The Perception of Farmers toward Organic Farming in M.P. (A Case Study of Bhopal District)

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ABSTRACT
Agriculture is the backbone of India. All changes in agriculture will result in the life of human and nature and vice-versa. There has been drastic change in the way we perform farming in past few decades. It is characterized mainly by the adopting of machinery and chemical technology in agriculture, replacing the traditional knowledge. The big change taken place during green revolution. Such change has resulted in environmental pollution, degradation of soil health, loss of bio-diversity and others. As the days went by, the farmers across. The nation has switched to modern agriculture without realizing the consequences the effects of modern agriculture has resulted in deterioration in soil quality, drastic impacts on availability of agriculture producer; besides impacting health and lifestyle of the people. Organic farming, which has been also known as traditional farming, has come as an alternative; still the farmers those who have been modern agriculture are hesitate to practice the Organic Farming. Hence, the Knowledge, Attitude and Practice on organic farming largely influence their willingness to switch over to the organic farming. Thus, the present study focuses on the knowledge, attitude and practice on organic farming among the Bhopal districts.

Keywords - Bio diversity, Organic, Lifestyle Pollution

I INTRODUCTION

Organic Farming has been considered as the immediate demand for the world population which is suffering a lot by the chemical based food grains, vegetables and fruits. Only washing fruits & vegetables before consumption is not be sufficient to reduce residual effect of harmful chemicals. Now a day, like in every field, farmers are running in the race of increasing their production by using heavy dosage of chemical fertilizers, growth hormones, pesticides, herbicides, fungicides and many other harmful chemicals. In spite of the use of all these chemicals, the numbers of pests and diseases are continuously increasing, so is the amount of chemical to cure them. This is not only affecting the health of the consumers but also harmful for the health of our mulching animals, Mother Earth and environment.

To overcome all such problems, **Organic Farming** is considered as one of the solution. The concept of organic farming precisely follows the principles of eco-system and networking with nature. It is totally different from chemical farming both in philosophy and practice.

According to the definition given by **USDA**"organic farming is a system which avoids or largely excludes the use of synthetic inputs (such as fertilizers, pesticides, hormones, feed additives etc.) and to the maximum extent feasible rely upon crop rotations, crop residues, animal manures, off-farm organic waste, mineral grade rock additives and biological system of nutrient mobilization and plant protection".

India is home to 30 per cent of the total organic producers in the world, but accounts for just 2.59 per cent (1.5 million hectares) of the total organic cultivation area about 57.8 million hectares, according to the World of Organic Agriculture 2018 report. At the same time, most of the organic farmers are struggling due to having poor policy measures, rising input costs and limited market, according to a study by the Associated Chambers of Commerce and Industry of India (ASSOCHAM) and global consultancy firm Ernst & Young. The aim of this study was therefore to evaluate farmers' perception towards organic farming and related issues associated with it. The present study was conducted in Bhopal district of Madhya Pradesh, India. The state of Madhya Pradesh consists of 39 districts; out of these a convenient and random sampling technique was used to select 100 respondents from 3 villages of Bhopal district.

II LITERATURE REVIEW

- **A lots and Ring (1991)** in his study concluded that the economic aspect of organic farming with the help of two existing organic farms. They try to find out economic parameters and try to scrutinize the financial situation. This study resulted that organic farming is highly qualified to reach a comparable income; there is further increase of the demand for organically based products which shows rise in income of organic farmers.
- **Jain and Bhattacharya (2000)** observed that five of constraints, in adoption of organic farming technology. Majority of the respondents (68%) reported non-awareness about bio-fertilizer product. Other constraints were lack of practical oriented training 6 (64%), lack of handling skill (56%), lethargy due to cumbersome techniques (54%), lack of confidence on bio-fertilizer input and poor quality of bio-fertilizer lack of bio-fertilizer supply centre in village were also reported by the respondents.
- **Laepple and Donnellan (2008)** his study focuses on the role that the attitudes of farmers play in identifying drivers and barriers to the intention to convert to organic farming using the theory of planned behaviour. To set this paper in context, it is

part of a larger study which aims to explain the decision to adopt or not to adopt organic farming over time with respect to a variety of factors such as economic, institutional and socio-economic as well as comparing the attitudes and objectives of organic and conventional farmers.

