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EMPOWERING WOMEN THROUGH HORTICULTURE ENTERPRISES- A STUDY ON WOMEN SHGS IN ODISHA, INDIA

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ABSTRACT

This study explores the transformative impact of horticultural enterprises on the socio-economic empowerment of women Self-Help Groups (SHGs) in Odisha, India. Employing a purposive sampling method, 120 SHG members across four districts were surveyed using structured interviews. The study aimed to assess changes in income levels, decision-making autonomy, access to credit, and social recognition following their engagement in horticulture-based activities. Findings reveal that 78% of respondents reported an increase in household income, while 65% experienced enhanced decision-making power and community status. The results underline the potential of horticultural enterprises in advancing rural women's empowerment and call for targeted policy interventions to expand such initiatives.

***Key words*:** Women empowerment, Self-Help Groups, Horticultural enterprises, Socio-economic development, Odisha

Introduction

Women play a pivotal role in rural livelihoods, yet their contributions often go unrecognized in economic and policy frameworks. In India, women constitute a significant share of the agricultural workforce, with an increasing number participating in horticulture as a livelihood strategy (FAO, 2020). Horticultural enterprises not only generate income but also empower women through increased self-confidence, financial independence, and social mobility (Kumar & Raju, 2022).

Self-Help Groups (SHGs) have emerged as instrumental platforms for mobilizing women towards entrepreneurial ventures, particularly in the horticultural sector. Odisha, with its diverse agro-climatic zones and strong SHG network, presents a promising context to study this phenomenon. Despite multiple government schemes like the Mission for Integrated Development of Horticulture (MIDH), empirical studies on their effectiveness in empowering women remain limited. This paper addresses this gap by analyzing the socio-economic impact of horticultural enterprises on SHG women in Odisha.

Several studies have indicated that Self-Help Groups (SHGs) have positively impacted marginalized segments of society, especially women, by fostering enhancements in income levels, employment opportunities, social engagement, and holistic empowerment (Pahuja and Singh, 2013). Horticulture is not a new subject for the scientists, researchers, extension functionaries of the line department but the newness is, in its different components and their adoption by the end users. SHGs have been identified as a potential mode of technology transfer, with a positive attitude among members required. A training programme may have a significant impact on the knowledge level of SHG members (Meena *et al.*, 2006). The volume of information disseminated and the information used by the farmers, is the matter of concern.

Materials and Methods

The study was conducted in four purposively selected districts of Odisha: Mayurbhanj, Keonjhar, Rayagada, and

Ganjam, each representing different agro-climatic zones and horticultural potential. A total of 120 women SHG members engaged in horticultural enterprises (floriculture, vegetable cultivation, and nursery raising) were selected using purposive sampling. The study was then carried out in the light of set objectives and under the framework of the adopted outline. Data were collected using a pre-tested interview schedule covering socio-economic indicators such as income, savings, decision-making, mobility, and social participation. A socio-economic empowerment index was developed, with responses scored on a three-point scale (1=Low, 2=Medium, 3=High). Reliability of the instrument was ensured using Cronbach's alpha (0.82). Descriptive statistics and chi-square tests were applied for data analysis using SPSS.

Result and Discussion

Adoption of horticulture enterprises

Adoption of the technology by the SHGs depend greatly on the feasibility, sustainability, stability, compatibility, divisibility, simplicity, visibility and profitability parameters of the recommended technology. In order to assess the extent of adoption, various recommended practices under extent of adoption of select horticulture enterprises, inputs and methods were taken into consideration and the responses about their adoption were recorded in a 3-point continuum and analyzed.

1. **Socio-Demographic Profile:** Most respondents (65%) were in the age group of 30-45 years. A majority had primary to secondary level education. Over 80% of the women belonged to marginal farming households, indicating the inclusivity of horticulture across landholding categories.
2. **Impact on Income:** Post-adoption of horticulture, 78% of respondents reported income increases ranging from INR 5,000 to INR 15,000 annually. This aligns with findings by Sharma *et al.*, (2020), who observed similar income gains among floriculture SHGs in Madhya Pradesh. Increased earnings also facilitated improved family nutrition and educational expenditures.
3. **Decision-Making and Mobility:** About 65% of respondents reported improved decision-making within households. Participation in market-related activities also enhanced women's confidence and autonomy, corroborating the findings of Singh and Verma (2021).

Social Recognition Respondents experienced greater social mobility and were frequently invited to community meetings and training programs. Horticulture acted as a medium for building social capital, a pattern also documented in a study by Das and Patnaik (2022) on SHG leadership in Eastern India.

The results and discussion under different sub-heads were presented below.

Adoption of select horticulture enterprises

In the study area some select horticulture enterprises

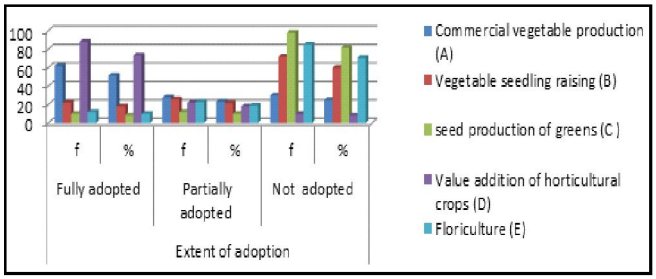

Fig. 1a: Extent of adoption of select horticulture enterprises (N=120).

