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Constraints faced by the organic farmers of Manipur state, India

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ABSTRACT

Manipur, one of the North-Eastern states in India has the advantage of the vast cultivated area, which has remained free of the contamination from chemicals, with very low or zero use of agrochemicals, can be instantly converted to organic farming. From the available records it is found that the conversion from conventional to organic farming is increasing over time in Manipur; although in a very slow rate. The activities of different organizations had influenced the farmers over large areas to convert as an organic cohort. The present study was undertaken tostudy the constraints faced by the farmers associated with organic farming. The study was conducted in four districts of Manipur (two each from hill viz. Ukhrul and Senapati, and valley viz. Imphal-West, Imphal-East), selected purposively because there was a tradition to cultivate crops organically. The study revealed that economic constraints were perceived highest followed by institutional andpolicy aspects, infrastructural and situational aspects, and managerial constraints. The lowest level of constraints faced on personal aspects. It is suggested that the government should establish organic input agencies, assured market for organic produce, setting up of policies to assure remunerative price to improve organic cultivation in Manipur.

Keywords **:** constraints, infrastructural facility, institutional policy, Manipur and organic farming

The North-Eastern (NE) Region of India has tremendous potential for development of organic farming (Ramesh, 2008). With a growing global demand for organic food, people living in the NE states can reap rich dividends from development of commercial organic farming.Initially, the North-Eastern States were identified for promoting organic farming, firstly because, the use of inorganic fertilizers and chemicals is meager in the regionand secondly, the system of production in the hills remained low input-low risk-low yield technology based and the average yield of most of the crop remained far behind national average (Bhagat and Gaurav, 2004). The region has remarkable advantages of fertile and organically rich soils, ample rainfall and water resources, river valleys, swamps and streams and great climatic diversity supporting diverse cropping possibilities. Manipur is characterized by certain features which may be seen as major constraints to development, but which can be used to the advantage of the region in the globalised economic scenario. Organic farming although having huge prospect in recent perspectives (Bhushan, 2017), when considered in whole Indian perspective is constrained with non-availability of standardized technology (Devi, 2015), sufficient organic supplements, bio fertilizers and local market for organic produce and poor access to guidelines, certification and input costs (Pandey and Singh 2012). With this backdrop, the present study was undertaken to identify and assess the extent of constraints faced by the organic farmers of Manipur which hinder the rate of spread up of organic farming in Manipur.

The study was conducted in two valley districts *viz.*,Imphal-West and Imphal-East; and two hill districts namely Ukhrul and Senapati of Manipur in 2017. All these four districts were purposively selected because these districts had a tradition to cultivate crops organically. Many farmers of these districts have been practicing organic farming for the last thirteen years and already registered as organic farmers since 2004. Four areas from each district on a cohort basis from the areas where registered organic farmers are concentrated were selected for the study. Four clusters from valley districts and four clusters from hill districts were selected. Each cluster comprises of around 50 to 60 farmers. 25 respondents from each clusters have been selected which comprised a total number of 200 farmers. Data were collected through a pre-tested interview schedule.

The extent of constraints was measured with different levels *viz*. 'low', 'medium' and 'high' with 1, 2 and 3 scores respectively. The mean score was calculated for each constraint. Z-test for comparison of characters between hill and valley organic farmers between Wilcoxon rank-sum test andKruskal-Wallis test with a pairwise comparison was employed to compare between geographical areas and constraint domains respectively.

Socio-personal characteristics of organic farmers of Manipur

Socio-economic characteristics were assessed on a comparative basis between hill and valley districts. Most of the respondents in valley districts have higher education, organizational participation, media exposure, larger land holding and assets possession, than the hill districts (Table 1). Respondents were more educated in valley district since there is availability of higher level educational institutes in the valley district when

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compared to hill district to some extent. Majority of respondents from valley districts had large farm size compared to hill since hill district are mainly covered with forest, so the farmers are involved in more farming activities gains more knowledge. Most of the farmers in valley district have high asset possession since they are mostly engaged in secondary occupation rather than agriculture which increase their income. Most the respondents have high organization participation and have high media exposure since most of the institute and department such as agriculture departments, research institutes are located in valley districts and there are certain Cooperatives, Self Help Groups, Farmers Club and voluntary organizations who used to take an active role in getting people together.

Majority, of the respondents from hill district were old aged and have more outside contactthan the valley district. The reason is that the farmers in hill districts possessed knowledge about organic farming since the farmers have been practicing traditionally. Farmers in hill districts have large family size which involved more in farming activities, gains more knowledge and they can share their knowledge and experience with the other members in the family so that they can also gain knowledge regarding improved agriculture.

