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Promoting Organic Food Products and Exports - Status, Issues and Way Forward

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Abstract

In recent years, the Indian Government has taken several policy initiatives to promote organic farming and organic food exports. Such measures are expected to enrich soil quality; attain sustainable development goals; ensure health and food safety for consumers; increase farmer's income and link them to the global markets; increase investment in organic food manufacturing and retailing, and create employment.

A number of entrepreneurs have responded positively to government initiatives and several start-ups have been formed in the organic food segment. A number of conventional food manufacturers, retailers and exporters have diversified their businesses to include organic food products. Within the food processing segment, this is a fast growing sector with high growth potential and ability to create employment. This paper, based on a primary survey of companies engaged in organic food business in India and the United Kingdom (UK), examines how organic food can attract more investment (domestic and foreign) across the entire food supply chain including manufacturing, farming, distribution and trading if supported by the right policy. It also focuses on how companies in the organic food business are linked to farmers and how this linkage can be strengthened in order to enable farmers to have better access to the domestic and global markets. The paper identifies the issues and business risk that companies face and makes policy recommendations for enabling the holistic growth of this sector.

Keywords: *organic food, companies, policy, India, United Kingdom, survey*

JEL classification: *C83, D22, Q15, Q22*

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List of Abbreviations

APEDA	Agricultural and Processed Food Products Export Development Authority
BRC	British Retail Consortium
COS	Canadian Organic Standards
DGCI&S	Directorate General of Commercial Intelligence and Statistics
DGFT	Directorate General of Foreign Trade
EIAs	Export Inspection Agencies
EIC	Export Inspection Council
EU	European Union
FSSAI	Food Safety and Standards Authority of India
GAP	good agricultural practices
GI	Geographical Indication
HS	Harmonised system
IJIMS	International Journal of Interdisciplinary and Multidisciplinary Studies
JAS	Japanese Agricultural Standard
NABL	National Accreditation Board for Testing and Calibration Laboratories
NCOF	National Centre of Organic Farming
NITI	National Institution for Transforming India
NOP	National Organic Programme
NPOP	National Programme for Organic Production
NSOP	National Standards for Organic Production
PGS-India	Participatory Guarantee System for India
PKVY	Paramparagat Krishi Vikas Yojana
SCM	subsidies and countervailing measure
UK	United Kingdom
UKIBC	UK India Business Council
US	United States
USD	United States Dollar
WTO	World Trade Organization

Promoting Organic Food Products and Exports - Status, Issues and Way Forward

Arpita Mukherjee, Souvik Dutta, Disha Mendiratta, Avantika Kapoor, Tanu M Goyal

1. Introduction

Globally, there is growing awareness of environmental protection, sustainable agricultural practices and the adverse impact of chemical inputs on the soil, environment and human health. This has prompted a shift towards organic farming. The Food and Agriculture Organization of the United Nations (FAO) defines organic agriculture as follows:

> *"Organic agriculture is a holistic production management system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles, and soil biological activity. It emphasizes the use of management practices in preference to the use of off-farm inputs, taking into account that regional conditions require locally adapted systems. This is accomplished by using, where possible, agronomic, biological, and mechanical methods, as opposed to using synthetic materials, to fulfill any specific function within the system."*[1]

Organic food products are broadly defined as those food products which are produced without the use of synthetic external inputs such as chemicals, fertilisers, pesticides and synthetic hormones or genetically modified organisms.

India, with a wide variety of agro-climatic conditions, can produce a wide range of organic crops. The government is of the view that organic food production will not only enable India to achieve its development goals and ensure nutritious food, but will also increase the farmers' income. All these factors have prompted policymakers in the central and state governments to promote organic farming.

In this context, it is important to note that India's traditional method of farming was by default organic with hardly any use of chemical inputs. However, concerns regarding food security and low agricultural productivity in the post-independence period led to the ushering in of the "Green Revolution" in the 1960s. With the use of chemical inputs, modern technology and high yielding varieties of seeds, crop productivity improved and this enabled the country to become self-sufficient in cereal production (see Dhanagare 1987, Singh 2000). The downside of the Green Revolution has been the excessive use of chemical inputs that led to deterioration in soil quality (see Hema and Ilavarsan 2016; Srivastava et al. 2016). Increased exposure to chemical pesticides and fertilisers has led to an increase in the incidence of diseases such as cancer in states such as Punjab (see Blaurock-Busch et al. 2010).

A number of studies have shown that organic farming as an alternative to conventional farming can help improve soil quality and, if properly practiced, organic farming can provide

[1] Source: http://www.fao.org/organicag/oa-faq/oa-faq1/en/ (accessed on December 21, 2016)

the same or even higher yields than conventional agriculture (see Rupela et al. 2006; Singh et al. 2007). Studies have also shown that organic food products fetch a higher price *vis-à-vis* conventional food products (see Ramesh et al. 2010) in the domestic as well as export markets, which can in turn help to increase farm incomes. In the 1970s, when consumers in developed countries started shifting towards organic food products, Indian exporters of commercial crops such as tea were quick to realise that organic food products earn a premium price in export markets. Thus, a number of estate owners, producers and exporters started shifting to organic farming. From tea, the Indian export basket diversified to other organic food products such as spices, coffee, oilseeds and rice. More recently, India has started exporting organic fresh fruits, vegetables and herbs.

While one of the key reasons for India to focus on organic food production was to target the premium export market, organic farming got a fresh boost from the work of a farmer and agriculturalist, Subhash Palekar, who popularised the idea of "Zero Budget Natural Farming" in 1988. His techniques are drawn from ancient Indian Vedic farming practices, which are based on using natural inputs available to the farmer on his farmland without the use of any chemical input.[2] A number of state governments endorsed Palekar's methods of organic farming.

The Indian Government has taken several policy initiatives to support organic food production and exports. Since organic trade is dependent on the recognition of standards and processes by importing countries, the Agricultural and Processed Food Products Export Development Authority (APEDA), under the Department of Commerce, Ministry of Commerce and Industry, took the initiative to develop an organic regulation for exports, largely based on the European Union (EU) organic policy/regulation, but customising it to meet Indian requirements. The National Programme for Organic Production (NPOP)[3] developed by APEDA in early 2000[4] laid down certain standards, labelling process, logo, and mandatory third-party certification requirements, which helped India get recognition of its standards from its trading partners and sign unilateral equivalence arrangements[5] with key export markets such as the EU. In this context, it is important to note that a product exported to key markets, especially developed countries, can only be labelled as organic when it is certified by a third-party certification agency.[6]

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2 Source: http://www.palekarzerobudgetspiritualfarming.org/ (accessed on December 21, 2016)

3 For details on NPOP, see http://www.apeda.gov.in/apedawebsite/organic/index.htm (accessed on June 6, 2017)

4 The first edition of the NPOP was released in May 2001

5 Equivalence means the recognition of standards in each other's countries. These could either be unilateral equivalence (non-reciprocal or only one party recognises the other's standards) or bilateral equivalence (reciprocal or both parties recognise each other's standards).

