



Research Paper

Reasons for shifting over to organic farming and problems faced by paddy growers under organic farming in Tungabhadra command area of Karnataka

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ABSTRACT : Rice is one of the important food crops, 60 per cent of the world population and 80 per cent of Asian population depend on rice as their staple food. Organic farming is practiced in India since thousands of years. The great Indian civilization thrived on organic farming and was one of the most prosperous countries in the world, till the British ruled it. In traditional India, the entire agriculture was practiced using organic techniques, where the fertilizers, pesticides etc. were obtained from plant and animal products. In this regard, the present study is an attempt for problems faced by paddy growers under organic farming in Tungabhadra Command Area in Karnataka state. The study revealed that, it was observed that majority of the sample farmers expressed non-availability of labour as the major problem, followed by problem of non-availability of information on organic farming, non-availability of organic manures, non-availability of biopesticides, limited and irregular power supply, non-availability of seed material, incidence of pests and diseases and non-availability of water for irrigation as the major problems in production of paddy organically.

KEY WORDS : Rice, Organic farming

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INTRODUCTION

Our agricultural manipulation should not disturb the natural ecosystem and resource base for the future generation. Rice is one of the important food crops, 60 per cent of the world population and 80 per cent of Asian population depend on rice as their staple food. Rice (*Oryza sativa*) belongs to family Poaceae. *Oryza* has 24 species, among them only two *Oryza sativa* and *Oryza glaberrima* (only in South Africa) are cultivated. *Oryza sativa* has three varietal types viz., indica rice (widely grown in India), Javanica rice (Indonasia) and Japonica rice (Japan). Organic farming is practiced in India since thousands of years. The great Indian civilization thrived

on organic farming and was one of the most prosperous countries in the world, till the British ruled it. In traditional India, the entire agriculture was practiced using organic techniques, where the fertilizers, pesticides etc. were obtained from plant and animal products. Organic farming was the backbone of the Indian economy and cow was worshipped (and till today done so) as a Goddess. The cow, not only provides milk but also bullocks for farming and dung, which is used as manure. Green revolution (GR) technologies supported by policies, and fuelled by agrochemicals, machinery and irrigation, are known to have enhanced agricultural production and productivity. These technologies greatly helped to address the food security of India. Farmers using these technologies

have to depend upon purchased inputs. The small farmers, who are short of cash are therefore found to lag behind large farmers in adoption of technologies. Use of expensive energy sources like fossil fuels create environmental and health problems. It is perhaps owing to these issues and their negative impacts, that the Intergovernmental Panel on Climate Change (IPCC) has noted that agriculture as practiced today (conventional agriculture, modern agriculture or GR agriculture) accounts for about one fifth of the anthropogenic greenhouse effect, producing about 50 per cent and 70 per cent, respectively of the overall anthropogenic methane and nitrogen oxides emissions. Hence, present study was conducted with the objective to study the reasons for shifting over to organic farming and problems faced by paddy growers under organic farming in Tungabhadra Command Area in Karnataka state.

MATERIALS AND METHODS

For the purpose of analyzing the reasons for shifting over to organic farming and problems faced by paddy growers under organic farming in Tungabhadra Command Area in Karnataka state, this study was purposively selected. The tabular analysis (percentages, means and ratios) was worked out to analyze the reasons for shifting over to organic farming and problems faced by paddy growers under organic farming in Tungabhadra Command Area in Karnataka state. Multistage random sampling technique was employed for selection of sample respondents. A sample of 60 farmers cultivating paddy under organic farming system and another 60 farmers cultivating paddy under inorganic farming system spread over the entire Tungabhadra Command Area in Karnataka were chosen for the study, and multistage random sampling technique was employed for selection of sample respondents. In the first stage, Tungabhadra Command Area (TCA) of Karnataka was selected purposively for the present study. In the second stage, three districts of TCA *viz.*, Bellary, Koppal and Raichur were selected. In the third stage, one taluka from each selected district having

maximum paddy area under organic cultivation was selected. In the fourth stage for selecting respondents, 12 villages at the rate of four from each selected taluka having maximum paddy area under organic cultivation were selected. From each selected village, five farmers growing paddy under organic farming and another five farmers growing paddy under inorganic farming were selected. Thus, the total sample size was 120.

RESULTS AND DATA ANALYSIS

The reasons for shifting from inorganic cultivation of paddy to organic cultivation of paddy were obtained from the sample farmers by conducting opinion survey and the results are presented in Table 1. It was observed that high per cent of the sample farmers (96.66%) expressed soil health oriented motives as a major reason for shifting over to organic cultivation of paddy, followed by reason of health concerns (91.66%), quality of organic rice (86.66%), increasing return from organic paddy/premium price (83.33%), motivation by neighbouring organic farmers (66.66%), increasing cost of inorganic fertilizers (66.66%), increasing cost of plant protection chemicals (63.33%), environmental concern (61.66%), motivation by media (36.66%), motivation by agricultural Extension workers (16.66%) and high productivity from organic cultivation (15.00%) as the reasons for shifting over to organic cultivation of paddy from inorganic cultivation. Anand Kumar (1998) found that increasing cost of chemical inputs (63%) and increase in the net return from organic farming (11%), as the reasons behind shifting to organic farming.

