



Prospects and constraints experienced in organic farming by farmers

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ABSTRACT

The world has conceded that growing demand for safe and healthy food in changing climate scenario could only meet out through organic farming. The purpose of this study was to find out prospects and constraints experienced in organic farming by farmers of Haryana. The study was carried out during 2019–20 in Hisar, Sirsa, Bhiwani, Kurukshetra, Sonipat and Yamunanagar districts of Haryana state of India. Present study concluded that organic farming was perceived highly prospective especially as environment friendly, improves soil health, products are safe, healthy and nutritious. Study also concluded that farmers were facing very serious constraints, viz. no special incentive or remunerative price policy by the government, predominance of the inorganic farmers in the locality, lack of mobilization of organic farmers and inclination towards use of chemical pesticides due to their high visual impact. Ensured remunerative price policy by government is pivotal for speedy promotion of such eco-friendly, sustainable and profitable farming.

Keywords: Constraints, Organic Farming, Prospects, Sustainability

Organic Farming has emerged as an important priority area globally in view of the growing demand for safe and healthy food and concerns on environmental pollution associated with the indiscriminate use of agro-chemicals. Organic farming is a way of farming sustainably and has proven to be means to achieve the Sustainable Development Goals (SDGs), especially SDG 2 (Zero Hunger) and SDG 12 (Responsible Consumption and Production). Organic farming is being practiced in 186 countries of the world. The ill effects of chemicals used in agriculture have changed the mind set of people across globe and buying organic products with high premium for health. Policy makers are also promoting organic farming for restoration of soil health and generation of rural economy apart from making efforts for creating better environments.

The global organic area is 71.5 million ha roughly, i.e. 1.5 % of worlds' farmland. The world organic market is now 96.7 billion euros (Wiler and Julia 2018). The organic area in India is 3.669 million ha including certified forests. India ranks 8th in terms of world's organic agricultural land and 1st in terms of total number of producers, i.e. 1149371. India produced around 2.75 million metric tons (2019-20) of certified organic products. The total volume of export during 2019–20 was 6.389 lakh metric tons. The organic food

export realization was around ₹ 4686 crores (689 million US\$). The organic market in country is valued at ₹ 6000 crores with annual growth rate of 12–15%. In Haryana area under organic agriculture is 6155.75 ha only and government has targeted to bring 1 lakh ha under organic cultivation for restoration of soil fertility depleted due to rice-wheat mono cropping system and conservation of natural resource especially water along with safe ecological environment in the state as policy measures. But there are numerous production challenges and barriers which slow the adoption process. In this back drop, present study was carried out with an objective of prospects and constraints experienced in organic farming by farmers of Haryana.

MATERIALS AND METHODS

During the year 2019–20 the primary data on prospects and constraints faced by organic farmers was collected following ex post facto research design whereby respondents were selected with multistage sampling technique. Haryana state from the country was purposively selected being food bowl of country as well as largest exporter of basmati rice in the country. Fifteen organic farmers were selected randomly from the list provided by department of agriculture/KVK of Hisar, Sirsa, Bhiwani, Kurukshetra, Sonipat and Yamunanagar districts, thus total 90 organic farmers were interviewed personally to collect data through well structured and pre-tested interview schedule comprising prospective aspects of organic cultivation while, constraints under major heads general, manures, bio-fertilizers and plant protection, marketing and miscellaneous constraints. The responses were recorded on three point continuum, i.e.

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bright, somewhat bright and not bright for prospects and in case of constraints very serious, serious and not so serious with scores of 2, 1 and 0, respectively. The descriptive statistical measures like frequency, percentage, weighted mean and rank orders were used to analyze the data to draw tangible inferences.

RESULTS AND DISCUSSION

Prospects of organic farming perceived by the farmers:

Data pertaining to prospects of organic farming perceived by farmers (Table 1) elicits that it is environment friendly, improves soil health were perceived bright aspects with weighted mean score of 2.00 and occupied 1st rank, followed by organic products are safe, healthy and nutritious, enhance the employment opportunities and reduce dependence on external inputs for farming (1.98) rank 2nd, demand of products is increasing due to high health and nutrition awareness among people (1.93) rank 3rd, helps in conservation natural resources and biodiversity (1.91) rank 4th and produce fetches high price resulting in higher income (1.87) occupied 5th rank, whereas least bright or not bright prospects perceived by farmers were such as promotion of agro-based industries with mean score of 1.29 and rank 11th followed by it provides leverage to organic production of dairy, poultry, fishery etc. other allied fields of farming (1.31) rank 10th and higher yields after conversion (1.47) rank 9th. While, remaining aspects were perceived somewhat bright by organic farmers. Findings are in agreement with past research of Shehrawat *et al.* (2015) who reported that organic