6 Third-party certification is a quality assurance initiative based on well-laid out standards, labels and ethics as required by the organic regulations of the respective country to which the product is exported and is needed in order to prevent fraud and promote trade in organic food products. In India, as of date, there are 28 certification bodies accredited by the National Accreditation Body under NPOP for certifying organic products. For details, refer to www.apeda.gov.in/apedawebsite/organic/npop_certification_bodies.doc (accessed on June 22, 2017)

Subsequent to the development of export regulation under the NPOP, the Ministry of Agriculture and Farmer's Welfare came up with a Participatory Guarantee System for India (PGS-India) with the National Centre of Organic Farming (NCOF) as the nodal agency, which aims to encourage small and mid-sized farmers to take up organic farming and promote organic farming in the domestic market on a large scale. This scheme is based on self-certification and is considered an alternative to the third-party certification system. It aims to address the concerns of the small and mid-sized farmers related to the complicated procedures and high cost of third-party certification. The NCOF promotes organic farming through schemes such as the Paramparagat Krishi Vikas Yojana (PKVY),[7] which is in partnership with state governments. Under PKVY, subsidies are given to promote organic farming in Indian states through a cluster-based approach. Until December 2016, state governments had created 7186 organic clusters under the PKVY.[8]

In January 2016, the Prime Minister of India, Shri Narendra Damodardas Modi, declared the state of Sikkim as India's first fully organic state. This year, the Cabinet Committee on Economic Affairs, chaired by the Prime Minister, gave its approval to remove quantitative ceilings on exports of organic products (except pulses and lentils), thus allowing unrestricted exports of organic agricultural and organic processed products irrespective of any existing or future restriction/prohibition on the export of conventional (non-organic) products. [9] This was initiated to promote exports and help double farmers' income by the year 2022.[10]

A number of state governments have also taken initiatives to develop organic farming and products. States such as Karnataka, Sikkim and Gujarat have set up state third-party certification bodies to reduce the cost of certification and a number of states such as Gujarat, Kerala, Karnataka, Andhra Pradesh, Sikkim, Mizoram, Nagaland, Himachal Pradesh and Madhya Pradesh have come up with their own policy for organic products. [11]

The policy initiatives have helped promote organic food products and exports. As per the latest available cross-country statistics[12], in the year 2015, India ranked first in terms of the number of organic producers among over 170 countries and ninth in terms of the area under organic agriculture. India has potential for export of organic products and was ranked 11th in organic product exports in 2015. Key markets for India include developed countries such as the EU, the United States (US), Canada, Switzerland, Japan and Australia, developing countries such as Bhutan, Middle Eastern countries such as Saudi Arabia, and member countries of the Association of Southeast Asian Nations (ASEAN).

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7 NCOF was formed in 2004 as a part of the pilot project "National Project on Organic Farming" during the 10th Five-year Plan (date) period. For details on NCOF and PKVY see http://ncof.dacnet.nic.in/ and http://ncof.dacnet.nic.in/Operational_Guidelines/PKVYguidelines_Feb17.pdf (accessed on May 30, 2017)

8 Source: Extracted from the Response to Rajya Sabha Unstarred Question Number 339 accessible at http://rajyasabha.nic.in/rsnew/question/rstype.asp (accessed on May 24, 2017)

9 Source: http://pib.nic.in/newsite/PrintRelease.aspx?relid=160382 (accessed on May 22, 2017)

10 Source: http://pib.nic.in/newsite/mberel.aspx?relid=136979 (accessed on July 21, 2017)

11 For details, see Response to Lok Sabha Starred Question Number 511. Further, Arunachal Pradesh has drafted a state policy on organic farming but no specific action has been taken except that planning is under progress.

12 Forschungsinstitut für biologischen Landbau (FiBL) and International Federation of Organic Agriculture Movements (IFOAM) (2017)

In spite of the growth of organic agriculture and government support for the same, there are several factors which are adversely affecting the growth of organic food processing industry and exports. For example, India lost its unilateral equivalence arrangement with the EU for processed food in the year 2013,[13] which is a key market for organic exports for India. In addition, a number of consumer surveys in India showed that although consumers prefer organic food, they remain sceptical about the quality of organic products, and are concerned about adulteration and fraudulent practices (see Ramesh and Divya 2015; Sharma et al. 2016). The lack of a comprehensive policy on organic products for the domestic market and imports, which includes the certification process, standards, label and logo and ensure complete supply chain traceability, is a matter of concern to processors, traders and importers, among others. It is also difficult to identify and punish fraudulent practices in absence of a domestic regulation. Unlike India, which only regulates exports of organic products, most countries including EU-28, the United States (US), Canada, Chile, China, Brazil, Mexico and Thailand have comprehensive regulation for organic products encompassing the domestic market and trade.To address these concerns, the Food Safety and Standards Authority of India (FSSAI) is trying to come up with regulations for organic food for the domestic market and imports and on March 31, 2017, it released a notice calling for suggestions, views, comments, etc., from stakeholders within a period of 60 days[14] on the Draft Food Safety and Standards (Organic Foods) Regulations, 2017.[15]

Given this background, a survey was conducted by the authors in India and the UK of companies engaged in organic food production, processing, trade and retailing. The purpose of the survey was to get their views on the potential of the sector, scope for business expansion, its ability to attract investment and create employment. The survey also covered how companies work with the farmers and help to integrate them in the domestic and export supply chain. The survey in the UK specifically aimed at understanding what would encourage foreign companies to invest in India and create employment. The survey also covered in detail the issues and risks that businesses face and how policy can support the growth of this sector, create investment and employment in agro-processing and increase farmers' earnings. The purpose of this paper is to examine how India can develop a comprehensive policy for organic products, which will enable the organic food businesses to develop and increase exports from India. It is also expected that this paper will provide inputs to the FSSAI to draft a comprehensive policy.

To the best of our knowledge, this is the first survey of its kind of companies engaged in the organic food business, catering to the domestic and/or export markets.

