

The Indian Organic Market

A New Paradigm in Agriculture



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From the President's Desk

Organic provides a choice of “healthy life” to consumers by providing healthy food. It gives assurance that toxic persistent pesticides, synthetic fertilizers or genetically modified organisms (GMOs) are not used in production, and antibiotics or growth hormones are not given to livestock. It also means that stringent organic cultivation standards have been met with respect to impact on soil, water, and air support environmental protection.

The market research company Ecovia Intelligence estimates that the global market for organic food reached US\$89.7 billion in 2016. Most of the major markets continue to show double-digit growth rates, including India. The main reason for this growth can be attributed to the growing health concerns among consumers and increasing awareness with regard to the health benefits of organic food. Other factors driving organic food sales across the globe include increasing income levels, improving standard of living, and government initiatives aimed at encouraging widespread adoption of organic products.

While the organic market is growing steadily, it is far from becoming a mass product. The key challenge the sector faces is in higher cost of cultivation and its subsequent value chains, leading to high price markups. The market segmentation focus is also on affluent

consumers. Hence, there is a clear need to put special efforts in bridging the gap between production and supply chain to reach to the masses.

The report “The Indian organic market: a new paradigm in agriculture” aims to highlight global emerging trends, the organic market in India and Government initiatives. We believe this publication offers a fresh perspective on the challenges and opportunities of the organic sector and will inspire businesses to take definite steps toward achieving the potential for sustainable organic agriculture.

Sandeep Jajodia
President
ASSOCHAM



Foreword by Secretary General

The Government of India and the state governments have taken steps to improve the regulatory framework of organic products along with rolling out several schemes to incentivize organic farming. On the regulatory front, Food Standards and Safety Authority of India (FSSAI), in December 2017, has recognized both the certification systems (NPOP and PGS-India) valid for organic food products. This provides an impetus to both promote and regulate markets so that domestic consumers and export countries can trust Indian organic products.

On the production front, the Government has rolled out several schemes to incentivize organic cultivation like National Program for Organic Production (NPOP), National Project on Organic Farming (NPOF), National Mission on Sustainable Agriculture (NMSA)/Paramparagat Krishi Vikash Yojana (PKVY), Rashtriya Krishi Vikas Yojana (RKVY), Mission for Integrated Development of Horticulture (MIDH), National Mission on Oilseeds & Oil Palm (NMOOP) and Network Project on Organic Farming of ICAR.

To facilitate organic farming, 11 state governments (Kerala, Karnataka, Andhra Pradesh, Sikkim, Mizoram, Nagaland, Himachal Pradesh, Madhya Pradesh, Gujarat, Rajasthan and Odisha) have come out with their own State Organic Farming Policies, and Sikkim became the first state to be declared as Organic State. Many other states such as Chhattisgarh and

Uttarakhand are also promoting an organic marketplace wherein producers and consumer can directly interface.

With all these initiatives, it is expected that the cost of cultivation will come down and productivity will improve significantly. This will result in lowering the prices of organic products for mass consumers to switch over to organic products and create further demand.

The knowledge paper titled “The Indian organic market: a new paradigm in agriculture” jointly prepared by Ernst & Young and ASSOCHAM provides strategic recommendations to promote integrated development in the organic sector. It is our privilege to release this paper at “ASSOCHAM’s National Conference-cum-Exhibition & Awards on “Organic World: Advantage India” on 21 March 2018, at Hotel Le-Meridien, New Delhi.

We appreciate the efforts and contribution of Dr. Om S Tyagi, Ms. Purnima Dhingra and Mr. Nitesh Sinha in organizing this conference. We believe the outcomes of this initiative as well as the knowledge paper will serve as an important reference document for various stakeholders across the country.

D S Rawat
Secretary General
(ASSOCHAM)



India's progress in the organic sector has been remarkable. In the 1990s, the sector was limited to the export of tea to European markets. Currently, India is emerging as a key player in the global arena, exporting over 300 products in 20 different categories to over 20 countries. Additionally, India is the largest exporter of organic cotton and houses the largest number of organic producers in the world. Alongside the developments pertaining to the global markets, the domestic markets are growing at a rate higher than the global average and are expected to keep growing at a 25% CAGR through 2020.

India has substantial potential for expansion of organic agriculture owing to many factors, including favorable agro-climatic conditions. Hilly and rain-fed areas of the country such as the North Eastern Region and Deccan Plateau traditionally practice low input agriculture and are therefore more amenable to the switch to organic agriculture. In addition to that, areas that have been subject to intensive agriculture and excessive use of chemical substances present a scope for expansion of organic agriculture. This would help improve and preserve the soil quality and thereby increase production in the long run. The rise in per capita purchasing power, accompanied by the increase in awareness regarding the social, environmental and health benefits of organic products, has not only increased the demand for such products but also incentivized the development of the organic value chain, as evidenced by continuous developments in industries such as e-commerce, supply chain, storage and processing.

Having recognized the untapped potential, both government and private actors have increased their involvement and investment in the sector. The Government has allocated INR2 billion for the cultivation of high-value major agricultural produce and INR5 billion to promote farmer-producer organizations for Operation Green. In addition, the

Government intends to promote farmer-producer organizations and village-producer organizations in large clusters under the Rashtriya Krishi Vikas Yojana, Mission Organic Value Chain Development and Pradhan Mantri Kaushal Vikas Yojana. This has also been linked to the National Rural Livelihood Mission to enable self-help groups to partake in organic farming techniques. Sikkim became India's first fully organic state in 2016 with 75,000 ha under organic cultivation, thereby providing impetus to other states to pursue similar objectives. Meghalaya, for instance, aims to make the switch by 2020.

EY is committed to building a better working world, with increased trust and confidence in business, sustainable growth, development of talent in all its forms and greater collaboration. In consonance with our vision, this paper evaluates the emerging trends, growth drivers, challenges and opportunities that are present in the organic sector. It aims to provide an insight into the sector to aid as a potential area of collaboration between various public and private actors.

Amit Vatsyayan
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from profit Message

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Acronym

GMO	Genetically Modified Organism
FPO	Farmer Producer Organisation
FSSAI	Food Standards and Safety Authority of India
NPOP	National Program for Organic Production
NPOF	National Project on Organic Farming
NMSA	National Mission on Sustainable Agriculture
PKVY	Paramparagat Krishi Vikash Yojana
RKVY	Rashtriya Krishi Vikas Yojana
MIDH	Mission for Integrated Development of Horticulture
NMOOP	National Mission on Oilseeds & Oil Palm
CAGR	Compound annual growth rate
PGS	Participatory Guarantee Systems
POPs	Package of Practices
TC	Transaction Certification
APEDA	The Agricultural and Processed Food Products Export Development Authority
SHGs	Self-Help Groups
NFSM	National Food Security Mission
ATMA	Agricultural Technology Management Agency
NCOF	National Centre for Organic Farming
FSSAI	Food Safety and Standards Authority of India
ICAR	Indian Council of Agricultural Research
NPMSh&F	National Project on Management of Soil Health and Fertility
A3P	Accelerated Pulses Production Programme
MOVCDNER	Mission for Organic Value Chain Development for Northeast regions
DGFT	Directorate General of Foreign Trade



Executive Summary

Agriculture has been practiced for centuries, and like any socio-economic or political system that has stood the test of time, it is a product of the circumstances in which it exists. In other words, it has undergone extreme changes to keep up with the opportunities, requirements and challenges of the changing world. For thousands of years, agriculture was practiced without the use of artificial substances. However, strides taken in science and technology culminated in the intensification of conventional agriculture for increased productivity. The increased use of synthetic substances met with fierce criticism and gave birth to multiple organic farming movements across the world. Organic agriculture (OA) is defined by the IFOAM as “a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic Agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved.”¹ In other words, organic products offer more social, economic, cultural, political and environmental benefits in the long run than conventional products.

The categorization of a product as organic implies two main things: First, it is free from toxic persistent pesticides, synthetic fertilizers, growth hormones and antibiotics or genetically modified organisms (GMOs). Second, stringent organic cultivation standards are followed, with respect to impact on soil, water and air. These value chain considerations have resulted in organic products emerging as the perceived responsible choice among consumers. Resultantly, the market for organic products has grown remarkably since the 1990s. The global market for organic products is growing faster (CAGR 16%) than the global markets for conventional products (CAGR 10%)⁷. This differential growth rate is observed in multiple market segments, including food and beverages, textiles, health and wellness, and beauty and personal care among others. The rapid growth of the organic market can be attributed to various factors. The increasing emphasis on good health, proliferation of consumption-related ailments, an increased awareness regarding the health benefits of organic products among consumers, enhanced income levels and standard of living, together with government initiatives aimed at promoting organic products are key drivers of this exponential market expansion.

Organic farming is practiced with varying levels of success in 178 countries². However, the North American and European Union regions (as single markets) generate the bulk of the global sales. The global sales increased to US\$89.7 billion in 2016 from US\$7.9 billion in 2000.² Country wise, the top consumers of organic products are the US (US\$43.1 billion), followed by Germany (US\$10.5 billion) and France (US\$7.5 billion).² The increase in demand has led to a considerable increase in the area subject to organic management techniques globally, surging from 11 million ha in 1999 to 57.8 million ha in 2016². The wild harvest and other non-agriculture organic collection area also increased to 39.9 million ha in 2016 from 4.1 million ha in 1999.² The three countries with the largest area under organic cultivation are Australia (27.1 million ha), followed by Argentina (3.0 million ha) and China (2.3 million ha).² The three countries with the largest wild harvest area for organic products are Finland (11.6 million ha), followed by Zambia (6.7 million ha) and India (4.2 million ha).²

In addition to ranking third in wild harvest area, India also houses the highest number of organic producers globally with 835,000 organic farmers². It also ranks ninth in terms of area under organic cultivation with 1.49 million ha.² Therefore, it occupies a robust position in producing organic products, having already exported 1.35 million MT of certified organic food products worth INR1,937 crore in 2015-16.³ The exports are largely concentrated around the US, Europe (EU), Canada, Japan and the West Asian markets. India is the largest exporter of organic cotton worldwide. In the food market segment, oilseeds comprised

¹ “Cultivating Changes,” IFOAM website, <https://www.ifoam.bio/en/organic-landmarks/definition-organic-agriculture> accessed 16 March 2018

² The World of Organic Agriculture Statistics and Emerging Trend 2018, FiBL and IFOAM - Organics International FiBL & IFOAM website <https://shop.fibl.org/CHen/mwdownloads/download/link/id/1093/?ref=1> accessed on March 10, 2018

³ APEDA. http://apeda.gov.in/apedawebsite/organic/Organic_Products.htm accesses on March 10, 2018

half of India's overall organic food export, followed by processed food products at 25%⁴. The current Indian organic market is estimated at INR40,000 million and is likely to increase to INR100,000-120,000 million by 2020 with a similar incremental trend in exports⁵. Indian organic market has been progressing steadily with CAGR of 25% as compared to 16% global growth rates^{4,2}. However, despite the promising performance in terms of exports, the local consumption of organic produce is still at a nascent stage with a market share of less than 1% and per capita consumption at only EURO.1.²

The organic sector in India, albeit comparatively new, possesses inherent strengths that can be leveraged, and the current context in which it thrives offers many opportunities that can be utilized. The agricultural policy of India has gradually shifted from espousing a production-centric approach to a more holistic approach. This approach, in addition to focusing on increased productivity, factors in climatic considerations, nutritional concerns, environmental impact and standard of living of the stakeholders. The shortcomings of conventional products in relation to these considerations create a lacuna, which is being leveraged to promote organic agriculture. The Government has sanctioned several schemes to incentivize organic farming and many state governments are creating individual policies for the same. In addition to the Government's increasing interest in the sector, private sector actors too have expressed their interest by increasing investments in the sector. In addition to this, the demand for organic products is increasing steadily as is the level of interest that Indian farmers have expressed in making the shift to organic farming. Despite the enabling environment created by a culmination of the aforementioned factors, there exist several challenges for all the stakeholders involved at every stage of the value chain. Producers of organic products are continually struggling to optimize the scale of their operations while maintaining profitability. This is primarily because of the gaps in the regulatory framework for organic products in India. In addition to the procedural challenges pertaining to certification and quality assurance, the increasing costs of inputs and the elongated conversion period from conventional to organic farming are a few of the key challenges faced by the producers, most of whom are small or marginal farmers. The processors of organic food products on the other hand, face significant resistance in the form of lack of adequate postharvest facilities for organic products. Several measures need to be taken in order to avoid contamination and cross-contamination of the produce and the infrastructural capabilities of the country often prove to be inadequate. The marketing of organic produce comes with its own set of challenges related to global competitiveness and differences in global and national quality standards. Although there has been a marked improvement in the level of awareness regarding organic products, many consumers are unaware of its benefits thereby providing no incentives for increased supply and resulting in organic products being priced higher than their conventional variants.

An analysis of the strengths, opportunities, weaknesses and threats pertaining to the organic sector in India calls for the development of a public-private partnership model that aids the sector in reaching its full potential. A greater emphasis should be placed on the capacity building of stakeholders, easing access to finance, monitoring and evaluation (M&E) of all assets and processes as well as research and development to help keep abreast with global progress in the sector. Additionally, there has emerged an urgent need for infrastructural development and business climate reforms, reinvention of branding and marketing strategies and entrepreneurship development.

This paper provides a comprehensive overview of the organic market in India with the aim of identifying the key areas of intervention. It situates the Indian organic sector in the broader context of the global organic sector while identifying trends, key drivers of growth, challenges and opportunities. The paper also puts forth various solutions to the problems identified and in keeping in mind the global and national objectives of environmental protection, food security and sustainability.

⁴ India Organic Food Market Forecast and Opportunities, 2020. August 2015. Tech Sci Research. <https://www.techsciresearch.com/report/india-organic-food-market-forecast-and-opportunities-2020/449.html> accessed on March 10, 2018

⁵ Dilip Kr. Jha. India to treble export of organic products by 2020. Business Standard, April 27, 2017 website http://www.business-standard.com/article/markets/india-to-treble-export-of-organic-products-by-2020-117042600455_1.html accessed on March 10, 2018



1

Introduction

The Green Revolution and the context in which it took place assured and enabled farmers to increase their production of wheat and paddy among other crops. Along with its positives, it had its own tradeoffs. Today's consumer, however, is not living in an economy burdened by shortages anymore. The consumer can afford to choose products based on variety, quality, safety and convenience. Inspection of consumer goods through all these lenses places organic products in an advantageous position.

The transition from a "production-driven supply chain" to a "demand-driven value chain" has been phenomenal, especially in the last five years with the organic market growing significantly. In the organic food and beverages segment alone, India has witnessed a market growth of INR40,000 million in 2016-17 from INR675 crore in 2009-10, with an annual growth rate of 25%.^{4,5,6} While, the growth rate for conventional food processing industries is 10-15%,² 97% of the companies surveyed by ICRIER in 2017 reported 10%-40% higher profit margins on organic products.⁷ Therefore, of late many key players such as ITC and Cargill have ventured back into the organic food segment. E-commerce retail chains like Big Basket and Godrej Nature Fresh are also attempting to capitalize on this growth spurt, whereas food companies like Elite Food have planned to launch their organic foods including sugar, spices and pulses.⁸ Established players in the organic market segment are optimistic about their growth trajectory. For instance, Organic India aims at achieving a turnover of INR500 crore by 2020.⁹

1.1 Benefits of organic products

The consumers are increasingly becoming aware of the food safety issues and environmental issues because of their increased concern about health, the environment's health and its global implications. Organic food now has become a viable alternative for an increasing number of consumers, who are worried about the presence of chemicals residue

and the negative consequences on the environment caused by intensive production methods. Many farmers also now see organic farming as a way to stabilize or even increase their income due to public policy support and growing market demand. The benefits of organic products are threefold as summarized below:

- ▶ **Health:** Organic agriculture regulates how food is grown and processed. In addition to meeting the health and safety requirements of conventional food, organic food must also meet the additional safety standards of organic farming such as tougher regulations on manure use. Studies have shown that organic food contains a lower concentration of pesticides as compared to conventionally grown food¹⁰. Hence, there is a good reason to believe that organic farming reduces health risk¹¹. The health benefits of organic products are as follows:
- ▶ **Toxin and GMO-free:** Organic products are the most heavily regulated food products in the US. Only organic products come with a guarantee that no toxic persistent pesticides, synthetic fertilizers or GMOs are used in their production. Additionally, no antibiotics or growth hormones are given to livestock. Organic producers and processors are subject to rigorous announced and unannounced certification inspections by third-party inspectors to ensure that proper due diligence procedures and protocols are being followed.
- ▶ **Higher nutritional content:** Recent studies have found that organic fruits, vegetables and grains have fewer nitrates and cadmium and fewer pesticide residues than non-organic crops, making them safer to consume¹³.
- ▶ **Environment:** Organic farming primarily focuses on eco-friendly agriculture practices. It might not eliminate the negative environmental impacts wholly, but it can help reduce water pollution and improve the soil quality. Organic cultivation promotes conservation of biodiversity, enhances ecological functions and ecosystem services. It is a self-reliance system that improves the economic productivity

⁶ Potential for Trade of Organic Products from India, Occasional Paper No. 174, Export Import Bank of India, November, 2015. Website <https://www.eximbankindia.in/Assets/Dynamic/PDF/Publication-Resources/ResearchPapers/57file.pdf> accessed on March 10, 2018

⁷ Arpita Mukherjee, et. Al., Promoting Organic Food Products and Exports - Status, Issues and Way Forward. ICRIER. July 2017. Website http://icrier.org/pdf/Working_Paper_342.pdf accessed on March 10, 2018

⁸ Elite Foods to expand organic products range, targets Rs 1,000-cr turnover. Business Line, Kochi, December 8, 2017. Website <https://www.thehindubusinessline.com/companies/elite-foods-to-expand-organic-products-range-targets-rs-1000cr-turnover/article9986615.ece> accessed March 10, 2018

⁹ Organic India eyes Rs 500 crore turnover by FY20 end. Business Today. December 25, 2017 website <https://www.besnesstoday.in/pti-feed/organic-india-eyes-rs-500-cr-turnover-by-fy20-end/story/266741.html> accessed on March 10, 2018

¹⁰ Effects of organic food consumption on human health; the jury is still out! Marcin Barański, Leonidas Rempelos, Per Ole Iversen, and Carlo Leifert. March 6, 2017. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5345585/> accessed on March 10, 2018

¹¹ Supply chain management of locally grown organic food: A Leap towards sustainable food. Cognizant. 2014. website <https://www.cognizant.com/whitepapers/Supply-Chain-Management-of-Locally-Grown-Organic-Food-A-Leap-Toward-Sustainable-Development-codex928.pdf> accessed on March 10, 2018

of crops and livestock. The stringent organic certification standards enable several measures like mulching, crop rotation, crop residual management, rules on carrying capacity defining a number of heads of livestock are allowed per ha. , improved organic soil carbon binding significantly reduces green gases helps in mitigating climate change¹². A few key characteristics of organic farming that highlight the synergistic nature of the activity are mentioned below.

► **Economics:** Certified organic foods fetch higher prices, in comparison to conventional foods as most of the organic produce is directly procured by companies thereby excluding the middlemen. The retail price of organic food is high and eventually, organic production reduces cost also. This provides farmers a good return on an organized supply chain system.

