



Organic farming in India: Production, export, certification and policy support

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Green revolution had many positive effects on Indian economy as it helped to increase the food production and export of food products (Aulakh and Ravisankar 2017), improved the economic lot of farmers and their standard of living. But modern agricultural farming practices over the past four decades have resulted not only in loss of natural habitat balance and soil health but also caused hazards like soil erosion, soil salinization, genetic erosion, ill effects on environment, reduced food quality and increased the cost of cultivation (Ram 2003).

No doubt, farmers adopting conventional organic farming face huge losses, i.e. up to 71% in the initial years (Savage 2016). However, organic farming systems produce yields less than conventional agriculture; they are more profitable to farmers because consumers are willing to pay more (Bawden 2004). Organic farms although yield on an average 10–15% less than conventional farms, the lower yields are balanced by lower input costs and higher margins (Shirsagar 2008). Organic farming promotes entrepreneurship, decreases immigration in rural area, and uses existing local assets so that poor farmers can improve their farm productivity. Organic farming may be economically superior in spite of somewhat lower yield levels provided that premium prices are paid (Ramesh *et al.* 2010). India being the seventh largest country in the world, diversity in climate and terrain, the inherited tradition of organic farming is an added advantage (Mahale 2002). Keeping this fact in view, the present paper attempts to study status of production, export potential and policy support for organic farming in India.

The present study is based on data collected from different sources such as publications of European union, International Federation of Organic Farming Movements (IFOAM), International Trade Centre (ITC), National

Programme of Organic Production (NPOP), Agricultural Processed and Food Products Export Development Authority (APEDA), Research Institute of Organic Agriculture (FiBL), Switzerland, National Centre of Organic Farming (NCOF), reports, journals, periodicals and newspapers etc. The present study analysed acreage, production and export of organic products as well as policy support for organic farming in 2018–19. Compound growth rates (CGRs) for area, production and exports of organic products in India were estimated using the exponential regression model.

Organic coverage in India: India accounts 2.55% (17.86 lakh ha) of the total organic cultivation area of 69.80 million ha. The total area under organic certification process is 3.56 million ha in 2018 comprising of 50% of cultivable area (1.78 m ha) and remaining 50% from wild harvest collection. The area under organic certification showed remarkable increase of 1.59 million ha during last decade (2005–17). Among all the states, Madhya Pradesh has covered largest area (34.33%) under organic cultivation followed by Maharashtra (13.19%), Rajasthan (11.67%), Odisha (5.91%), Karnataka (4.87%), Gujarat (4.55%) and Sikkim (4.26%) during 2017-18 and all these states constituted about 78.79% of total cultivated organic area. During 2018, Sikkim has achieved a remarkable distinction of converting its entire cultivable land (0.76 lakh) under organic certification. Among major organic states except Madhya Pradesh and Rajasthan, all states showed inclining trend. The organic area in Rajasthan showed dwindling position during last five years as cultivation depends upon precipitation. However, situation in Madhya Pradesh was due to shifting from traditional farming to organic farming as result of expanded irrigation facilities and focussed approach of state government on agriculture development. The sharp decline in organic area in hill states indicates negative growth of 28.97% per annum as result of area diversion towards modern farming.

Organic production in India: India produced around 17.03 lakh tonnes (2017–18) of certified organic products comprising of 16.65 lakh tonnes of certified production and remaining from wild harvest (Table 1). The organic production includes all varieties of food products, viz.

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Table 1 Organic production under certification process in India (tonnes)

Category	2014–15	2015–16	2016–17	2017–18	CGR (%)
Dry fruits	0.07	0.09	0.08	0.08	4.55
Fibre crops	2.09	1.64	1.55	2.47	5.73
Fruits	0.20	0.25	0.28	0.33	18.17
Medicinal, herbal and aromatic plants (crops)	0.33	0.37	0.30	0.47	12.51
Oilseeds crops	2.28	2.52	3.00	5.39	33.21
Pulses	0.35	0.39	0.62	0.67	24.17
Spices and condiments	0.18	0.24	0.37	0.46	36.72
Sugar crops	3.38	5.32	2.82	3.18	-2.01
Vegetables	0.11	0.09	0.24	0.21	24.05
Cereals & millets	1.60	2.06	1.96	2.84	21.08
Plantation crops including tea & coffee	0.34	0.37	0.48	0.44	8.97
Others	0.03	0.02	0.11	0.10	49.38
Total	10.96	13.36	11.80	16.65	14.96

oilseeds, sugarcane, cereals and millets, cotton, pulses, medicinal plants, tea, fruits, spices, dry fruits, vegetables, coffee etc. The overall production under certification in the country increased from 10.96–16.65 lakh tonnes with annual increase of 14.96% over a time span of four years due to increase in demand of organic production both in domestic and international markets.

Export potential of organic products in India: USA, European Union and Canada are major export destination for Indian organic products (95.02% of total export). About 669 exporters are associated with export of organic products from India. The total quantity of organic product exported was 4.58 lakh tonnes during 2017–18 (Table 2). The organic export realization was around ₹3453.48 crores (515.44 million USD). Oilseeds (including soybean) contributed highest (75.04%) in terms of total export quantity followed by food grains (cereals, pulses and millets-12.30%), sugar crops (3.48%), plantation crops products (tea, coffee 1.84%), spices and condiments (1.23%) and dry fruits (0.93%) in 2017–18.

