Original Research Article

KNOWLEDGE LEVEL AND ADOPTION BEHAVIOUR OF FARMERS TOWARDS ORGANIC FARMING PRACTICES IN MOKOKCHUNG DISTRICT OF NAGALAND

ABSTRACT

In this modern world, where every sector tends to adopt scientific and innovative techniques,~~;~~ agriculture turns out to be a distinct sector by adopting traditional organic farming practices. This implies the people's concern towards health, environment and soil health. Thus, farmers are now organic driven and there arises a need to understand the knowledge and adoption level of farmers towards organic farming practices. Descriptive research design was adopted for the study. Four villages in Longchem block of Mokokchung district of Nagaland is selected purposively. ~~30~~ 120organic farmers from 4 villages constitute the primary respondents of the study. Data were collected from the respondents through personal interview method with the help of pre-tested schedule. Based on the findings, it was observed that higher proportion of organic farmers had medium level of knowledge (59.20%) and medium level of adoption (74.10%) respectively. ~~Similarly, e~~Educational level, information source, ~~and~~ risk orientation and land holding of the organic farmers had positive and significant relationship with the knowledge and adoption level of the organic farmers. Vocational training programmes should be organized and adequate marketing infrastructure should be established for input procurement and marketing or organic produce.

Keywords:*Organic farming, Mokokchung district, Knowledge level, Adoption level, Eco-friendly technologies and Socio-economic profile of organic farmers.*

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INTRODUCTION

In the era of scientific world, ~~now~~ everyone have eventually~~s~~ felt the consequences of prolonged and over usage of chemicals in crop production activities, which ~~had~~ resulted in ~~undesirable effects in~~ human health hazards and ~~polluted the~~ environmental pollution. Though, While increasing the farmers' income, green revolution technologies have ~~tend to increase the farmer's income,~~ degraded the land. Now, the concern rises on the food security and nutrition. As people got exposed to the ill-effects of these contaminated foods, they shifted to organic food products, increasing the demand for organic produces in the market. This shift in consumption

pattern encouraged farmers to adopt organic production practices.~~Hence, more people were preferring organic food products; thus farmers were motivated to adopt organic production practices only~~. The benefits of ~~By adopting~~ organic agriculture gets reflected in land preservation and sustained fertility.~~, farmers can preserve their land and sustain their land fertility~~. According to Union Ministry of Agriculture and Farmer's Welfare, in India, around 2.78 million hectare of cultivable land was under organic cultivation. Kumar et.al., (2017) commented that organic farming promotes and enhance the health of the agro-ecosystem.

In organic farming, the use of eco-friendly technologies are~~were~~ preferred and the use of chemical fertilizers and pesticides are~~were~~ banned to sustain the soil health ~~of soil~~, ecosystem and people. Though farmers tend to adopt organic cultivation, the emerging constraints ~~in organic farming~~ includes yield reduction, difficulties in adoption of bio-control agents and lack of proper marketing function within domestic market. Manida and Nedumaran (2021) emphasized that majority of the organic farmers were young aged with medium level of annual income. Similarly, Vijayarajeet.al., (2018) observed that organic farmers possess medium level of information source utilization and earns medium level of annual income. Whereas, Suji and Sathish (2020) revealed that most of the farmers had medium level of adoption of eco-friendly technologies. Upadhyayet.al., (2020) reported that higher percentage of the tribal paddy growers had high level of knowledge about eco-friendly practices of paddy crop. Eventuallly, Suji and Sathish (2020) commented that the education and farming experience of the farmers had positive and significant relationship with the adoption level of eco-friendly technologies. Therefore, in this context, the present study has been proposed with the following objectives;

1. To assent the socio economic profile of the respondents.
2. To determine the knowledge and adoption organic farming by the respondent.
3. To find out the association between socio-economic knowledge and adoption of organic farmers.

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Comment [Ma3]: Better use this reference as supporting your findings under table no. 1.