Table 1 Environmental benefits of organic farming

Soil fertility	<ul style="list-style-type: none"> ► Organic farmers need to protect the long-term fertility of soils by maintaining organic matter levels, encouraging soil biological activity and careful mechanical intervention.
Plant nutrient uptake	<ul style="list-style-type: none"> ► They need to provide crop nutrients indirectly using relatively insoluble nutrient sources, which are made available to the plant by the action of soil micro-organisms.
Bio-fertilizer	<ul style="list-style-type: none"> ► Organic farmers are prohibited from using most synthetic fertilizers as well as sewage sludge on their fields. ► They need to ensure biological nitrogen fixation, as well as effective recycling of organic nutrients including crop residues and livestock manures.
Integrated pest management	<ul style="list-style-type: none"> ► Organic food must be grown without the use of persistent pesticides and must adhere to NOP/NPOP standards of IPM for pest and weed management like mechanical or physical methods and non-synthetic controls.
GMO free	<ul style="list-style-type: none"> ► GMOs are prohibited in the production and processing of organic foods.
Integrated livestock farming	<ul style="list-style-type: none"> ► Organic farmers cannot use antibiotics. The animals that receive antibiotic treatment lose their organic certification. ► Organic farmers accommodate the natural behavior of their livestock and meet health and wellness requirements, including year-round access to the outdoors, space for exercise, clean and dry bedding, clean water, shelter and direct sunlight.
Biodiversity conservation	<ul style="list-style-type: none"> ► Organic farmers must pay careful attention to the impact of the farming system on the wider environment and the conservation of wildlife and natural habitats.
Ecosystem services	<ul style="list-style-type: none"> ► Organic farming reduces greenhouse gas emissions causing climate change by maintaining healthy soil that naturally retains photosynthesized carbon dioxide instead of releasing it back into the atmosphere. ► It helps prevent toxic leachates in groundwater. Up to 40% of the synthetic fertilizers used on conventional farms end up in ground and surface waters, eventually polluting rivers, lakes and oceans.

Source: Only Organic ¹³

¹² "Organic Farming, Climate Change Mitigation and Beyond. IFOAM. FiBL. 2016. http://www.ifoam-eu.org/sites/default/files/ifoameu_advocacy_climate_change_report_2016.pdf accessed on March 10, 2018

² Top 10 reason to go organic. Only Organic Website. <http://www.onlyorganic.org/get-facts/top-10-reasons-to-go-organic/> Accessed on March 10, 2018



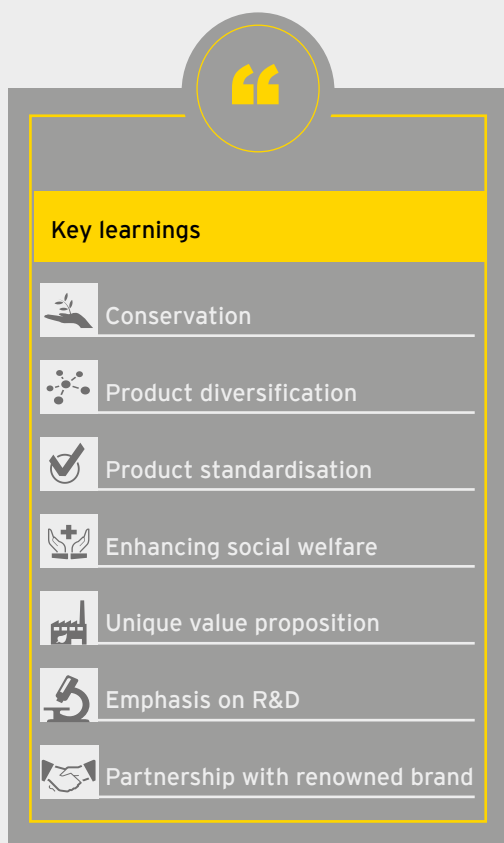


Organic scenario in India

2.1 Organic market in India

The organic markets in India are largely spread across the food and beverages, health and wellness, beauty and personal care and textile industries. The highest growth is observed in the organic food segment, followed by textile, beauty and personal care. The current Indian domestic market is estimated at INR40,000 million which is likely to increase by INR100,000 million – INR120,000 million by 2020 with a similar increase in exports⁵.

Box 1: Case of forest essential as an organic beauty brand



Forest Essentials

Forest Essentials is an authentic, traditional Skin Care Brand, with its foundations in the ancient science of Ayurveda. A pioneer in the Luxury Ayurveda segment, today it has become the Indian Beauty Brand through painstaking research and innovation. The brand started with the manufacture of natural soaps using cold pressed methods. Forest Essential's unique selling proposition is that none of its products are made in automated factories. Instead, they are all created in the villages of Uttarakhand near the Himalayas, which is conveniently the hub of Ayurveda practice. The brand has established a unique identity for selling 100% organic products that have not been tested on animals. The brand conserves and promotes the community in the villages of Uttarakhand by assisting the villages with infrastructure to build schools to enhance education and to aid sourcing clean drinking water.

The brand sources its raw materials and ingredients locally and with care, such as organically grown Cold Pressed Oils, raw and unprocessed Cane Sugar and steam distilled pure Essential Oils. The brand is hailed in the industry as the forefront leaders in using traditional and Ayurveda methods to create all products. Furthermore, it boasts the highest quality control standards in their factories, certified by GMP standards. Forest Essentials expanded in the late 2000's by opening a second manufactory in Haridwar, Uttarakhand. Aligned with the pharmaceutical grade production standards, this factory is classed as a Green factory by design. Controlled manufacturing ensures that they deliver a sophisticated product that is conscientious about the environment. Additionally, the brand is frequently looking at ways to reduce carbon footprint and focus on using renewable plant sources in their products.

Forest Essentials partnered with Estee Lauder in 2008 in order to incorporate global operating standards while operating in the Indian environment. This partnership has significantly helped Forest Essentials to upgrade its processes and facilities to match global standards. Constant collaboration and factory visits from Estee Lauder's teams have helped Forest Essentials to improve several of its processes, such as quality control, vendor development and packaging and introducing sustainable initiatives. These initiatives have enabled Forest Essentials to leverage 'quality' and 'ingredients' as unique selling proposition, while targeting the prestige segment.

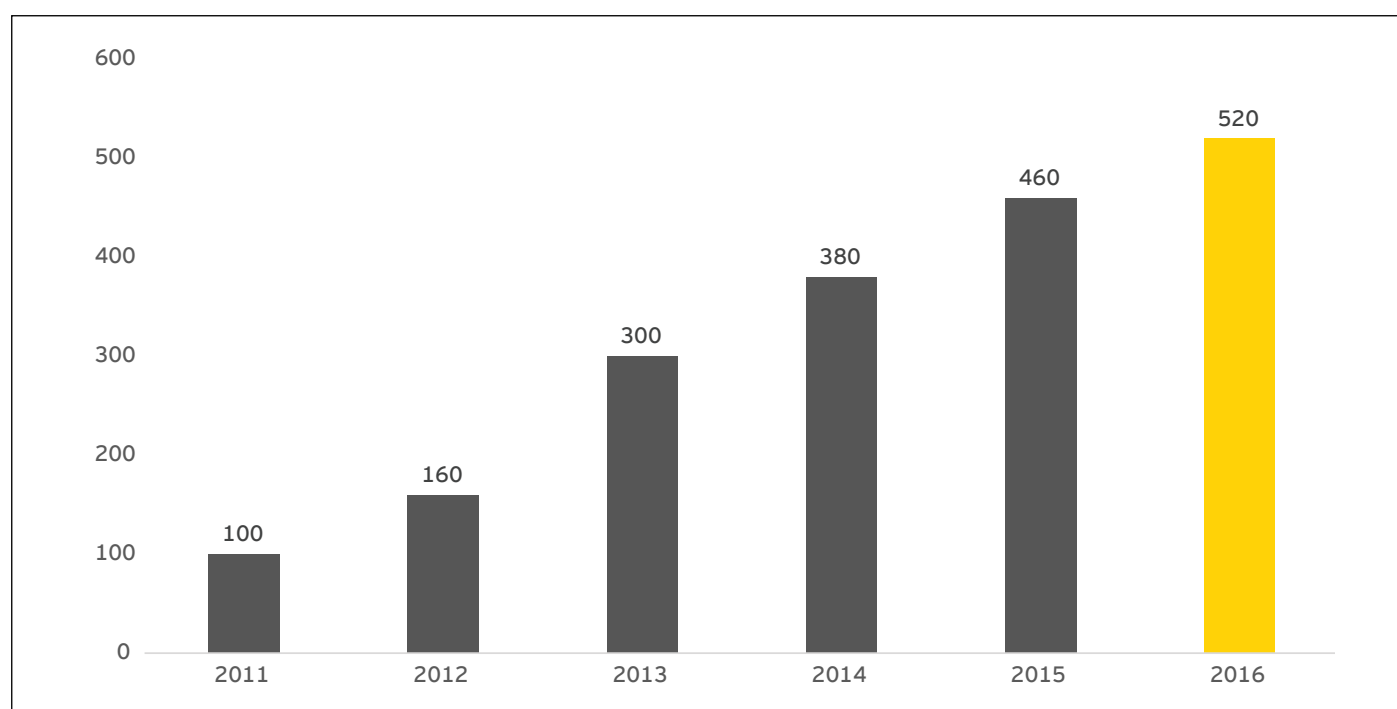
Source: Forest Essentials website¹⁴

¹⁴ <https://www.forestessentialsindia.com/> and internet research accessed on March 10, 2018

Organic food market

Organic packaged food and beverages is an emerging niche market in India and its primary consumers are high-income urbanites. The total market size for organic packaged food in India in 2016 was INR533 million, growing at 17% over 2015, and is expected to reach INR871 million by 2021¹⁵.

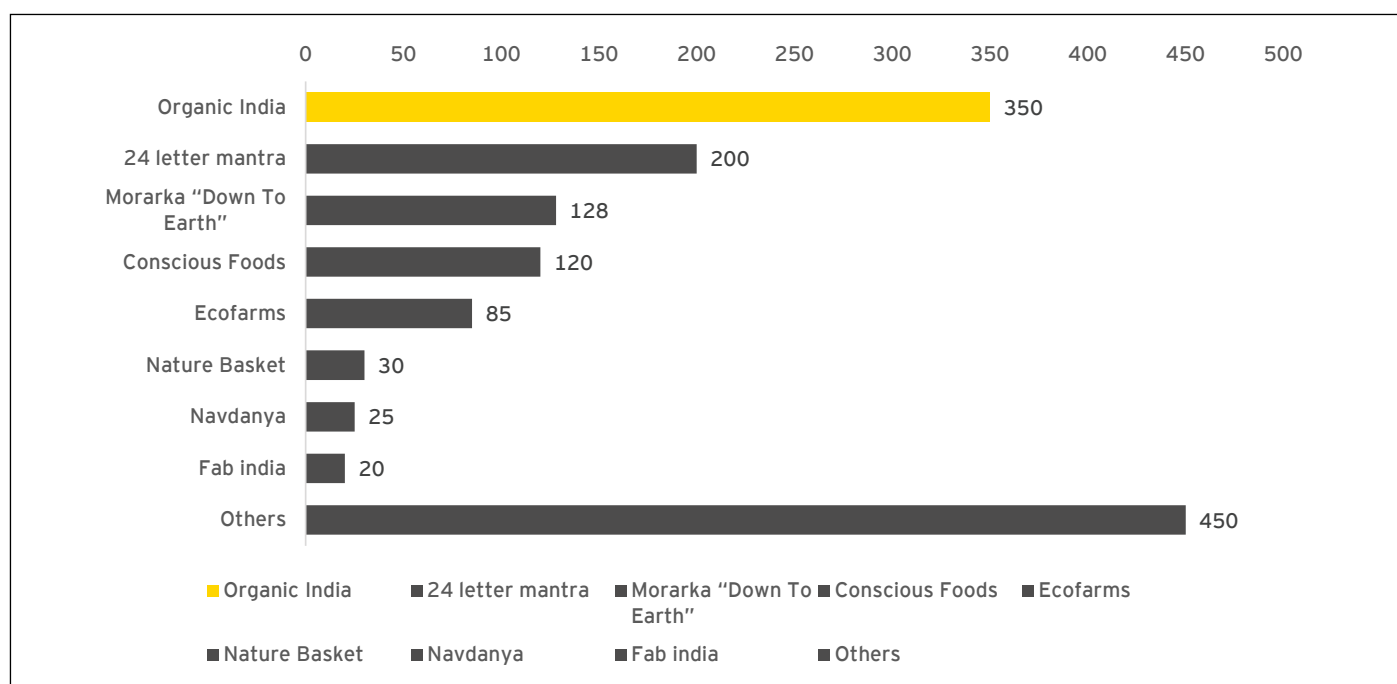
Figure 1: Market size of packed organic food and beverages (in INR million)



Source: Euro monitor International

India's exports of organic products increased by 17% between 2015-16 and 2016-17.³ In India, the majority of the demand comes from tier 1 cities¹⁶. Companies are witnessing notable growth as demand from metro cities increase with the entry of several new players in the organic food market such as Conscious Foods, Sresta, Eco Farms, Organic India, Navdanya and Morarka Organic Foods to name a few.¹⁶

Figure 2: Turnover of top organic companies (in INR crore)



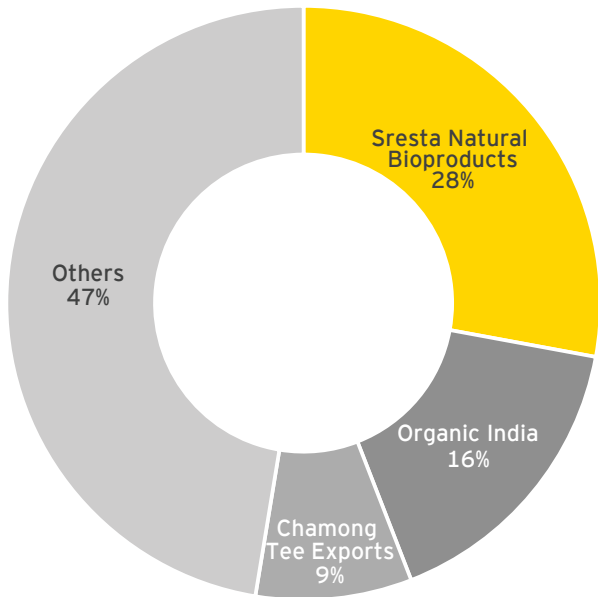
Source: Yes Bank Survey, 2012 with updates from internet research¹⁶

¹⁵ "Is the two certification system harming India's organic food market," The Economic Times website, <http://economictimes.indiatimes.com/industry/cons-products/food/is-the-two-certification-system-harming-indias-organic-food-market/articleshow/59826481.cms>, accessed 19 February 2018.

¹⁶ Yes Bank Survey, 2012. website <http://www.yesinstitute.in/reports/food/JAIVIK%20-%20Indian%20Organic%20Foods%20Market.pdf> accessed on March 10, 2018

India-based Sresta Natural Bioproducts Pvt. Ltd. has emerged as the market leader, with 37% value share of the packaged organic food market and 7.8% share of the packaged organic beverage market.¹⁷ It has increased its share of the organic food market in recent years, while smaller niche players have taken significant share away from it in the organic beverage market. A brief profile of two big organic companies (24 Letter Mantra and Organic India) is shared in the figure below.

Figure 3: Market share in packaged foods and beverages in 2016



Source: Euro monitor International¹⁷

Box 2: Case of food major organic 24 Letter Mantra brand owned by Sresta Natural Bioproducts

Key learnings

- Conservation
- Product diversification
- Product standardisation
- Enhancing social welfare
- Unique value proposition
- Emphasis on R&D
- Partnership with renowned brand

Sresta Natural Bioproducts

Sresta Natural Bioproducts sources organic food products from farmers across India. It has sought a partnership with farmers to help rid the farming supply chain of all chemical processes and market sustainable and organic products to customers. However, this does not mean to forgo the use of technology to ensure the superlative quality of crops produced. The company has managed to involve 20,000 farmers working on more than 30 projects over an area of 1,20,000 acres across India. Today, Sresta has over 1,500 outlets within and outside India.

Sresta has created communities committed to the cause of organic farming and ensured farmers' continued means of livelihood while building mutually beneficial relationships with the farmers. Sresta took steps to group farmers together for modern knowledge transfer on how to subscribe to organic standards. This was done through transparent and accountable methods. Sresta also educated farmers and took steps to protect them against middlemen, the impact of weather and better acquainted them with the economics of profitable farming. The company makes use of technology to ensure that accurate farming and cultivation practices are adopted by the farmers and processors of crops. The collaboration of natural solutions and cutting-edge technology results in superior products. Processing and production infrastructure are certified for organic processing of various products. Sresta's central storage and processing facility is conveniently located in Hyderabad for easy access to ports and good land connectivity. This particular facility is India's first CO2 treatment facility, which doesn't use chemical fumigation systems. Sresta has also invested in R&D expertise to better understand the organic food industry with regards to product concepts, processes and quality benchmarks.

The packaging of products utilizes technology throughout the process. The Facility is equipped with all the latest machines and equipment to ensure foreign material control, metal control and microbial safety. Sresta's packaging facility has been certified for Food Management Systems (ISO certified) by Intertek, one of the world's best-recognized quality certification company. Some of the technologies used by Sresta during processing the farm grade material include grain cleaning at state of the art facilities and aseptic processing at certified units.

Source: Sresta Natural Bioproducts website¹⁸

¹⁷ "Euro monitor International website <http://www.euromonitor.com/organic-packaged-food-in-india/report> accessed on March 10, 2018

¹⁸ <http://www.sresta.com/> and internet research accessed on March 10, 2018

Box 3: Case of organic India as major Indian export brand and Fab India partnership



Key learnings



Conservation



Product diversification



Product standardisation



Enhancing social welfare



Unique value proposition



Emphasis on R&D



Partnership with renowned brand

Organic India

Organic India manufactures, processes and markets certified organic, herbal and Ayurveda products. Organic India was founded in 1997 in Lucknow. Organic India is engaged with more than 1,000 marginal farmers in several clusters of around 2.4 million ha in Uttar Pradesh, Andhra Pradesh, and Rajasthan. They grow, fruits and vegetables, spices and herbs such as Tulsi, to produce a host of herbal supplements, medicines, spices, edible oils and other food products. The company has set up various retail outlets throughout the country. These have contributed significantly to the company's turnover. Additionally, the company earns 40% of its revenue from domestic sales whereas close to 60% of its revenue is generated from exports to 35-40 countries including the USA, Australia, Israel, United Kingdom (UK), Germany and many other European nations.

Organic India was established with the aim of setting up a sustainable business model to support the livelihood of thousands of impoverished farmers in India by providing training and education, enabling self-sufficiency and transferable skills. This idea became a movement as organic and biodynamic farming methods were developed and practiced. All farmers and tribal wild crafters that work with Organic India are educated by the company in the realm of organic and biodynamic agricultural practices. The commitment of Organic India to its affiliated farmer's results in the company paying all the fees associated with acquiring the necessary organic certifications for the farmers and purchasing the harvested crops and herbs at a premium market price. Additionally, the farmers have the opportunity to rotate between growing crops on their land for Organic India and themselves. This results in a sustainable income model for the farming families, while simultaneously improving and preserving their own health and natural environment.

Organic India has committed to being a trustworthy and innovative global leader by providing true wellness products. The company's advanced processing methods and dehydration technologies warrant that the herbs and crops retain their maximum level of potency for the highest quality. The success of the company showcases that shared abundance can be created with an uncompromising commitment to environmental and social responsibility. To expand its product reach, Organic India has formed a partnership with Fabindia - India's largest private retail platform for craft-based products.

