



# Constraints Encountered in Vegetable Cultivation by Farmwomen of Odisha: An Empirical study

Sujit K Nath, Sagarika Muna, Sadhna Swastika and Laba Soren

Krishi Vigyan Kendra, Deogarh 768 108  
Orissa University of Agriculture and Technology (Odisha)

---

## ABSTRACT

Deogarh and Bolangir, two agriculturally dominated districts of Odisha were purposefully selected to find out the constraints faced by farm women while performing their roles as vegetable growers. One hundred and twenty farm families were selected randomly for the study from both the districts. The pool of constraints was grouped into four categories *viz.*, technological, infrastructural, economic and social. Lack of knowledge in selection of appropriate variety, pesticide and other inputs was found as the most important technical problem while performing their role in vegetable farming. Non-availability of defined marketing system was perceived as the most important infrastructure related problem. Gender bias in sanctioning of credit to independent female vegetable growers was perceived as a non-effective entity and had the least role to determine vegetable farming by women.

**Key Words:** Constraints, Farmwomen, Gender, Vegetable farming.

---

## INTRODUCTION

Farmwomen play a pivotal role in production to consumption chain of vegetables. They perform the work of cleaning of land, sowing of seeds, transplanting of seedlings, scaring of birds, animals and harvesting in vegetable farming (Kumari and Laxmikanta, 2015). Joshi and Kalauni (2018) found in Nepal that in vegetable production, females contribute more in seedling transplanting (83.3%), cleaning and harvesting (83.8%). Bathla and Sharma (2019) reported that 94.6 per cent of farm women were engaged in various agricultural operations to earn livelihood for the family. Odisha is a leading state of the nation in production of vegetables. With ten agro-climatic zones present, it has the potential to produce various types of vegetables throughout the year. There is a lot of scope and opportunity of production of vegetables in the state which can be exported. Das (2015) reported that according to 2011 census, the percentage of female cultivators in Odisha was 13 percent and the agricultural labourer was 57.8 percent of total female workforce of the

state. It indicates a significant work force of the state engaged in agricultural sector. She further stated that work participation of rural women in homestead gardening and post harvest management was more than any other activities. Tripathy *et al* (2015) also found participation of rural women in vegetable farming in Odisha was more than their male counterparts. In most of the cases, kitchen gardening is their sole domain where as in commercial vegetable farming, they also contribute immensely. With the growing status of involvement of female population in agriculture and particularly vegetable farming, their problems should be identified and sorted out to increase the production and productivity. Keeping in view of the above facts, an empirical study was done in the vegetable growing areas of the state to find out the constraints encountered by farm women in vegetable farming.

## MATERIALS AND METHODS

This study was conducted in purposively selected two districts of Odisha state representing

two different agro-climatic zones. Agriculturally dominated, Bolangir district is present in western part of Odisha and Deogarh district is also a no industry district where 93 per cent of total population lives in villages and depend on agriculture. Three blocks from each district were randomly selected. From each block one village was selected by purposive random sampling method. The villages were selected beyond 5km of KVK adopted village and where no such agri-based training institute is working. While selecting, it was also kept in mind that vegetable farming must be a major source of livelihood of that village. Accordingly six villages from both of the districts were selected for the study. Chandanabhati of Bolangir block, Pathabahal of Loisingha and Saragada of Gudvela block, all belonging to Bolangir district were selected for the purpose. Similarly, Baraghat village of Tileibani block, Medinipur of Reamal block and Kadapada village of Barkote block were selected from Deogarh district. Twenty vegetable growing farm families were selected randomly for the purpose. Information on various parameters was collected by a semi-structured interview schedule from the 120 farm women. Constraints on vegetable farming were quantified with 0, 1, 2, 3 scores allotted to disagree, partially disagree, partially agree and totally agree, respectively. Then mean score of each constraint was found out. Rank analysis was done and accordingly inferences were drawn. The constraints were broadly classified into four categories, e.g. technological, infrastructural, financial and social types. Information was collected from the sampled 120 farmwomen.