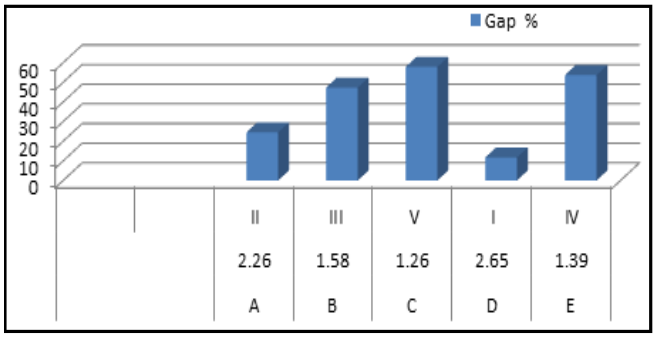

Fig. 1b: Gap%.

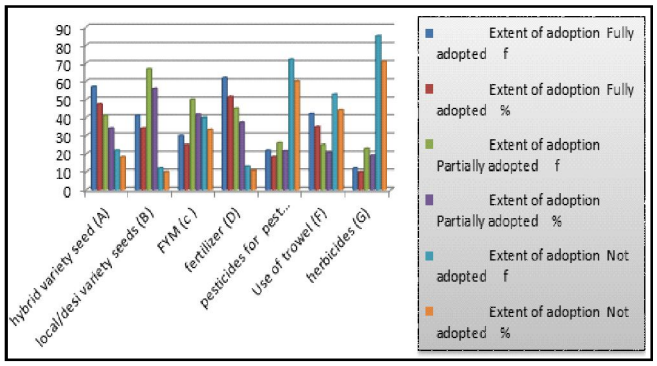

Fig. 2a: Extent of adoption of inputs (N=120).

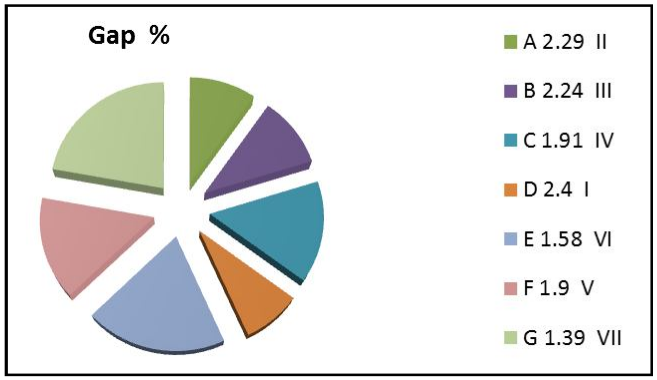

Fig. 2b: Gap%.

Table 1: Economic benefits of the enterprises.

Sl. no.	Enterprises	No of respondents adopted	1st season Profit (Rs.)	2nd season profit Profit (Rs.)	3rd season Profit (Rs.)
I	Commercial vegetable production	90	80,000	85,000	90,000
II	Vegetable seedling raising	48	30,000	33,000	36,000
III	Seed production of greens	22	12,000	21,000	26,000
IV	Vegetable value addition	110	45,000	48,000	49,000
V	Floriculture	35	38,000	40,000	45,000

were taken which are commercial vegetable production, vegetable seedling raising, seed production of greens, value addition of horticultural crops and floriculture. An attempt was made to analyze adoption of different horticulture enterprises and the findings were presented in Fig. 1.

Data from the figures revealed that value addition of horticultural crops was fully adopted by 73.33% of women SHG members. Next to this, 51.66% SHG members fully adopted the commercial vegetable production. It was also revealed that 19.16% of women SHG members partially adopted the floriculture enterprise.

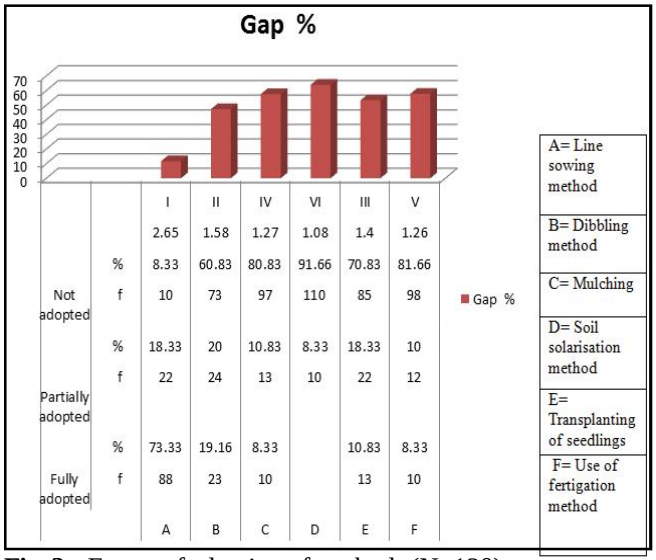

Fig. 3: Extent of adoption of methods (N=120).

