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RESEARCH ARTICLE

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TRENDS AND PATTERNS OF ORGANIC AGRICULTURE PRODUCTION IN INDIA

¹Bhavya C and ²Dr. Harisha N

¹Research Scholar, Department of Economics, Karnataka State Open University, Mukthagangothri, Mysore, India

²Assistant Professor, Department of Economics, Karnataka State Open University, Mukthagangothri, Mysore, India

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*Corresponding author: Sushmita Gupta

ABSTRACT

Organic agriculture is a popular method for reducing the detrimental effects of chemical agriculture. In India, farming has become increasingly unsustainable during the previous three decades. The system prioritized high output over ecological and human welfare concerns. Organic farming involves using biofertilizers and pest control derived from animal or herbal waste. The present study highlighted that the Compound Annual Growth rate using the Logistic Growth Model for India's organic agricultural production from 2019–20 to 2023–24. The fibre crop has production been tremendous increased from 370079 to 1708322 metric tonnes with CAGR at 36.42 per cent. The Fibre, sugar, cereals and millets, spices and condiments, fresh fruits and vegetables, coffee, fodder, other crops, processed foods, and total production (including fibre), have been positively significant at the 1% level (0.001). It could have been considered that the following organic agricultural goods exhibited positive growth from 2019–20 to 2023–24. However, the oilseeds, pulses, goods from medicinal plants, tea, dry fruits, flowers, and tubers, as well as the overall production excluding fiber products, were negatively significant. Hence, the oilseeds, pulses, medicinal plants products, tea, dry fruits, flower, tuber products and total production excluding fibre products in India have been negatively growing during the same period. Therefore, India has the opportunity to become a global leader in organic agriculture because to the efforts of top firms, growing consumer demand for organic products and substantial government support. The further development of this sustainable approach will help farmers, consumers, and the environment.

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INTRODUCTION

Sustainable development has been captured interest in human welfare and promoted action around the world in more than a decade. Sustainable agriculture is required to achieve the goal of sustainable development. According to the Food and Agriculture Organization (FAO), "sustainable agriculture as the successful management of agricultural resources to satisfy changing human needs while maintaining or improving environmental quality and conserving natural resources." All the definitions of sustainable agriculture place a strong focus on maintaining an agricultural growth rate that can supply the food demands of all living creatures without depleting basic resources. Organic agriculture is increasing significantly, and it is now practiced in 188 countries, encompassing over 96 million hectares and managed by at least 4.5 million farmers. 'The World of Organic Agriculture 2024', published by the Research Institute of Organic Agriculture (FiBL) and IFOAM — Organics International, provides a thorough review of recent developments in global organic agriculture, including the area under organic management, land use and crops, the number of farms and other operators, retail sales, and international trade data. As per the 2022 Global Organic Agriculture Data clearly revealed that from 188 countries indicate outstanding rise.

Organic agriculture grew by more than 96 million hectares, or 26.6% year on year, primarily due to increases in Australia. It is estimated that the organic farmers has been increased to 4.5 million with percentage about 20 % and also area, production and consumption level of organic agriculture grown at the global and India level.

Objectives: To study the growth and trends of different types of organic agriculture cultivation in India and to discuss the market value of organic farming in India.

METHODOLOGY

The paper is based on secondary data compiled from diverse sources like different agricultural journals, newspapers relevant websites, etc. The data were compiled from the agricultural Statistics the Department of Agricultural and Processed Food Products Export Development Authority, Government of India (GOI) etc.

Organic Agriculture Cultivation in India: The growth of organic agriculture in India can be categorised into three dimensions, each reflecting different motivations and adoption patterns among farmers:

Traditional Organic Farmers: These farmers are located in no-input or low-input zones where organic farming is a way of life and a long-standing tradition. They typically practice organic farming by default and are usually not certified. For instance, farmers of the North-Eastern Region of India (4.05 out of 146 million farmers in India) 14 traditionally follow organic farming by not using chemical fertilizers and pesticides.

