

NURTURING GROWTH: MANAGING RURAL WOMEN AS KEY ASSETS IN FOOD PROCESSING**Anweshan Jana^{1*}, Koyel Mukherjee², Sukumar Gorai³, Bhaskar Mondal⁴**

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Corresponding Author- Anweshan Jana**ABSTRACT**

Rural women are pioneers of rural development. They play a guiding role in the way of achieving transformational economic, environmental & social changes required for sustainable rural development. We can achieve an overall optimum economic productivity by worldwide presence of rural women as agricultural work force. Rural women could be precious assets in the sector of food processing and may serve country's economic growth in large scale.

We know that maximum rural women are poor or are not economically sound. So poverty eradication of rural women is really a challenging task.

Engaging the rural women to the prosperous food processing sectors may give them a new dawn through irradiating their poverty in ease.

Keywords:

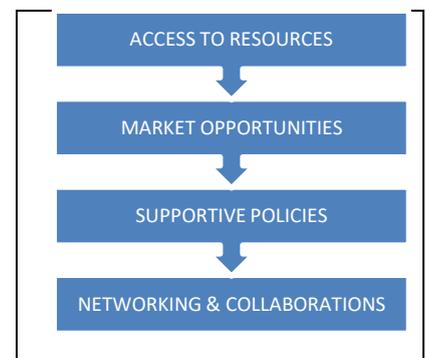
Rural women; rural development; sustainable development; productivity; poverty eradication; economically; food processing

INTRODUCTION

Sustainable development of rural community requires a nurtured growth of rural women. So engagement of rural women in food processing sectors can promote their financial growth along with socio economic upliftment. It's true that numerous obstacles are faced by rural women in the way of their economic development.

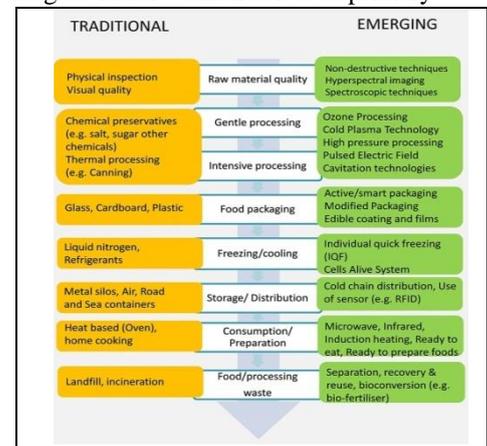
Overall, successful engagement in the food processing industry can improve their financial status and social status. Such challenges could be addressed through various social interventions including market opportunities, skills development and resource availability.

Engaging rural women in the food processing sector is significant for empowering them and fostering sustainable



agricultural development. Women play a pioneering role in agriculture production including post harvest handling and food processing in rural communities worldwide. But they face constraints that restrict their participation on a large scale in this sector. Their contributions are often not properly acknowledged. Rural women serve as primary cultivators, harvesters, and processors within the agricultural production system. Their crucial contribution to the food processing value chain cannot be denied. It includes sorting, cleaning, drying, milling, preserving and packaging along with value addition to raw agricultural commodities. They're actively engaged in enhancing the marketability of agricultural products too. Despite their vital role, rural women often lack access to resources, modern technologies, training, and market opportunities. These factors limit the growth of their magnificent potential in food processing sector.

Rural women have immense possibilities for driving economic growth, poverty eradication and food security if they could be well empowered properly. Policy makers and development practitioners must give maximum attention to bulk investment in women's education, training and capacity building and entrepreneurship development. Encouraging the creativity and productivity of rural women can lead to increased household income and improved community nutrition. Engaging and empowering rural women in the food processing sector can significantly enhance rural livelihood. Socio-cultural norms, inadequate infrastructure and limited access to resources constrain the mobility of rural women in food processing activities. Implementing comprehensive developmental strategies can accelerate the successful empowerment of rural women in this sector, leading to prospective socio-economic growth in rural areas and the overall national economy.