[13] For details see, http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R0125&from=EN (accessed on June 6, 2017)

[14] Source: http://fssai.gov.in/home/fss-legislation/notice-for-comments.html (accessed on May 15, 2017)

[15] For details see https://fssai.gov.in/dam/jcr:69ba18bd-0d64-42f9-8f27-bc3c87a46dee/Draft_Notice_Comments_Organic_Food_31_03_2017.pdf. (accessed on May 15, 2017)

2. Sampling and Survey Methodology

In India, most of the companies in organic food business are located in Tier 1 and Tier 2 cities. The survey covered companies in the organic food business located in cities such as Delhi, Noida, Gurugram and Sonipat (national capital region), Chandigarh, Bengaluru, Kolkata, Indore, Hyderabad, Ahmedabad and Mumbai. The cities were selected after discussion with industry bodies and sector experts. The companies from these cities were drawn from a list of companies in APEDA's website and information provided by industry associations such as the Association of Indian Organic Industry, certification bodies, state government organic department and through web browsing. Both, companies with and without third party certification, have been included in the survey; for instance, Phalada Agro Research Foundation Private Limited and Aricha Trading Company Limited are third-party certified companies while TONA Bio Diverse Farming Private Limited and Fabindia Overseas Private Limited are not third-party certified.

Companies have been selected across seven main product categories, namely tea, spices, herbs, medicinal plants, oilseeds, rice and fruits and vegetables.[16] Semi-structured questionnaires were designed to conduct the interview. A few questions were kept open-ended to get the stakeholders' opinions on different issues, including policy.

E-mails were sent to senior representatives of 100 companies requesting them to give a mutually convenient time for the survey and one-to-one discussions. In some cases, the questionnaire was e-mailed in advance. Among them, 75 companies agreed to fill in the questionnaires and they gave appointments to the survey team for one-to-one interviews.

The survey in the UK covered 12 companies, which are engaged in trade in organic food products with India or a planning to engage in the next five years. These include companies which are (a) sourcing food products from India (b) exporting organic food products to India or (c) are planning to export to India or source from India in the next five years. The companies in the UK were identified and meetings were fixed with the help of the Department of International Trade, British High Commission and UK India Business Council (UKIBC). The survey team visited the UK in January 2017 and face- to-face interviews were conducted. The key findings of the India and the UK surveys are given below.

3. The Key Findings of the Survey

Companies in India were asked when they started their business and specifically organic business, their spread across India, which markets they cater to, domestic and/or exports, where they source their products from, why they entered the organic business and whether they have had diversified from the conventional to the organic food business.

[16] In the questionnaire, an option, "others", was given to fill up additional product categories.

3.1 When did they start their Organic Food Business?

Most companies entered the organic food business recently and around 60 per cent of the companies surveyed have been operating since the year 2000. Fifty-three companies out of 73[17] (72.66 per cent) have been in production since the year 2006. There are only six companies whose year of establishment is the same as the year they started their organic business, while there are another nine companies whose year of establishment is just a year before the start of their organic business. This indicates that they started their business as an organic company, while some others may have started their business in conventional produce and then moved into organic products. The survey found that a number of young entrepreneurs with innovative ideas have established start-ups in organic food. Out of the 18 companies that started organic production before 2006, nine are predominately in the tea business and five are in the rice business. The survey found that the demand for organic rice and tea was mostly export-driven.

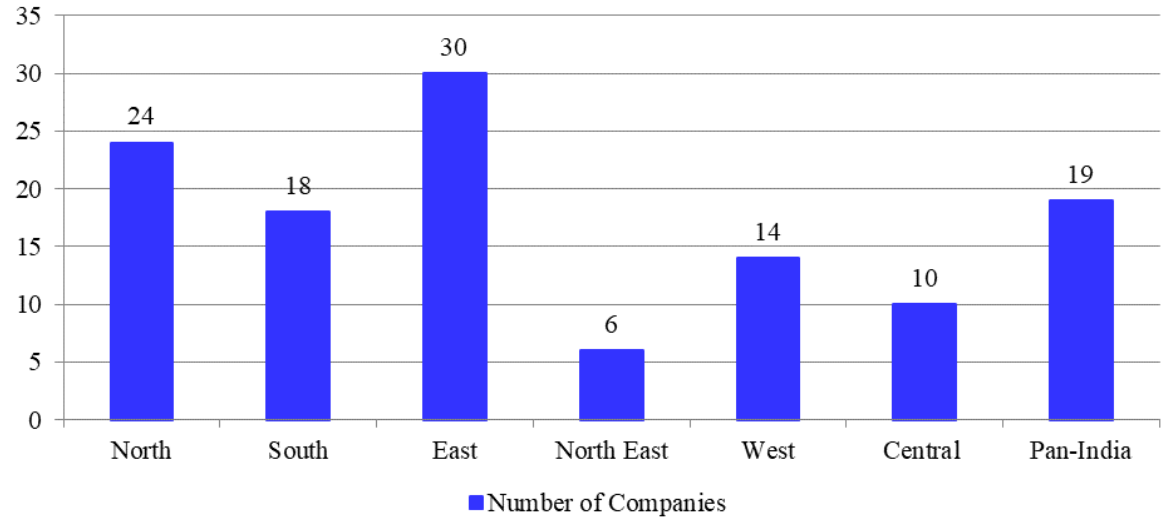
Further, 54 companies in the sample (72 per cent) are engaged only in the organic business whereas the remaining 21 companies (28 per cent), are engaged in both the conventional and organic food business. In the sample, 60 of the 75 companies (80 per cent) are primarily into the organic food business with more than 90 per cent of the revenue being generated from it.

3.2 Presence across India

In terms of their presence across India, there are 19 companies, which have a pan-India presence and companies can have presence in more than one region. There are 10 companies, which have presence only in parts of North India. They are primarily in organic rice, and fruits and vegetables production. There are four companies with presence in certain states of South India. There are 14 companies, which have presence only in East India, and they are also primarily producing organic rice and fruits and vegetables. There are four companies with presence only in central India. There are 32 companies with presence in only one region (for example, North India), 13 with presence in two regions, and eight with presence in more than two regions. Figure 1 gives the distribution of companies with presence in different regions of India.

[17] Two companies did not did not give the year of establishment.

Figure 1: Distribution of Companies by Different Regions in India



Note: The above question in the survey is a multiple-choice question.