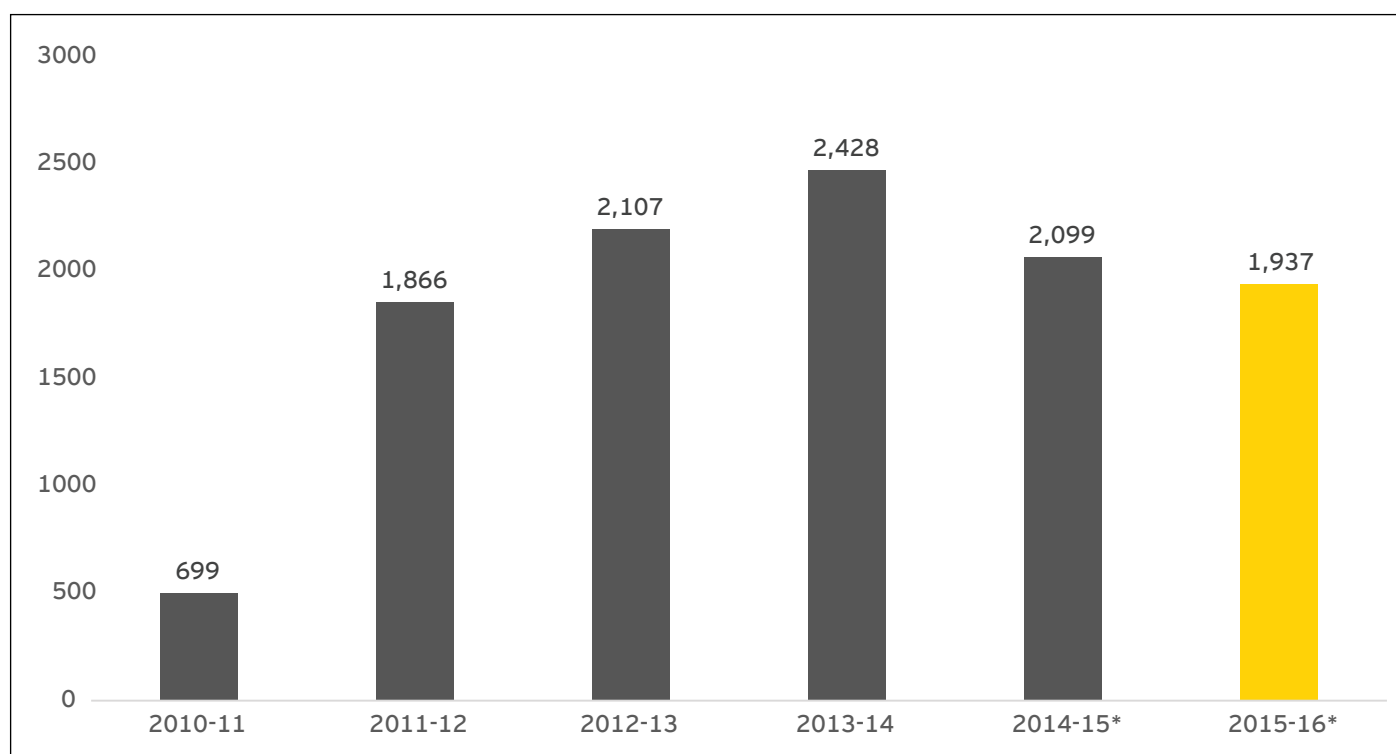
Source: Organic India website¹⁹

Organic export markets

In addition to the growing domestic market, India is the second largest exporter of organic products in Asia after China. The increasing export market coupled with the Government's support is making organic cultivation in India highly successful. Indian organic food exports were estimated at US\$299 million during 2015-16 with total volume of 263,688 MT. The major export destinations were the US, European Union, Canada and New Zealand.³ It is assumed that most of the remaining quantity is sold in local markets. In other words, the sale of the remainder is uncategorized. Oilseeds comprised half of India's overall organic food export, followed by processed food products at 25%.³ The growth in the export of organic products is shown in the graph below:

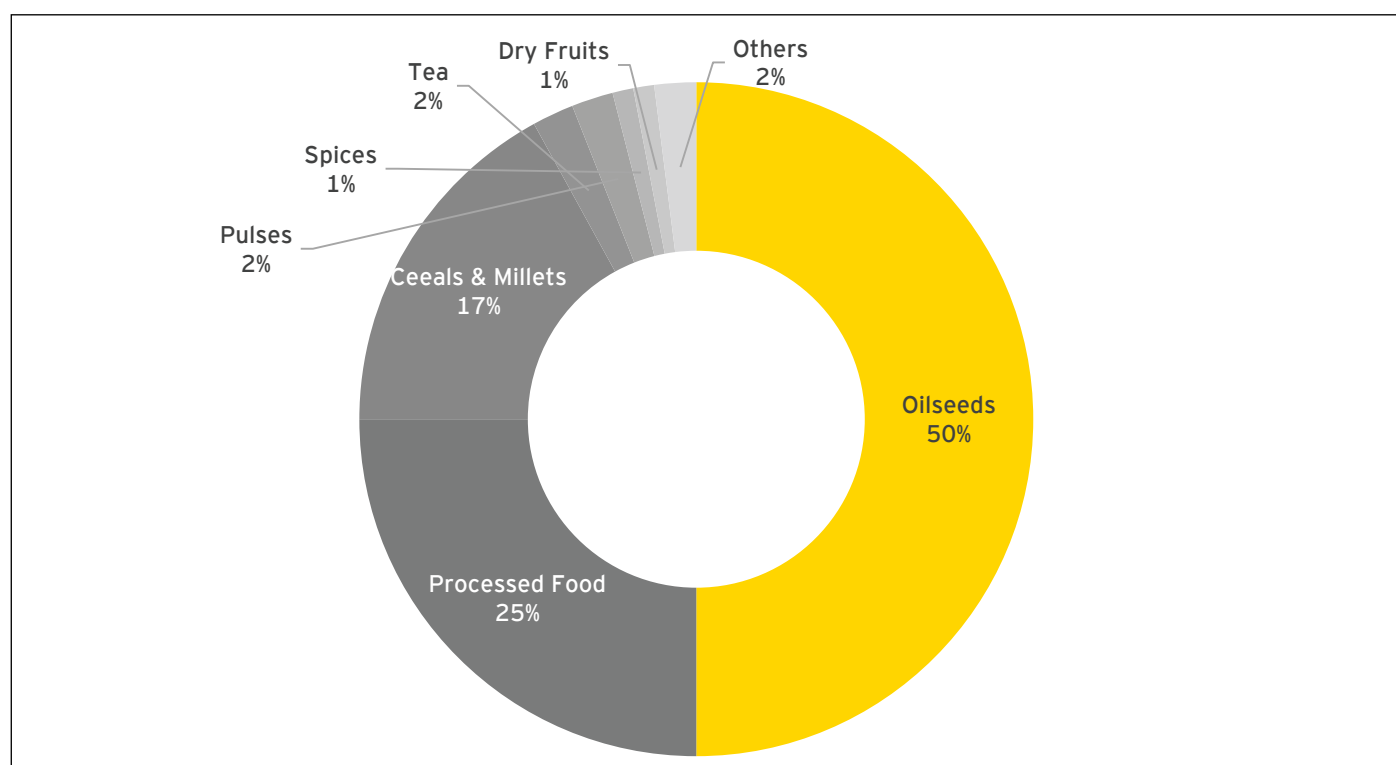
¹⁹ <https://us.organicindia.com/> and internet research accessed on March 10, 2018

Figure 4: Value of organic export (in INR crore) *Textile excluded



Source: APEDA Annual Reports^(20, 21, 22, 23, 24)

Figure 5: Export of Organic Product in FY 16.



Source: APEDA

²⁰ http://apeda.gov.in/apedawebsite/Annual_Reports/Annual_Report_English_2011-12.pdf accessed on March 10, 2018

²¹ http://apeda.gov.in/apedawebsite/Annual_Reports/Annual_Report_12-13_English.pdf accessed on March 10, 2018

²² http://apeda.gov.in/apedawebsite/Annual_Reports/ANNUAL_REPORT_ENGLISH_2013-14.pdf accessed on March 10, 2018

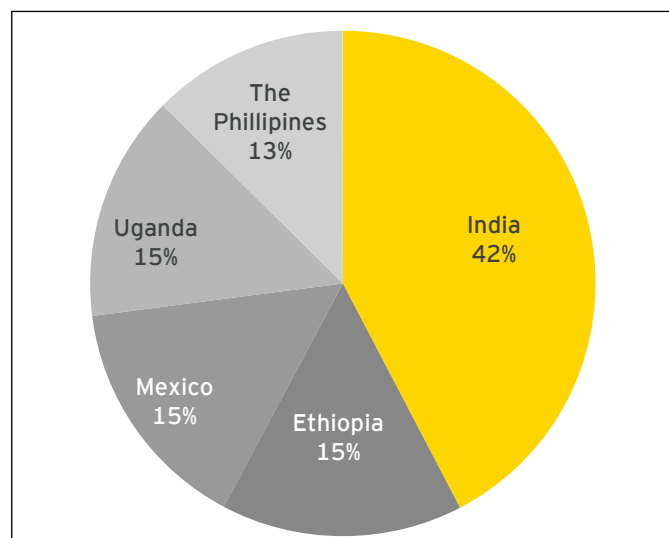
²³ http://apeda.gov.in/apedawebsite/Annual_Reports/Apeda_Annual_Report_English_2014-15.pdf accessed on March 10, 2018

²⁴ http://apeda.gov.in/apedawebsite/Annual_Reports/Apeda_Annual_Report_English_2015-16.pdf accessed on March 10, 2018

2.2 Organic Production in India

India currently holds the ninth position among 178 countries that actively practice organic agriculture.²⁵ At present, the country is home to more than 835,000 organic producers, 699 processors, 669 exporters and 1.49 million ha area under organic cultivation.² However, with only a meager 0.4% of the total agricultural land area designated for organic cultivation, the industry presents extensive scope for expansion²⁵

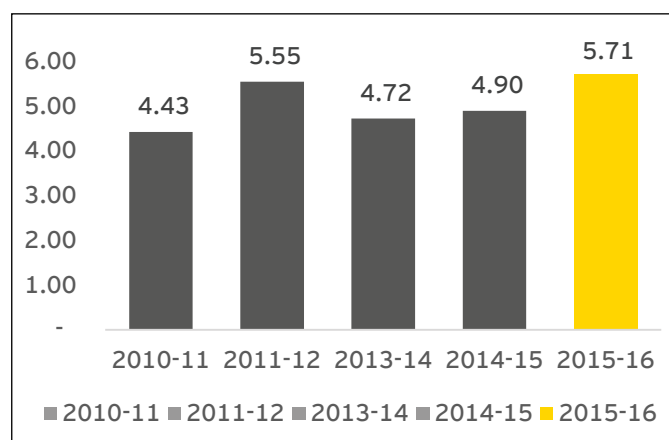
Figure 6: Share of organic producers



India has a remarkable potential to produce all varieties of organic products, owing to the existence of various agro-climatic zones within its borders. The total area under organic certification was 5.71 million ha in 2015-16. This included 26% cultivable area with 1.49 million ha and 74% (4.22 million ha) forest and wild area for collection of minor forest produce².

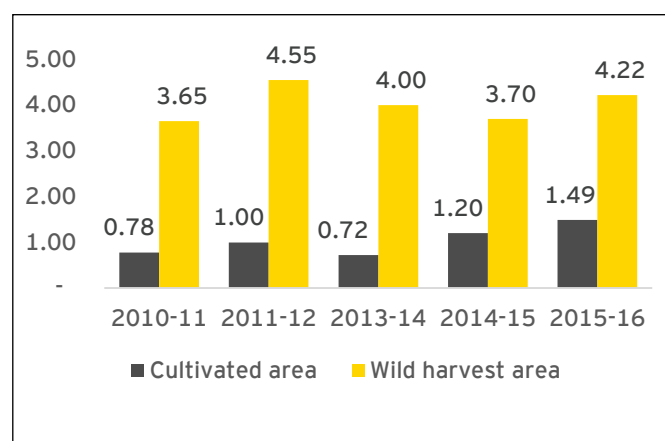
The organic production area in India falls essentially under two management systems: (1) National Programme on Organic Production (NPOP) and (2) Participatory Guarantee System-India (PGS-India). The organic area under this program is given below:

Figure 7: Organic area in India (in million ha)



Source: APEDA^(23, 24, 25, 26, 27)

Figure 8: India's cultivated and wild harvest area (in million ha)



Source: APEDA^(23, 24, 25, 26, 27)

There was an increase in area at a CAGR of 6% from 2010-11 to 2015-16 and absolute growth of 29% during the same period. It is likely to grow at a rate of 8% -10% till 2020.^(23, 24, 25, 26, 27)

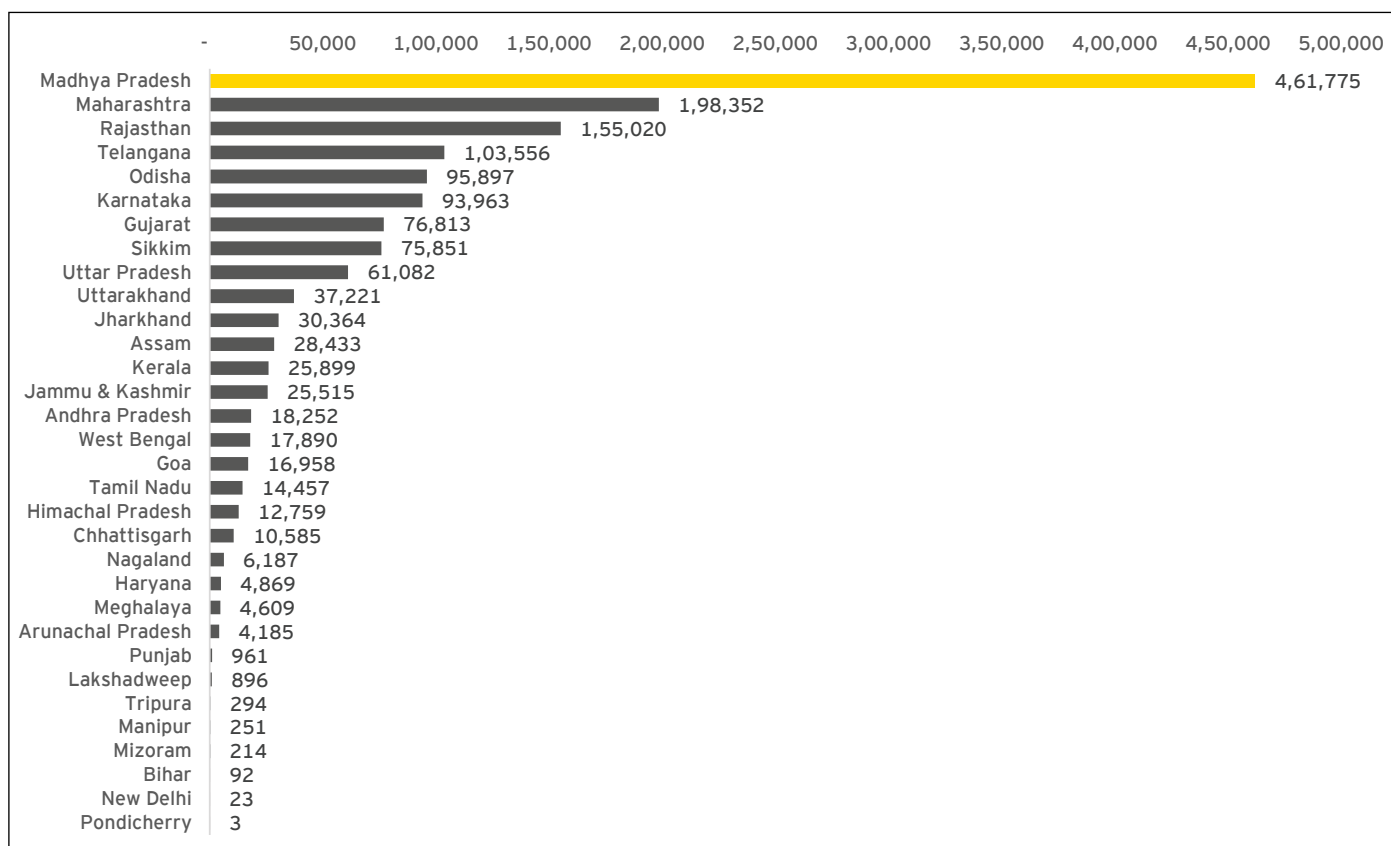
Among the states, Madhya Pradesh has the largest area under organic certification (4.62 lakh ha) followed by, Maharashtra (1.98 lakh ha) Rajasthan (1.55 lakh ha), Telangana (1.04 lakh ha), Odisha (0.96 lakh ha), Karnataka (0.94 lakh ha), Gujarat (0.77 lakh ha) and Sikkim (0.76 lakh ha). These states had a combined share of 90% of the area under organic certification in 2015-16²⁶.



²⁵ Bedanga Bordoloi .The future lies in organic farming. The Hindu Businessline website <https://www.thehindubusinessline.com/opinion/the-future-lies-in-organic-farming/article9204408.ece> accessed on March 10, 2018

²⁶ APEDA, 2015. symposium on organic farming. lok sabha unstarred question no.369 website <http://164.100.47.190/loksabhaquestions/annex/8/AU369.pdf> accessed on March 10, 2018

Figure 9: Organic agriculture area by state in ha 2014-15



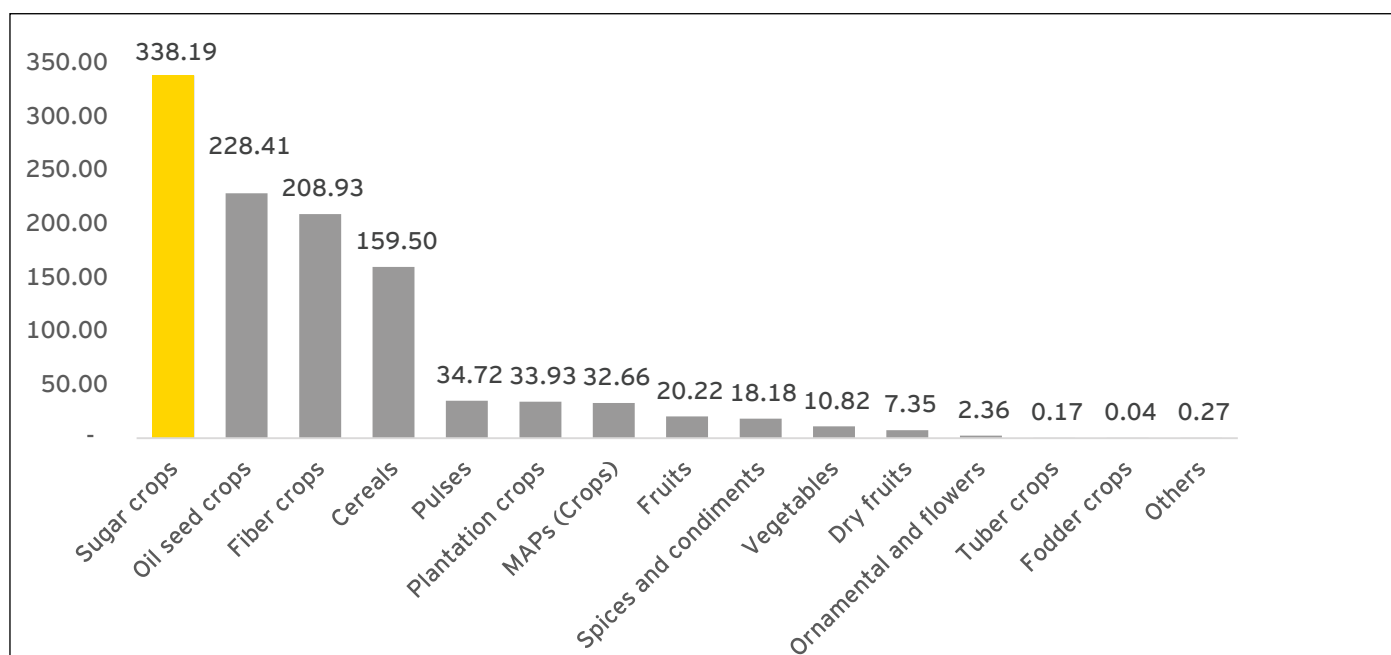
Source: APEDA⁽²⁶⁾

Organic production by crop

More than 157,721 organic cotton farmers were certified to the NPOP Standard in 2014-15.

