



Socio Economic Status and Constrains Faced by Organic Vegetable Growers in Wokha District of Nagaland, India.

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ABSTRACT

Commercial production of high value vegetable in the state of Nagaland pose an immense scope as the region is blessed up favourable micro climate and fertile soil coupled with region organic based farming. Although the region of North East specifically Nagaland has promising scope in producing high value crops, the farmers in the region are faced with several production as well as marketing constrains. From the study, it was revealed that major and common production and marketing constrains faced by vegetable growers includes, severity in pest and diseases infestation (65.83%) of the respondent followed by lack of irrigation facilities and high dependency on monsoon (64.17%), non-availability of quality seed/ planting materials (55.00%), lack of efficient marketing mechanism (66.67%), lack of proper transportation (65.00%) and storage facilities in the area (50.83%) etc.

Key Words: Constrains, Marketing, Nagaland, Organic, Production, Vegetable.

INTRODUCTION

Vegetables constitute about 59 per cent of total horticulture production in India. Increase in Vegetable production over the years led to increase per capita availability of vegetables from 264 g/person/day in 2004-05 to 355 g/person/day in 2015-16. Total production and productivity of vegetable crops of the country has been gradually increasing from 1991-92 to 2014-15. During this period, the area under horticulture crops grew by about 2.7 per cent per annum, productivity increased by 37 per cent between 2004-05 and 2014-15. As a result, India has maintained its second rank in the global production of vegetables after china (Kumar *et al*, 2017). An increasing number of organic farmers are sourcing their organic inputs off-farm. The limited cultivable area can be best utilized for growing vegetables which are known to give higher yields per unit area. High transportation cost was a serious constraint followed by non-availability of vehicles for transport of horticultural produce, (Kshirsagar,

2006). The lack of proper local market yard facilities was the major problem (95%) while 100 percent respondent suggested the establishment of wholesale market within the state of Sikkim (Phukan *et al*, 2018). Some of the important constraints of agricultural marketing system in the country are lack of infrastructure like storage, transportation, quality control, packaging, price risk management, cool chains, market led extension, and conducive framework for promotion of contract farming, (Gohain and Singh, 2018).

Nagaland has total geographical area of 16579 sq.km with a total population of 19.0 lakh. Out of 2,48,354 ha net sown area, roughly 99,980 ha is under shifting cultivation. The state receives an average rainfall of 1800 mm with the temperature range of 4 – 35 degree C. The soil of the state is acidic to strongly acidic in reaction. The low pH is basically due to the leaching of the bases under the influence of high rainfall. The soils are, however rich in organic matter.

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MATERIALS AND METHODS

The present study was conducted during the period 2017-2018 in Wokha district of Nagaland, to assess the socio economic status as well as constraints faced by the organic vegetable growers in the region. In Wokha District out of total five rural development blocks, three blocks viz., Wozhuro-Ralan, Chukitong, and Wokha were selected for the present study due to good number of vegetable growers in the area. Four (4) villages from each block were selected by random sampling method, which resulted in 12 villages for the study. After selection of the villages, in order to have representative sample from each village a sample of 10 respondents was drawn randomly which result in 120 respondents from 12 villages. The primary data were collected through pre-tested and questionnaires for collecting details on socio-economic and production and marketing problem faced by the vegetable growers. Constraints faced by the vegetable growers in production and marketing of organic vegetables were analysed using frequency simple percentage and ranked to know the order of importance.

RESULTS AND DISCUSSION

Study on Socio economic characteristics of the farm household is an important criteria for understanding the level of farmers awareness, knowledge, managerial capabilities as well as farm resources requirement. In the present study socio economic characteristics such as age, education level, family size, land holdings etc were considered and discussed. The distribution respondents according to their socio economic status is given in table 1.

Study on socio economic pattern of the organic vegetable growers in the region reveals that majority of the respondents belongs to 30- 40 yr age group which constitutes 40.83 per cent of the respondent. The study comprises of male 72 (60%) and female (48%). It was also found out that majority of the respondent have educational

qualification of primary level (34.17%) followed by high school (21.65%). Majority of the vegetable growers in the study area belonged to small land holding group which comprises of 40 per cent of the respondent followed by small group of farmers which comprises of 36.67 per cent of the total respondent considered for the study. It was also revealed that 36.67 per cent of the respondent had farming experiences of 5 to 10 yr which comprises of majority of the total respondent, Rajasree *et al* (2017) also reported similar findings.

Constraints of production and marketing of Organic vegetables

Production constrains

It can be seen (Table 2) that the main and most felt production constrain faced by the vegetables growers was severity in pest and diseases infestation as expressed by 65.83 per cent of the respondent followed by lack of irrigation facilities and high dependency on monsoon (64.17%), lack of institutional and government support (59.17%) and non-availability of quality seed/ planting materials (55.00%). Dhurwey *et al* (2015) also reported similar findings. Vegetable growers do not use inorganic chemical for pest and disease control and depends heavily on organic pest control measure. Lack of irrigational facilities in the area was also another great hinder in the production mechanism as farmers mostly cultivated under rain-fed conditions and depends heavily on monsoon rainfall. Irregularity or deficiency in monsoon during the crop period ultimately reduced in yields drastically. As commercial cultivation of high value crops like vegetables requires handsome initial investment and capital, the farmers in the region which are mostly poor and economically weak cannot effort costly inputs as timely intervention of government support and subsidies are not availed by the farmers. Very few farmers availed credit facilities from financial institutes for the cultivation expenses. Traditional method of seed storage and preservation as practice by the farmers do not substantiate much to meet the requirement of seed for the next season.

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Table 1. Socio Economic Status of the Respondent.