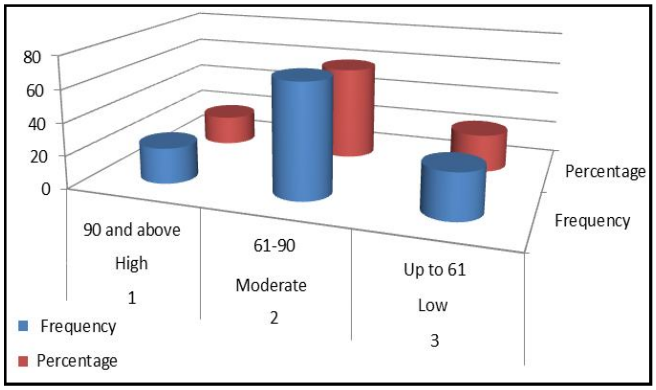

Fig. 4: Categorization of respondents basing on adoption level (N=120). (Calculated on the basis of mean of individual score 75.85 & S.D + 14.15).

The adoption gap of seed production of greens and floriculture were 57.77% and 53.61% respectively. This was due to complexity of the technology and lack of proper guidance and training by the extension functionaries.

Extent of adoption of inputs

Success of a horticulture enterprise often depends upon the choice of use of inputs i.e. use of hybrid seeds over local seeds, use of fertilizers, pesticides, use of FYM to maintain the soil health etc. Suitable inputs must be adopted for getting better yield as well as profit. An attempt was made to analyze extent adoption of different inputs and the findings were presented in Fig. 2.

Data from the Fig. 2 disclosed that 51.66% of women SHG members were using fertilizers in their fields for a good yield followed by 47.5% of respondents were fully adopted the use of hybrid seeds. It also revealed that 55.83% and 41.66% of respondents had partially adopted the use of local/ desi seeds and practice of using of FYM respectively.

About 53.61% gap in adoption of use of herbicide was seen. Also, there was an adoption gap of 47.22% found in case of use of pesticides for disease management. This may be due to lack of knowledge about the herbicides and pesticides.

Extent of adoption of methods

Various methods are adopted by the farmers during the cultivation process starting from seed sowing to

Table 2: Correlation of independent variables with adoption level of respondents.

Sl. No.	Variables	r- value	Remarks
1	Age	-0.061	NS
2	Caste	.189	*
3	Education	.057	NS
4	Family size	-.179	*
5	Land holding	.288	**
6	Extension contacts	.368	**
7	Information source use	.245	**
8	Knowledge level	.521	**

** . Correlation is significant at the 0.01 level (2-tailed)
*Correlation is significant at the 0.05 level (2-tailed)
NS. Correlation is not significant

harvesting like they use line sowing method for seed sowing or mulching is adopted by them for soil moisture conservation method etc. An attempt was made to analyze extent adoption of different methods by the respondents and the findings were presented in figure 3.

A look in to the Fig. 3 indicated that 73.33% of women SHG members were fully adopting the practice line sowing as a method of seed sowing. The practice of dibbling method and transplanting of seedlings was fully adopted by 19.16% and 10.83% of respondents respectively.

However, only 8.33% of respondents were using mulch in their fields. There was an adoption gap of 63.88% in soil solarization method followed by 57.77% in fertigation method. The analysis of adoption gap suggests that the SHGs need comprehensive trainings on different practices like soil solarization method, fertigation method and mulching and they should be aware of the benefits of adopting these methods.

Economic benefits of the enterprises

This Section presents findings related to economic benefit derived by the adopters in terms of net profit earned during the course of adoption period. An attempt was made to know the economic benefits received by the respondents, by taking the average profit made by the SHGs by adopting different horticulture enterprises. The average benefits received by the respondents are presented in Table 1

The Table 1 revealed that the profit earned by the women SHG members by talking different horticulture enterprises were up to their satisfaction level. They earned good amount of money which helped them in many ways like; in fulfilling their personal needs, helping in house chores etc.

Further, the respondents were categorized basing on their adoption behavior relating to all the above-mentioned recommended practices which was presented in Fig. 4.

It is observed that adoption behaviour of farmers followed the same trend as knowledge level. About 58.33% respondents were found to be partial adopters. This indicated that they were adopting different recommended practices of horticulture enterprises to varying degrees. Only 18.33% respondents were high adopters which indicated that they were putting into practice all the recommended practices. 23.33% of respondents were not following the recommended practices which indicated that this group of farmers was practicing traditional farming practice.

The data reported in the Table 2 revealed that land holing, extension contact, information source use and knowledge level were significantly and positively correlated with the adoption of various horticulture practices. Family size was significantly and negatively correlated with adoption whereas age was not correlated.

Summary and Conclusion

Horticultural enterprises, facilitated through SHGs, have significantly contributed to women's socio-economic empowerment in Odisha. The study highlights the need for training, access to markets, and credit linkages to scale such initiatives. Policymakers must tailor horticulture development programs with a gender-sensitive approach to maximize impact. Limitations include the study's cross-sectional design and limited geographical scope. Future research should adopt longitudinal designs and include comparative analysis across states to generalize findings.

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