In the same year, 276,736 ha of land was certified as organic with approximately 148,105 ha (54%) dedicated to organic cotton²⁷.

Figure 10: Production of organic crops in India by category in thousand MT for 2014-15



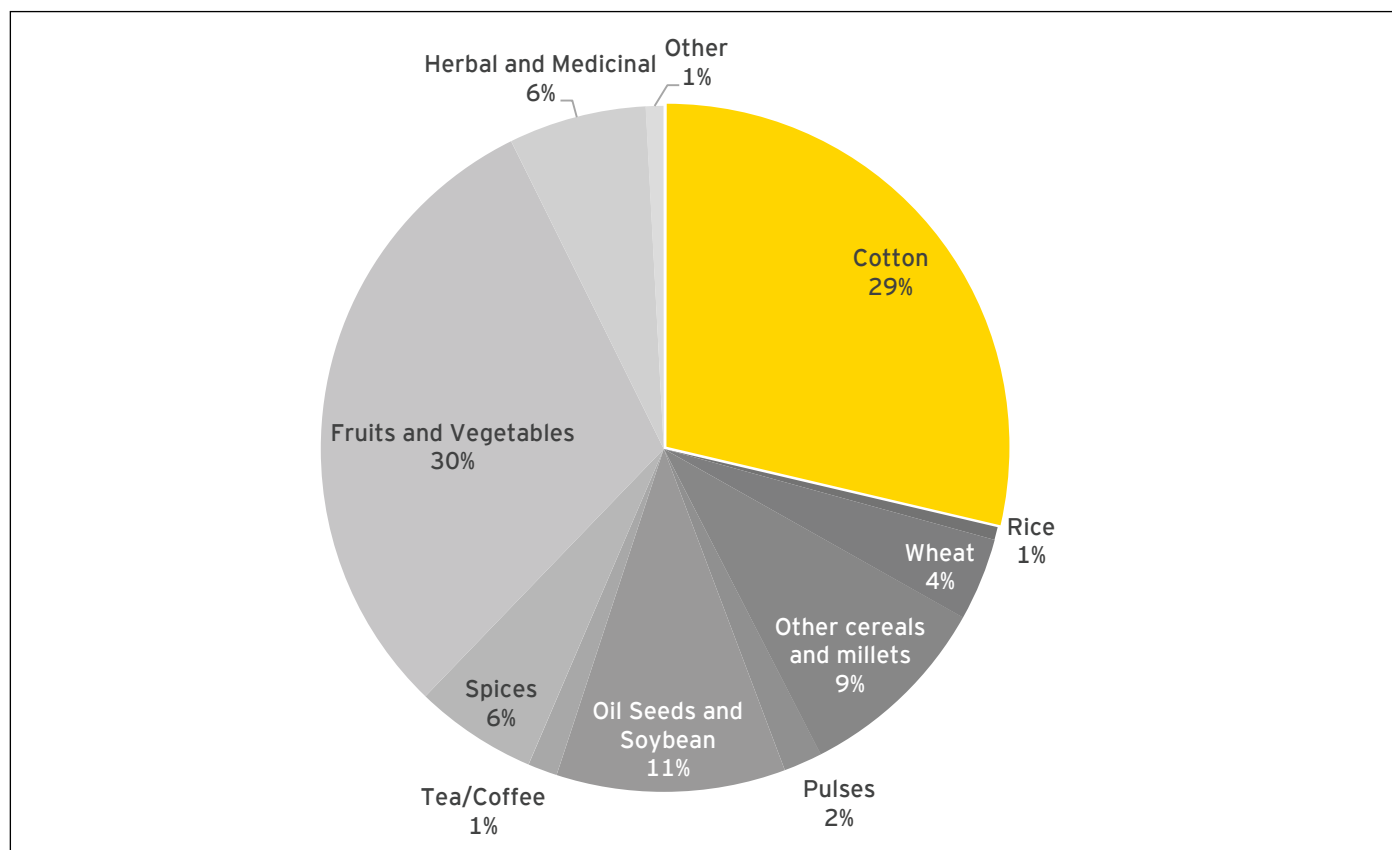
Source: APEDA²⁸, Tracenet

²⁷ <http://www.indiantextilejournal.com/News.aspx?nld=j7ptldycdhNxiTx2ztADg==&NewsType=ORGANIC-COTTON-Thorny-issues-stifle-growth> accessed on March 10, 2018

²⁸ Lok Sabha unstarred Question No. 3905 answered dated December 22, 2015 <http://164.100.47.190/loksabhaquestions/annex/6/AU3905.pdf> accessed on March 10, 2018

In terms of organic crops, the combined share of the top 10 categories of organic food crops is around 99%. The top four categories (with a share of around 85%) include sugar, oilseed, fiber and cereals and millets.

Figure 11: Organic crop share in India (FY2009-10)



Source: APEDA, 2009-10

Emerging trends

The key trends in the Indian organic food industry are as follows²⁹:

- ▶ **Increasing demand for organic food:** The current market size for organic food products is US\$533 million, exhibiting 17% growth in 2015. According to ASSOCHAM, metropolitan cities have witnessed a 95% increase in demand in the last five years.
- ▶ **Increasing use of online marketing channels:** Many organic food companies are adopting the online route to expand their consumer base. The brick and mortar organic stores are usually located in metro and mini metro cities³⁰. These companies are reaching out to the rest of the consumers through online channels. Some of the players that have established their own online website include Farm2Kitchen, Organic Shop, Naturally Yours and Organic India. Premium food retail chains such as Godrej Nature's Basket also sell

organic food brands such as Navdanya and 24 Mantra online. The online vegetable and fruit store I Say Organic sells five tons of vegetables and fruits a week and has a customer base of around 10,000 households in the National Capital Region (NCR).

- ▶ **Increasing number of organic food restaurants and cafes:** With increasing incidence of health problems such as diabetes, anxiety and stress plaguing urban India, many entrepreneurs are venturing into the area of organic café and marketplace. For example, Devang House is a fully organic café located in New Delhi which organizes the Organic Living Festival every fortnight. It also sells herbal lifestyle products like dental powder and digestive tonics and uses natural and organic produce in its menu. The Trident, Gurgaon, has a separate organic menu that uses organic produce only.
- ▶ **Increasing awareness regarding organic foods:** Many events are taking place throughout the country to generate awareness about the benefits of organic farming to farmers

²⁹ "Sequoia and CDC eye organic food brand, Shrestha Natural Bio products," The Economic Times website, <http://brandequity.economictimes.indiatimes.com/news/business-of-brands/sequoia-and-cdc-eye-organic-food-brand-sresta-natural-bioproductions/56412964>, accessed 8 August 2017.

"Organic food market to treble in 4 years: Study," Business Standard, May 2016, via EMIS.

"India Organic Food and Beverages Market Outlook," Ken Research, October 2015, via EMIS;

"Organic Foods: The New Revolution," BW Business World Magazine, August 2016, via EMIS.

"Organic Foods: Good Food, Few Takers," BW Business World Magazine, August 2016, via EMIS.

"Organic Food for Healthy Thought," New Indian Express, March 2016, via EMIS.

"Organic food festival begins in Rajkot today," Times of India, December 2015, via EMIS.

"Organic food brand Naturally Yours receives seed funding," Business Standard, October 2015, via EMIS.

"Organic market," The Telegraph, May 2016, via EMIS.

³⁰ "Organic food market to treble in 4 years: Study," Business Standard, May 2016, via EMIS.

and consumption of these products among consumers. For example, a three-day organic food Mela was organized by the Institute for Cultural Research and Action (ICRA) in November 2015. Additionally, an organic food festival Prakrut-2016 took place in which organic farmers from across the country participated and exhibited organic produce and traditional food recipes. The idea was to connect the farmers and consumers in the city.

- ▶ **Increasing investment in organic food companies:** A large number of investors are investing in organic food companies as the Indian organic food market is growing exponentially. Many online organic food retailers such as Naturally Yours, Pavitra Retail, Organic Shop, Natural Mantra and Nature land Organics food have attracted investors aplenty. Mumbai-based online organic food brand Naturally Yours has recently raised funds from angel investor Sanjay Mehta. With this investment, Naturally Yours plans to expand into new product categories and increase the product range.³¹
- ▶ **Increasing retail shelf space for organic products:** The increasing demand for organic food has led to an increase in its retail shelf space in organized retail stores across India. To increase the penetration of organic food, companies are introducing new types and varieties of organic food items. For instance, in March 2016, an organic food market was inaugurated in Gangtok that has 17 outlets allotted to farmers attached to self-help groups (SHGs) and farmers' clubs from Sikkim.
- ▶ **Introduction of new product categories and varieties:** Many organic food companies are coming up with new product categories and varieties to provide consumers with sufficient choices. Apart from fruits, vegetables, teas, pulses and spices, companies have also introduced ready-to-eat snacks, cookies, medicinal plants and herbs, and juices. Additionally, increased organic alternatives can be observed in established product categories.

2.4 Key growth drivers of organic cultivation and markets in India

There are several growth drivers in the organic sector in India; some of the key points are highlighted below³²:

- ▶ **Increasing health awareness:** In recent years, there has been an increase in health concerns among Indian consumers. They have started giving importance to the nutrient content and the quality of the food they eat, thereby resulting in an increase in the consumption of organic food.
- ▶ **Rising disposable income:** Rising income and education

levels are leading to an increase in the expenditure of people on healthcare products. The per capita income of Indians at current prices increased by 10.4% to INR103,007 in 2016-17, as against INR93,293 during 2015-16. Average household incomes are expected to triple in the next two decades, making India the world's third-largest consumer economy by 2025, up from the current seventh position.

- ▶ **Urbanization and working population:** Increase in urban population implies growth in per capita purchasing power as well as a change in lifestyle and food habits. Urbanization is growing rapidly and 45% of the Indian population will be residing in urban areas by 2030. About 70% of the consumption growth in India in the next 15 years is expected to come from the working population (people aged 15-59 years). The urban consumers are open to paying increased prices for organic food products³³.
- ▶ **Increasing support from Government of India:** The Government of India is promoting organic farming and the consumption of organic food in the country. Financial assistance is provided to farmers who are adopting organic farming under various central sector schemes such as National Mission for Sustainable Agriculture (NMSA), Mission for Integrated Development of Horticulture (MIDH), National Food Security Mission (NFSM) and Rashtriya Krishi Vikas Yojana (RKVY). In the Union Budget of 2016, the GoI proposed to allocate 500,000 ha in the country under organic farming and develop value chains in the Northeastern Region (NER).
- ▶ **Technological developments:** Innovative technological solutions using artificial intelligence, imaging and renewable energy among others are being developed by private companies for the organic food industry. Ecozen Solutions, a Pune-based start-up, has developed solar-powered cold storage for fresh farm produce which can operate in remote areas with irregular power supply. Hyperspectral cameras are being promoted that use infrared rays to gauge the quality and shelf life of the product. Developments like these on a larger scale may help tackle various challenges faced by the organic sector. Finally, through IT and digital interventions, the traceability challenge of organic products has been resolved.

2.5 Challenges in the organic Sector in India

The organic farming sector in India is entering a transformation stage due to an increase in new ventures that

³¹ Sequoia, CDC may seal Rs 680 crore deal for organic foods brand 24 Mantra. Jan 2017 <https://timesofindia.indiatimes.com/deals/-ma/sequoia-cdc-may-seal-rs-680-crore-deal-for-organic-foods-brand-24-mantra/articleshow/56412443.cms>

³² "Call to nature," The Hindu website, <http://www.thehindu.com/life-and-style/food/call-to-nature/article19445128.ece>, accessed March 10, 2018.

"Per capita income of Indians to cross Rs 1 lakh in FY17," The Hindu Business Line website, <http://www.thehindubusinessline.com/economy/per-capita-income-of-indians-to-cross-rs-1-lakh-in-fy17/article9464480.ece>, accessed on March 10, 2018.

"India to become third-largest consumer economy by 2025," Boston Consulting Group website, <https://www.bcg.com/d/press/21march2017-new-indian-changing-consumer-149010>, accessed on March 10, 2018.

"India Organic Food and Beverages Market Outlook," Ken Research, October 2015, via EMIS;

"Working population will drive India's consumption," Business Standard, http://www.business-standard.com/article/economy-policy/working-population-will-drive-india-s-consumption-116033100009_1.html, accessed March 10, 2018;

"More than 45 percent population of India will be living in urban areas by 2030," India Blooms website, http://indiablooms.com/ibns_new/life-details/L/2021/more-than-45-percent-population-of-india-will-be-living-in-urban-areas-by-2030.html#sthash.KTOiAmN6.dpuf, accessed 9 September 2016;

"Organic Foods: The New Revolution," BW Business World Magazine, August 2016, via EMIS.

"Budget to boost organic farming in northeastern states: DoNER Minister," Business Standard, http://www.business-standard.com/article/economy-policy/budget-to-boost-organic-farming-in-northeastern-states-doner-minister-116030400551_1.html, accessed March 10, 2018;

³³ Organic Food Market. <http://samadhanindia.net/wp-content/uploads/2016/06/ofm.pdf> accessed on March 10, 2018

have begun to disrupt the market with their one-of-a-kind offerings. In an effort to promote a healthier lifestyle, these players are playing a pivotal role by providing consumers with wholesome organic produce.

Since the organic food segment is still at a nascent stage in India, both the Government and private players need to develop a strong policy framework that can benefit all involved. The organic farming industry in India holds immense potential to grow, provided it receives steady investment and benefits from both existing and new initiatives like incentivizing organic cultivation, food processing, certification and regulatory ease and tax benefits. Some of the challenges faced by the organic sector today can be grouped into three heads:

Producer-level challenges:

- ▶ **Certification process:** Issues like high certification costs, lengthy procedures, international validity, inadequate certifying agencies and inadequate supporting infrastructure facilities for verification are rampant in the certification process for pursuing organic farming. It costs between INR50 and INR500 per farmer per year for certification and the cost of internal audits and documentation is approximately INR2,500 per farmer. Although the cost of certification has reduced, it is expensive for many small groups of farmers or individual farmers.
- ▶ **Certification standards:** There is also a gap in the understanding of the certification standards and labeling requirements. Additionally, key trading partners have traditionally demonstrated a lack of willingness to sign equivalence arrangements.
- ▶ **Lack of market for the pre-certification produce:** The harvest prior to certification or during the certification process of the farm or crop cannot be placed in the organic niche market due to the lack of an organic certificate. This harvest is sold as conventional crops, thereby causing the farmer to incur a loss.
- ▶ **Lack of standardization for the certification of different commodities:** Dairy products have a different standard while meat has a different standard. The process of standardization of organic coconut will be different from that of the value-added products of coconut. Therefore, a company having multiple commodities needs to obtain multiple certifications and maintain multiple records as per the applicable standards.
- ▶ **High dependency on agriculture:** India has the highest number of producers in the world yet they cultivate less than 1% of the organic area. The conventional production system is more lucrative given the land fragmentation.
- ▶ **Lack of incentives for farmers:** The transition from conventional to organic farming is accompanied by high input costs and low yields in the initial years. The cost of going completely organic is quite high, due to the high cost of organic manure. The commercially available bio-manure products may not be completely organic, and therefore the products sometimes get disqualified at the certification stage. This is one of the many reasons why farmers are skeptical when it comes to shifting from conventional to organic

farming. In such cases, the farmers choose to play it safe by practicing conventional methods of farming.

- ▶ **Lack of standardized organic agriculture inputs and subsidy on organic inputs:** Farmers also face an acute shortage of quality standardized organic agriculture inputs, which are often much more expensive than conventional agricultural inputs. There are no subsidies from the Government on agriculture inputs, especially biofertilizers and biopesticides, making the cost of cultivation for organic farming quite high. Unless the farmers use their own farm grown manure in large quantities, they are unable to meet the expenses. Lack of proper organic inputs often results in low yield making organic farming unsustainable for the farmers.
- ▶ **Lack of organic cultivation research and extension:** The current research and extension on organic farming are much lesser than that on conventional farming. There is a lack of quality non-GMO seeds that are fit for organic cultivation. Strong government support for producing non-GMO high yielding varieties and niche crops for organic farming under different agro-ecological zones across India require investment in organic research and extension. The extension services are very limited for organic, for example, the ATMA scheme focuses more on conventional farming. There is no timely advisory available for organic pest and disease control measures.

Processor-level challenges

- ▶ **Supply chain issues:** Many farmers are apprehensive of organic farming since it involves high production costs. The emphasis on collection, transportation and storage of fresh organic produce is very high. Due to relatively low volumes, the marketing and distribution chain of organic food products is relatively inefficient and the costs involved are very high. For example, organic produce cannot be stored in government warehouses that practice chemical treatment of storage areas. High demand and low supply further create inflationary pressure on organic food products. Therefore, these products have higher price markups than conventional products. Additionally, many sellers mix the produce from different geographical regions to help attain a competitive price, thus compromising the geographical origin norm.
- ▶ **Lack of a proper organic supply chain is felt more acutely in hilly, tribal and remote areas that have a high potential for organic farming but have difficult terrain or underdeveloped infrastructure.**
- ▶ **Global competitiveness:** A major challenge India faces is that of increasing its share in the global organic food export market, in lieu of global competitiveness. There often exists a dichotomy between international quality and safety standards and Indian organic standards, which puts Indian produce at a disadvantage.
- ▶ **Lack of proper branding and packaging:** Promotion and sale of organic products require separate packing material that is natural and requires distinctive branding that distinguishes organic from conventional products. At present, there is an absence of regulations on labeling standards. There is

³⁴ NPOP Organic Standards 2014. http://apeda.gov.in/apedawebsite/organic/organic_contents/national_programme_for_organic_production.htm accessed on March 10, 2018

³⁵ "Organic Foods: The New Revolution," BW Business World Magazine, August 2016, via EMIS.

also lack of standards and clarifications regarding labeling and certification requirements for the domestic market and import market leading to malpractices such as mixing organic with conventional produce.³⁵ The Indian certification agency plays an important role in branding. Since it requires financial assistance, the Government and private sector should come to a common understanding of organized export, brands development, and promotion with incentives from the Government.