3.3 Why did They Enter the Organic Food Business?

The entrepreneurs were asked why they entered the organic food business. The reasons given included a passion for protecting the environment, the desire to ensure that future generations have access to good quality food and remain healthy, the desire to help farmers get a better price for their produce, their realisation of the huge overseas market for organic products while studying abroad, and the realisation that India has to move towards safe agriculture and organic to sustain its exports. Some of the survey participants referred to themselves as social and environment activists trying to develop a market for farmers. Those involved in exports said they started their business as exporters of conventional products and then went into organic food products. For example, Chamong Tee Exports Private Limited (also known as Chamong), was in business of exporting tea since 1916 but, when demand for organic tea rose in the 1970s, the entrepreneurs started converting their conventional tea gardens into organic gardens. Today, Chamong is one of the largest organic tea exporters from India and over 90 per cent of the company's revenue is from exports. As of November 2016, the company owned 18 tea estates (13 in Darjeeling in West Bengal and 5 in Assam) out of which 16 estates are organic and 2 (in Assam) are conventional.

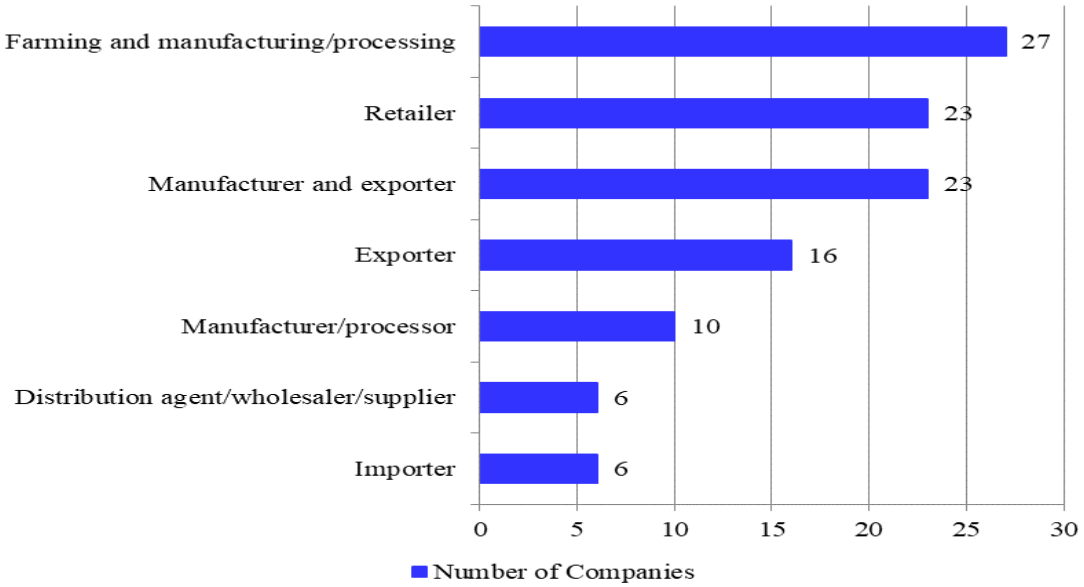
The companies that cater to only to the domestic market pointed out that they are trying to get their products acceptable in this market before planning for exports.

3.4 Key Activities of the Companies

The survey respondents were asked to give details of the key activities of the companies including manufacturing, processing and exports, among others. Figure 2 presents the distribution of the sample by the activities of the company. In the sample, 27 companies (36 per cent) are engaged in farming and manufacturing/processing, 23 (30.7 per cent) in

manufacturing and exports while the same number is engaged in the retail business. Sixteen companies (21.3 per cent) in the sample are only exporting organic products. Hence, a total of 39 companies (52 per cent) are engaged in exports while six companies do both imports and exports. Overall, there are only a few companies which has integrated business operation across the entire value chain from farming to processing and then to retailing in domestic market and/or exports.

Figure 2: Activities of Companies Engaged in Organic Business



Note: The above question had multiple responses. For example, an exporter can also be an importer.

3.5 Product Categories and Branding

Figure 3 gives the distribution of the sample according to the specific product categories in which they operate, namely oilseed, rice, tea, spices, fruits and vegetables, medicinal plants, herbs, and the category "others". The category "others" primarily includes pulses and soyabean. Companies are found to operate in more than one product. In the sample, there are six companies that only operate in rice, 23 companies that only operate in tea and one company each that operate in only spice and fruits and vegetables respectively. Hence there are 31 companies in the sample (41.3 per cent) which operate only in one particular product category.

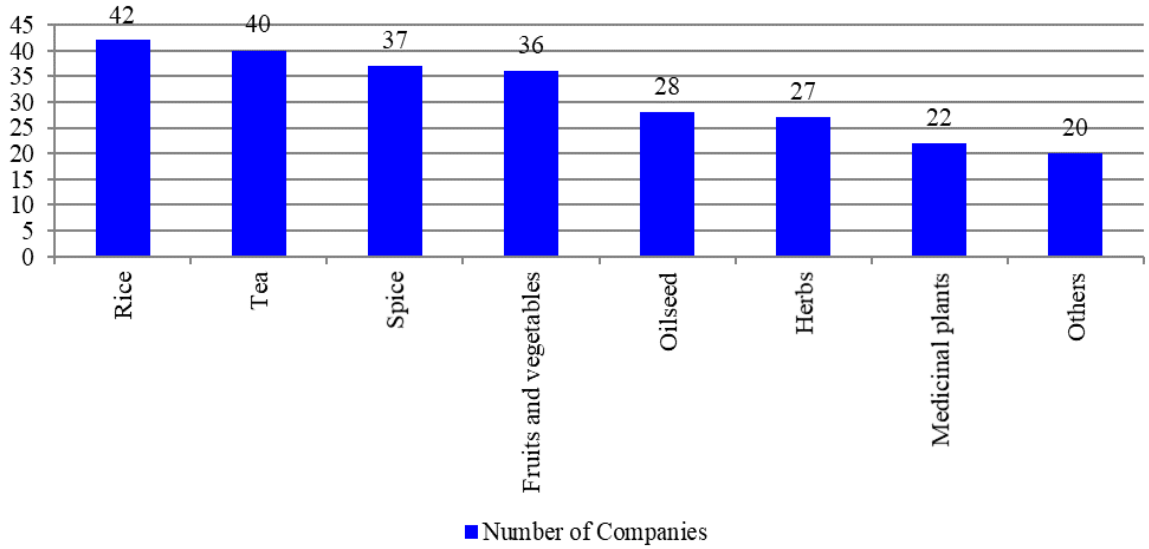
Table 1 gives the distribution of companies and their operation by product categories. There are 25 companies operating in 5 or more product categories (33.33 per cent) out of which 19 are retailers.

Table 1: Number of Companies Operating in Various Product Categories

Number of Product Categories	Number of Companies Operating
1	31
2	10
3	4
4	5
5	9
6	8
All	8

Note: The question above was a single-choice question.

Figure 3: Distribution of Companies by Product Categories



Note: The question above was a multiple-choice question.