- **Kotresha, S. S (2014)** in his study investigated the knowledge, and attitude of vegetable growers towards organic farming. A survey method through face-to-face interview by using structured schedule was used to collect data from a total of 30 vegetable growers in Maddurtaluk of Mandya district which was selected by using simple random sampling method. The findings of the study show that the knowledge of the respondents on organic farming especially pertaining to the use chemical insecticides, herbicides and fertilizers is need to be improved, their attitude is also still negative, and they are dependent on conventional practices (i.e. chemical) specially to control pests and diseases.
- **Soumya. K. M. (2015)** studied the scope of organic farming as an effective way to promote sustainable agriculture development in India, and find ways to overcome socio economic and environmental problems arising from unsustainable farm practices, increase agriculture contribution to India's GDP, tell importance of organic farming to reduce poverty, generate rural employment, enhance regional integration, accelerate rural development and improve productivity in agriculture.
- **Suresh and Himanshu (2015)** aim to studied and evaluate farmers' perception of organic farming and emerging issued associated with it. The study area is Khargon district of Nimar M.P., India. In which author find out positive perception of farmers towards organic farming revelled that around 67% of respondents are in favour of organic farming to attaining improved productivity, farm income and food as well as environmental safety point of view.
- **Sakthi Devi (2017)** in her study on attitude of farmers towards organic farming discussed about farmers' attitude towards organic farming and issues associated with it like sustainable development, environment protection, soil degradation, etc. and how to overcome it. This study was conducted in Erode District. She found out that the farmers do not have a good level of knowledge mainly focused on promoting organic farming as a profitable alternative to conventional farming could have a positive impact on the tendency for conversion.
- **Hongbin Liu and Xiaojuan Luo (2018)** in his research Understanding farmers' perception and behaviour towards farmland quality change in North East China and research have main results to have important implications for policymakers with regard to promoting land protection activities and how to achieve the goal of sustainable land use.
- **Oyedele and Okunlola (2018)** concluded their research paper- The study examined small scale farmers' perception about organic farming status in Ondo state, Nigeria with a view of expanding. Their funding showed that majority of the respondents practiced integrated organic farming with 76.6 percent while only 23.3 percent of the farmers' practiced pure organic farming.
- **Anand and Mishra (2018)** in this study on farmers' perception towards organic inputs in selected districts of Gujarat was carried out to know farmers' perception towards organic inputs and to find out awareness level and satisfaction level about organic input. And their objective is to know the major market competitors of Bharat Krushi Care Pvt. Ltd and to study the purchasing pattern of organic input. They found that most of the farmers were highly aware about the bio product and the familiarity of the organic inputs among farmers depends on the promotional efforts of the marketers.

I choose this topic because there are not many researchers who have put efforts to do a survey and collect primary data to know the farmers' perception towards organic farming especially till yet no research take place in Bhopal, M.P. The very few done are based on secondary data and so the results are not concrete enough to be very useful for many people, companies and organization for e.g. for farmers trying to opt organic farming, for people who want to study organic farming, for companies who sale organic fertilizers and plan out marketing strategies and capture the market in organic fertilizers, tools and equipment use in organic farming.

III OBJECTIVES

(a) To study farmers' perception towards converting non-organic to organic farming.
(b) To study the personal, socio-economic and psychological characteristics of farmers in Bhopal.
(c) To study the history of organic farming and how far has it reached.
(d) To find out the facts and figures about the related aspects.
(e) To study the impact of organic farming.

IV RESEARCH METHOD TO BE SELECTED

Investigator selected descriptive Survey Method for the study with the help of questionnaire.

(a) Study Area - The study was conducted in selected villages in Bhopal district (Barkhera Pathani, Papalia Pende Khan, Bagsewaniya, bagmugaliya village) of Madhya Pradesh, India.