Consumer-level challenges

- ▶ **Lack of awareness among consumers:** Many consumers in India are still unaware of the health benefits of organic food products. The situation is worse in non-metro cities where consumers do not know the difference between conventional farming and organic farming. They are buying products labeled as natural assuming them to be organic³⁶. Organic food products are produced, manufactured and handled using organic means defined by certifying bodies, whereas, natural food simply refers to food items that are not chemically altered or synthesized in any form. Therefore, companies can only expand their consumer base by increasing the awareness levels among consumers in non-metro cities.
- ▶ **The high cost of organic food products:** The cost of organic food products in India is currently higher than that of conventional food items. Specialized farmer training cost, processing and inventory holding cost (without chemical additives), and increased packaging, logistics, and distribution cost (due to low volumes), contribute to the high price of organic food products. The switch to organic food is likely to cost an additional INR1,200-1,500 per month for a family. Therefore, the purchase of organic food is restricted to the affluent class of consumers residing in large cities.
- ▶ **Limited availability of organic food products:** The limited availability of organic food products in the market is also posing a serious challenge to the growth of the Indian organic food industry. There are very few retail shops in India that store and sell organic food items. Many fake organic products are also available in the markets, which are diminishing the profits of genuine vendors. Therefore, the limited availability of organic food products is driving consumers to look for other options available in the market.

2.6 Regulatory environment and government initiatives

To address some of the challenges and increase competitiveness in organic Sector, the Government of India had taken several steps from a regulatory point of view to match the Global Standards of Organic Products, in an attempt to incentivize production for farmers and prompt companies to create consumer awareness.

2.6.1 Regulatory framework

To have consonance with the international standards, the following bodies were formed in India to take steps to identify organic products:

1. Agricultural and Processed Food Products Export Development Authority (APEDA) for implementing the National Programme on Organic Production (NPOP)
2. National Centre for Organic Farming (NCOF) for implementing the Participatory Guarantee System in India
3. Food Safety and Standards Authority of India (FSSAI) for regulation of food safety standards of organic packaged food and beverages products

APEDA: APEDA was established under the Agricultural and Processed Food Products Export Development Authority Act, passed by the Indian Parliament in December 1985. APEDA is the apex organization under the Ministry of Commerce and Industry, Government of India. It is mandated with the responsibility of promoting and developing the export of agro products from India.³⁷ Its main functions include promoting the export-oriented production and development of scheduled products (including fruits, vegetables, cereals and rice), fixing of standards and specifications for the scheduled products for the purpose of exports.

NPOP: Since 2001, the Government has been promoting organic farming through third-party certification under NPOP. NPOP is implemented by APEDA to meet the stringent standards for exports. It provides information on standards for organic production, systems criteria and procedures for accreditation of Inspection and Certification Bodies. NPOP also lays down guidelines for the national organic logo and the regulations governing its use. The standards and procedures are formulated in relation to international standards such as those of Codex and International Federation of Organic Agriculture Movements (IFOAM). The NPOP standards for production and accreditation system are also recognized by the European Commission and Switzerland as equivalent to their country standards. The scope of NPOP includes:

- ▶ Policymaking for development and certification of organic products as notified by the Department of Commerce from time to time
- ▶ Creating national standards for organic products and processes
- ▶ Accreditation of certification programs to be operated by certification bodies
- ▶ Certification of organic products

In 2006, India's organic certification process under NPOP had been granted equivalence with the European Union. It has also been recognized for conformity assessment by the National Organic Programme (NOP) of the United States Department of Agriculture (USDA)³⁸. The organic certification process, set of standard and guiding principles laid down by NPOP are as follows.

³⁵ "Organic Foods: The New Revolution," BW Business World Magazine, August 2016, via EMIS.

³⁶ "Is the two certification system harming India's organic food market," The Economic Times website, <http://economictimes.indiatimes.com/industry/cons-products/food/is-the-two-certification-system-harming-indias-organic-food-market/articleshow/59826481.cms>, accessed on March 10, 2018.

³⁷ Scheme of APEDA in Export of Agricultural Processed Food Products website http://apeda.gov.in/apedawebsite/trade_promotion/XII_Agriculture_Export_Promotion_Plan.htm accessed on March 10, 2018

³⁸ <http://organicterrace.in/blog/how-to-get-organic-certification-in-india/> accessed on March 10, 2018

Box 4: Guiding principles of certification standards of NPOP

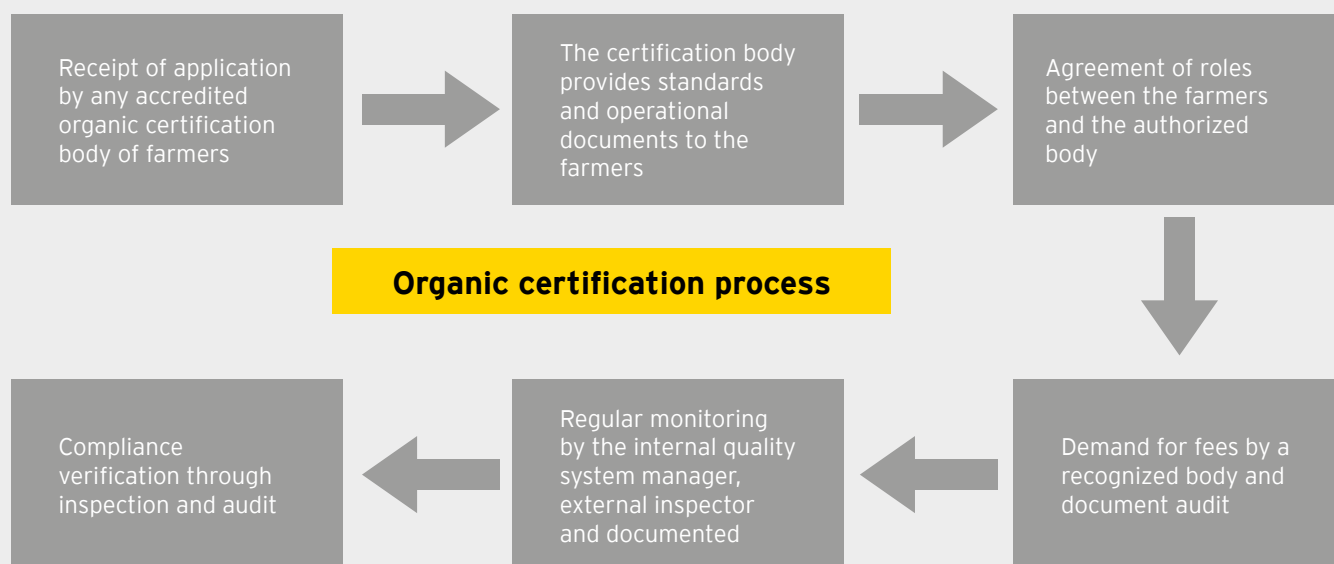
- 1 Conversion of land for organic farming
- 2 Natural Farm Inputs
- 3 No Genetically Modified inputs or Irradiation technology should be used
- 4 Integrity of all processes (physical, biological, mechanical) must be maintained at all times
- 5 No contamination from nearby farms
- 6 Sustainable practices in the farm

The process of organic certification in India: Though organic certification can be obtained for all types of agricultural produce, including processed food and food served in restaurants, this section focuses on agricultural produce. Large-scale farmers or small size landholder growers groups (minimum of 25 and maximum of 500 farmers who possess land in the same geographical area) can apply for organic certification of their produce. It is pertinent to note that the certification is provided to produce and not the land.

APEDA offers an internet-based e-service called Tracenet to collect, record and report data on organic certification. It is also used to trace any organic produce all the way to the farm from anywhere in the supply chain.

The steps followed by APEDA for organic certification of produce are³⁹:

Box 5: Certification process in India



³⁹ <http://organicterrace.in/blog/how-to-get-organic-certification-in-india/> accessed on March 10, 2018

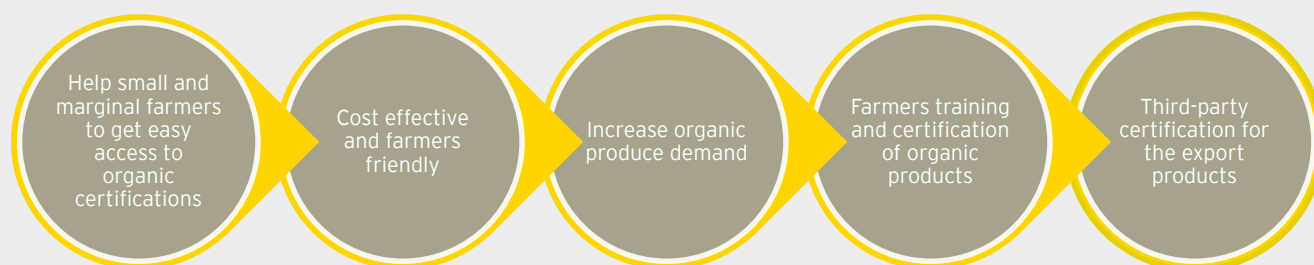
Certification agency: The organic certification process is carried out by accredited bodies under NPOP. There are 28 agencies accredited by APEDA. These certifying agencies verify farms, storages and processing units. Products certified organic by them carry the India organic logo.

Participatory Guarantee System-India (PGS-India): The development of PGS in India began in 2006. It was only in 2015 that it was officially recognized. PGS-India is a process-based certification wherein a group certifies that its members are growing food organically. This certification process has been made free for the farmers, ensuring that they do not have to bear any cost other than a nominal cost as set by the farmer community. Currently, PGS-India is implemented by the National Centre of Organic Farming (NCOF) under the National Project on Organic Farming (NPOF), Department of Agriculture, Cooperation and Farmers' Welfare, Government of India.

Produce from farms that are being converted to organic carries the PGS-India Green logo during the transition period, and after three years of not using any chemicals the farm will be eligible for the PGS-India Organic symbol.

In PGS the local farmers conduct their own appraisal and maintain the rules and standards of the group. It is simpler and cheaper and is controlled by the farming community itself. It's recommended for organic farmers who work as a group or who can come together as a group at village or district level. The design is best suited for small and marginal farmers where the community is supported by NGOs or any institution. The major scope of PGS-India includes the following:

Box 6: Scope of PGS-India



PGS-India controls the quality system through internal QMS through Farmer Grower Group Certification (GGC) instead of a certifying agency. The role of GGC is as follows:

- 1 Act as an internal quality control system for small farmer group and cooperatives⁴⁰
- 2 Producers who share common products are organized under one management and marketing system
- 3 Collective marketing of the organic products,
- 4 Centralized processing, marketing, and distribution system,
- 5 Internal control and supervision system to ensure compliance with organic certification.

PGS vs. third party⁴¹

- ▶ There is no connection between the two certification systems. For instance, exporters cannot process foods with PGS-certified ingredients because developed markets like the US, the biggest for organic products, and the European Union do not accept PGS yet. But Krishan Chandra, director,

NCOF, says over a hundred countries are willing to trade in PGS products.

- ▶ Mauritius, Nepal and Taiwan are willing to import from India. PGS certification will soon cover not just farms but also food processing, he adds. Sikkim, which in 2016 became India's first state to become fully organic and wants its land producing exportable commodities to remain under third-party certification while introducing PGS in other areas. Third-party certification is normally done for groups of 500 farmers each, and fields of 35-45 farmers are tested in each group. Sandeep Bhargava, CEO of OneCert Asia, one of the largest certifiers, says it costs between INR150 and INR500 per farmer per year for certification and the cost of internal audits and documentation could be INR2,500 per farmer. However, he notes, the costs are defrayed by companies and through government schemes.
- ▶ Joy Daniel of the Institute for Integrated Rural Development (IIRD) says that if the contribution of volunteers working with NGOs in PGS was to be monetized, the cost could be INR1,000 per farmer in the first three years and a tenth of that there on. Supporters of PGS question the veracity of

⁴⁰ State Policy on Organic Farming in Madhya Pradesh, 2010. Website http://www.rvskvv.net/TaskForce/Organic_farming_policy_MP.pdf accessed on March 10, 2018

⁴¹ Is the two certification system harming India's organic food market? G Seetharaman, ET Bureau. Jul 30, 2017. Website http://economictimes.indiatimes.com/industry/cons-products/food/is-the-two-certification-system-harming-indias-organic-food-market/printarticle/59826481.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst accessed on March 10, 2018

third-party certification. N Balasubramanian, CEO of Sresta Natural Bioproducts, says the company foots the cost of certification of the farmers it sources from. Sresta, which sells the 24 Mantra Organic brand, is India's largest organic foods company, accounting for 28% of the INR3.2 billion packaged organic foods and beverages market in 2016.

- ▶ Since 40% of its business comes from exports, which necessitates third-party certification, it follows the same for the domestic market. "The draft regulations are a step in the right direction but PGS will have to be handled with care," says Balasubramanian, adding that a dual certification system might create some confusion in the minds of consumers initially. Shrikant Sharma, CEO of Sanjeevani Agro Foods, another organic food company, says they experimented with PGS a few years ago but gave up owing to the lack of a viable market for the same.

Food Safety and Standards Authority of India (FSSAI): FSSAI operationalized the Food Safety and Standards (Organic Food) Regulation, 2017. The regulation recognizes both NPOP and PGS-India as certified organic products. However, in addition to this, the packaged food will require meeting both the conventional food standards and organic food standards.⁴² The key features of this regulation include the following:

- ▶ No person can manufacture, pack, sell, offer for sale, market, distribute or import any organic food products unless they comply with the regulations;
- ▶ Organic foods should comply with provisions from at least one of the following:
 - ▶ NPOP
 - ▶ PGS- India
 - ▶ Other system or standards notified by the Food Authority
- ▶ Organic food that is marketed through direct sales by the small original producer or producer organization is exempted from the provisions.
- ▶ Organic labeling requirements should be accurate, in addition to the standard labeling requirements.
- ▶ Traceability should be established up to the producer level.
- ▶ All organic foods should comply with the Food Safety and Standards (Food Product Standards and Food Additives) Regulation 2011, and the Food Safety and Standards (Contaminants, Toxins, and Residues), Regulations, 2011.
- ▶ Sellers of organic foods will be required to display organic food items in a distinguishable manner from conventional food items.
- ▶ Organic food imports under bilateral or multilateral agreements on the basis of the equivalence of standards between NPOP and the organic standards of the exporting countries shall not be required to re-certify on import.
- ▶ All organic food consignments should be accompanied by a Transaction Certification (TC) issued by an accredited certification body covered under the terms of equivalence agreement.

2.6.2 Government initiatives

The Government of India is promoting organic farming through its two national level flagship programs NPOP and NPOF. These are the growth engines for organic farming in India. Under the NPOF, organic farmers in the country are provided with the assistance of 25%-35% of the total cost of the project. However, a limit of INR4 million-INR6 million has been set up for the establishment of production units for bio-inputs such as bio-fertilizers and bio-pesticides.

In addition to NPOP and NCOF, several other schemes/ programs have been taken to boost organic farming. Major schemes that promote organic farming are as follows:²⁷²⁸

- 1 NMSA
- 2 Paramapragat Krishi Vikas Yojana (PKVY)
- 3 Rashtriya Krishi Vikas Yojana (RKVY)
- 4 Mission for Integrated Development of Horticulture (MIDH)
- 5 National Mission on Oilseeds & Oil Palm (NMOOP)
- 6 Network Project on Organic Farming of Indian Council of Agricultural Research (ICAR)
- 7 National Project on Management of Soil Health and Fertility (NPMHS&F)

There is a specific focus on the NER with respect to organic farming. Two major programs in the NER are:

- 1 Horticulture Mission For North East and Himalayan States (HMNEH)
- 2 „Mission for Organic Value Chain Development for Northeast regions (MOVCDNER) under National Mission for Sustainable Agriculture (NMSA)

Other major achievement to promote the organic sector:

On 16 January, Prime Minister Narendra Modi declared Sikkim as the first state in the country to practice organic farming only. Sikkim banned the use of fertilizers and pesticides in farming in 2008 and 74,000-hectare land has been brought under organic cultivation across the state. Some of the locally grown organic vegetables are potatoes, spinach, peas, beans, tomatoes, cabbages and cauliflowers. „The Directorate General of Foreign Trade (DGFT) liberalized the quantitative restrictions on the export of organic products. The export of organic wheat, non-basmati rice, edible oils and sugar have been exempted from all the annual quantitative ceiling limits. Additionally, the quantitative ceiling on pulses and lentils has been increased from 10,000 tonnes to 50,000 tonnes.

The Government's agricultural policy seeks to enable technically sound, economically viable and socially acceptable use of natural resources for organic agriculture. The policy will bring potential area for organic farming, sustainability in soil water conservation, strengthening rural economy and bringing value addition to organic produce through fair pricing and organized marketing system.

To facilitate organic farming, 11 state governments (Kerala, Karnataka, Andhra Pradesh, Sikkim, Mizoram, Nagaland, Himachal Pradesh, Madhya Pradesh, Gujarat, Rajasthan and Odisha) have come out with their own State Organic Farming Policies, and Sikkim became the first state to be declared an organic state. Many other states like Chhattisgarh and Sikkim are also promoting an organic marketplace wherein producers and consumer directly interface.

⁴² Gazette Notification of Food Safety and Standards (Organic Food) Regulation, 2017. (Uploaded on: 04.01.2018). FSSAI website <http://www.fssai.gov.in/home/fss-legislation/notifications/gazette-notification.html> accessed on March 10, 2018

Table 2: Details of major government scheme

Schemes	Details
NPOF	<ul style="list-style-type: none"> ▶ 25-30% financial outlay ▶ INR40-60 lakh by NABARD for the establishment of biofertilizer units ▶ For integrated use of chemical and organic manure including bio-fertilizers
National Horticulture Mission (NHM) and Horticulture Mission for North East and Himalayan State	<ul style="list-style-type: none"> ▶ 50% subsidy for a vermicomposting unit ▶ INR30,000 per beneficiary for adopting organic farming ▶ INR5 lakh for farmer group covering an area of 50 ha
NMSA	<ul style="list-style-type: none"> ▶ 100% assistance by the state government for setting up mechanization of fruit/vegetable waste ▶ 100% assistance for setting up of biofertilizer and biopesticide manufacturing units ▶ INR85 lakh assistance for setting up a biofertilizer testing quality control laboratory
PKVY	<ul style="list-style-type: none"> ▶ INR20,000 will be given to farmers up to 3 years for performing organic cultivation ▶ Procuring packaging material, preparation of labels, holograms, printing and branding of organic produce at INR2,500/acre ▶ For transportation of organic produce to marketplaces, financial assistance to the tune of INR120,000 for one cluster of 50 acres is also provided ▶ To motivate and support marketing facilities, financial assistance is given at INR36330 per cluster for organizing an organic fair to meet the expenses of arranging stalls, rent and labor charges, publicity material and management of the event
RKVY	<ul style="list-style-type: none"> ▶ To promote organic farming in different components, with approval from state-level approval committee
NFSM	<ul style="list-style-type: none"> ▶ NFSM and Accelerated Pulses Production Programme (A3P) encouraged the farmers for the use of rhizobium culture and phosphate solubilizing bacteria for cluster-level demonstration



⁴³ Organic Farming Policy 2005, Ministry of Agriculture, India. http://ncof.dacnet.nic.in/Policy_and_EFC/Organic_Farming_Policy_2005.pdf accessed on March 10, 2018

3



Opportunities and solutions for organic market growth

Despite all government efforts to boost production, there are several challenges that remain and are mostly related to value addition and marketing of organic products. The companies need to bear the cost of aggregating produce from small farmers and transportation and handling costs; bear losses on account of perishability, quality and rejections; and maintain a buffer margin for quality variations and disaggregation to reach out to retail points. The warehousing protocols and product manufacturing protocols are even stringent in terms of fumigation during storage, use of preservatives and added ingredients while manufacturing. The packaging requirement for organic is also stringent, wherein natural packing materials are to be used, which increases the cost of packaging.