THE POWER OF HER: WOMEN'S EMPOWERMENT AS A DRIVER OF SUSTAINABLE DEVELOPMENT

The pivotal roles played by rural women within the food system, agriculture, and household welfare underscore their significance in fostering societal progress. Their empowerment directly impacts critical areas such as food security, nutrition, and sustainable agriculture. To comprehend the transformative potential of empowering rural women, let's delve into key dimensions:

- Ensuring Food Security and Nutrition:** Rural women are the backbone of food production, resource conservation, and household food security efforts.
- Driving Economic Growth:** Empowering rural women catalyzes economic advancement by bridging gender disparities in education, agriculture, health, and employment.
- Promoting Improved Nutrition:** Rural women play a crucial role in enhancing community health through food production and fostering nutritional behavior change. Public awareness campaigns should emphasize healthy eating habits and proper food handling and preservation methods.
- Contributing to Poverty Alleviation:** Empowerment enhances the resilience of rural women, enabling them to diversify income sources, engage in entrepreneurship, and contribute to poverty reduction efforts.
- Facilitating a Labor Force Specialization Paradigm Shift:** In countries like India, where a significant portion of rural females engage in agricultural work, empowering them can lead to a paradigm shift in labor force dynamics.
- Food Processing:** Rural mothers, being major players in food production, can stimulate economic growth through active engagement with the food processing sector.

By recognizing and supporting the empowerment of rural women, societies can unlock their full potential as drivers of sustainable development and positive change.

Food Processing Industry	Engagement of Rural Women
Amul Dairy Cooperative	Engages rural women in dairy farming, milk collection and processing
ITC e-Choupal initiative	Involves rural women in sourcing, processing and marketing agricultural products
Mother Dairy	Employs rural women in milk collection, processing and distribution
Pradan's Livelihood Generation Program	Trains rural women in food processing activities such as pickle making, fruit processing and spice grinding
Self Help Groups	Various SHGs across India engage rural women in food processing ventures such as making jams, pickles and snacks
Kudumbashree Mission	Empowers rural women in Kerala through food processing activities like bakery, food preservation and spice processing
Mother's Recipe	Collaborates with women's groups in rural areas for processing traditional recipes and spices.
Mahila Grith Udyog Lijjat Papad	Provides employment to rural women in papad making, packaging and marketing
Hariyali Kisaan Bazaar	Supports rural women in selling processed food products through rural markets
Tribal Cooperative Marketing Development Federation of India Ltd.	Collaborates with tribal women's groups in rural areas for processing traditional recipes and spices
Shakti Sustainable Energy Foundation	Supports rural women in solar drying and processing of fruits and vegetables
Sorvodaya Farms	Engages rural women in organic farming and processing of organic produce
Ambuja Cement Foundation	Trains rural women in food processing techniques and agri-entrepreneurship
ITC- WOW (Women of Worth)	Empowers rural women by providing training in food processing and entrepreneurship
Coca- Cola India Foundation	Collaborates with women's groups for fruit processing and juice production
Haldiram's	Employs rural women in snack manufacturing and packaging processes
Khadi and Village Industries Commission	Promotes rural women entrepreneurship in food processing through various schemes and training programs
Shri Mahila Griha Udyog Lijjat Papad	Offers employment to rural women in papad making and related activities
Naandi Foundation	Engages rural women in processing and marketing of millets and other nutritious grains
RangSutra Crafts India Ltd.	Involves rural women in processing and packaging of organic spices and herbs

RURAL WOMEN'S SOCIO-ECONOMIC ROLE IN BUILDING STRONGER COMMUNITIES

The decades after independence have seen tremendous changes in the status and the position of the women in Indian society. The constitution has laid down as a fundamental right – the equality of the sexes. It would not be an exaggeration to say that the recent changes in the status of women in India are not a sign of progress, but rather a recapturing of the position that women held in the Vedic period. Jayapalan, in his book on women's studies in 2000, describes the changing roles as follows:

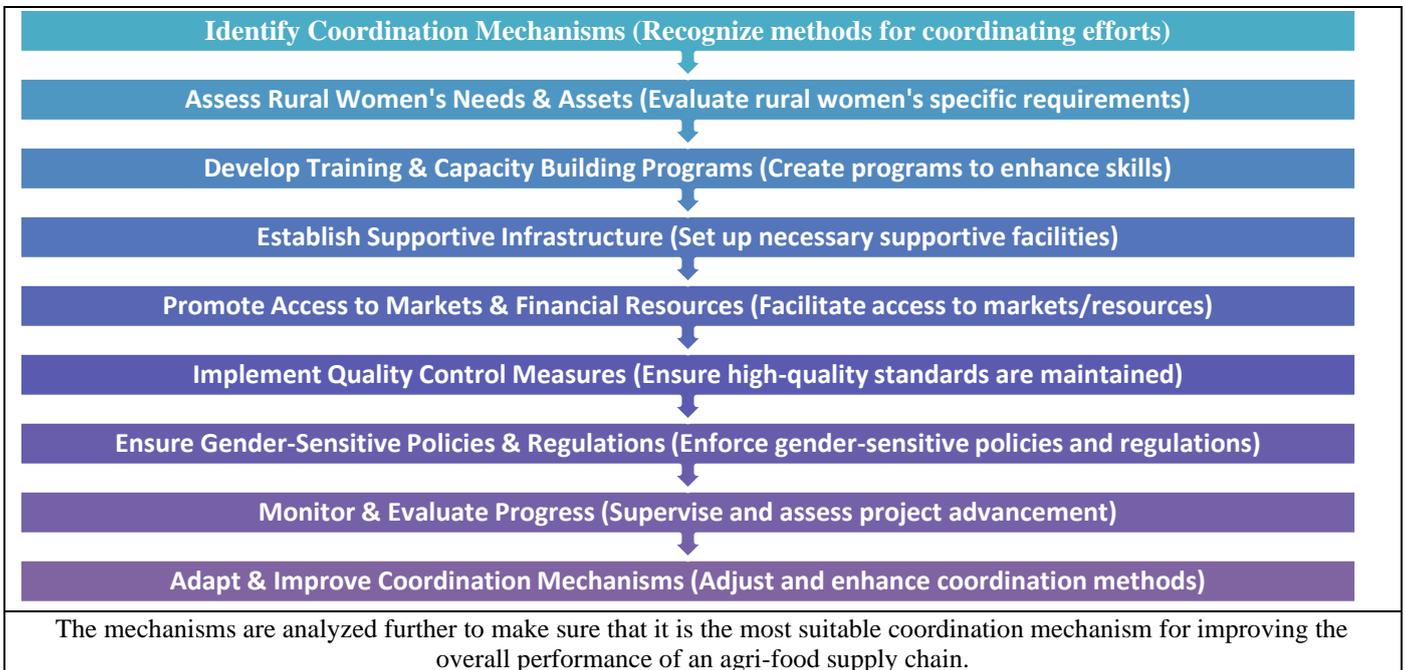
Social Role: Literary and historical research has now established beyond doubt that the women held a position of equality with men during the Vedic period. There was a great change in the role of women after 300 B. C. During this period, son was valued more than daughter. Many young women renounced their homes and joined the Buddhist and Jain monasteries. It was also presumed that one of the reasons for practice of early marriage of girls was to prevent them from entering monastic life. Girls were married off soon after puberty. Marriage was considered an irrevocable union for women.

The wave of reformist movement in nineteenth century brought the changing role of women in the social field. Finally it led to the great emancipation of the Indian women in the twentieth century. There was a change in society's outlook. Many legislative measures were brought about for the protection of women. The urgency of women's education was felt and thus facilities for the same were made. Many women leaders created a kind of political awareness among women which led to a great change in their role. Women even began to fight against social evils during this period.

Economic Role: Rural women have always been working in the fields and farms from time immemorial. They have worked because that was way of life. Similarly women have been working to help their husbands in cottage industries. They have been working, and they continue to do so. Similarly women have been working to help their husbands in cottage industries. They have been working and they now continue to work. Work in the lives of majority of women is not a matter of self equity. Changing economic roles and responsibilities of women, particularly among the poor, make employment/work a matter of economic survival. Male unemployment or male low earnings resulting due to wage labour and high rates of urbanization have also meant an increase in the number of married women workers. Low male wages often impose double responsibilities on married women, who need to supplement the family income through additional home production and work outside the home.

Women's contribution to household income provides the means to meet basic survival needs such as food, clothing and shelter. Ultimately, women's contribution makes possible improvements in the health and nutritional status of household members. In the census, 'married women' are often classified as 'housewives', overlooking the economic contribution they make to the household. The actual number of economically active married women is much larger than aggregate level data would indicate.

