

Constraints Faced by Vegetable Growers in Chandel District Manipur

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ABSTRACT

Vegetable farming plays a pivotal role in the agricultural landscape of Chandel district, Manipur, contributing to local consumption, economic activity, and employment. However, vegetable farmers in the region face numerous constraints that impact their productivity, sustainability, and income. This study was conducted in three villages of Chandel district—Lambung, Phunchung, and Lamphou Pasana—to identify the social, economic, production, and marketing challenges encountered by vegetable growers. A sample of 120 respondents was selected to gather primary data through structured questionnaires. The findings revealed that social and economic constraints such as youth disinterest in farming, poor economic conditions, and lack of institutional support were significant. In terms of production, the major challenges included pest infestations, lack of irrigation facilities, and high labour costs. Marketing constraints, such as low marketable surplus, inadequate transportation, and lack of storage facilities, further exacerbate the difficulties faced by farmers. These constraints significantly hinder the growth and sustainability of vegetable farming in the region.

Key Words: Constraints, Marketing, Production, Socio-economic, Vegetable farming.

INTRODUCTION

Vegetables are a crucial part of Indian agriculture and nutritional security due to their short growing periods, high yields, nutritional value, economic feasibility, and ability to generate both on-farm and off-farm employment. India's diverse agro-climates and distinct seasons allow for the cultivation of a wide variety of vegetables. Manipur, a small landlocked state in north-eastern India, produced about 376569 t of vegetables from the year 2023 to 2024 as reported by Department of Agriculture and Farmers welfare. The data reached an all-time high of 376579 t in 2022 and a record low of 219820 t in 2013 in the last ten years. This represents an increase of approximately 71.3% in vegetable production over the last 10 years, demonstrating a significant rise in productivity during this period. However, the Northeast region presents unique challenges due to its hilly terrain, climatic conditions, and socio-economic factors. Hanglem (2019) indicated that

farmer in this region struggle with poor road connectivity, insufficient irrigation facilities, and limited availability of quality seeds. It also highlighted that farmers face significant hurdles such as pest infestations, lack of storage facilities, and fluctuating market prices, which adversely affect their income and sustainability.

Chandel district is one of the hilly districts situated in the south-eastern part of Manipur with an area of 3,313 square kilometers, at approximately 24°40'N latitude and 93°50'E longitude. The district falls under a subtropical agro-climatic zone with exception in some areas. The soil ranges from Clay type to Loamy Red Soil rich in organic matter. However, the hilly regions or the Upland areas are acidic nature. The main river in the area is the Chakpi. The distribution of rainfall widely varies from 343.85mm to 1650.00mm. As per Census 2011, Chandel had population of 133,182 and, the literacy rate is 71.11%. The majority of the population relies on agriculture and its allied activities for sustenance,

Table 1. Social and Economic constraint (n=120)

Sr.No	Social and Economic constraint	Frequency	Percentage	Rank
1	Less interest shown by upcoming youth in farming	84	70	I
2	Poor economic condition	79	65.83	II
3	Lack of time to attend meetings or trainings	75	62.5	III
4	Lack of institutional credit facilities/loans	69	57.5	IV
5	High burden of farm activities	60	50	V
6	Stray cattles cause lots of damage to vegetable farming	55	45.83	VI
7	Poor communication skills	35	29.16	VII
8	Low literacy rate in area	32	26.66	VIII
9	Lack of self confidence in farmers	32	26.66	IX

with vegetable farming being a vital component. While vegetable farming is crucial for both local consumption and economic activity, Chandel district accounts for only 4.09% of the total area under vegetable cultivation in Manipur (Devi, 2019). This study was conducted to identify and analyze the key constraints faced by vegetable growers in Manipur with a focus on challenges related to production, marketing, and resources, in order to propose effective solutions for improving vegetable farming practices in the region.

MATERIALS AND METHODS

The present study was purposely carried out in three villages of Chandel block under Chandel district, namely Lambung, Phunchung and Lamphou Pasana to assess constraints faced by farmers in growing vegetables. These three villages have a large number of small and marginal vegetable growers. In order to have representative sample, a sample of 40 respondents was drawn randomly from each village, which resulted in 120 respondents. The primary data were collected through pre-tested and structured questionnaire without any biased. The data collected on socio-economic, production and marketing constraints faced by the vegetable growers were tabulated and analyzed to draw conclusion. Frequency, simple percentage and ranked analysis done for analysing the data collected. Rank was assigned to each sub category on the basis of frequency.

RESULTS AND DISCUSSION

Social and Economic constraint

The major social and economic constraint faced by the vegetable grower was less interest shown by upcoming youth in farming. It ranked 1st in rank analysis with 70%. It may be due to youth showing more interest in education and also moving to other cities for work. Kaur and Sharma (2018) also revealed that women, especially the youth were less interested to participate in the farming related activities. Poor economic condition was the second major constraint. Most of the farmers have low income to meet their daily necessity so they were not able to invest in big farms and take risk for any unknown circumstances that may result in crop loss therefore they normally practiced subsistence farming. It came at 2nd in rank analysis with 65.83%. Lack of time to attend meetings or trainings was the 3rd constraint with 62.5%, lack of institutional credit facilities/loans comes in 4th rank with 57.5% and high burden of farm activities comes in 5th with 50%. It is very difficult and time consuming for the vegetable growers to get loan facilities.