The category "others" include pulses and soyabean.

Naturally, multi-product companies sell a larger range of product sub-categories than single product companies. For example, specialised organic tea companies (single product companies), may have a few product sub-categories, for example, black tea, green tea, white tea and oolong tea, while companies that have a business dealing in multiple organic products may have as many as 350 different sub-categories of products (multiple varieties of tea, rice, medicinal plants, etc.)

Seven companies reported that they have more than 100 different kinds of organic products. These are primarily retailers whose business operations were across different product categories and sub-categories. Only five companies reported that they have withdrawn products (a maximum of two products) from the market in the last two years and there are 11 companies who have added new products in the last two years. These are different varieties of tea because of the increased export, demand, different spices and, in one case, cookies and pasta made out of organic ingredients.

Most companies sell branded products. Branding could be based on the estate where the product is cultivated; for example, Chamong Tea Exports Private Limited sells tea under the brand name, "Chamong" because the tea is grown in the Chamong tea estate. Some companies may sell their products under a brand name in India but export unbranded products. They also export semi-processed or unprocessed products and buyers in the destination market process, package, label, and brand the products. Thus, companies do not get the premium for value addition and branding. In India, retailers usually sell several brands of organic products and thus many of them are multi-brand retailers. For example, retailers such as Jaivik Haat, Spencer's Retail Limited, Rainbow Organics sell several brands namely, "Organic Tattva", "24 Mantra Organic", etc. Companies engaged in both manufacturing and retail usually sell under a single brand; for example, Bio Diverse Farming Private Limited sells organic products under a single brand called "TONA".

3.6 Revenue from Organic Business and Change in Revenue

There are various factors that affect the revenue generation of a company engaged in the organic business. Some of these factors include the year of establishment, whether the company is selling food or non-food organic products, whether it is selling both organic and conventional produce, whether the company is selling domestically or internationally, the number of regions and states in which the company has a presence, whether the company is selling premium organic products (such as Darjeeling tea or Basmati rice, which have Geographical Indication (GI)[18] in the World Trade Organization (WTO)), etc.

While a number of companies were not willing to share information on their revenue, they did respond to questions on the increase or decrease in their revenue in the last two years. Table 2 gives the range of increase in revenue from the organic business in the last two years and the number of companies in that particular range. Sixty-four companies in the sample (85.33 per cent) experienced an increase in the revenue in the organic business in the last two years while seven companies (9.33 per cent) experienced a decline. One company in the sample did not experience any change and the remaining three did not answer.

Table 2: Revenue Increase for Various Companies Engaged in Organic Business

Revenue Increase (in percentage)	Number of Companies
<10	9
10-20	33
21-30	12
31-40	2
41-50	4
51-60	3
> 60	1

[18] A Geographical Indication (GI) tag is issued for agricultural, natural or manufactured goods that have a given quality, reputation or other characteristics attributable to its geographical origin. A GI registration gives the registered proprietor and authorised users the legal right to the exclusive use of the GI, and no unauthorised person can use the tag; for details see http://currentaffairs.nirdeshak.com/07-08-february-2016-current-affairs/ (accessed on May 19, 2017)

Table 3 presents, product-wise, the number of companies that have experienced an increase in revenue in the last two years along with range of increase. Out of the 28 companies in oilseeds, 25 experienced an increase in revenue in the last two years. In fact, many companies found this to be a profitable business. There are 38 out of 40 companies in rice, 33 out of 40 in tea, 32 out of 37 in spice, 31 out of 36 in fruits and vegetables, 17 out of 22 in medicinal plants and all 27 companies in herbs that experienced an increase in revenue in the last two years.

Table 3: Product-wise Revenue Increases for Companies

Revenue Increase (in percentage)	Number of Companies						
	Oilseed	Rice	Tea	Spice	Fruits & Vegetables	Medicinal Plants	Herbs
<10	8	7	6	12	7	5	5
10-20	8	21	15	12	8	3	11
21-30	4	6	4	3	9	5	5
31-40	3	1	4	1	2	1	3
41-50	0	1	1	1	3	1	1
51-60	1	1	2	3	2	2	2
> 60	1	1	0	0	0	0	0
Total Number of Companies	25	38	32	32	31	17	27

3.7 From whom do you Source the Products?

The survey found that companies choose specific states to source specific products. For example, organic tea is mostly sourced from Darjeeling in West Bengal, Assam and the Nilgiris in Kerala and organic rice is sourced from states such as Haryana and Uttarakhand. Spices are sourced from Rajasthan, Madhya Pradesh and Kerala, among other states. Companies were asked whether they sourced their products from own farm/own estate, through contract farming, farmer co-operatives, farmer associations, organic clusters, from other organisations like suppliers, middlemen, government-owned agriculture market place/*mandis*, etc. In the case of exports, exporters source mostly from their own farms or NPOP certified third-party farmers or processors who had a Transaction Certificate.[19]

Table 4 gives the distribution of companies by sources from which they procure organic products. Across product categories, own farm sourcing and organic clusters are important methods of sourcing. There are 28 companies dealing with oilseeds and 11 companies out of 28 (40 per cent) source from their own farms. This is because it enables them to keep control over quality. However, for certain products like oilseeds, demand is far higher than the ability of a company to source from their own farms. It was found that in cases where the product is sourced from sources other than own farms, the procurement agent or company representatives visit the source farm to ensure that farming practices are organic.

[19] In the case of organic exports under NPOP, a "Transaction Certificate" is issued with each product being sold from one certified operator to another. It is issued by an accredited certification body to its operator for every sale of product to the buyer. According to APEDA, a product will be allowed to be exported as "organic product" only when accompanied by a Transaction Certificate.

Table 4: Sources used by the Companies to Procure Organic Products

Products	Own farm	Farmers through contract farming	Farmer associations	Farmer co-operatives	Farmers in Organic Clusters	Others
Oilseeds	11	0	2	2	6	7
Rice	9	6	3	2	13	7
Tea	18	0	1	1	1	19
Spices	8	4	3	2	9	10
Fruits and Vegetables	14	1	3	1	12	4
Medicinal plants	10	0	0	2	4	5
Herbs	11	0	1	1	8	7

Note: The question above was a multiple-choice question. The companies that are in category "others" are primarily retailers who source their products from manufacturers/processors, non-governmental organisations (NGOs) and suppliers, among others.

3.8 Working with Farmers?

Companies that source from farmers were asked how many farmers they work with at the time of the survey. Of the 71 companies that reported the number of farmers they work with, 27 (38 per cent) worked with less than 50 farmers, with an average of 11 farmers. Eighteen companies (25 per cent) worked with number of farmers ranging between 50 and 500 with an average of 262 farmers. There are 16 companies (22.5 per cent) which engaged with 500 to 5000 farmers at the time of the survey, with an average of 1770 farmers. The remaining nine companies engaged with more than 5000 farmers.