All of the aforementioned factors contribute to high operating costs compared to conventional products and lead to high price mark-ups. In addition, most of the high incremental pricing is made up of taxes as it is considered as rich man's purchase and therefore taxed heavily. The higher price acts as a barrier and refrains many consumers to choose organic products; therefore, the bulk of sale is restricted to metro cities and supermarkets. The value chain also remains fragmented because the essential commodity act could be invoked any time in any commodity rendering large-scale investments in storage and infrastructure which otherwise is unavailable.

Therefore, innovative solutions to optimize scale and maintain profitability for organic products are required. Some solutions for value chain development, supply chain management and improving certification processes are provided below.

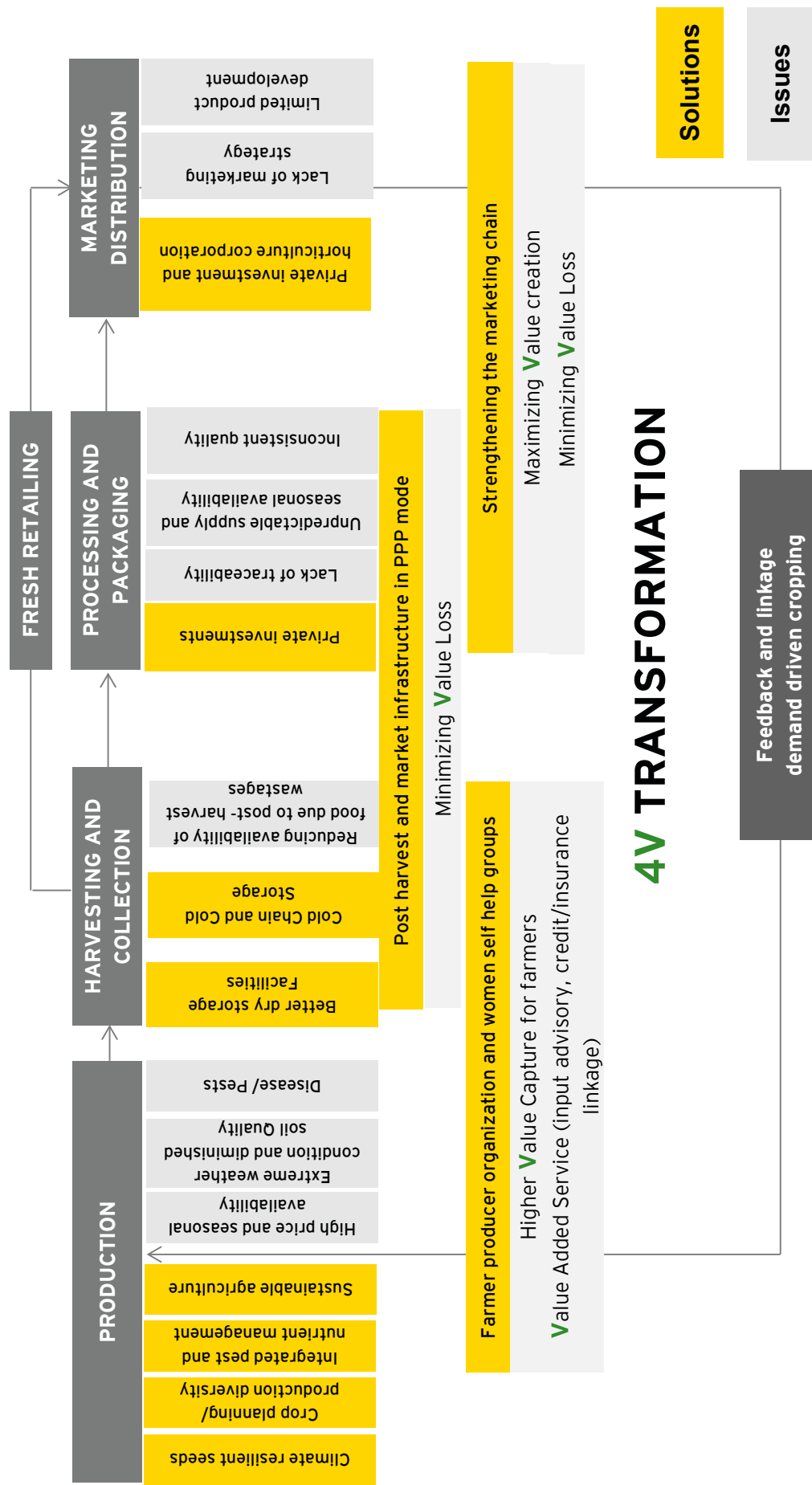
Organic sector value chain development

Comprehensive value chain development can cut down operation cost and make the organic market profitable and scalable while bringing down the cost of cultivation simultaneously. The problems in the value chain and prospective solutions can be understood through the 4V framework developed by EY. This framework deals with the problems at each stage, namely:

- ▶ Production
- ▶ Harvesting and collection
- ▶ Processing and packaging
- ▶ Marketing distribution

The solutions are based accordingly on four basic principles, or the 4Vs:

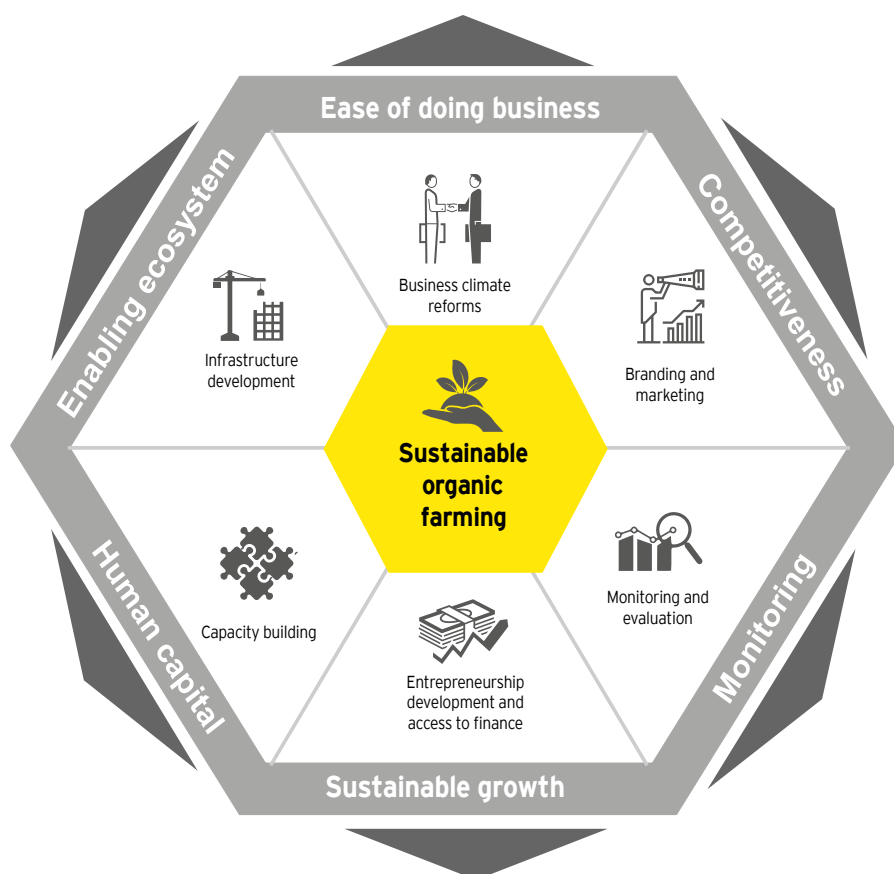
Figure 12: Agriculture proposition-EY's 4V framework



Source: EY proprietary framework

Restructuring organic sector and bringing reforms:

A domestic market segmentation including mass organic products, mid-segment organic products, and premium organic products can bring the much-needed focus in order to cater to the large consumer base. E-commerce platforms are new drivers of growth in the organic market and can be explored more aggressively. Although the Government has been encouraging organic cultivation through various policies, there is a need to have state-level organic policies and organic cells to monitor organic production. At the same time, the Government needs to steps up its efforts to discourage the use of fertilizers and pesticide by incentivizing and promoting the use of biofertilizers and biopesticides to decrease the cost of cultivation.





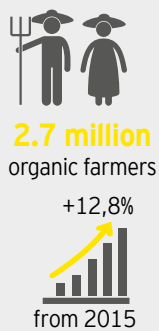
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Export opportunities and international organic trade

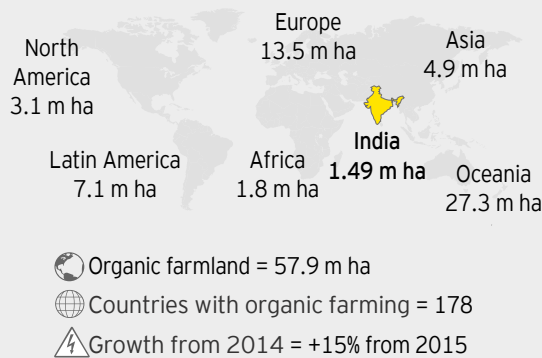
The growth in the organic sector in terms of area, number of producers and market size grew significantly from 2015 to 2016. The organic agriculture area grew to 57.8 million ha (15%), whereas organic producers grew to 2.7 million producers (12.8%) and organic markets grew to more than EUR80 billion (12%) from 2015 to 2016⁷.

Box 7: Global organic sector 2016

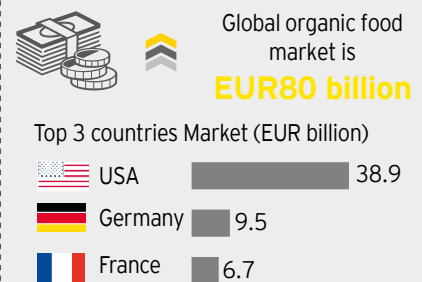
Organic producers 2015



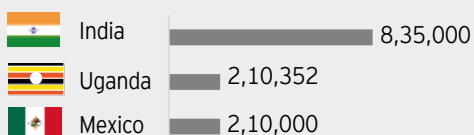
Organic agriculture land 2016



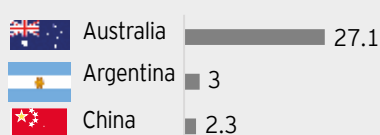
Organic market 2016



Top 3 countries (# of producers)



Top 3 countries (land in million ha)



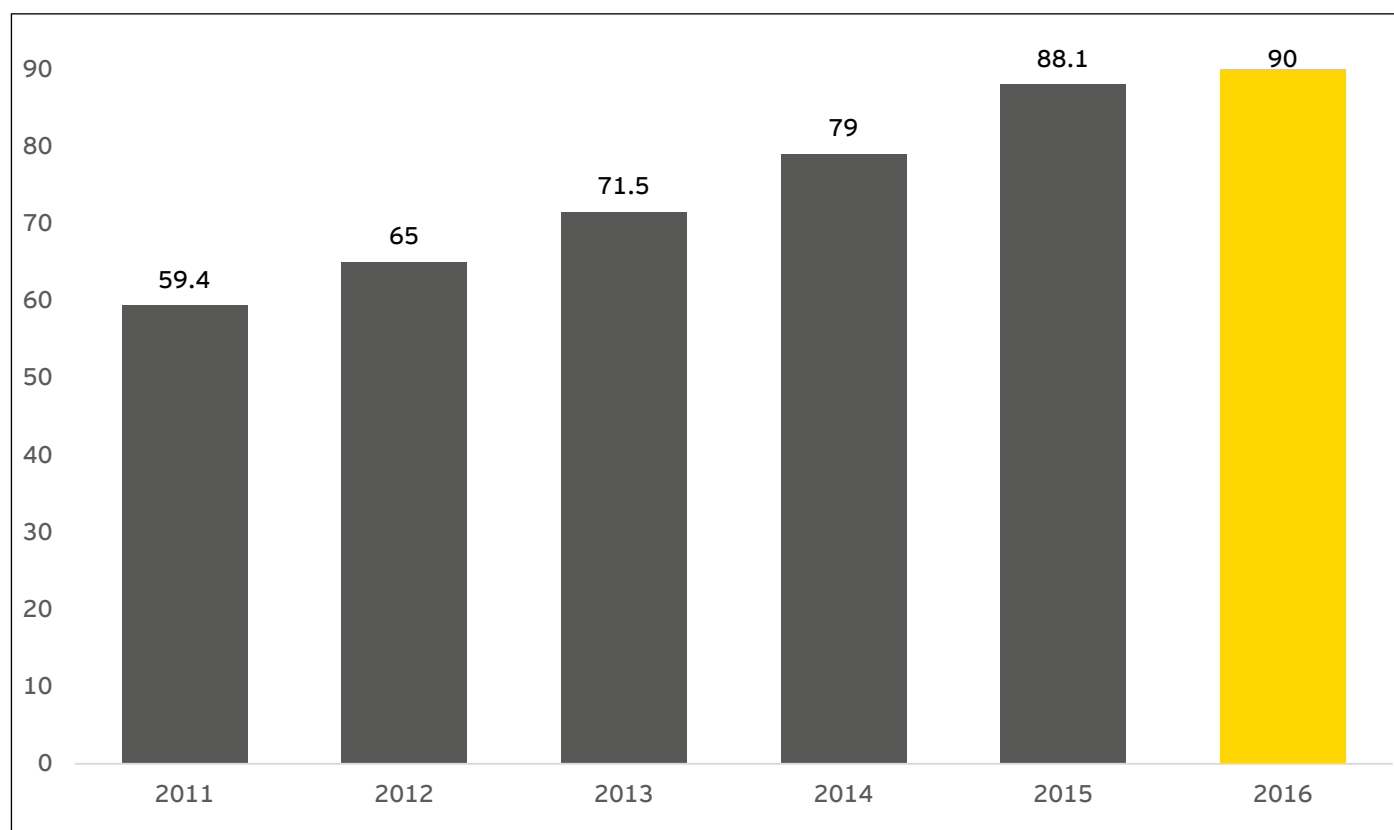
- Ireland
Highest organic market growth 21.8%
- Denmark
Highest organic market share 9.7%
- Switzerland
274 Euros highest per capita spending

Source: IFOAM and FiBL Survey⁷

4.1 Global organic market

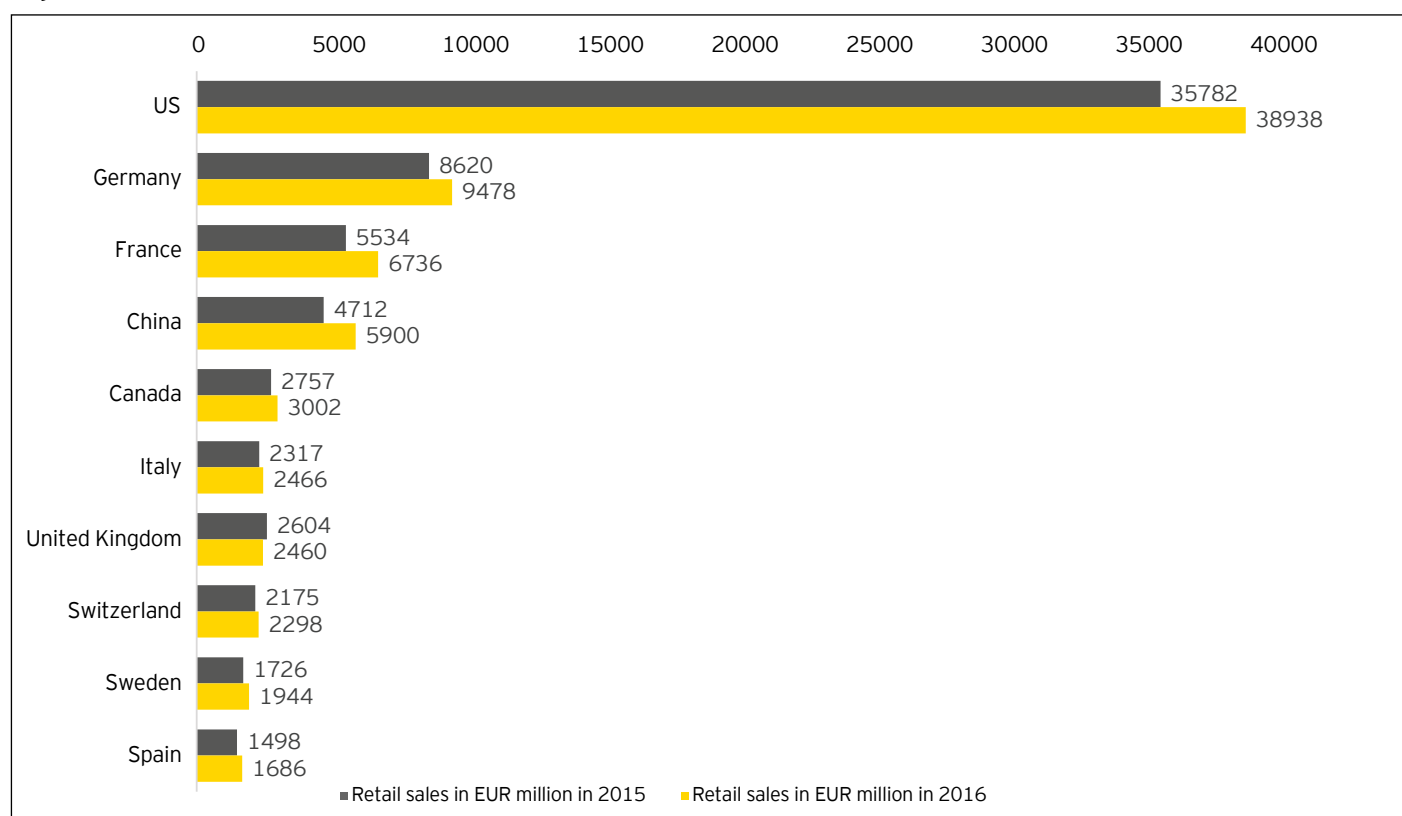
According to an Ecovia Intelligence and FiBL survey, the data on the organic retail sale of food and beverages showed a CAGR 10.4% from 2000 to 2016 with the global sale having increased to US\$90 billion in 2016 from US\$17.9 billion in 2000. It is further projected to record a growth of over CAGR 16% during 2017-2020⁷.