(b) Data Collection - The study deals with farmers' perception towards organic farming and related aspects. The data has been basically collected from the secondary sources such as scholarly articles, reviews, research papers, reports of various companies published research reports etc. Primary data has also been collected for

knowing the actual perception of farmers regarding organic farming and their experience in organic farming among different regions of Bhopal district.

For collecting the primary data questionnaire were filled by 100 respondents from various age groups and from different regions. Convenience sampling was done for this. The questionnaire included questions regarding their personal information which include age, education, income group etc., and general information like land holding, cattle, tools and techniques they use, and their views about organic farming.

The questionnaire basically tried to find out the perception of farmers. The descriptive statistical tools like bar graphs, pie charts, etc. have been used for the interpretation of the data. The extensive literature reviews of published books, research papers and newspapers articles have been undertaken. For the recent trends and developments, government official websites and internet were also explored. The structured questionnaires will be formed in consideration with the view of variables by help of the research guide. The data had been collected from farmers by doing field visit.

(c) Data analysis tools

Statistical techniques like data validity test, reliability test; frequency distribution, correlation and regression were used. Data were analysed with the IBM SPSS 25.0 latest version of software package and Microsoft Excel.

V ANALYSIS OF THE SURVEY

Farmer's perception is the study of individuals groups, or firms and all the activities associated with the farmers, including the farmer's emotional, mental and behavioural response that precede or follow these activities.

It is basically examining how emotions, attitudes and preferences affect farmer's behaviour. The characteristics of individual farmers such as availability of inputs, cost of inputs, demographics and behavioural variables such as usage rates, loyalty, usage seasons, availability of fertilizers, tools and techniques, willingness to provide referrals, in an attempt to understand farmers wants and their perception regarding organic farming. The study of farmers' perception also investigates the influences on the farmers, from various villages, groups, friends, reference groups, and society in general. The study is concerned with all the aspects of organic farming from small private farmers to big farmers who done organic farming on big scale. Farmer's perception is also concerned with all other farmers involved, either direct or indirectly, in production of organic farming and including opinion farmers and landlords. Research has shown that farmers perception because of change in farmers behaviour as a human being is difficult to predict, even for expert in this field.

This section is analysis of the survey done to know the farmers' perception towards organic farming. The answers of the respondents were recorded and are analysed. All the aspects which can affect the farmers' perception towards organic farming and that were covered in the questionnaire. Some of them can be changes in cost and neighbours preference etc. This section tries to bring out the present perception of farmers which may be unknown till date.

Table 1
Gender Frequency

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	82	82.0	82.0	82.0
	Female	18	18.0	18.0	100.0
	Total	100	100.0	100.0	

Table 2
Education Frequency

Education					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Illiterate	20	20.0	20.0	20.0
	High School	48	48.0	48.0	68.0
	Graduation	21	21.0	21.0	89.0
	Post-graduation	9	9.0	9.0	98.0
	Ph.D.	2	2.0	2.0	100.0
	Total	100	100.0	100.0	

Table 3
Occupation Frequency

Occupation					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Main	54	54.0	54.0	54.0
	Secondary	46	46.0	46.0	100.0
	Total	100	100.0	100.0	

Table 4
Correlations between education and know organic farming:

Correlations			
		Education	Know organic farming
Education	Pearson Correlation	1	.046
	Sig. (2-tailed)		.652
	N	100	100
Know organic farming	Pearson Correlation	.046	1
	Sig. (2-tailed)	.652	
	N	100	100
**. Correlation is significant at the 0.01 level (2-tailed).			

Table 4. displays the analyzed data concerning correlation between education and know organic farming. The obtained value of coefficient of correlation 'r' for 0.046. The minimum significant value of coefficient of correlation 'r' as per the standard table of correlation should be 0.254 for n=100.Since the calculated value is less than the tabulated value of 'r' at 0.01 level of significance. It means that there is high correlation definite between education and know organic farming.Therefore, the null hypothesis (Ho-1) stated "There is no significant relationship between education and farmers' is accepted.