Companies working with farmers provide training to farmers on organic practices. A number of them help the farmers to get third-party certification process done. They want to establish long term relationships with farmers by supporting them in other areas such as women empowerment or providing them with health care facilities. Sustainable agriculture practices are encouraged by global buyers and exporters try to adhere to them by working closely with farmers. Fifty-five companies out of 67 reported that they provide help or training to the farmers and some of them provide training and support in multiple areas. Fifty-one companies provide support/training regarding making land suitable for organic agriculture while 50 companies provide some sort of support or training with regard to usage of insecticides/pesticides or share knowledge about seeds, bio-fertilisers and good agricultural practices (GAP) (see Table 5), but there is hardly any financial assistance from companies to farmers.

Table 5: Training/Support that the Companies Provided to Farmers

Training/Support Type	Number of Companies
Providing seeds	23
Providing guidance and training on making the land suitable for organic cultivation	51
Direct support/ help in getting documents filed under NPOP	36
Training and knowledge sharing on usage of insecticides/pesticides or sharing knowledge about seeds and bio-fertiliser to be used; training and knowledge sharing about GAP	50
Provide inputs (other than seeds)	29
Other training (for example, equipment use)	7
Financial assistance	2

Note: The question above was a multiple-choice question

3.9 About the Supply Chain

The supply chain of a company engaged in the organic business depends on a number of factors such as where the product is sourced from (for example, own farm, organic cluster, directly from the farmers, etc.), whether the product is exported, sold domestically or imported, and whether the product is fresh or processed. After sourcing products such as rice, tea and spices, these products are cleaned, sorted and processed. For example, in the case of rice, there is de-husking and polishing prior to packaging and labelling, while in the case of spices, there is cleaning, sun drying and grinding (it can be dry grinding as in the case of cumin powder) prior to packaging and labelling. Tea goes through the process of plucking, withering (to remove moisture), rolling, fermenting, drying, sorting and blending prior to packaging while mustard goes through the process of milling, oil extraction, etc. Herbs are sold in both fresh format and in dried format. Fresh herbs are sourced from organic farms, cleaned, wrapped and then retailed. Fresh fruits and vegetables are sourced from organic farms, and then they are cleaned, sorted, graded, packed, labelled and retailed.

Companies were asked about the measures they took to ensure that the entire supply chain remained organic. Some companies said that they follow the NPOP norms. However, NPOP does not impose any mandatory requirements for certification of pack houses, storage units, transportation facilities, etc. Although most companies follow some common measures to ensure that the entire supply chain remains organic, exporters are more conscious about ensuring that the transport and storage system follows organic practices. Most companies use separate warehouses or use a separate section in the same warehouse specifically for organic products. They also ensure that in case of transportation the carrier meets the requirements for organic transportation. Packaging material is carefully selected for organic products; for example, organic paper sacks are used, which lowers the chance of contamination. Sometimes, several layers of packaging (for example, paper, aluminium, etc.) are used so that the quality is maintained and there is no fungi infestation (such as aflatoxin infestation in organic rice). It is also ensured that the storage units are clean and hygienic.

In the case of sale in the domestic market, there are no requirements or standards that they have to follow. They follow FSSAI labelling requirements applicable for all products

(conventional and organic) and companies can add their own logo as mark of organic or add the logo of the certification body and NPOP if they have the certification. There are several types of logos in the domestic market whereas exports generally carry the importing country's logo, NPOP's logo and the certification body's logo.

3.10 Quality Control and Certifications

Most companies said that they did not have their own laboratories. They use laboratories approved by the FSSAI or APEDA. There are 112 laboratories accredited by National Accreditation Board for Testing and Calibration Laboratories (NABL), which are also approved by FSSAI for carrying out the analysis of food samples under the Food Safety and Standards Act, 2006. [20] Recently, APEDA provided a list of 14 authorised laboratories for sampling and analysis of organic products meant for exports;[21] prior to this, companies could use any FSSAI approved laboratory. Sometimes, buyers in the international market prefer specific laboratories that are internationally recognised, and exporters and processors use these laboratories.

The non-NPOP certified companies pointed out that they take random samples from farmers and do the testing. Some of them accept the PGS-India and/or the NPOP logos used by the farmers and primary producers and do not conduct any tests themselves and others have pointed out that they "trust" the farmers and suppliers.

The companies were asked if they followed any certification process and standards. Out of the 75 companies surveyed, only 57 companies answered that they do follow some certification process and out of these 45 have NPOP certification. Twelve of them mentioned that they source from farmers under the PGS-India and have other global certifications not related to organic certification per se. Given that 39 companies in the sample are involved in exports, it shows that there are 6 companies catering solely to the domestic market have NPOP certification. Those engaged in exports have to mandatorily follow NPOP certification. However, those catering solely to the domestic market have gone for NPOP as they want to export in the future and the NPOP ensures authenticity of products. In fact, a number of companies pointed out that they would have like to have NPOP certification but the cost of certification is high.

In addition to NPOP certification, some companies have taken National Organic Programme (NOP) certification for exports to the US and Japanese Agricultural Standard (JAS) certification for Japan, among others. Sometimes buyers prefer additional certification such as Rainforest Alliance Certified, Fairtrade certification, ethical trade certification, etc., which the companies have taken. Some of the companies follow Bundesverband Naturkost Naturwaren, Germany trade standards while others have British Retail Consortium (BRC), UK certification.

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[20] Source: http://www.old.fssai.gov.in/Portals/0/Pdf/Order_NABL_Lab_09_08_2016.pdf (accessed on May 16, 2017)

[21] Source: http://apeda.gov.in/apedawebsite/HACCP/xlistofauthorizedlaborganicproducts.pdf (accessed on April 24, 2017)

Companies that use third-party certification bodies sometimes use more than one certification body. This could be because their buyers may require them to be certified by a particular certification body, which is not in the list of certification bodies approved by APEDA. In the survey, three companies used four different certification bodies while nine companies used two different certification bodies.