The vegetable growers are mostly women so managing their household work along with time consuming farming task is a big problem for them. It was also found that Stray cattle cause lots of damage to vegetable farming, coming 6th in the

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Table 2. Production constraints. (n=120)

Sr. No.	Production problem	Frequency	Percentage	Rank
1	Severe pest and diseases infestation	76	63.33	I
2	Lack of irrigation facilities/ monsoon dependant	72	60	II
3	High cost of human labour	70	58.33	III
4	Scarcity of labours	67	55.83	IV
5	Non-availability of quality seeds	55	45.83	V
6	Lack of awareness of cost reduction technologies in vegetable farming	52	43.33	VI
7	Lack of Knowledge in selecting appropriate varieties	50	41.66	VII
8	Non-availability of machines for hiring	47	39.16	VIII
9	Low return from the investment	45	37.5	IX
10	Lack of institutional and government support	32	26.66	X
11.	Fragmentation of land holdings.	15	12.5	XI

rank analysis with 45.83%. Most of the farmers were not able to make proper fencing so, their crops gets damage by the straying cattle resulting in low output. Poor communication skills comes in 7th rank with 29.16%, while low literacy rate ranks 8th with 26.66% and Lack of self confidence in farmers comes in rank 9th with same percentage of 26.66%. There are some barriers when it comes to communication as most of the farmers were less literate so whenever there are training programmes conducted they find it difficult to fully understand. Also, the farmers have less confidence in their farms mainly because of the erratic weather pattern and incidence of pest and diseases.

Production constraints

The major and most felt production constraint faced by the vegetables growers was severity in pest and diseases infestation, ranking 1st in the rank analysis with 63.33%. This was due to the fact that the farmers hardly used inorganic chemical for pest and disease control and mostly depends upon traditional measure. Lack of irrigation facilities/monsoon dependant was at 2nd rank with 60%. Farmers lack irrigation facilities and cultivate their farms under rain-fed conditions depending mostly on monsoon rainfall which is

quite erratic in nature due to the changing climatic condition, thereby resulting in crop losses whenever there is irregularity in rainfall. Murry *et al* (2020) also found similar findings. High cost of human labour comes at 3rd rank with 58.33%, followed by scarcity of labours with 55.83% and non-availability of quality seeds with 45.83%. It was found that there is very less availability of labours with very high cost so the total production cost becomes high with less return if they hire labours, so in order to avoid that they themselves do all works therefore, they are not able to invest in bigger farms. Since the village is situated in economically backward area thus, there is a lack of timely availability of quality seeds so the farmers mostly used traditional varieties which are of long duration with lesser yield.

The study also found that there was lack of awareness of cost reduction technologies in vegetable farming. It ranked 6th in the ranking analysis with 43.33%. The farmers mostly practiced traditional method of farming which takes longer period, with lesser yield. Lack of Knowledge in selecting appropriate varieties was at 7th rank with 41.66%, followed by non-availability of machines for hiring with 39.16%. Low return from the investment was at rank 9th with 37.5% and a lack of institutional and

Table 3. Marketing constraints. (n=120)

Sr. No.	Marketing constraint	Frequency	Percentage	Rank
1	Low marketable surplus	80	66.66	I
2	Less risk bearing capacity of farmer	75	62.5	II
3	Lack of proper transportation facilities	63	52.5	III
4	Lack of warehouses / storage facilities in the area	58	48.33	IV
5	Lack of efficient marketing mechanism	40	33.33	V
6	Lack of government support price and pricing policy	35	29.16	VI
7	Lack of marketing co-operative societies	31	25.83	VII

government support ranked 10th with 26.66%. Since specific variety is more suitable in specific environmental or soil condition to have higher returns, it is very important to have knowledge about suitable variety but the farmers are less literate so they have less knowledge about suitable variety and sometimes they grow less suitable variety resulting in lesser return. The village being economically weak have very few machines for hire. The farmers also face low return from their investment due to erratic weather, wildlife or diseases/pest infestation. Haneef *et al* (2019) also found similar findings. Few farmers were interested in commercial cultivation but there is a problem of fragmentation land holdings which is quite challenging. So fragmentation of land holdings ranked at 11th rank with 12.5%.

Marketing constraints

The data (Table.3) showed that the major marketing constraint faced by vegetable growers was low marketable surplus ranking 1st in the rank analysis with 66.66%. The farmers were mostly subsistence farmers and economically backward so do not have the means to support large cost of production. The farmers were also not willing to take a risk of unknown circumstances like pest and disease infestation, erratic weather pattern that may result in loss of crop thereby loss in profit, hence, less risk bearing capacity of farmer was at 2nd rank with 62.5%. Lack of proper transportation facilities comes in 3rd rank with 52.5%, followed by lack of warehouses / storage facilities in the area with 48.33% and lack of efficient marketing mechanism with 33.33%. Most of the farmers also

do not own vehicles to carry their products to the market and very few are available for hire at high cost. Also, the farmers stored their produce in traditional methods due to the lack of storage facilities thereby lesser shelf life. Samantaray *et al* (2009) also found similar findings. Other major constraints face by the vegetable growers includes lack of government support price and pricing policy with 29.16% and lack of marketing co-operative societies with 25.83%.

CONCLUSION

The study highlighted the multi-dimensional challenges faced by vegetable farmers in Chandel district, Manipur. Social and economic constraints, such as youth disinterest in farming and poor economic conditions, contribute to the decline in agricultural participation. Production constraints, including pest infestations, lack of irrigation, and high labor costs, further limit the productivity of vegetable farming. Marketing constraints, such as low marketable surplus and inadequate storage facilities, worsen the financial outcomes for farmers. To address these issues, targeted interventions, including improved access to institutional credit, better pest management solutions, better irrigation facilities, and development of efficient marketing and storage systems, are crucial. Government support and the introduction of modern farming techniques could help mitigate these challenges, improve productivity, and enhance the sustainability of vegetable farming in the region.

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