Figure 13: Global organic market growth from 2011 to 2015 (in US\$ billion)



Source: The World of Organic Agriculture Statistics and Emerging Trend 2018, FiBL and IFOAM - Organics International

Figure 14: Retail sales in 2015-2016 (EUR million)

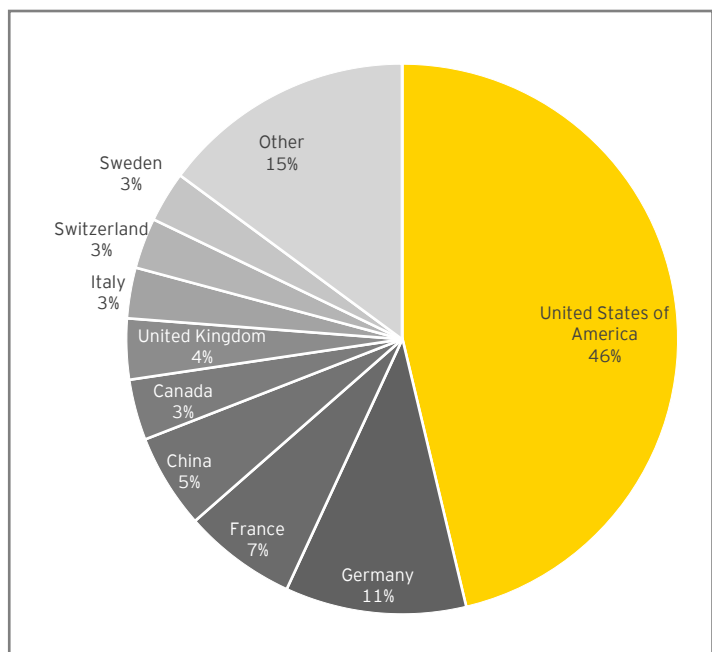


Source: The World of Organic Agriculture Statistics and Emerging Trend 2018, FiBL and IFOAM - Organics International⁷

The top consumer of organic products for 2016 was the US (EUR38.9 billion sales), followed by Germany (EUR9.7 billion sales) and France (EUR6.7 billion sales). Globally, organic farming is practiced in 178 countries, but the largest single market was the US (47%) followed by the European Union (EUR30.7 billion, 37%) and China (EUR5.9 billion, 6%). The highest growth (22%) was registered in France and Ireland followed by Denmark and Norway with 20% growth⁷.

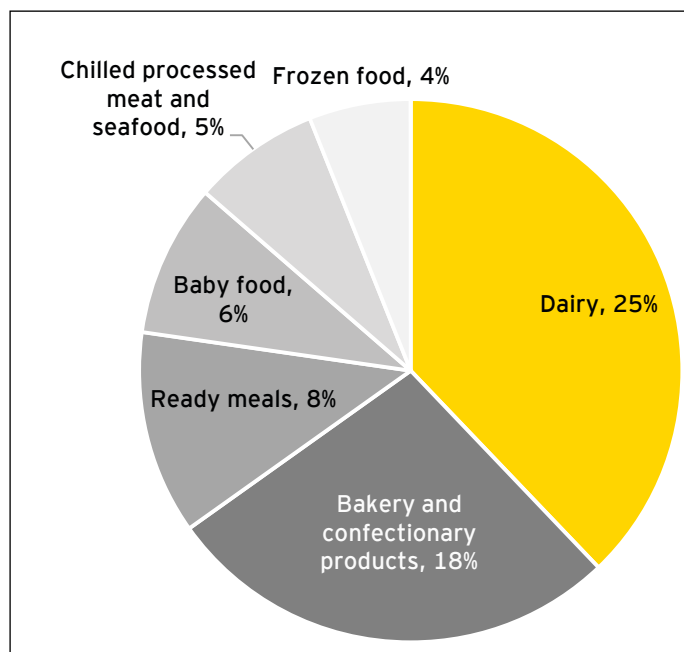
The highest per capita consumption with more than EUR200 was Switzerland and Denmark. The highest organic market shares were reached in Denmark (9.7%), Luxemburg (8.6%) and Switzerland (8.4%).⁷

Figure 15: Retail sales distribution by country, 2016



Source: FiBIL – AMI Survey, 2018, based on retail sales with organic food⁷

Figure 16: Global organic packaged food market segments in % (2016)



Source: Global Organic Food,” MarketLine, June 2016, via EMIS⁴⁴

With the increasing demand for organic products, there has been a persistent increase in the price of the commodities. The high prices of organic produce is a barrier for consumers. To address this concern, global organic food manufacturers are working towards reducing the existing price difference between organic and inorganic food. Moreover, as demand for organic food products increases, product innovations and economies of scale would result in reducing the cost of production, further driving consumption of organic foods.

The US

The US organic sector growth trajectory continually demonstrates an upward trend, gaining greater market share as consumers are using more organic products. Organic sales in the USA touched US\$47 billion in 2016. The organic foods sales in the US escalated to US\$43 billion in 2016 from US\$15.6 billion in 2006 at a CAGR of 10.5^{7, 9}. Organic food accounts for 5.3% of total food sales in the US due to the US Farm Bill Advocacy⁷, which has three considerations for organic farming: ⁷

- 1 Organic Farmer and Consumer Protection Act to improve oversight of global organic trade
- 2 Organic Research Act, 2017 to increase USDA Organic Research and Extension initiative to US\$50 million annually
- 3 Organic Farmer Access Act access to expand organic agriculture access to the rural development program

⁴⁴ “Global Organic Food,” MarketLine, June 2016, via EMIS

Europe

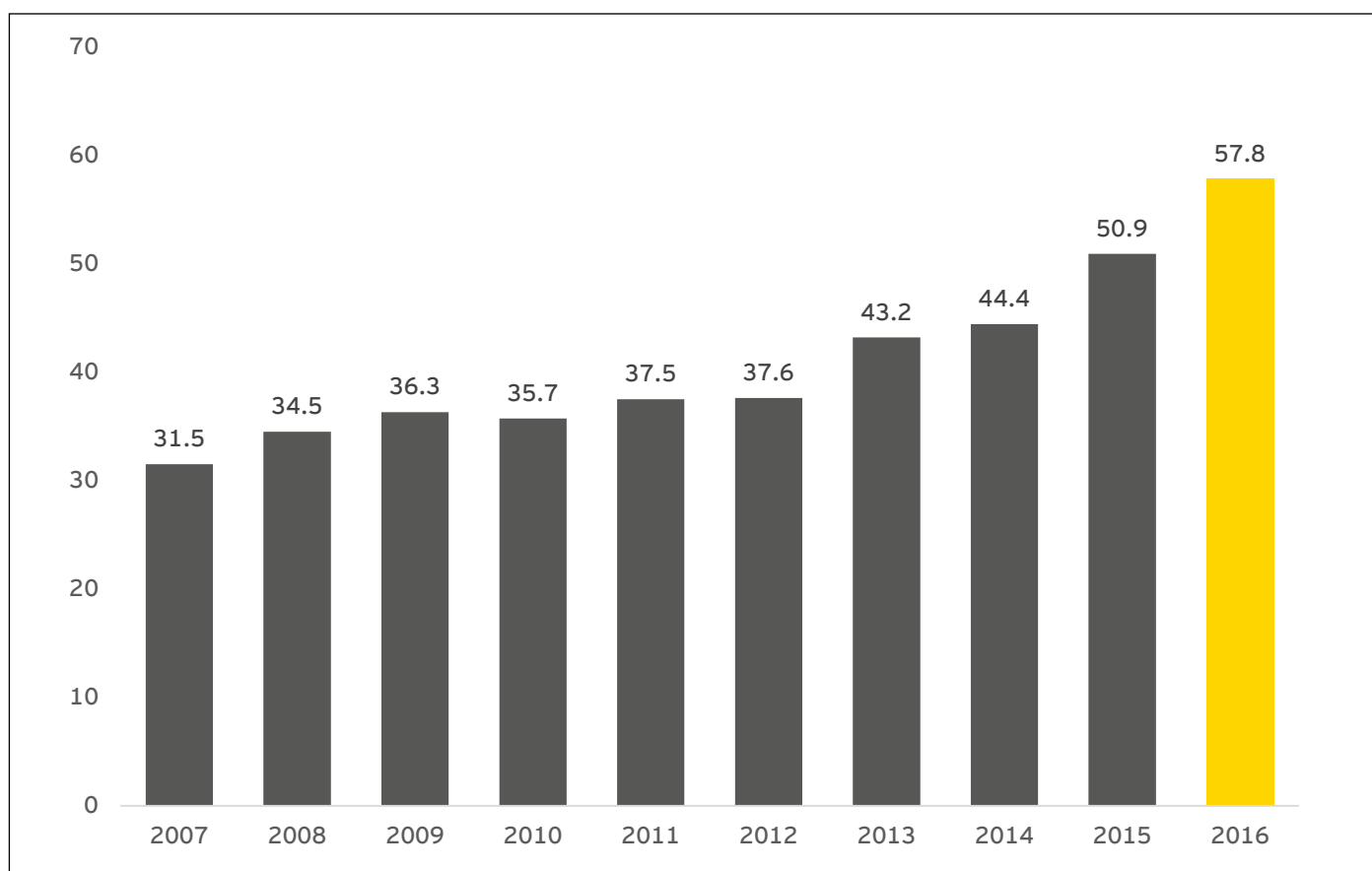
According to FiBL and IFOAM, in 2016 the second largest market for organic products globally, after the US, was the European Union, with a share of 40% of the organic market worldwide. The organic market in Europe in 2016 was worth EUR33.5 billion, while the organic market in the European Union was worth EUR30.7 billion during the same year. The organic market grew at 11.4% (EU 12%). The highest growth was in France with a 22% growth. The per capita consumer spending on organic products in Europe has been EUR41 (EU EUR61). The Swiss spend on organic food (EUR274) was the highest globally. Denmark has the highest organic market share of 9.7 %.⁷

4.2 Global organic production

Organic cultivation area:

According to the latest FiBL-IFOAM survey, approximately 57.8 million ha of land in the world was organically managed in the year 2016, including the area in conversion. There has been a considerable rise in the area undergoing organic management surging from 11 million ha in 1999. The top 3 countries in organic cultivation are Australia with 27.1 million ha followed by Argentina with 3.0 million ha and China with 2.3 million ha.⁷

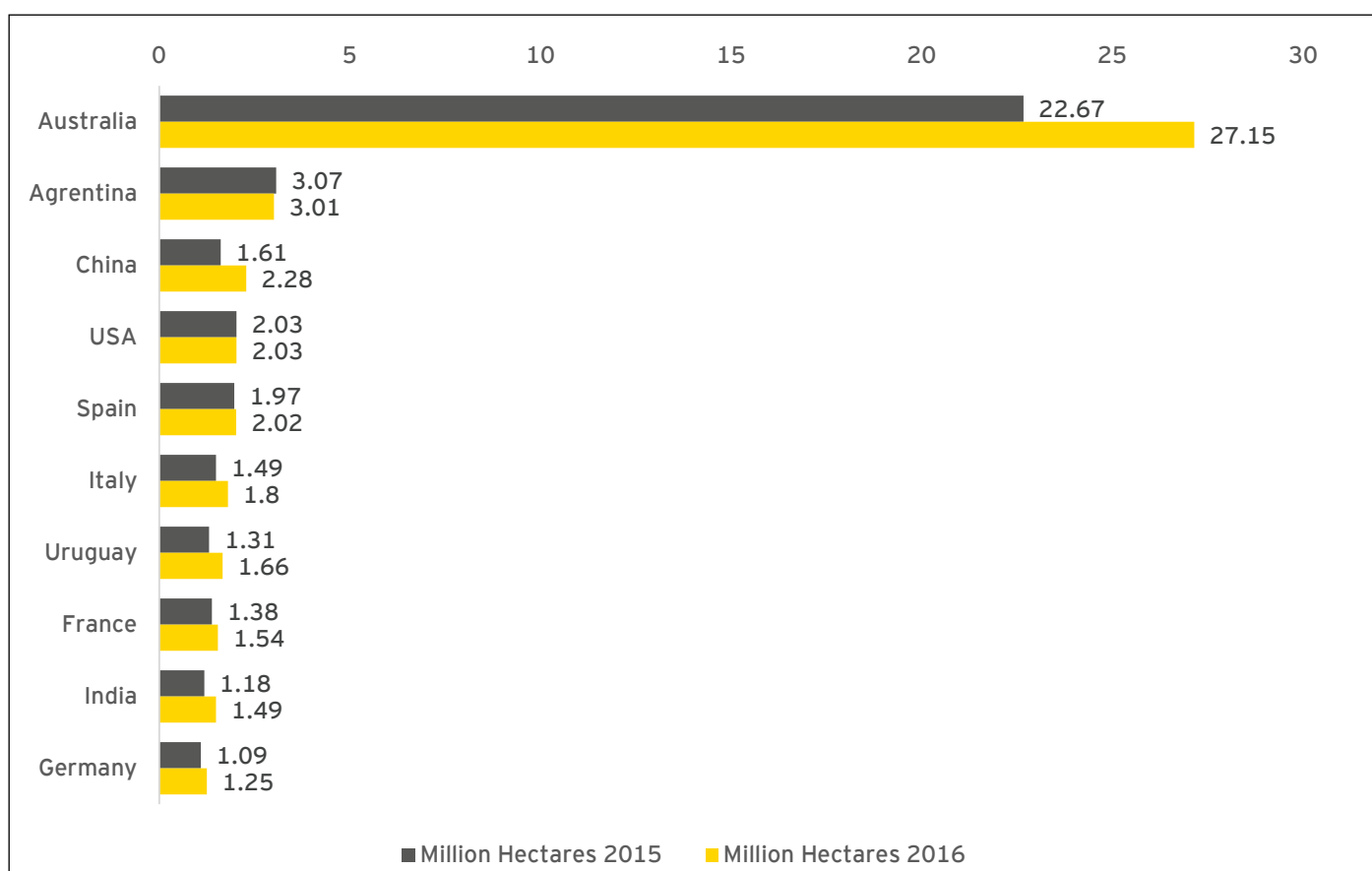
Figure 17: Area under organic management 2007-2016 (in million ha)



Source: The World of Organic Agriculture Statistics and Emerging Trend 2018, FiBL and IFOAM - Organics International⁷

Continent-wise, Oceania has the highest organic area with 27.3 million ha (almost half of world organic agriculture land) followed by Europe with 13.5 million ha (23%), Latin America with 7.1 million ha (7%), Asia with 4.9 million ha (9%), North America with 3.1 million ha (6%) and Africa with 1.8 million ha (3%). However, if combined with wild harvest area, Europe tops the list with 30.4 million ha, followed by Oceania with 22.8 million ha and Africa with 13.6 million ha.⁷

Figure 18: Top 10 countries by organic cultivation area in 2016 (in million ha)

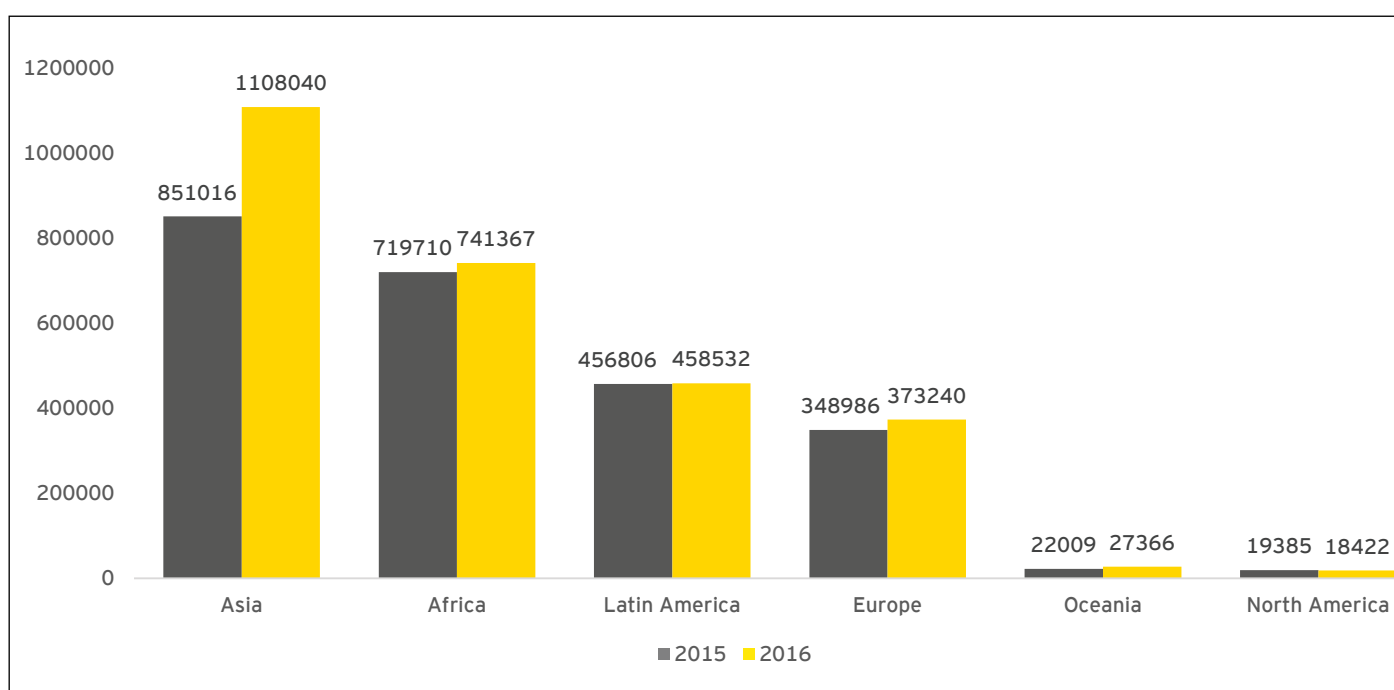


Source: The World of Organic Agriculture Statistics and Emerging Trend 2018, FiBL and IFOAM - Organics International⁷

Organic producers:

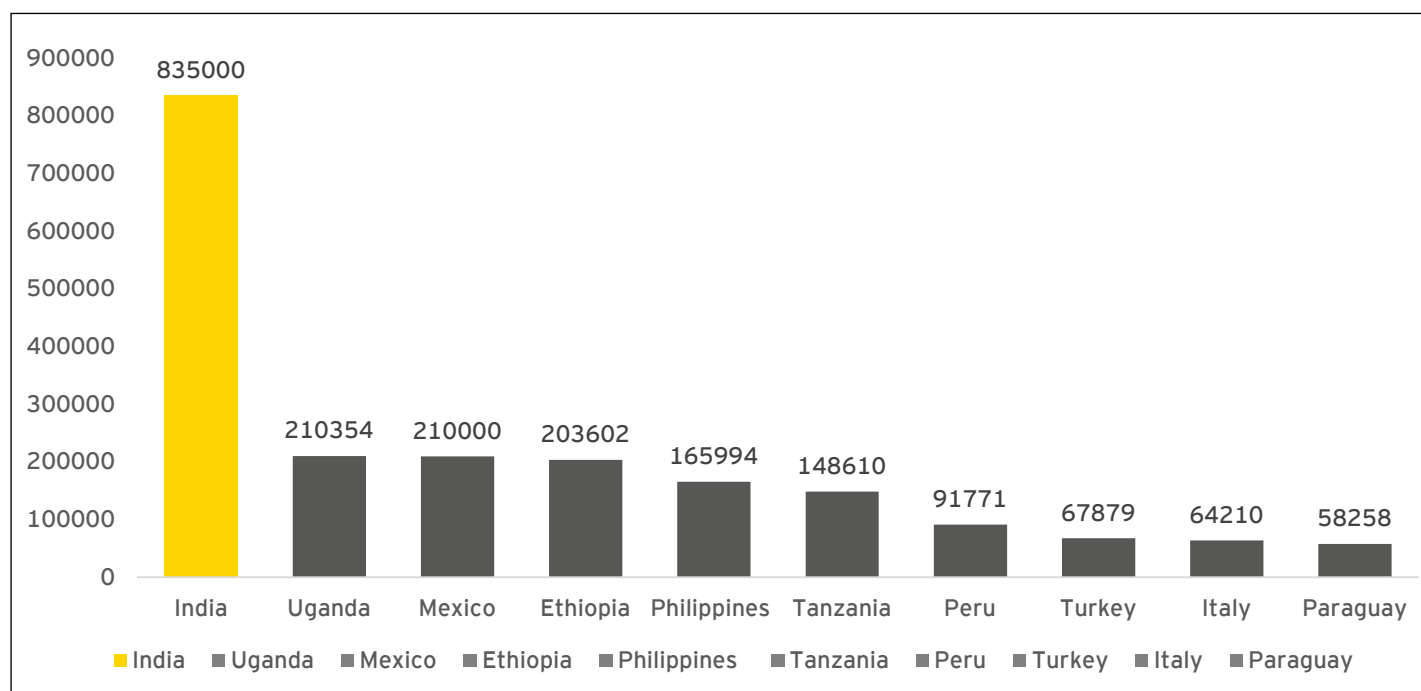
There are more than 2.7 million organic producers globally, with India having the maximum share (835,00 farmers), followed by Uganda (210,352 farmers) and Mexico (210,000 farmers). More than 84% of the producers are in Asia, Africa, and Latin America. In terms of organic area cultivation, the highest area is in Oceania (27.3 million ha), Europe (13.5 million ha) and Latin America (7.1 million ha).