Table 5
Correlation between size of land and investment in organic farming:

Correlations			
		Size of land	Do invest in organic farming
Size of land	Pearson Correlation	1	.043
	Sig. (2-tailed)		.673
	N	100	100
Do invest in organic farming	Pearson Correlation	.043	1
	Sig. (2-tailed)	.673	
	N	100	100
**. Correlation is significant at the 0.01 level (2-tailed).			

Table 5. displays the analyzed data concerning correlation between size of land and investment in organic farming. The obtained value of coefficient of correlation 'r' for 0.043. The minimum significant value of coefficient of correlation 'r' as per the standard table of correlation should be 0.276 for n=100.Since the calculated value is less than the tabulated value of 'r' at 0.01 level of significance. It means that there is high correlation definite between size of land and investment in organic farming. Therefore, the null hypothesis (Ho-2) stated "There is no significant relationship between size of land and investment in organic farming is accepted.

Table 6
Correlation between investment in organic farming, Certified organic farmer, Use of government scheme:

Correlations				
		Do invest in organic farming	Certified organic farmer	Use of government scheme
Do invest in organic farming	Pearson Correlation	1	.081	.276**
	Sig. (2-tailed)		.423	.005
	N	100	100	100
Certified organic farmer	Pearson Correlation	.081	1	.132
	Sig. (2-tailed)	.423		.191
	N	100	100	100
Use of government scheme	Pearson Correlation	.276**	.132	1
	Sig. (2-tailed)	.005	.191	
	N	100	100	100
**. Correlation is significant at the 0.01 level (2-tailed).				

Table 6. Displays the analyzed data concerning correlation between investment in organic farming and use of government scheme. The obtained value of coefficient of correlation 'r' for 0.276. The minimum significant value of coefficient of correlation 'r' as per the standard table of correlation should be 0.254 for n=100.Since the calculated value is more than the tabulated value of 'r' at 0.01 level of significance. It means that there is low correlation definite between size of land and investment in organic farming. Therefore, the null hypothesis (Ho-3) stated "There is no significant relationship between investment in organic farming and use of government scheme is rejected.

VI LIMITATIONS OF THE STUDY

(a) The study is limited to Bhopal city only.
(b) The study is restricted one type of agriculture form i.e., organic farming.
(c) The study is delimited to four villages Barkhera Pathani, Papalia Pende Khan, Bagsewaniya, bagmugaliya village in Bhopal District of Madhya Pradesh.
(d) The size of sample taken for study is small i.e. of 100 respondents only.
(e) Time constraint was also one of the limitations of the research as people were really reluctant to fill up the questionnaires.

(f) Translation problem occur to fill up questionnaires as it is prepared in English.
(g) To collect the questionnaires back was a time consuming task.

VII CONCLUSION

The findings of this study come across positive perception of organic farming with significant relationships between age, educational background, size of farm, benefits of investment in organic farming, and social factors. This prevails that the farmers' communities will have high adoption rate of innovations related to organic farming and other agricultural policies. The concern, however, is that recent studies in the other geopolitical zone in M.P. report low practice of organic farming. This gap between knowledge or perception and practice can be bridged by better understanding of the system and government provision of enabling environments (e.g. provision of credit facilities, training on technicalities) to farmers. This study also revealed some unexpected outcomes such as the cost associated with organic farming does not affect the farmer's attitude. May be farmers focus is on yield and profit (benefit aspect) but not cost of inputs in the agriculture. Other factors like knowledge, nature and gender have no explanatory significance towards attitude of the farmers. Descriptive statistics and factor analysis were used to present the findings of the study while the correlation use to find out relation between educations and know organic farming, correlation between size of land and investment in organic farming, and correlation between invest in organic farming, certified organic farmer, Use of government scheme. The Study revealed that of respondents have positive relation between education level and known organic farming with r= 0.046 accepted significance. Respondents have positive relationship between size of land and investment in organic farming with r= 0.043 accepted significance. At last, the respondents have negative relationship between invest in organic farming, certified organic farmer, Use of government scheme with r= 0.276 rejected significance. Concluded that farmers' perception is negative towards organic farming in these specific villages of Bhopal district. As they choose to go with their old habits of doing chemical farming.

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