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METHODOLOGY

Descriptive research design was adopted for the study since it describes the attributes of the organic farmers. Mokokchung district of Nagaland was selected purposively since it possess maximum area under organic cultivation. In Mokokchung district, Long chem ~~.B~~block is selected since holds the maximum area under organic cultivation practices. Four villages namely, Saring, AoNokphu, Nokphu and Yajang B were selected from~~in~~ Long chem block. From each village, 30 respondents were selected though random sampling method.~~.~~ ~~t~~Thus, from four villages a total of 120 organic farmers were selected as primary respondents for the study. Data were collected from the respondents through personal interview method with the help of pre-tested schedule. The collected data were categorized, tabulated and analyzed with suitable statistical tools.

Comment [Ma8]: Please describe how you have defined knowledge level and adoption level. Also mention how you have measured them. Whether you developed your own scale or you have used some other's scale must be clearly mentioned in methodology section.

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RESULTS AND DISCUSSION

The socio-economic profile of the organic farmers were studied under various characteristics like age, educational level, monthly income, type of family, size of family, caste, land holding, sources of information, innovativeness and risk orientation. The findings are~~were~~ presented in table.1.

Table.1. Socio-economic profile of the organic producing farmers (n=120)~~growers (n=120)~~

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S. No.	Socio-economic profile	Characteristics	Response	
			Frequency	Percentage
1	Age	Young	31	25.83
		Middle	48	40.00
		Old	41	34.17
2	Educational level	Illiterate	21	17.50
		Intermediate	24	20
		Primary	53	60.00

		High school	22	18.33
		Graduate & above	5	4.17
3	Monthly income	Low	28	23.30
		Medium	59	49.20
		High	33	27.50
4	Family type	Joint family	34	28.30
		Nuclear family	86	71.70
5	Family size	Small	48	40.00
		Medium	43	35.80
		Big	29	24.20
6	Caste	ST/SC	81	67.50
		OBC	26	21.67
		General	13	10.83
7	Land holding	Below 1 hectare	57	47.50
		1-2 hectare	24	20.00
		2-3 hectare	22	18.30
		Above 3 hectares	17	14.20
8	Sources of information	Low	22	18.30
		Medium	72	60.00
		High	26	21.70
9	Innovativeness	Low	21	17.50
		Medium	54	45.00
		High	45	37.50
10	Risk orientation	Low	25	20.80
		Medium	73	60.90
		High	22	18.30

From table.1, it can be seen that majority of the organic farmers were middle aged (40%), followed by old aged (34.17%) and young aged (25.83%). More than half of the farmers had primary level of education (60%), followed by high school (18.33%), primary (17.50%) and

graduate and above (4.17%) level of education. Half of the respondents earns medium level of monthly income (49.20%), followed by high (27.50%) and low (23.30%) level of monthly income. Higher proportion of the organic farmers possessed nuclear family (71.70%), followed by 28.30 per cent of organic farmers had joint family. Majority of the farmers had small size of family (40%), followed by 35.80 per cent had medium family size and remaining 24.20 per cent had big family size.

Meanwhile, it can be seen that higher percentage of the organic farmers belong to general (10.83%), followed by OBC (21.67%) and SC/ST (67.5%). Less than half of the organic farmers had below 1 ha (47.50%) of land holdings, followed by 20 per cent had 1-2 hectares of land holdings, 18.30 per cent had 2-3 hectares of land holdings and only 14.20 per cent had above 3 hectares of land holdings respectively. Most of the organic farmers had medium level of sources of information (60%), followed by high (21.70%) and low (18.30%) level of information sources respectively. Nearly half of the organic farmers had medium level of innovativeness, followed by high (37.50%) and low (17.50%) level of innovativeness respectively. Higher proportion of the organic farmers had medium level of risk orientation (60.90%), followed by low (20.80%) and high level (18.30%) of risk orientation respectively.

The knowledge level of the organic farmers was studied and presented in table.2.

Table.2. Knowledge level of the organic farmers (n=120)~~s (n=120)~~

S. No.	Knowledge level	Frequency	Percentage
1	Low	24	20.00
2	Medium	71	59.20
3	High	25	20.80

From table.2, it can be seen that most of the organic farmers had medium level of knowledge (59.20%), followed by high (20.80%) and low (20%) level of knowledge respectively.