Reactive Organic Farmers: This group has adopted organic farming more recently in response to the negative impacts of modern agricultural practices, such as reduced soil fertility, food toxicity and rising costs with diminishing returns. These farmers include both certified and uncertified organic practitioners and part of PGS farmers and natural farming proponents (4.2 out of 146 million farmers) 15 who wanted to move away from conventional farming practices due to lesser crop response to fertilizers and chemicals

Commercial Organic Farmers: This category consists of farmers and enterprises that have systematically adopted organic farming to tap into emerging market opportunities and secure premium prices. The majority of the farmers in this group are certified and engage in organic farming as a commercial venture. These include NPOP farmers and part of PGS farmers (3.2 out of 146 million farmers) 16 who want to sell organic certified produces at premium price to global and domestic market

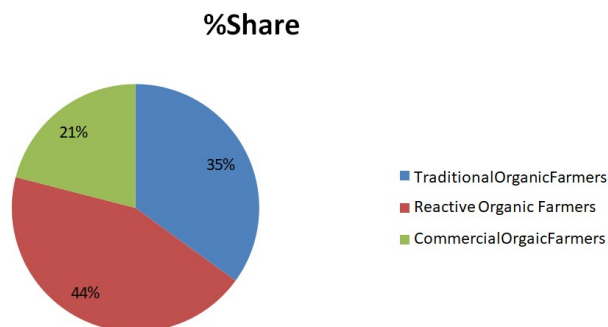


Chart 1. Different Categories of Organic Farmers in India (%)

Chart-1: Estimated share of different category of farmers practicing organic farming methods Commercial organic farmers 21 per cent, Reactive organic farmers 44 per cent and Traditional organic farmers 35 per cent India's organic market Area under organic cultivation India has two major certifications system for organic cultivation — NPOP and PGS. As of fiscal 2023, the total area under organic cultivation in India (NPOP and PGS), including both organic and conversion areas, is approximately 6.4 million hectare. Of this, 84% is certified under NPOP, while 16% is certified under PGS. In the past 4 years (FY19 to 23), overall area under the organic cultivation in India has logged a compounded annual growth rate (CAGR) of 29%, with NPOP area growing at 29% and PGS at 27%.

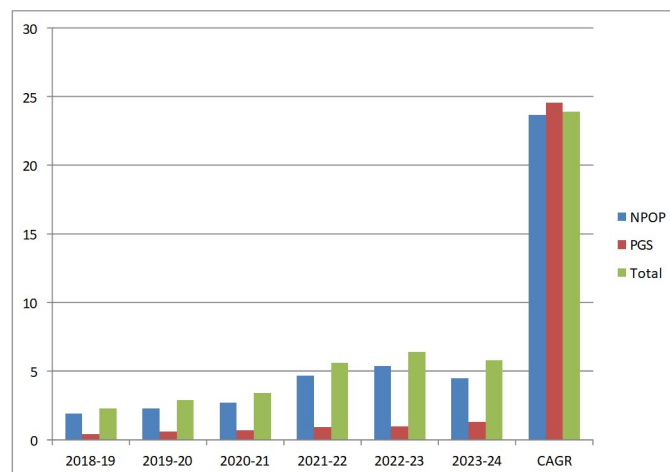
Table 1. Area Under Organic Cultivation in India During a Period of 2018-19 to 2023- 24 (million hectares)

Year	NPOP	PGS	Total
2018-19	1.90	0.40	2.30
2019-20	2.30	0.60	2.90
2020-21	2.70	0.70	3.40
2021-22	4.70	0.90	5.60
2022-23	5.40	1.00	6.40
2023-24	4.50	1.30	5.80
CAGR	23.64	24.53	23.89

Note: NPOP-National Programme for Organic Production
PGS- Participatory Guarantee System
Source: APEDA Annual Report 2024

The area under organic cultivation in India from 2018–19 to 2023–24 is presented in Table-1. According to the table, the area under cultivation under the National Programme for Organic Production has grown from 1.90 million hectares to 4.50 million hectares, with a

compound annual growth rate (CAGR) of 23.64 percent from 2018–19 to 2023–24.