farming promotes health of soil, healthy farm production environment, increase in employment, higher income and increased demand as highly prospective aspects perceived by farmers. Findings get supported from past observations such as organic farming, in spite of the reduction in crop productivity by 14.6%, provided higher net profit to farmers by 21.5% compared to conventional farming. This was mainly due to the availability of premium price (20–40%) for the certified organic produce and reduction in the cost of cultivation by 15.9%. In cases, where such premium prices were not available and the cost of cultivation was higher primarily due to purchased off-farm inputs, organic farming was not found economically feasible (Dadhwal *et al.* 2011). However, there was an overall improvement in soil quality in terms of various parameters, viz. physical, chemical, biological properties, availability of macro- and micronutrients, indicating an enhanced soil health and sustainability of crop production in organic farming systems and Nazir *et al.* (2016) observed that in organic farming in India, in spite of the reduction in crop productivity by 9.2%, provided higher net profit to farmers by 22.0% compared to conventional farming. This was mainly due to the availability of premium price (20–40%) for the certified organic produce and reduction in the cost of cultivation by 11.7%.

Constraints faced by farmers in organic farming: Data (Table 2) pertaining to constraints faced by organic farmers reveals that among general constraints, predominance of the inorganic farmers in the locality was top ranked very serious with weighted mean score of 1.67 followed by low

Table 1 Prospects of organic farming perceived by the farmers (n=90)

Aspect	Prospects level			TWS	WMS	Rank
	Bright	Somewhat bright	Not bright			
Environment friendly	90	0	0	180	2.00	I
Improves soil health	90	0	0	180	2.00	I
Organic products are safe, healthy and nutritious	88	2	0	178	1.98	II
Enhance the employment opportunities	88	2	0	178	1.98	II
Reduce dependence on external inputs	88	2	0	178	1.98	II
Demand of products is increasing due to high health and nutrition awareness	86	2	2	174	1.93	III
Helps in conservation of natural resources and biodiversity	82	8	0	172	1.91	IV
Produce fetches high price resulting in higher income	78	12	0	168	1.87	V
High export potential	72	8	10	152	1.69	VI
Resistant to insect pests and diseases	62	26	2	150	1.67	VII
Hilly and rain fed areas can be easily brought under organic farming	62	26	2	150	1.67	VII
Reduce risks and uncertainty of production	58	32	0	148	1.64	VIII
Higher yields after conversion period	54	24	12	132	1.47	IX
Provides leverage to organic production of dairy, poultry, fishery etc. other allied fields of farming	54	10	26	118	1.31	X
Promotion of agro-based industries	38	40	12	116	1.29	XI

TWS, Total Weighted Score; WMS, Weighted Mean Score.

Table 2 Constraints faced by farmers in organic farming (n=90)

General constraint	Degree of seriousness			TWS	WMS	Rank
	Very Serious	Serious	Not so Serious			
Predominance of the inorganic farmers in the locality	74	2	14	150	1.67	I
Low production during conversion period	64	10	16	138	1.53	II
Slow process due to minimum 3 years conversion period	62	8	20	132	1.47	III
High labour prices of skilled labour during picking and harvesting time	62	4	24	128	1.42	IV
Labour problem	68	2	20	138	1.33	V
Initiation is a costly affair in present inorganic production era of agriculture	48	4	38	100	1.11	VI
Lack of special knowledge of recommended package of practices in era of modern inorganic farming	28	22	40	78	0.87	VII
Knowledge about seed variety, seed rate, seed treatment and right time of sowing	20	26	44	66	0.73	VIII
Unavailability of input materials well in time	16	24	50	56	0.62	IX
Lack of improved seed and insect-pest and disease resistant varieties	18	20	52	56	0.62	IX
Manures, bio-fertilizers and plant protection related constraints						
Inclination towards use of chemical pesticides due to high visual impact	64	4	22	132	1.47	I
Unavailability of cheap bio-pesticides	62	6	22	130	1.44	II
Ineffectiveness of career based bio-fertilizer and bio-pesticides supplied by agencies	50	20	20	120	1.33	III
Lack of supply centres of organic inputs	50	18	22	118	1.31	IV
Manures and bio-fertilizers are costly in comparison to chemical fertilizers	40	28	22	108	1.20	V
Lack of knowledge about type and recommended doses of manures, bio-fertilizers, botanical products and bio agents as well bio-pesticides.	34	38	18	106	1.17	VI
Difficult method for preparation of bio-insecticides	22	20	48	64	0.71	VII
Lengthy process of organic manure preparation	24	14	52	62	0.69	VIII
Lack of availability of desired manures and bio-fertilizers	24	12	54	60	0.67	IX
Marketing related constraints						
No special incentive or remunerative price policy by the government	88	0	02	176	1.95	I
Lack of agencies to purchase products	86	2	2	174	1.93	II
Lack of marketing intelligence	70	8	12	148	1.64	III
Cumbersome and long queue to get certificate from Participatory Guarantee System of India	60	18	12	138	1.53	IV
High cost of certificate from Agricultural Processed Food Exports Authority of India	58	18	14	134	1.49	V
Certificate from Food Safety Standards of India is compulsory for marketing of products	46	28	16	120	1.33	VI
Lack of storage facilities in villages	52	6	32	110	1.22	VII
More transportation charges due to purchase agencies at long distance	44	2	44	90	1.00	VIII
Miscellaneous constraints						
Lack of mobilization of organic farmers in groups/community based organizations or social organization for promotion	64	16	10	144	1.60	I
Lack of proper guidance and training by field functionaries	52	6	32	110	1.22	II
Lack of special loan facilities	32	12	46	76	0.84	III