Extent of constraints faced: comparative analysis between hill and valley

The organic farmers of Manipur although motivated by different government or non-government institution for certification, crop management, marketing etc., but they perceive that these are not sufficient for an all-round development of organic system in Manipur. They are suffering from many constraints in various extents. Manipur organic farmers are suffering from economic constrains like not profitable, less price compared to cost, high cost for transportation and packaging, high cost of commercial organic inputs; infrastructural and situational constraints like availability of organic inputs, lack of encouragement from fellow farmers, lack of marketing or export channel; personal constraints like lack of knowledge on package of practice, lack of family support, lack of knowledge about organic scheme; managerial constraints like higher pest incidence in organic crops, difficulty in management of organic system in inorganic surrounding, specialized management method for organic production; and institutional and policy constraints like lack of marketing facilities, lack of funding support, lack of training facilities, lack of certification facility and fluctuation of price *etc*.

The present section depicts a comparative picture between hill and valley regarding the extent of suffering of constraints. It is presented according todifferent domains of constraintswith Mean scores for each constraint.

From the table 2 it has been observed that the most important economic constrains faced by the farmers is high cost of commercial organic inputs with a mean value of 2.63 out of maximum score 3. This is due to lack of marketing and distribution network of bio-fertilizers and bio-pesticides are not so popular and also not readily available. The most important infrastructural and situational constraints faced by the farmers is lack of marketing and exporting channel with a mean score of 2.52. The reason is that no farmers sold the produce at premium price and it might be due to the fact that there was no platform to sell the organic produce, less-availability of organic inputs and buyers and lack of awareness about organic markets. The findings are in line with the studies of Lanting (2007). The most important constraints are lack of awareness about organic schemes (Mean score=2.18). The findings are in lines with the studies of Venkatram and Mani (2006). The reason might be due to lack of technological knowledge and awareness regarding the recommended practices, lack of confidence, lack of purchasing power, high cost and untimely availability of recommended inputs *etc.* The major managerial constraint faced by the organic farmers of Manipur was management of organic farming in inorganic surrounding, disease and pest management in organic crops. The main institutional constraints faced by the farmers were lack of certification facility for expanding the products for distant market (2.65). The probable reasons are the inability of the government policy making level to take a firm decision to promote organic agriculture.The certifying agencies are inadequate, the recognized green markets are non-existent, the trade channels are yet to be formed and the infrastructure facilities for verification leading to certification of the farms are inadequate.The findings were in line with the studies of Pandey and Singh (2012).

Extent of perception of constraints: comparison between domains of constraints

This section compares among the constraint domains. Table 3 shows the mean scores of different domains calculated from 200 organic farmers along with the ranks. It is seen from the table that farmers perceived highest levels of constraints on economic aspects with a mean score of 2.10 followed by institutional and policy aspects (Mean value=2.00), infrastructural and situational aspects (Mean value=1.81) and managerial (Mean value=1.71). The lowest level of constraints faced on personal aspects (Mean value=1.61). Knowledge on these domains is considerably less because modern and commercial technologies fall under these domains which were less known among all the other technologies. The

Table 1: Socio-personal characters of the organic farmers of Manipur

Characters	Unit of measurement	Range	Hill	Valley	Manipur	Z-value (p-value)
Age	Year	30-68	53.39	50.79	52.09	6.37 (p<0.001)
Education	Year of education	8-17	11.93	13.47	12.70	7.03 (p<0.001)
Org. participation	Score	3-15	8.23	10.91	9.57	11.90 (p<0.001)
Outside contact	Score	5-15	9.80	8.65	9.23	4.88 (p<0.001)
Media exposure	Score	10-22	16.17	19.29	17.73	14.99 (p<0.001)
Land holding	Acre	0.30-6.00	0.67	1.10	0.89	14.99 (p<0.001)
Asset possession	Score	21-54	27.18	41.52	34.35	4.73 (p<0.001)

Table 2: Extent of constraints faced: comparative analysis between hill and valley