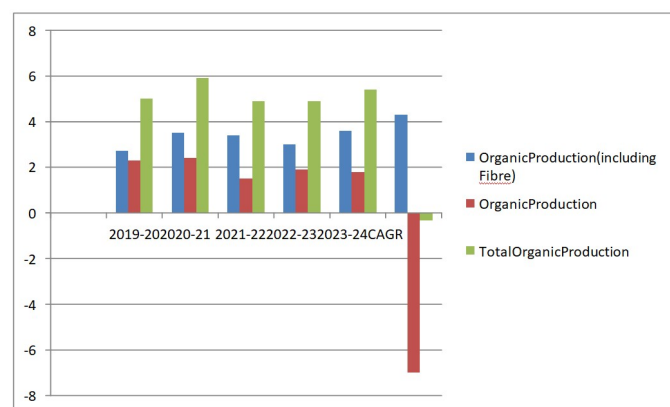
Graph 2. Area Under Organic Cultivation in India During a Period of 2018-19 to 2023- 24 (million hectares)

With a compound annual growth rate of 24.53%, the area under the Participatory Guarantee System of area cultivation has increased from 0.40 million hectares to 1.30 million hectares. Nonetheless, with a compound annual growth rate of 23.89% over the same time period, the total area in India under organic cultivation has grown from 2.30 million hectares to 5.80%.

Table 2. Total Organic Production Trends in India during a Period of 2019-20 to 2023- 24 (mn MT)

Year	Organic Production (including Fibre)	Organic Production (Excluding Fibre)	Total Organic Production
2019-20	2.70	2.30	5.00
2020-21	3.50	2.40	5.90
2021-22	3.40	1.50	4.90
2022-23	3.00	1.90	4.90
2023-24	3.60	1.80	5.40
CAGR	4.30	-6.98	-0.32

Source: APEDA Annual Report 2024



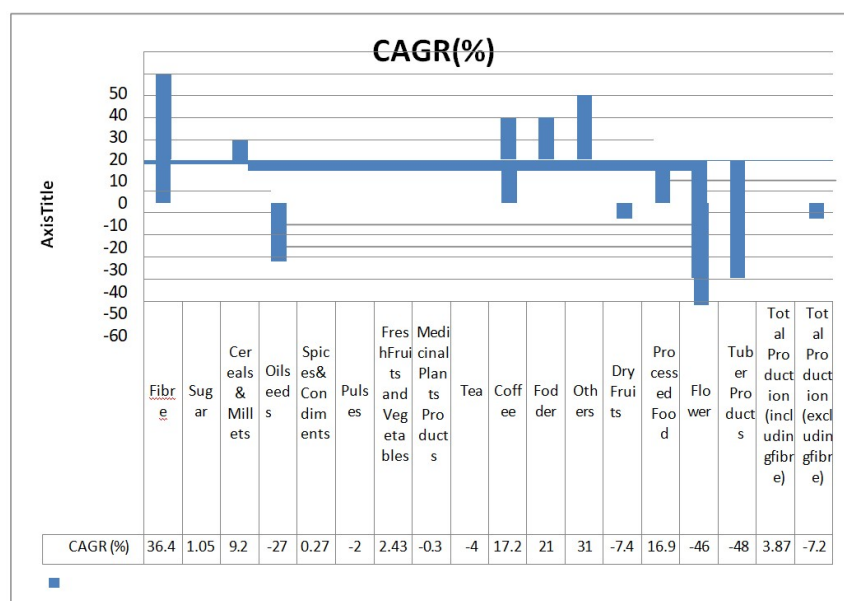
Graph 3. Total Organic Production Trends in India during a Period of 2019-20 to 2023- 24 (mn MT)

Table-2 presents the total organic production trends in India during a period of 2019- 20 to 2023-24. The organic production of including fibre contents has been increased from 2.70 to 3.60 million metric tonnes with CAGR at 4.30 per cent during a period of 2019-20 to 2023-24. However, excluding fibre organic agriculture production has been declined from 2.30 to 1.80 per cent with CAGR also declined at -6.98 per cent and also total organic agricultural production decreased from 5.00 to 5.40 million metric tonnes with CAGR also negatively declined at -0.32 per cent during the same period.