Figure 19: Distribution of organic producers by regions 2016



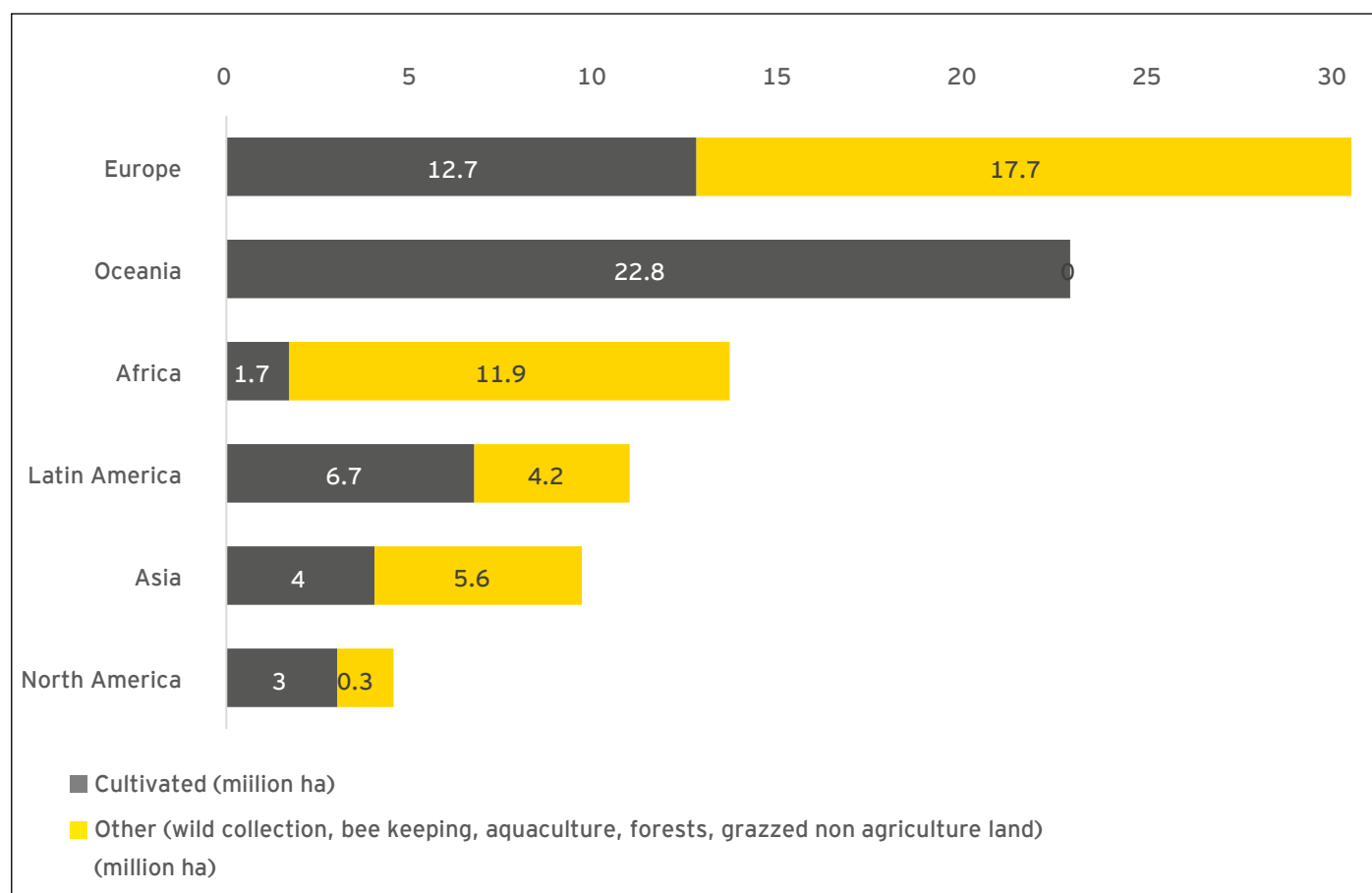
Source: The World of Organic Agriculture Statistics and Emerging Trend 2018, FiBL and IFOAM - Organics International⁷

Figure 20: Top 10 countries with the largest number of producers (2016)



Source: The World of Organic Agriculture Statistics and Emerging Trend 2018, FiBL and IFOAM - Organics International⁷

Figure 21: Combined organic area by continent in 2015



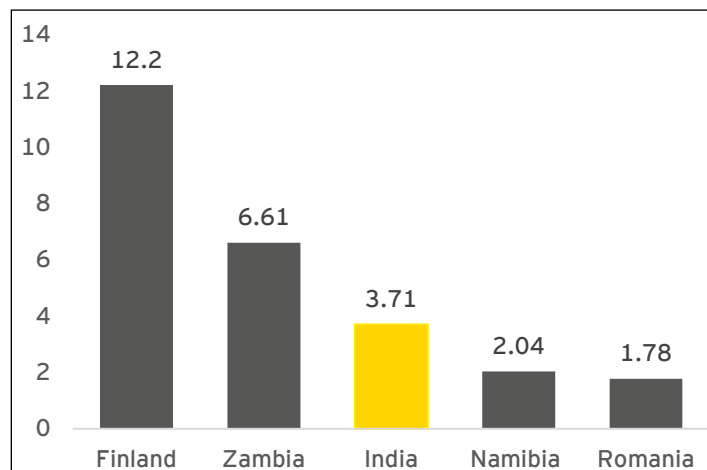
Source: The World of Organic Agriculture Statistics and Emerging Trend 2018, FiBL and IFOAM - Organics International⁷

All organic area including non-agriculture areas

Apart from dedicated organic cultivation areas, there is land dedicated to organic collection and other related activities. Wild harvest areas and beekeeping areas constitute the largest portion of this type of land apart from aquaculture and other permanent organic plantations. The wild collection from non-agriculture areas as of 2016 was 39.9 million ha, taking the total organic area to 90.6 million ha⁷.

In terms of total organic area, Europe has the highest area (30.40 million ha), followed by Oceania (22.84 million ha), and Africa (13.26 million ha). The wild including non-agriculture organic collection area also increased from 4.1 million ha in 1999 to 39.7 million ha in 2015. The countries with the largest share in wild harvest area are Finland (12.2 million ha), followed by Zambia (6.6 million ha) and India (3.7 million ha).⁷

Figure 22: Wild collection and beekeeping area 2015



Source: The World of Organic Agriculture Statistics and Emerging Trend 2018, FiBL and IFOAM - Organics International⁷





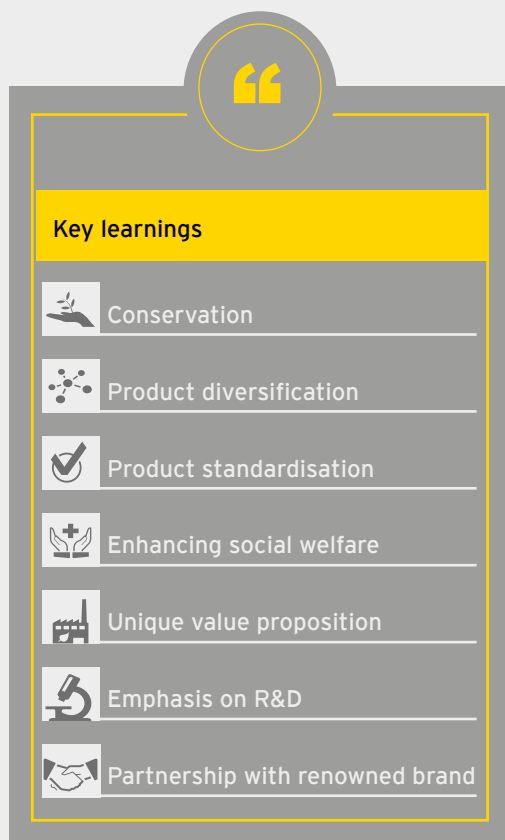
Way forward

The organic cultivation area has grown consistently at a CAGR of 6% and the organic market has been expanding at a greater pace, predicted at 20%-25% for 2017 to 2020¹. A domestic market segment including mass organic products, mid-segment organic product and premium organic products and e-commerce platforms are opportunities that can be explored. The Government is optimistic about organic cultivation and farmers are encouraged through various schemes. However, there is need to have an organic policy and organic cell to monitor organic cultivation and schemes, and to take necessary steps to discourage the use of fertilizers and pesticide, coupled with the promotion of biofertilizers and biopesticides to decrease the cost of cultivation.

Product quality, processing and tractability have been emphasized by FSSAI recently as per the Gazette notification dated 27 December 2018.⁴⁴ The notification lays emphasis on appropriate labeling, certification and district display of organic products. This will enable the creation of further credibility among the consumers.

Apart from organic food and beverages markets, health and wellness, beauty and personal care market opportunities have grown immensely and good examples of these are companies like Forest Essentials and Himalaya Herbal emerging as successful brands.

Box 1: Himalaya Herbal



Himalaya Herbals

Himalaya Herbals was founded in 1930 with the vision to promote Ayurveda practices at par with modern medicines. Since its inception, Himalaya has pioneered the use of modern science to rediscover and validate Ayurveda's secrets. Cutting edge technology is employed to create pharmaceutical-grade Ayurveda products. More than 40% of Himalaya's raw materials are sourced from small, marginal and women farmers with small or fragmented land holdings.

Himalaya Herbals planned to expand into the overseas market by opening its first USA office in Texas in 1996. The brand's methodology for expansion was to target mainstream customers rather than focus only on ethnic communities abroad. The products are positioned as food supplements and herbal personal care products. Due to the lack of visibility abroad, the brand formed strategic alliances with various supermarkets, personal care chain stores such as Whole Foods and Wild Oats in the USA, Watsons in Singapore and Guardian in Malaysia.

Another method that Himalaya Herbals has used to increase visibility is to invest in shop-in-shops system, which allows the brand to set up a stall within a departmental store. Singapore and the South East Asia are some of the places that have witnessed the shop-in-shops system. Furthermore, Himalaya established for the first time 4 exclusive outlets in Malaysia in the 2000's. Contribution of sales from exports and overseas retails stores result in 20% of total revenue for Himalaya Herbals. Future expansion saw the brand set up manufacturing plants in Indonesia and Russia to cater to its expanding global market.

Himalaya Herbal also follows strict quality standards for quality assurance and quality control. Pharmaceutical products are designed and developed following the requirements of Good Manufacturing Practices (GMP), Good Laboratory Practice (GLP) and Good Clinical Practice (GCP). These standards ensure quality, safety and efficacy, for herbal formulations and ensuring quality of products. In addition, the company follows Good Agricultural Practices (GAP), which sets a benchmark of acceptable crop production methods. This considers parts of plant used, water availability, temperature during growing season and time of harvest, and storage

and transport of the raw materials. They also follow Good Harvesting practices (GHP) to ensure that the wild material is harvested in a sustainable and environmentally acceptable way.

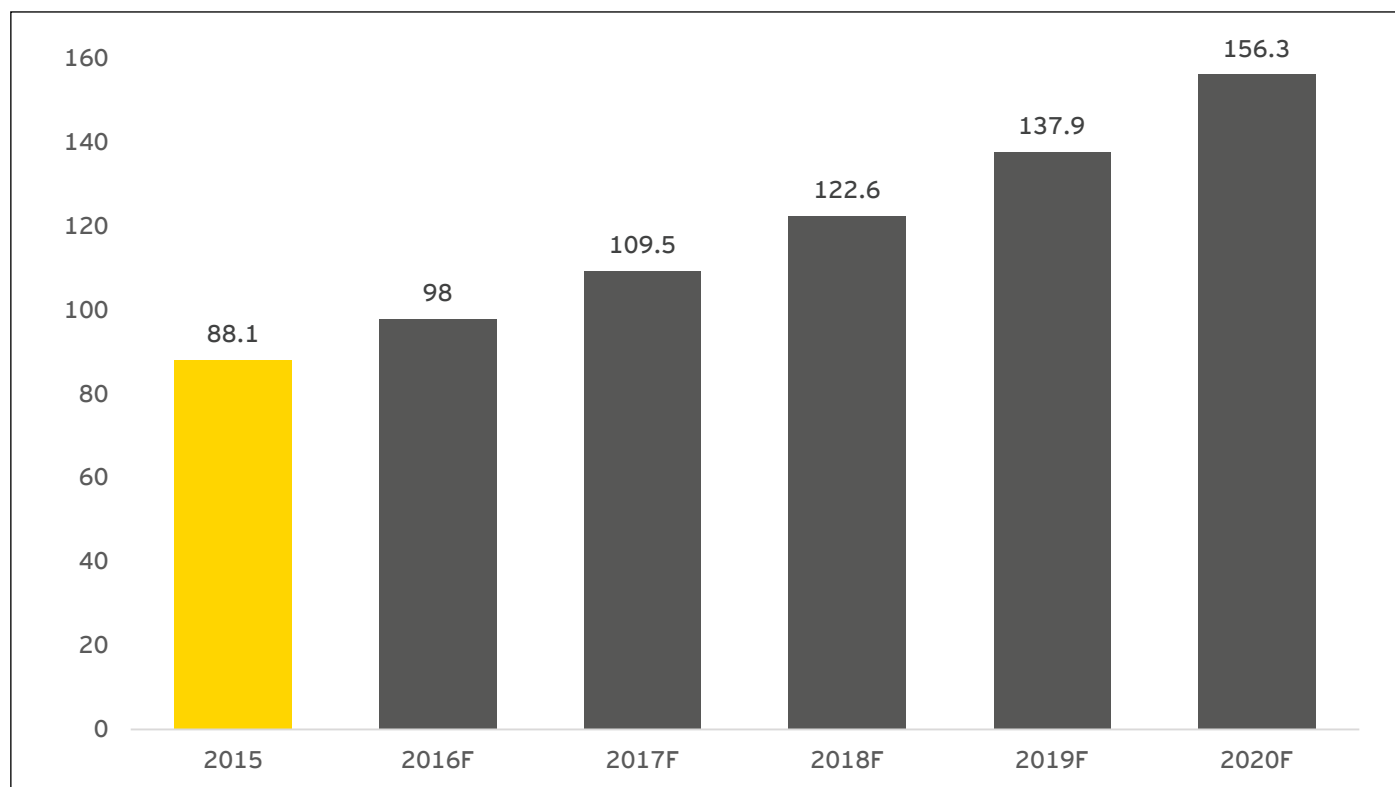
Source: Himalaya Herbals website⁴⁵

⁴⁵ Internet Research from Himalaya Website www.himalayaherbals.com accessed on March 10, 2018

5.1 Outlook

The global organic food industry was valued at US\$88.1 billion in 2015 and is expected to grow at a CAGR of 12.1% to reach US\$156.3 billion by 2020.⁴⁶

Figure 23: Global organic food and beverage market size: US\$ billion, 2015-2020



Source: Market Line



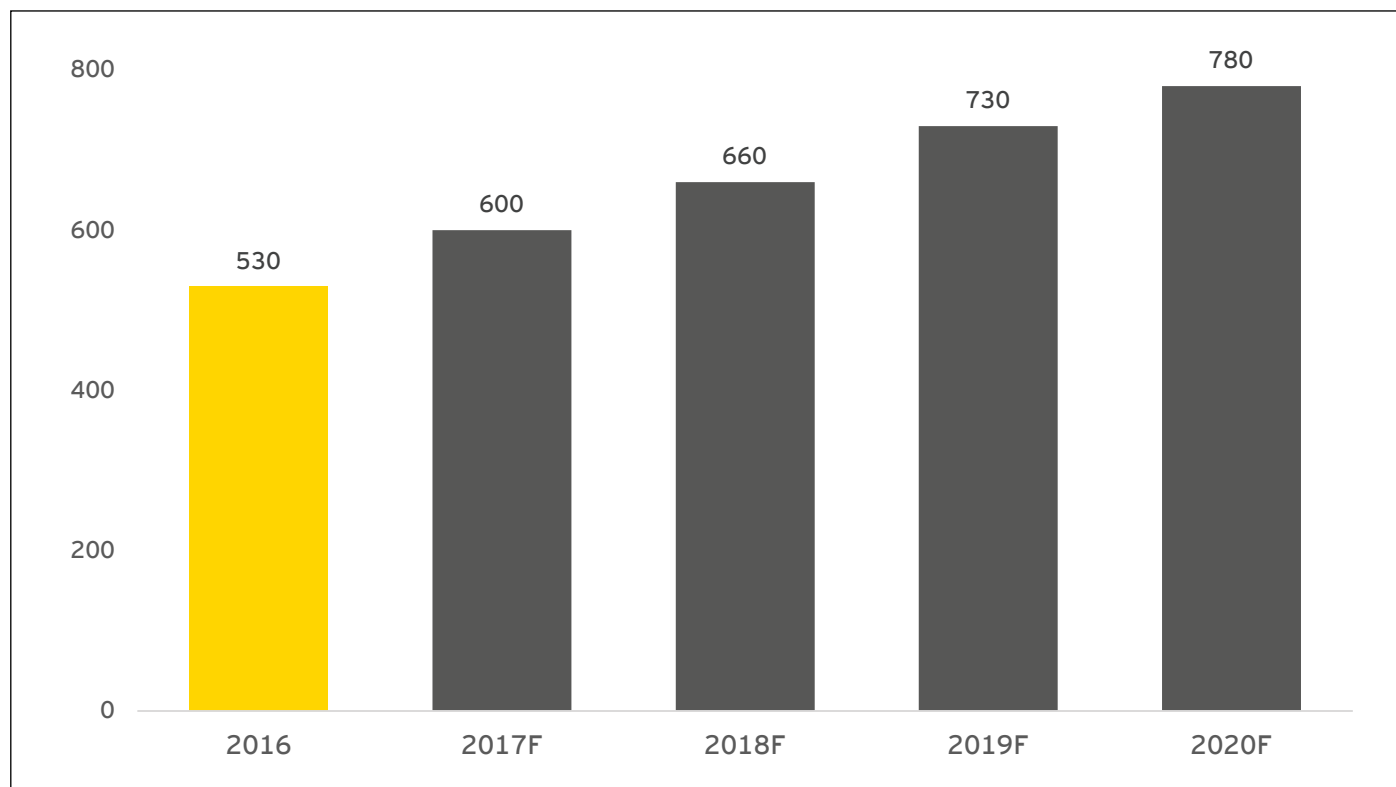
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The Indian organic packaged food industry is expected to reach INR871 million by 2021 through growth in metro cities, increased awareness and government initiatives. In addition, large-scale investments in operations by companies will facilitate marketing and distribution activities, thereby lowering the cost of organic food products.

Figure 24: Indian organic packaged food market size - 2016-2020 (Retail value RSP INR million)



Source: Euro monitor International



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