Sl. No.	Constraints	Mean score			Rank
		Hill	Valley	Manipur	
	Economic constrains (Domain mean value for Manipur=2.10)				
1.	Not profitable	0.45	1.13	0.79	**IV**
2.	Less price compared to cost	2.69	2.52	2.61	**II**
3.	Extra cost for transportation and packaging	2.65	2.10	2.37	**III**
4.	Commercial organic inputs are very costly	2.66	2.61	2.63	**I**
	Wilcoxon Rank-sum test between Hill and Valley (W=14.00; P>0.24)				
	Infrastructure and situational (Domain mean value for Manipur=1.81)				
5.	Organic inputs are not available locally	2.29	1.69	1.99	**II**
6.	Neighbours are not encouraging	1.29	0.55	0.92	**III**
7.	Lack of marketing / export channel	2.65	2.39	2.52	**I**
	Wilcoxon Rank-sum test between Hill and Valley (W=9.00; P>0.51)				
	Managerial constrains (Domain mean value for Manipur=1.71)				
8.	Disease and pest problem in organic farming	1.74	2.05	1.90	**II**
9.	Organic system in inorganic surrounding	1.60	2.36	1.98	**I**
10.	Cumbersome method of organic farming	1.35	1.14	1.25	**III**
	Wilcoxon Rank-sum test between Hill and Valley (W=9.00; P>0.51)				
	Institutional and policy constrains (Domain mean value for Manipur=2.0)				
11.	Support from Govt. or NGO	1.99	2.46	2.23	**III**
12.	Lack of expert advice in hour of need	1.39	2.04	1.72	**VI**
13.	No funding support (Govt. or NGO)	2.19	2.38	2.29	**II**
14.	No training facilities	2.14	2.10	2.12	**IV**
15.	No certification facility	2.61	2.69	2.65	**I**
16.	SHG/farmers club are not encouraging	1.00	0.98	0.99	**VII**
17.	Price fluctuation	1.70	2.27	1.99	**V**
	Wilcoxon Rank-sum test between Hill and Valley (W=44.00; P>0.27)				
	Personal (Domain mean value for Manipur=1.61)				
18.	Lack of knowledge on package of practice	2.07	1.67	1.87	**II**
19.	Do not get support from family	1.00	0.56	0.78	**III**
20.	No knowledge about organic scheme	2.43	1.93	2.18	**I**
	Wilcoxon Rank-sum test between Hill and Valley (W=8.00; P>0.27)				

Table 3: Comparison between different domains of constraints

Constraint domains	Mean Score	Rank	Mean Rank	Constraint domains				
				EC	ISC	PC	MC	IPC
Economic (EC)	2.10	I	695.82	-	217.76*	365.22*	315.46*	78.15
Infrastructural and situational (ISC)	1.81	II	617.67		-	147.46*	97.7*	139.61*
Personal (PC)	1.61	III	478.06			-	49.76	287.07*
Managerial (MC)	1.71	V	330.60				-	237.31*
Institutional and policy (IPC)	2.00	IV	380.36					-

Note: Kruskal-Wallis H-test =236.78 (p<0.001); Replication (No. of farmers) = 200 each
Critical Rank difference=81.15 (at 0.05 level)

Kruskal-Wallis test value (H=236.78; p<0.001) concludes that the extents of perception on different domains are statistically different. A pairwise analysis for comparison between domains revealed that economic and institutional and policy constrains are statistically at par. At the same time, personal and managerial constraints are also at par statistically. According to the statistical analysis results there are three domains of constraints in general.

Despite of many privileges in hill farming, Manipur also faces many constraints related to infrastructure, institutional, managerial and situational *etc*. The major constrains faced by the farmers are less price of products compared to the cost, extra cost for transportation and packaging, high cost of commercial organic inputs, less availability of organic inputs, lack of marketing and exporting channel, lack of knowledge about organic practice and low awareness about certain schemes, problem in disease and pest management in organic crops and problem in management of both organic and inorganic system, support from govt. or NGO for marketing/reluctant government, lack of expert advice in hour of need, no funding support (Govt. or NGO), lack of training facilities, lack of certification facility for expanding the products for distant market and price fluctuation.Among different domains, it is seen that economic and institutional and policy constraints are the most severe followed by infrastructural & situational constraint. Personal and managerial are two aspects which are felt as 3rd ranked constraints. A concerted effort from the Government will help in spreading organic farming in Manipur.

REFERENCES

Bhagat Brooke and Gaurav. 2004. Organic by default- The Irony of organic farming in India. Retrieved from http://ecoworld.com/features/2004/06/26/organic-farming-in-india

Bhushan, M., Mandal, T., Aditya. and Kumar. K. 2017. Problems and prospects of organic farming in Samastipur district, Bihar, India. *J. Crop and Weed,* **13**: 51-54.

Devi, G., Murugesh, M. S. and Geethakumari, V. L. 2015. Standardising agro-techniqes of organic rice for ecofriendly production. *J. Crop and Weed*, **11**: 190-93.

Jaganathan, D., Bahl, R. and Padaria, R. N. 2008. Prospects of Organic farming in India: An appraisal. *J. Global Commun.*, **1**: 181-93.

Lanting, H. 2007. Building a farmers owned company (*Chetana*) producing and trading fair trade–Organic products. *Proc. the Nat. Work. New Paradigm for Rainfed Farming*, published by WASSAN, New Delhi.

Pandey, J. and Singh, A. 2012. Opportunities and Constraints in Organic Farming: an IndianPerspective. *J. Sci. Res.*, **56**: 47-72.

Ramesh, P. 2008. Organic Farming Research in Madhya Pradesh. Organic Farming in Rainfed Agriculture Opportunities and Constraints. Central Research Institute for Dryland Agriculture. Hyderabad.

Venkatram, R. and Mani, K. 2006. Prospects and constraints in adoption of organic farming- A micro level study in Tamil Nadu. *Agric. Econ. Res. Rev.*, **19**: 228.