Table 3. Category-Wise Organic Production Trends Duringa Period of 2019-20 to 2023-24 (MT)

Name of the Category	2019-20	2020-21	2021-22	2022-23	2023-24	CAGR (%)
Fibre	370079	1037510	1885390	1087031	1708322	36.42
Sugar	633728	797628	336933	729505	698222	1.05
Cereals&Millets	271717	321273	242952	338406	411140	9.20
Oilseeds	1069975	855297	478168	408330	322935	-26.91
Spices & Condiments	57803	105130	95087	63620	75310	0.27
Pulses	70991	91040	73789	66819	74986	-1.98
Fresh Fruits and Vegetables	64280	67350	85554	66359	73019	2.43
Medicinal Plants Products	70823	80556	101193	75759	71987	-0.29
Tea	44771	42121	42845	39208	37823	-4.01
Coffee	20359	22402	20071	34328	36355	17.19
Fodder	8733	11060	7896	16484	18513	20.95
Others	2556	5797	10764	7168	8864	30.99
Dry Fruits	8481	11500	14469	7730	7051	-7.38
Processed Food	2944	4004	6269	6267	5144	16.93
Flower	7226	13191	7330	4549	548	-46.33
Tuber Products	4653	3135	1484	1363	262	-48.25
Total Production (includingfibre)	2709120	3468992	3410195	2952926	3550481	3.87
Total Production (excludingfibre)	2339040	2431482	1524805	1865896	1842159	-7.15

Source: APEDA Annual Report 2024



Graph 4. CAGR for the Category-Wise Organic Production Trends During a Period of 2019-20 to 2023-24

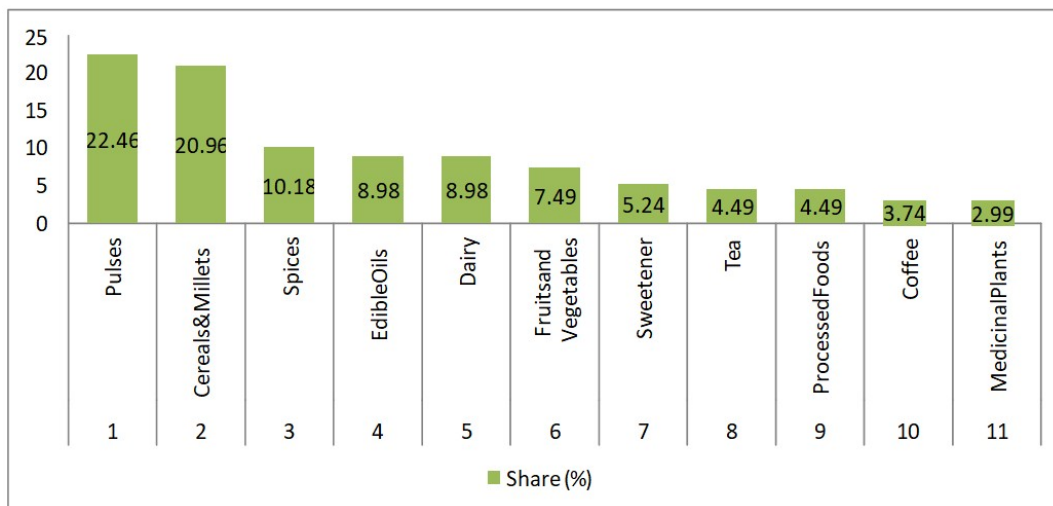
Table 3 clearly illustrates the category-wise organic production trends from 2019-20 to 2023-24. The fibre crop has been highest increased from 370079 to 1708322 metric tonnes with CAGR at 36.42 per cent. During the same period, total organic production (including fibre), rose from 2709120 to 3550481 metric tonnes at a trend rate of 3.87 per cent. However, altogether organic production excluding fibre declined by -7.15 per cent, decreasing from 2339040 to 1842159 tonnes. Individual category investigations show that organic agricultural production of coffee, fodder, and other products increased positively from 2019-20 to 2023-24. Coffee crop output has increased from 20359 to 36355 metric tonnes, with a growth rate of 17.19%, while fodder production has increased from 8733 to 18513 metric tonnes, with a growth rate of 20.95% and also other crop of organic production has been increased from 2556 to 8864 metric tonnes with growth at 30.99 percent respectively during a same period. As a whole, however, the vast majority of organic crops—such as oilseeds, grains, tea, dry fruits, flowers, and goods made from tubers—have seen a fall. Dry fruits decreased from 8481 to 7051 tonnes with a growth of -7.38 percent, oil seeds decreased from 1069975 to 322935 metric tonnes with a growth of -26.91 per cent, pulses decreased from 70991 to 74986 metric tonnes with a growth of -1.98 percent, medicinal plant products decreased from 70823 to 71987 metric tonnes with a growth of -0.29 per cent, tea decreased from 44771 to 37823 metric tonnes with a decrease of -0.29 per cent, and flower and tuber products decreased from 7226 to 548 and 4653 to 262 metric tonnes with a growth of -46.33 and -48.25 percent respectively during a period of 2019-20 to 2023-24.