An informal discussion with the organic farmers revealed that organic production of paddy has a lot of problems. Opinion survey was conducted to know the problems faced by the farmers in organic paddy production and marketing and results of opinion survey are presented in Table 2. It was observed that majority of the sample farmers expressed non-availability of labour (86.66%) as a major problem, followed by non-availability of information on organic farming (58.33%), non-

Table 1 : Reasons for shifting over to organic cultivation of paddy

Sr. No.	Reasons	(n=60)	
		No	Per cent
1.	Soil health oriented motives	58	96.66
2.	Health concerns	55	91.66
3.	Quality of organic rice	52	86.66
4.	Increasing return from organic rice/premium price	50	83.33
5.	Motivation by neighbouring organic farmers	40	66.66
6.	Increasing cost of inorganic fertilizers	40	66.66
7.	Increasing cost of P. P. chemicals	38	63.33
8.	Environmental concern	37	61.66
9.	Motivation by media	22	36.66
10.	Motivation by agricultural extension workers	10	16.66
11.	High productivity from organic cultivation	09	15.00

Table 2 : Problems of organic farmers (opinion survey)			(n=60)
Sr. No.	Problems	Frequency	Per cent
A	Production problems		
1.	Non-availability of labour	52	86.66
2.	Non-availability of information on organic farming	35	58.33
3.	Non-availability of organic manures	26	43.33
4.	Non-availability of biopesticide	25	41.66
5.	Limited and irregular power supply	13	21.66
6.	Non-availability of seed materials	08	13.33
7.	Incidence of pests and diseases	07	11.66
8.	Non-availability of water for irrigation	04	6.66
B	Marketing problems		
1.	Non-availability of exclusive market for organic produce	46	76.67
2.	Non-availability of market related information	36	70.00
3.	Absence of premium price in the local market	31	51.66
4.	Fluctuation in the prices of commodities	29	48.33
5.	Poor transport facilities	25	41.67
6.	Faulty weighment	08	13.33
7.	Inaccurate weighing instruments	05	8.33

availability of organic manures (43.33%), non-availability of biopesticides (41.66%), limited and irregular power supply (21.66%), non-availability of seed materials (13.33%), incidence of pests and diseases (11.66%) and non-availability of water for irrigation (6.66%) as the problems in production of paddy organically. It was observed that majority of the sample farmers expressed non-availability of exclusive market for organic produce (76.67%) as a major problem followed by non-availability of market related information (70.00%), absence of premium price in the local market (51.66%), fluctuation in the prices of commodities (48.33%), poor transport facilities (41.67%), faulty weighment (13.33%) and inaccurate weighing instruments (8.33%) as the major problems in marketing of organically produced paddy. Similar results were observed by Thimmareddy (2001) and Mallikarjun (2008).

Conclusion :

Organic farming is practiced in India since thousands of years. The great Indian civilization thrived on organic farming and was one of the most prosperous countries in the world, till the British ruled it. In traditional India, the entire agriculture was practiced using organic techniques, where the fertilizers, pesticides etc. were obtained from plant and animal products. Organic farming was the backbone of the Indian economy and cow was worshipped (and till today done so) as a Goddess. The cow, not only provides milk but also bullocks for farming and dung, which is used as manure. It was observed that high per cent of the sample farmers expressed soil health oriented motives as the major reason for shifting over to organic

cultivation of paddy followed by reason of health concerns ,quality of organic rice, increasing return from organic paddy/ premium price, motivation by neighbouring organic farmers ,increasing cost of inorganic fertilizers ,increasing cost of plant protection chemicals, environmental concern, motivation by media, motivation by agricultural extension workers, and high productivity from organic cultivation, as the reasons for shifting over to organic cultivation of paddy from inorganic cultivation. The major problems faced by the sample farmers were categorized under two, heads viz., production and marketing problems. Among the production problems non-availability of labour, non-availability of information on organic farming, non-availability of organic manures and non-availability of biopesticides were the major problems in the study area. Limited and irregular power supply, non-availability of seed material, incidence of pests and diseases and non-availability of water for irrigation were the other problems. Among the marketing problems non-availability of exclusive market for organic produce, non-availability of market related information, absence of premium price in the local market and fluctuation in the prices were the major problems. Poor transport facilities, faulty weighment and inaccurate weighing instruments were the other crucial problems in the study area.

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