## RESULTS AND DISCUSSION

### Technological constraints

Farm women of the selected districts were found more serious not having enough knowledge on selection of proper varieties, chemicals to control insect pest and diseases. It secured the first position in rank analysis. Sahu *et al* (2013) also found out that poor knowledge on scientific technologies and adoption of them was the major

constraint in vegetable cultivation. Non-availability of climate resilient technologies was the second major constraint. Farmers are the first to face the wrath of climate change in the world. As Odisha state is facing abnormal climate in most of the years, the farmwomen were found much concern for the befitting technologies to face the vagaries of climate change. It came at the second position in rank analysis. Lacking of appropriate knowledge was found as the third major concern of the respondents. It secured much higher mean score of 2.24 in comparison to the fourth one (1.68). During the survey, it was observed that farmwomen were very much worried about the growing menace of insect pest diseases in vegetable farming. Singh *et al* (2009) found from their studies on farmwomen that they had high desire to acquire knowledge on pest management and pesticides but most of them had knowledge on local methods of pest management. Availability of trainers in village level came at eighth position indicated that many government and non- government organisations were working to cater knowledge on vegetable farming. Nath *et al* (2012) had also opined that farmwomen perceived selection of timing of training and much theory involved in trainings were major hindrances in achieving the objectives of training. Awareness and use of various tools for cost and drudgery reduction secured the lowest position implied the grey areas of technology transfer in this major aspect. It was worth mentioning that during discussion with farmwomen, most of the farm women showed their lack of concern about use of machines. Lack of awareness on availability of drudgery reducing machines secured the last position in rank analysis indicated that focus should be given in increasing application of such machines in vegetable farming to reduce cost of production and drudgery in farm women. It corroborates the findings of Khadatkhar *et al* (2018).

### Infrastructural constraints

Non-availability of proper marketing avenues was the first constraint in vegetable farming, as

## Constraints Encountered in Vegetable Cultivation

**Table 1. Technological constraints (n=120).**

Sr. No.	Constraint	Mean score	Rank
1	Lack of knowledge in selection of appropriate variety, pesticide and other inputs	2.54	I
2	Non-availability of climate resilient technologies	2.50	II
3	Difficult to control Insect pest and diseases in vegetable farming	2.24	III
4	Lack of awareness of cost reduction technologies in vegetable farming	1.68	IV
5	Poor knowledge on post harvest management	1.4	V
6	Non-availability of inputs like seeds, fertilisers, pesticides	1.32	VI
7	Lack of knowledge on different aspects scientific vegetable farming	1.11	VII
8	Trainers are not available to impart technical know-how at village level	1.06	VIII
9	Drudgery prone activities are performed by women	0.78	IX
10	Non-availability of machines for hiring	0.34	X

perceived by the sampled farm women. Getting assured market, remunerative price was their major concern, as observed during the study. Lack of storage structures came at the second position during rank analysis of infrastructural constraints. Samantaray *et al* (2009) also opined that lack of enough storage structures is the predominant impediment in vegetable farming. As both the districts have less irrigated area, farmwomen opined assured irrigation can be helpful for growing vegetables around the year. Some of the sampled farm women also told about the absence of any organisation or farmers association to put forth their demands. Most of them were of the opinion that for supply of various inputs, supply agencies or traders should be available near their villages. They were also concerned about spurious medicines and adulterated inputs.

### Economic Constraints

It was observed that most of the responding farm women were worried about non-coverage of vegetable farming in crop insurance scheme. During the survey, it was revealed that vegetable farming requires higher investment as well as higher risk. Risk was multidirectional in nature i.e. from input, climate as well as market. Hence all the vegetable crops should be covered under crop insurance scheme. This came at the top rank followed by credit to vegetable farming is not given due importance by the financial institutions (FI). As because vegetable farming is not covered under any insurance scheme, they perceived FI are reluctant to sanction loans for them. Getting loan for vegetable farming is a cumbersome process which secured third position in rank analysis. Many sampled farm women told that loan was not available in time

**Table 2. Infrastructural constraints (n=120).**

Sr. No.	Constraint	Mean score	Rank
1	No cooperative society or systematic structure available nearby for marketing	2.68	I
2	Non availability of godown, storage structures etc	2.35	II
3	Non availability of water sources for year round vegetable farming	2.22	III
4	No farmers association to solve farmers problem	1.75	IV
5	No training agency is available to provide them training at their village level	1.44	V
6	No trustworthy input supply agency available near village	1.30	VI

**Table 3. Economic constraints (n=120).**

Sr. No.	Constraint	Mean score	Rank
1	Vegetable farming is not covered under crop insurance scheme	2.66	I
2	Vegetable farming is not given priority while sanctioning loans	2.08	II
3	Sanctioning of loan for vegetable farming is a time taking, cumbersome process	2.00	III
4	Loan is not available in time	1.92	IV
5	Higher interest rate in institutional lending	1.72	V
6	Credit amount is not sufficient for vegetable farming	1.46	VI
7	Gender biasness in giving credit by FIs	1.24	VII
8	Independent women not given credit for vegetable farming	0.86	VIII

from banks. Credit amount fixed by banks against vegetable farming through scale of finance was not enough occupied sixth position. This indicated their lack of knowledge on scale of finance to various crops, as provided by banks. Gender biasness in sanctioning loan was perceived baseless by most of the women. Gender related issues came at the last position in the study. It indicates increasing of education level, leadership quality and exposure of farmwomen which reduces gender inequalities. Capacity development for access of women to financial services and markets was of paramount importance as per the studies of Patil and Babus (2018).