Socio Economic Variable	Frequency	Percentage
1. Age (Yr)		
Up to 30	38	31.67
30-50	49	40.83
More than 50	33	27.50
Total	120	100.00
2. Gender		
Male	72	60
Female	48	40
Total	120	100
3. Education Status		
Illiterate	12	10.00
Primary	41	34.17
Middle school	25	20.83
High school	26	21.67
Higher secondary	12	10.00
Graduate and above	4	3.33
4. Family Size		
Upto 2	8	6.67
3-5	67	55.83
6-8	36	30.00
Above 8	9	7.50
5. Size of Holding (Ha)		
Less than 1 (Marginal)	48	40.00
1-2 (Small)	44	36.67
3-4 (Medium)	20	16.67
Above 4 (Large)	8	6.67
6. Farming Experience		
upto 5	12	10.00
5 to 10	44	36.67
10 to 15	38	31.67
Above 15	26	21.67

It was also found out that lack of technical know how for optimizing crop output (53.33%), lack of adequate cultivable land for undertaking cultivation on commercial scale (52.50%), high cost of human labour (41.67%) and non- accessibility to farm mechanization (35.00%) were also other major constrains faced by the vegetable growers in the region. Gohain and Singh (2018) also concluded similar findings. The farmers had limited knowledge about scientific cultivations and mostly based on traditional cultivation without dependency on high external inputs which ultimately result in lower

Table 2. Production constrains faced by Vegetables growers.

Sr. No.	Production problems	Frequen- cy	Percent- age	Rank
1	Severity in pest and diseases infestation	79	65.83	I
2	Lack of irrigation facilities and high dependency on monsoon	77	64.17	II
3	Lack of institutional and government support	71	59.17	III
4	Non-availability of quality seed/ planting materials	66	55.00	IV
5	Lack of technical know how for optimizing crop output	64	53.33	V
6	Lack of adequate cultivable land for undertaking cultivation on commercial scale	63	52.50	VI
7	High cost of human labour	50	41.67	VII
8	Non- accessibility to farm mechanication	42	35.00	VIII
9	Non-availability of FYM/Compost, etc.	40	33.33	IX
10	Low return from the investment	40	33.33	X

inputs. As farmers in the region normally practiced subsistence farming for meeting their household because most of the farmers do not have enough land suitable for commercial cultivation coped with less availability of human labour and farm machineries and implements to clear thick jungle for establishment of farm. Farmers mostly relied on organic manures and as vegetable cultivation requires high fertility status of the soil and manure for optimum production, but it was found out that lack of organic supplements for plant nourishment by the farmer's results in lower output. Non-availability of FYM/Compost (33.33%) as well as low return from the investment (33.33%), were also found to be major constrains in vegetable cultivation in the region. Problems of crop failure were also reported in the form of heavy rain, scorching sunlight, wildlife, poor soils, *etc.* Haneef *et al* (2019) also concluded similar findings in their work on constraints faced by farmers practicing organic farming in hill region of Uttarakhand.

Marketing constrains

The data (Table 3) showed the most important constraint faced by vegetable growers in the region was lack of efficient marketing mechanism, as expressed by 66.67 per cent of the respondent followed by lack of institutional credit facilities

(65.83%), lack of proper transportation facilities (65.00%) and low marketable surplus (62.50%). Inefficiency in marketing mechanism with no market information and price movement/ price support system discouraged the vegetable growers in the region. It was also found out that vegetables growers in the region do not received credit facilities for finding proper market to sell out their produce at reasonable price coped with lack of storage facilities to enhance shelf life of their produce, resulting in heavy post harvest loses. It was also found out that, farmers do not produce adequate quantity of marketable surplus as they possess small land holding and limited to subsistence farming only. Azad *et al* (2014) in their study on problem perceived by the farmers in vegetable cultivation, also reported similar findings. Other major constrains faced by the vegetable growers in the region includes, lack of market intelligence and market information (52.50%), lack of warehouses / storage facilities in the area (50.83%), lack of government support price and pricing policy (41.67%), lack of marketing co-operative societies (34.17%) and exploitation by middlemen / commission agents (33.33%). Chahal and Kataria (2010) in their study on constraints in the production and marketing of maize in Punjab also reported similar findings. Poor market information by the farmers and insufficient

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Table 3. Marketing problems faced by Vegetables growers.

Sr. No.	Marketing problems	Frequency	Percentage	Rank
1	Lack of efficient marketing mechanism	80	66.67	I
2	Lack of institutional credit facilities	79	65.83	II
3	Lack of proper transportation facilities	78	65.00	III
4	Low marketable surplus	75	62.50	IV
5	Lack of market intelligence and market information	63	52.50	V
6	Lack of warehouses / storage facilities in the area	61	50.83	VI
7	Lack of government support price and pricing policy	50	41.67	VII
8	Lack of marketing co-operative societies	41	34.17	VIII
9	Exploitation by middlemen / commission agents	40	33.33	IX

Government support price act as stumbling block in marketing system of their produce efficiently. Lack of cooperative societies, market facilities, were also observed on the following research study area.

CONCLUSION

From the study on constrains faced by vegetables growers in Nagaland, India, it was found out that although there is a high potential streamlining organic vegetable in the state of Nagaland, farmers are faced with many production as well as marketing constrains. The study revealed that, severity in pest and diseases infestation, lack of institutional and government support, non-availability of quality seed, lack of efficient marketing mechanism, lack of proper transportation facilities and lack of warehouses facilities etc., are main constrains faced by the vegetable growers. Doubling farmer's income as envisaged can be achieved in the state through encouraging farmers to undertake vegetable production as the state has good scope in production of high value organic vegetable.

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