*TWS, Total Weighted Score; *WMS, Weighted Mean Score

production during conversion period (1.53) rank 2nd, slow process due to minimum 3 years conversion period (1.47) rank 3rd, whereas, not so serious were reported such as unavailability of input materials well in time and lack of improved seed and insect-pest and disease resistant varieties (0.62) rank 9th followed by knowledge about seed variety, seed rate, seed treatment and right time of sowing (0.73) ranked 8th and lack of special knowledge of recommended package of practices in era of modern inorganic farming with WMS of 1.65 occupied 7th rank. While, remaining constraints, viz. high labour prices of skilled labour during picking and harvesting time and labour problem were reported as serious constraints.

Constraints related to manures, bio-fertilizers and plant protection clearly indicate that inclination towards use of chemical pesticides due to high visual impact was top ranked constraint with weighted mean score of 1.47 followed by unavailability of cheap bio-pesticides (1.44) rank 2nd, and ineffectiveness of career based bio-fertilizer and bio-pesticides supplied by agencies (1.33) rank 3rd, whereas less serious or not so serious constraints were such as lack of availability of desired manures and bio-fertilizers (0.67) occupied 9th rank followed by lengthy process of organic manure preparation (0.69) ranked 8th and difficult method for preparation of bio-insecticides ranked 7th with mean score of 0.71. Pertaining to Marketing constraints such as no special incentive or remunerative price policy by the government was top ranked very serious constraint by organic farmers with WMS 1.95 followed by lack of agencies to purchase products (1.91) occupied 2nd rank and lack of marketing intelligence for organic produce (1.64) rank 3rd, whereas less serious or not so serious included such as more transportation charges due to purchase agencies at long distance (1.00) occupied 8th rank followed by lack of storage facilities in villages (1.22) ranked 7th while remaining constraints like cumbersome and long queue to get certificate from Participatory Guarantee System of India, high cost of certificate from Agricultural Processed Food Exports Authority of India (APEDA) and certificate from Food Safety Standards of India is compulsory for marketing of organic products were reported serious marketing constraints by respondent organic farmers.

Lack of mobilization of organic farmers in groups/ community based organizations or social organization for promotion of organic farming was reported very serious miscellaneous constraint with weighted mean score of 1.65. Findings get support from past findings for instance, fees for the inspection and certification can be prohibitively high at ₹ 5000, since this equals the returns from agriculture for many small farmers. Kumari and Raj (2020) reported that the problem faced by them in the certification process

is the high cost for organic certification when done at an individual level compared to group certification, the hectic procedure involved and lack of access to relevant knowledge on cultivation practices, market, mandatory documentation required for inspection and certification, lack of demand in domestic market and constraints to enter international market and institutional factors restrict the spread of organic farming. Similarly findings are supported by past research of Rohila *et al.* (2018) who reported constraints in CSAP and Kumar *et al.* (2019) and Rohila *et al.* (2021) who reported the constraints in marketing. Kumari and Raj (2020) also reported lacking awareness of supports, subsidies and policies for organic farmers.

Study concluded that sincere efforts are required by government for promotion of environment friendly and sustainable farming in form of technological empowerment, remunerative and assured markets along with enhanced intelligence as well mobilization of organic farmers in functional groups.

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