However, the significant change took place when machines were introduced. Women were employed in factories. In 1901 as many as 6, 38,000 women worked in factories, mines and plantations, forming 14.5 percent of the total working force. There was spectacular increase in the employment of middle class women who were working in secretarial or administrative capacities. More women were now working as stenographers, clerks, telephone operators and receptionists; in the educational field also about 15 percents of the teachers at primary and secondary levels were women.



FOOD PROCESSING MECHANISMS



MULTIPLE DEVICES USED IN FOOD PROCESSING SECTOR

DEVICES	USES
Industrial Food Dehydrator	Dehydrate various food efficiently
Commercial Food Processor	Prepare ingredients for food production
Automatic Dough Divider & Rounder	Efficiently divide & round dough
Industrial Vegetable Slicer & Dicer	Slice & dice vegetables accurately
Commercial Meat Grinder & Mincer	Grind & mince meat precisely
Automatic Jam & Preserve Cooker	Automatically cook jam & preserves
Industrial Cheese Press	Press cheese for optimal texture
Commercial Ice Cream Maker	Produce high quality ice cream
Automatic Rice Milling Machine	Mill rice grains efficiency
Commercial Spice Grinder & Packaging Machine	Grind & package spices accurately
Industrial Pasta Extruder	Extrude pasta with precision
Commercial Nut Butter Maker	Make nut butter with ease
Automatic Fruit Juice Extractor & Bottler	Extract & bottle fruit juice
Industrial Bakery Oven	Bake various bakery items
Commercial Tomato Paste Maker	Make tomato paste for canning
Automatic Vegetable Oil Press	Extract oil from vegetables quickly
Industrial Meat Slicer & Packaging Machine	Slice & package meat efficiently
Commercial Pickling & Fermentation Vat	Pickle & ferment food products
Automatic Beverage Bottling Line	Automatically bottle beverages
Industrial Frozen Food Packaging Machine	Package frozen food products

KEY CHALLENGES FACED BY RURAL WOMEN IN FOOD PROCESSING SECTORS

Addressing these challenges require a multi faceted approach that includes providing access to resources, approving education and training opportunities.

According to gender bias and cultural opportunities to improve infrastructure and create the regulatory environment.

Rural women face several critical challenges in food processing sectors as follows:

1. Limited access to modern processing technology and equipment
2. Lack of adequate training and skill development programs
3. Insufficient infrastructure for storage and transportation of raw materials,
4. Limited access to markets and distribution networks
5. Gender disparities in access to resources and decision-making positions
6. Heavy workload due to dual responsibilities of household chores and processing activities
7. Exposure to health hazards and safety risks in processing environments,
8. Limited access to financial resources and credit facilities
9. Inadequate support for value addition and product diversification,
10. Lack of awareness about food safety standards and regulations
11. Vulnerability to price fluctuations and market uncertainties
12. Social and cultural norms restricting women's mobility and participation in the workforce

SCENARIO OF FOOD PROCESSING SECTORS DURING COVID-19 PERIOD AND PIVOTAL ROLE PLAYED BY RURAL WOMEN:

During the Covid-19 pandemic, the food processing sector faced unprecedented challenges, highlighting the pivotal role rural women played in ensuring food security and sustaining livelihoods amidst disruption.

1. Increased demand for processed foods due to panic buying and stockpiling
2. Disruption in the supply chain, leading to shortages of raw materials and ingredients
3. Challenges in maintaining hygiene and sanitation standards in processing facilities

4. Restrictions on movement impacting transportation of goods to markets
5. Shift towards online platforms for marketing and selling processed foods
6. Inadequate access to healthcare and safety resources for rural women workers
7. Adoption of innovative methods such as home-based processing to sustain livelihoods.
8. Heightened financial strain on rural women due to economic downturn
9. Role of rural women as essential workers, ensuring food security during lockdowns.
10. Increased responsibility for care giving and household duties alongside work.
11. Collaborative efforts with local communities to distribute food aid and support vulnerable populations
12. Recognition of the resilience and adaptability of rural women in sustaining food processing sectors during times of crisis

The COVID 19 pandemic has a significant impact on the food processing industry, affecting various aspects of production distribution and safety.