#### **Social constraints**

Now-a-days, stray cattle, monkeys and wild animals are causing lots of damage to farming and

vegetable farming beyond the rice crop period are very much susceptible to these animals. These were the observations of most of the farmwomen while undergoing the survey. It came at the first position securing 2.60 mean score while analysing the data. Younger women preferred for other vocation to farming, it lowers their social status like social issues came at next ranks. Kaur and Sharma (2018) also revealed from their studies in Punjab that women, especially the youths were less interested to participate in the farming related activities. It was surprising to note that gender biasness in decision making secured the fifth position. Role of male members in small scale farming is very poor whereas in commercial vegetable farming, role of women in decision making is gradually increasing. In many cases, it was observed that males were no more the sole decision makers. The gradual

**Table 4. Social constraints (n=120).**

Sr. No.	Constraint	Mean score	Rank
1	Stray cattle, monkeys, elephants cause lots of damage to vegetable farming	2.60	I
2	Younger women are not interested any more to go for farming	2.35	II
3	Vegetable farming by women lowers social status	2.16	III
4	Less preference to farming as a profession by women	2.06	IV
5	Decision making in vegetable farming is mainly taken by male members of family	1.36	V
6	Some activities in vegetable farming are restricted to women	1.20	VI
7	Higher caste women are not allowed to go for vegetable farming	1.08	VII
8	Farming by women is a social taboo	0.48	VIII

## Constraints Encountered in Vegetable Cultivation

shift of decision making capacity towards female indicates the women empowerment in both social and economic terms. But still in financial aspects, the male members of family were found as the real decision makers. It was at the fifth position. Farming by women is not a taboo in the farming society, as per the study. It secured the lowest rank in constraint analysis.

## CONCLUSION

From the above study it could be concluded that though farmwomen were involved with most of the activities related to vegetable farming, awareness about their constraints and steps taken up by the development agencies were not adequate to eradicate them. Gender bias in most of the basic issues was found out. Though lots of steps are taken to bridge the gender gap, still it is found in some cases. Proper infrastructural facilities are still not available with them. Hence Government should take necessary steps to reduce the problems faced by farmwomen to boost the production and productivity in vegetable farming.

## REFERENCES

- Bathla S and Sharma S (2019). Factors responsible for contributing anxiety among the working women in Punjab. *J Krishi Vigyan* **8**(1): 128-132
- Das L (2015) Work participation of women in Agriculture in Odisha. *IOSR J of Humanities and Soc Sc* **20**(7):66-78
- Joshi P and Kalauni R (2018). Gender role in vegetable production in rural farming system of Kanchanpur, Nepal. *SAARC J Agri* **16**(2): 109-118
- Kaur A and Sharma M (2018). Study on constraints faced by farmers in adoption of kitchen gardening in central plain zone of Punjab. *Int J Farm Sci* **8** (1):79-81
- Khadatkar A and Potdar R. And D J Srinivas (2017). Drudgery reducing harvesting tools and equipments used by Indian farm women. *Innov farming* **2**(4):.212-214
- Kumari A and Laxmikanta (2015). Participation of rural women in vegetable production. *Adv Res J Soc Sci* **6**(2) :258-60
- Nath S K, Chowdhury S and Raj R K (2012). Impact of training in rice cultivation on farm women of Odisha. *Oryza, An Int J on Rice* **49**(1): 45-49
- Patil B and Babus V S (2018) Role of women in agriculture. *Int J Applied Res* **4** (12): 109-114.
- Sahu R P, Sachan V K and Singh R (2013). Constraints in adoption of vegetables production technology in Uttarakhand hills. *Indian J Ext Edn* **2**(2): 31-34
- Samantaray, S K, Prusty S and Raj R K (2009). Constraints in vegetable production-Experiences of tribal vegetable growers. *Indian Res J Ext Edu* **9**(3): 32-34.
- Singh A, Singh H S, Nath V and Sadangi B N (2009). Farmwomen participation in Vegetable pest management in coastal Odisha. *Veg Sci* **36**(3): 368-371
- Tripathy P C, Babu N and Prusy M (2015). Analysis of participation of women in horticultural activities. *J Business Mgt and Soc Sc Res* **4**(3) :241-244

Received on 11/04/2020

15/05/2020