The Compound Annual Growth rate using the Logistic Growth Model for India's organic agricultural production from 2019–20 to 2023–24 is shown in Table 4. Fiber, sugar, cereals and millets, spices and condiments, fresh fruits and vegetables, coffee, fodder, other crops, processed foods, and overall production, including fiber, have all been positively significant at the 1% level (0.001), as the table indicates clearly. It could have been considered that the following organic agricultural goods exhibited positive growth from 2019–20 to 2023–24. However, at the 1% and 5% levels (0.001 and 0.05), the oilseeds, pulses, goods from medicinal plants, tea, dry fruits, flowers, and tubers, as well as the overall production excluding fiber products, were negatively significant. It can be said that the oilseeds, pulses, medicinal plants products, tea, dry fruits, flower, tuber products and total production excluding fibre products in India have been negatively growing during the period of 2019-20 to 2023-24. Table-5 clearly indicated the category-wise domestic market value of organic agriculture crops in India for the fiscal year 2023. Pulses, grains, millets, and spices account for about 53.60 percent of the market value of crops. Pulses provide about 22.46 percent of the market value of 750 crores, cereals and millets crops contribute about 20.96 percent of the market value of 700 crores, and spices crop market value is around 340 crores, with a percentage contribution of about 10.18 percent. However, the remaining category products have single digit percentage contributions, such as edible oils (8.98%), dairy (8.98%), fruits and vegetables (7.49%), sweeteners (5.24%), tea (4.49%), processed foods (4.49%), and coffee (3.74%) and medicinal plants (2.99%) during the same period.

Table 5. Category-Wise Domestic Organic Market Value in Financial Year 2023 (in Rs. Cr.)

Sl.No.	Name of the Category	Market Value (Rs.Cr.)	Share (%)
1.	Pulses	750	22.46
2.	Cereals&Millets	700	20.96
3.	Spices	340	10.18
4.	EdibleOils	300	8.98
5.	Dairy	300	8.98
6.	FruitsandVegetables	250	7.49
7.	Sweetener	175	5.24
8.	Tea	150	4.49
9.	ProcessedFoods	150	4.49
10.	Coffee	125	3.74
11.	MedicinalPlants	100	2.99
	Total	3340	100.00

Source: APEDA Annual Report 2024



Graph 5. Category-Wise Domestic Organic Market Share in Financial Year 2023 (in %)

CONCLUSION

In India, organic farming is becoming a growing trend due to considerations like sustainability, health consciousness, and financial potential. India has the opportunity to become a global leader in organic agriculture because to the efforts of top firms, growing consumer demand for organic products and substantial government support. The further development of this sustainable approach will help farmers, consumers, and the environment.

REFERENCES

Aulakh C S and Ravisankar N. 2017. Organic farming in Indian context: a perspective, *Agricultural Research Journal* 54(2):149–64.

Government of India (2024), Annual Report 2024. Agricultural and Processed Food Products Export Development Authority (APEDA).

Hans V B and Rao R. 2018. Organic farming for sustainable development in India. *Acta Scientific Agriculture* 2(12): 96–102.

P. Ramesh, Mohan Singh, and A. Subba Rao (2005). Organic farming: Its relevance to the Indian context. *Current Science*, 88(4), 561–568

Shirsagar KG. 2008. Impact of organic farming on economics of sugarcane cultivation in Maharashtra, Working paper no.15, Gokhale Institute of Politics and Economics, Pune

Elayaraja M, Vijai C, 2020. Organic farming in India: Benefits and Challenges, *European Journal of Molecular & Clinical Medicine* ISSN 2515-8260 Volume 7, Issue 11.