The adoption level of the organic farmers was studied and presented in table.3.

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Table.3. Adoption level of the organic farmers (n=120)

~~(n=120)~~

S. No.	Adoption level	Frequency	Percentage
1	Low	11	09.20
2	Medium	89	74.10
3	High	20	16.70

From table.3, it was evident that nearly three-fourth of the organic farmers had medium level of adoption (74.10%), followed by high (16.70%) and low (9.20%) level of adoption respectively.

The association level of the organic farmers with their knowledge level has been~~was~~ presented in table.4.

Table.4: Association between the socio-economic profile of the organic farmers with their knowledge level

S. No.	Variable	r-value	Regression co-efficient	Standard error	t-value
X_1	Age	-0.141	-0.003	0.103	0.975 ^{NS}
X_2	Educational level	0.112*	0.121*	0.054*	0.028*
X_3	Monthly income	0.062	0.038	0.060	0.517 ^{NS}
X_4	Family type	-0.038	-0.002	0.060	0.963 ^{NS}
X_5	Family size	-0.070	-0.060	0.050	0.236 ^{NS}
X_6	Caste	-0.152	-0.19	0.075	0.796 ^{NS}
X_7	Land holding	0.114**	0.118**	0.064**	0.071**
X_8	Sources of information	-0.148*	-0.076*	0.031*	0.017*
X_9	Innovativeness	0.181*	0.126*	0.071*	0.078*
X_{10}	Risk orientation	-0.046*	-0.130*	0.062*	0.037*

(* - Significant at 5%, **-Significant at 1% ,^{NS} – Not significant)

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From table.4, it can be seen that variables age, monthly income, family type, family size and caste had non-significant relationship with the knowledge level of the respondents. Similarly, educational level, sources of information, innovativeness and risk orientation of the organic growers had significant relationship with the knowledge level of the respondents at 5 per cent level of significance , whereas land holding of organic farmers had significant relationship with the 1 per cent level of significance respectively.

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The association level of the organic farmers with their adoption level was presented in table.5.

Table.5. Association between the socio-economic profile of the organic farmers with their adoption level

S. No.	Variable	r-value	Regression co-efficient	Standard error	t-value
X_1	Age	0.125	0.110	0.067	0.104 ^{NS}
X_2	Educational level	-0.112	-0.236	0.105	0.027*
X_3	Monthly income	-0.095	-0.063	0.035	0.072**
X_4	Family type	0.124	0.219	0.122	0.076**
X_5	Family size	0.148	0.125	00175	0.486 ^{NS}
X_6	Caste	0.175	0.120	0.026	0.563 ^{NS}
X_7	Land holding	0.013	0.099	0.057	0.028*
X_8	Sources of information	-0.168	-0171	0.063	0.008*
X_9	Innovativeness	0.144	0.118	0.064	0.071**
X_{10}	Risk orientation	0.046	0.155	0.063	0.015*

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(* - Significant at 5%, **-Significant at 1% , ^{NS} – Not significant)

From table.5, it can be seen that variables age, family size and caste had non-significant relationship with the adoption level of the organic farmers. Meanwhile, educational level, land holding, sources of information and risk orientation had significant relationship at 5 per cent level of significance, while innovativeness, monthly income, family type of the organic growers had significant relationship at 1 per cent level of significance.

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CONCLUSION

It can be concluded that, higher proportion of organic farmers had medium level of knowledge (59.20%) and medium level of adoption (74.10%) respectively. Similarly, educational level, information source, ~~and~~ risk orientation and land holding of the organic farmers had positive and significant relationship with the knowledge and adoption level of the organic farmers. Vocational training programmes should be organized and adequate marketing infrastructure should be established for input procurement and marketing or organic produce. Training institutions, NGOs and extension functionaries who are in constant contact with farming community need to take into account the profile characteristics while planning and executing the agricultural development programmes as these characteristics were found to influence their knowledge about organic farming.

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REFERENCE

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