ACTIVITY TO ENHANCE THE SUSTAINABILITY

When implemented effectively can enhance the sustainability of food processing of rural women, leading to improve livelihoods and economic empowerment.

Enhancing sustainability in food processing for rural women involves various activities aimed at improving their practices and outcomes.

Here are some activities that could be beneficial-



METHODOLOGY

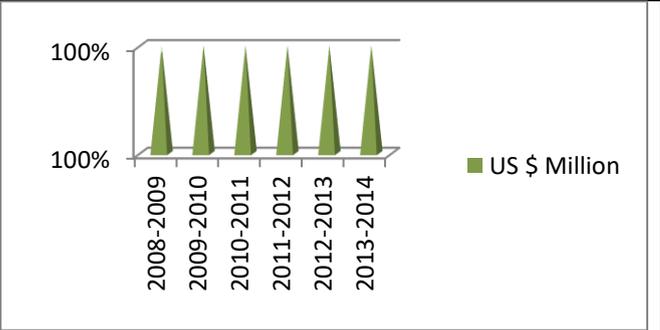
Data and information were collected from various secondary sources and subsequently analyzed. Notably, a structured approach was employed to assess the anticipated optimal profitability of nurturing growth initiatives aimed at empowering rural women as pivotal assets in the food processing industry.

DISCUSSION

Nurturing growth to manage the rural women as key assets in food processing is not only a matter of social justice but also a strategic investment in sustainable development.

TABLE- 1: EXPORT OF PROCESSED FOOD & RELATED COMMODITIES

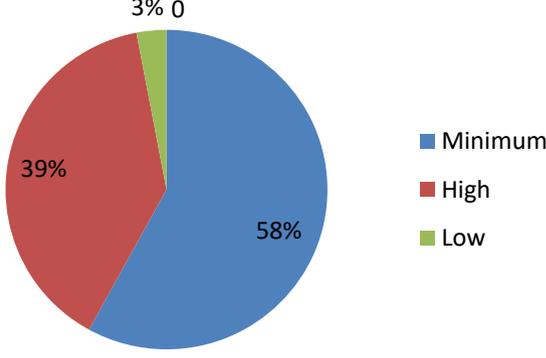
Year	US \$ Million	Year	US \$ Million
2008-2009	16,312	2015-2016	Unknown
2009-2010	14,787	2016-2017	Unknown
2010-2011	20,427	2017-2018	Unknown
2011-2012	31,762	2018-2019	Unknown
2012-2013	36,212	2019-2020	Unknown
2013-2014	37,798	2020-2021	Unknown
2014-2015	Unknown	2021-2022	Unknown



EXPORT OF PROCESSED FOOD & RELATED COMMODITIES

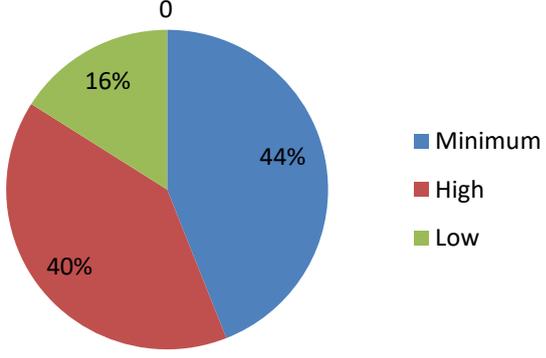
**PERCENTAGES OF SURVEYED FOOD CLUSTERS
(TABLE- 2 & 3)**

PROTENTIAL FOR TECHNOLOGY IMPLEMENTATION (TABLE- 2)		EXPORT PROTENTIAL FOR TECHNOLOGY IMPLEMENTATION (TABLE-3)	
Low	3%	Low	16%
Minimum	58%	Minimum	44%
High	39%	High	40%