The export (in quantity term) of oilseeds, pulses, spices and condiments registered annual growth rate of about 30% during 2014–18. The export of dry fruits exhibited annual increase of 21% while processed products revealed sharp decline in export over the period. However, there was noticeable increase (17.08%) in export of organic products during period of four years only. This indicates that Indian organic products has vast market all over the world and offers trade opportunities for higher market prices. Further, there is need to identify suitable crops/products for organic production that has international market demands (Hans and Rao 2018).

Table 2 Export of organic products in India (tonnes)

Category	2014–15	2015–16	2016–17	2017–18	CGR (%)
Oilseeds	160559 (56.22)	131982 (50.05)	132504 (42.78)	343937 (75.04)	28.91
Cereals and millets	63622 (22.28)	44114 (16.73)	35357 (11.41)	52965 (11.56)	-5.93
Processed foods	23626 (8.27)	38454 (14.58)	73860 (23.84)	1743 (0.38)	-58.06
Sugar crops	19450 (6.81)	28654 (10.87)	31396 (10.14)	15951 (3.48)	-6.40
Plantation crops including tea and coffee	6734 (2.36)	7408 (2.81)	8173 (2.64)	8414 (1.84)	7.71
Pulses	2547 (0.89)	4818 (1.83)	13468 (4.35)	5618 (1.23)	30.17
Dry fruits	2417 (0.85)	2465 (0.93)	1558 (0.50)	4270 (0.93)	20.89
Spices and condiments	2403 (0.84)	3086 (1.17)	4126 (1.33)	5657 (1.23)	33.03
Medicinal, aromatic and herbal products	1223 (0.43)	2242 (0.85)	2898 (0.94)	1920 (0.42)	16.22
Others	3027 (1.06)	464 (0.18)	6427 (2.07)	17864 (3.90)	80.71
Total	285608 (100.0)	263687 (100.00)	309767 (100.00)	458339 (100.00)	17.08

Figures in parentheses indicate percentage to total

Organic Certification in India: There are two types of organic certification systems in India, i.e. Third Party Certification, which is essential for exports and Participatory Guarantee System (PGS), meant only for domestic sales. APEDA is working as apex body for regulation of certification and export of organic products in India. The standards for production and accreditation system of organic products have been well recognized by USA, European commission and Switzerland. Indian organic products duly certified by twenty nine (29) accredited certification bodies of India are accepted by the importing countries.

Policy support: NCOF at Ghaziabad with headquarter and its six (6) Regional Centres at Bangalore, Bhubaneswar, Panchkula, Imphal, Jabalpur and Nagpur were established by Ministry of Agriculture and Farmers Welfare (MoA & FW), Govt. of India in 2004 to promote organic farming by capacity building and to control the quality of organic inputs. Further, task of providing assistance for establishment of production units for agro-waste compost, bio-fertilizers/ bio-pesticides as well as development and implementation of quality control regime also assigned to NCOF. Recently centre has initiated low cost certification system known as PGS for sale of organic products in domestic markets.

Realizing the potential of organic farming in the North Eastern Region of the country, MoA & FW, Govt. of India has launched a Central Sector Scheme “Mission

Organic Value Chain Development for North Eastern Region” for implementation in the states of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura in 2015–16. Under this scheme, financial assistance is extended for development of certified organic production in a value chain mode to link growers with consumers and to support the development of entire value chain starting from inputs, seeds, certification, to the creation of facilities for collection, aggregation, processing, marketing and brand building initiative.

Central Government also initiated new programme “Paramparagat Krishi Vikas Yojana” (PKVY) for all states in year 2015 with view to motivate groups of farmers for organic farming. The financial support is being provided to each farmer of cluster (50 farmers or more with land of at least 20 ha) for seed to harvesting of crops and to transport produce to the market through utilization of traditional resources. Apart these two programs, application of bio-fertilizers, bio-control agents and bio-pesticides is also being stimulated to avoid excessive use of agro-chemicals under crop development programs like RKVY, NFSM, NMOOP and MIDH.

Policy implications : The increase in area, production and export indicates that farmers are cultivating a variety of crops organically to capture higher returns from growing organic market in developed nations. APEDA and NCOF put more stress for framing certification regulation for organic products export and domestic market. Recently, PGS low cost certification was introduced to facilitate the sale of organic products in domestic markets. The financial assistance for quality seed and planting material, capacity building creation of infrastructure for certification, marketing and processing is provided under umbrella schemes of central government.

Organic farming in India is facing a number of challenges like lack of improved production and protection technologies for certain crops, low productivity, high cost of organic inputs, small and fragmented land holdings, poor accessibility to market in potential organic areas, i.e. hill and tribal areas, poor market and storage infrastructure, inadequate processing facilities, expensive, time consuming and cumbersome certification process for exportable organic products, lack of premium price, low R & D investment etc. Contract farming and Farmer-Producer Organisations (FPO)/Farmers Interest Groups (FIGs) are some options to support organic growers by accessing to improved production technologies, cultivation of demand driven products, reaping benefit of collective bargaining, creating primary processing and assembling of produce, exploring export by proper certification to capture international

market. Special efforts are needed to create awareness about health benefits of consumption of organic products to create domestic market.

SUMMARY

Organic farming has the potential to provide benefits in terms of environmental protection, conservation of non-renewable resources and improved food quality. The paper attempts to study production status, export potential and policy support for products cultivated organically in India. The information was gathered from various published sources and descriptive analysis to draw valid inferences. The area, production and export figures divulge that crops are grown organically to meet rising demand of organic products in abroad. Recently PGS low cost certification was introduced for the sale of organic products in domestic markets. Various initiatives like arrangement of quality seed and planting material, capacity building, creation of infrastructure, marketing, processing etc. have been taken to support organic farming in India.

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