The cost of certification is specified on APEDA's website[22] and varies across different certification bodies. State government owned certification bodies generally have the lowest cost followed by Indian private certification bodies. The cost of certification is highest for international certification bodies, which are globally recognised. For instance, Karnataka State Organic Certification Agency charges INR35,000 for grower group certification whereas SGS India Private Limited may charge up to INR50,000 for the same grower group certification.[23] In a number of cases, the buyers prefer international certification bodies and hence, exporters use them. The cost of certification varies by the category that the certification body has to certify (i.e., individual farmers, small grower groups, processors, estates, etc.) and the number of markets for which the certification is sought, such as NOP certification for exports to the US, JAS certification for Japan and Canadian Organic Standards (COS) for exports to Canada. The average time required to get certification issued is 42 days with the maximum time being six months.

Of the 45 companies that are NPOP certified, eight have taken help from external agencies to get their certification process completed while the rest completed the process on their own. Only five companies said they faced a problem obtaining the NPOP certification.

3.11 Conventional versus Organic Business

The companies were asked to give their perspective on how they would compare conventional business vis-à-vis organic business with respect to (1) input costs (2) price realisation (3) profitability and (4) business risk. The responses are summarised in the following sub-sections.

3.11.1 Input Cost

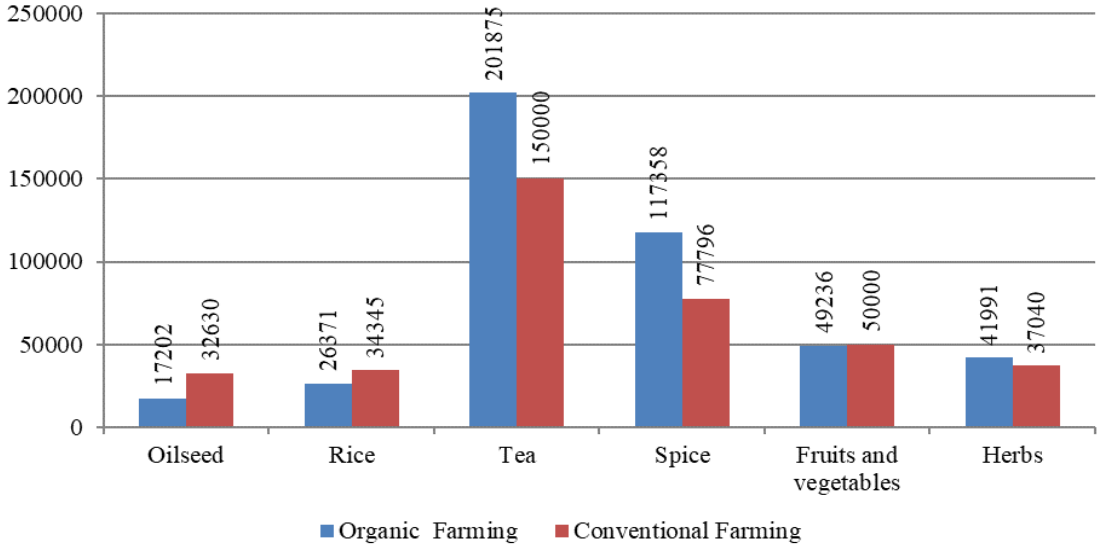
In the survey, 71 companies pointed out that they work with organic farmers. This enabled them to provide a clear picture about the cost of inputs when comparing conventional and organic business. In Figure 4, the input costs for organic farming vis-à-vis conventional farming for different product categories are presented. The input costs for tea, spice and herbs are higher in the case of organic farming as compared to conventional farming while the input costs in conventional farming are higher for rice and oilseeds as compared to organic

[22] For details on cost of certification, see http://apeda.gov.in/apedawebsite/organic/price.htm (accessed on June 6, 2017)

[23] Source: http://apeda.gov.in/apedawebsite/organic/NewTariff/Fee_Structure_KSOCA.pdf and http://apeda.gov.in/apedawebsite/organic/NewTariff/Sgs.pdf (accessed on 31 May 2017)

farming. For fruits and vegetables, the costs are approximately the same.[24] A number of companies operating in the fruits and vegetables segment pointed out that organic inputs, if rightly used, are cheaper as they can be made in the farm itself. Many of them referred to zero budget natural farming techniques and pointed out that India has substantial knowledge in creating quality inputs for organic farming which, in turn, reduces the cost.

Figure 4: Organic versus Conventional Input Costs (INR per hectare)



Note: The input cost for conventional farming for medicinal plants cannot be generated because of the lack of sufficient data and thus, the comparison cannot be presented.

It is generally expected that input costs in organic farming would be lower than in conventional farming, but in some cases, organic input costs are higher as some conventional inputs (such as fertilisers) are highly subsidised but organic inputs are not. In this context, a question related to the cost of organic farming in comparison to conventional farming was raised in the Rajya Sabha.[25] In response, it was pointed out that the cost of organic agriculture largely depends on the on-farm generation of inputs. When on-farm organic inputs are used, the cost of production per unit area is less by 13 per cent under organic agriculture than inorganic management. However, if organic inputs from outside the farm are purchased and utilised, the cost of production increases by about 15-20 per cent, depending on the nature of inputs used. Further, organic farming is labour intensive. Processes like weeding have to be done manually in case of organic farming and labour costs are rising. This is a major area of concern for large organic farms and tea estates. Moreover, when the product is exported, the companies have to follow minimum wages and labour standards, which can increase costs. In

[24] Input costs calculation for conventional farming in the case of oilseeds, rice, tea and spice are based on only 2 observations while for fruits and vegetables and herbs are based on only 1 observation. The input cost for conventional farming for medicinal plants could not be generated because there are no observations.

[25] For details see Rajya Sabha Unstarred Question Number 641 accessible at http://rajyasabha.nic.in/rsnew/question/rstype.asp (accessed on May 24, 2017)

addition, organic farming requires poly houses, netting, fencing, etc., to prevent pest infestation and contamination, which add to input costs.

3.11.2 Prices

The survey responses show that prices of organic products are higher than that of conventional products. The percentage of price differential varies across product categories (see Figure 5). For example, in the case of oilseeds, 11 companies reported that organic products are priced 10-20 per cent higher than the conventional products. Similarly for rice, 25 companies reported that organic rice is priced 10-20 per cent higher than rice produced by conventional methods. None of the companies pointed out an average price differential of more than 50 per cent between organic and conventional products. Across all products, organic products are priced about 17 per cent or even higher than conventional products. The average price differences between organic and conventional products are given in Table 6.