3% 0
39% 58%

- Minimum
- High
- Low

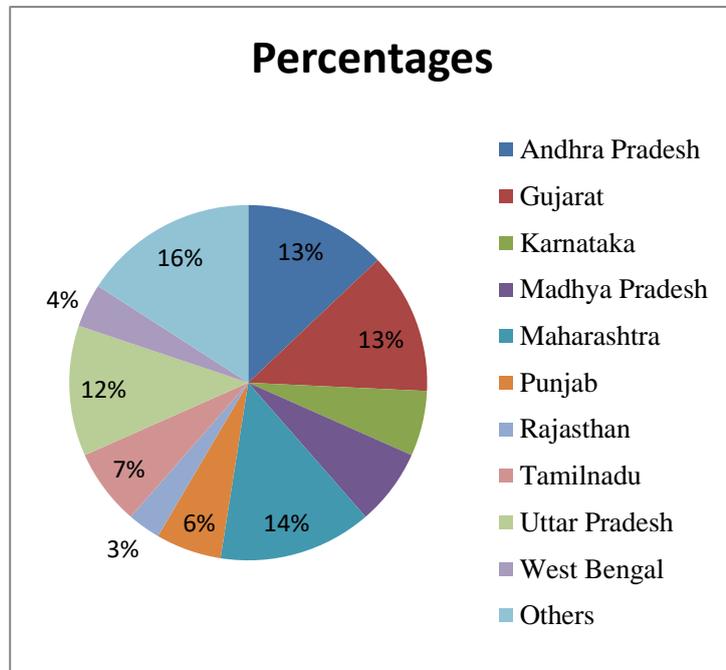


0
16% 44% 40%

- Minimum
- High
- Low

Share of Different States in Originated Food Processing Units

States	Percentages
Andhra Pradesh	13%
Gujarat	13%
Karnataka	6%
Madhya Pradesh	7%
Maharashtra	14%
Punjab	6%
Rajasthan	3%
Tamilnadu	7%
Uttar Pradesh	12%
West Bengal	4%
Others	16%



DECLARATION OF COMPETING INTEREST

The authors declare that they have no known competing financial interests or personal relationship that could have appeared to influence the work reported in this paper.

RECOMMENDATION

Some major recommendations could play key roles in large scale engagement of rural women in food processing sector. The initiatives may play crucial role in upgrading their financial as well as socio-cultural status. So few unique endeavors could be employed as follows:

1. Empowering rural women through multiple training programs on food processing
2. Facilitating required resource accessibility
3. Promoting financial inclusion through establishing microfinance initiatives
4. Enhancing modern food processing skill development through different workshops
5. Ensuring stable market linkages
6. Providing ample infrastructure support
7. Encouraging woman entrepreneurship development
8. Implementing related women development policies
9. Supporting collective action
10. Promotion of modern technology adoption
11. Ensuring woman worker health and safety standards
12. Strengthening value chains
13. Providing inspirational mentorship and networking opportunities



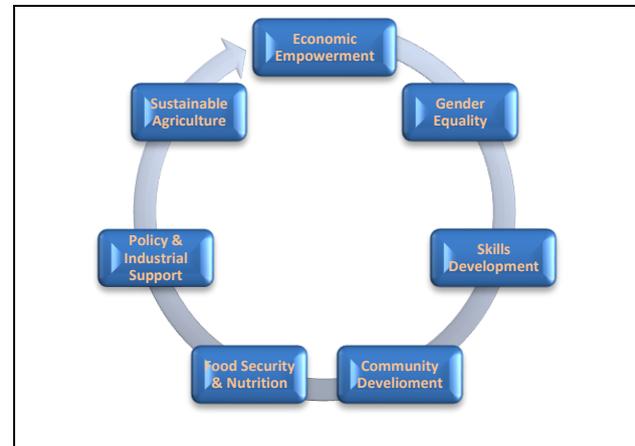
CONCLUSION

Nurturing the growth of rural women as key assets in food processing is not only beneficial for women themselves but also for their communities and the environment. Empowering rural women in food processing can help to promote sustainable agriculture practices.

By supporting women in the food processing sector we can encourage the adoption of environmentally friendly practices that can help to mitigate the impact of climate change and promote long term sustainability.

Sustainable development of rural community required nurturing growth of rural women. So engagement of rural women in food processing sectors can promote their financial growth among with socio economic upliftment.

It's true that numerous obstacles are faced by rural women in the way of their economic development & overall successful engagement in the food processing industry may foster their financial up gradation and social status such challenges could be addressed by multiple social intervened including market possibilities, skills development and resource availability.

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