance productivity, and add value to local agricultural produce, stakeholders can catalyze positive socio-economic transformation while promoting women's rights and agency. Addressing the existing barriers and investing in supportive policies and interventions are imperative for realizing the full potential of women's empowerment through food processing in Saharanpur District and beyond. Over the past few years, the Indian food processing industry has experienced significant growth and changes due to shifting consumer demands, regulations, and agricultural market trends. Farm women are best suited to either start or support a food business, as farmers can only increase their income threefold through post-harvest and value addition.

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