Figure 5: Number of Companies Reporting Average Price Differential between Organic and Conventional Products

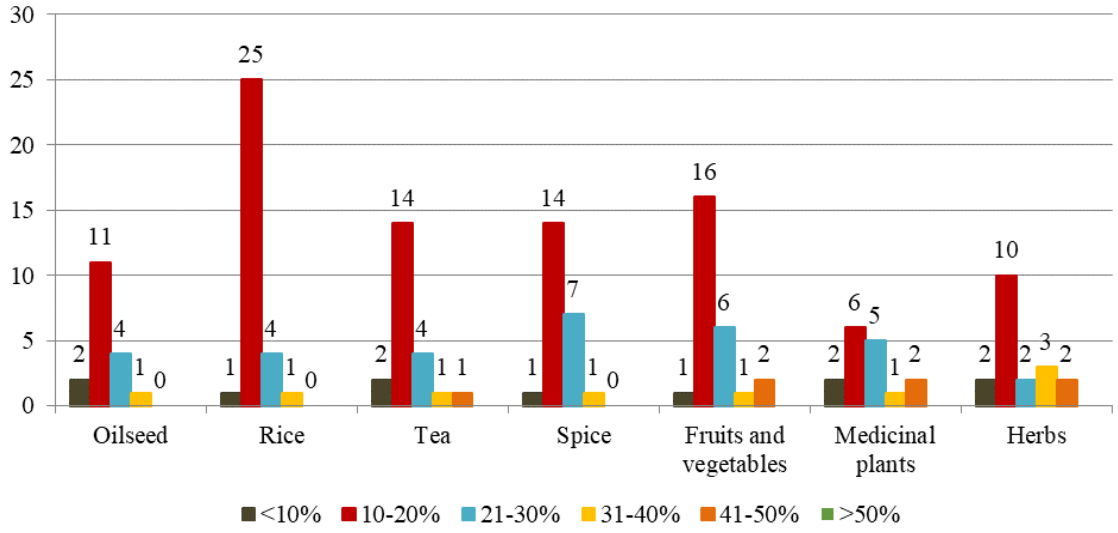


Table 6: Average Price Difference between Organic and Conventional Products (in percentage)

Product	Average price difference between organic and conventional (in percentage)
Oilseed	17.6
Rice	17.1
Tea	18.6
Spice	18.9
Fruits and Vegetables	20.5
Medicinal plants	22.2
Herbs	21.8

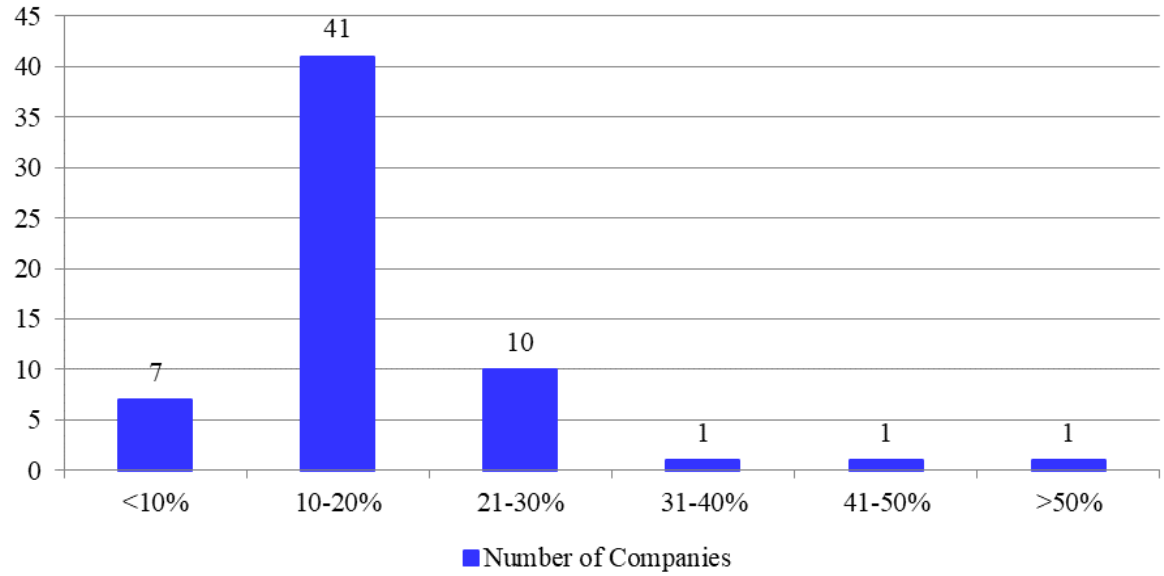
The survey revealed some important demand-side and supply-side factors that lead to higher prices for organic products vis-à-vis conventional products. On the supply side, the high cost

of obtaining the organic certification, the high cost associated with use of more manpower in the field in place of mechanised farming, and the lack of subsidisation of organic inputs are the major factors that raise costs, and therefore the prices, of organic products. There are certain demand side factors, which lead to high prices and higher profits for organic vis-à-vis conventional products. Increased consumer awareness and health consciousness increase consumer demand for organic products as well as their willingness to pay a higher price for organic products. Further, for certain organic products, demand is much higher than supply, which leads to higher prices.

3.11.3 Profits

Companies in the sample were asked to compare the profit margins in organic business vis-à-vis conventional business. Sixty-one out of 75 companies responded that profit margins in organic products are higher compared to conventional products. Two companies responded that their profit margins in organic business are lower compared to conventional business. Twelve companies did not respond to the question. Figure 6 shows that 41 companies have reported a 10-20 per cent higher profit margin under organic farming while 10 have reported a 21-30 per cent higher profit margin.

Figure 6: Number of Companies with Organic Profit Margins Larger than Conventional Profits (in percentage)



3.11.4 Business Risks

One of the biggest risks that deter farmers from venturing into organic farming is the risk of lower yield. Most companies pointed out that in the initial period there are chances of lower yield for farmers and sometimes companies have to support farmers in cushioning the risk. One company pointed out that it lost 40-45 per cent of the crop during conversion from a conventional to an organic tea estate in Assam. The company further said that in Assam, the yield in its organic tea estate is 1200kg/hectare while in the conventional tea estate the yield

is 1800-2200kg/hectare. In Darjeeling in West Bengal the same company lost 25-30 per cent of the crop during conversion from conventional to organic. The yield per hectare is 500-600 kg/hectare in the case of the conventional tea estate *vis-à-vis* 400 kg/hectare for the organic tea estate. According to a number of scientists and agriculture experts, it may take 6-7 years for the land to be fully converted and the yield to increase. Chemical inputs with high yielding variety of seeds can increase yield much faster than organic inputs and organic seeds. Shortage of good quality organic seeds and organic inputs can lead to poor yields. However, there are certain restrictions on the import of organic seeds. In order to mitigate this risk, some farmers use organic inputs that are third-party certified. Further, as companies start working with farmers on organic produce, they found that for some crops the yield is good while for others, yields may fall. They are trying to understand what leads to such failures but to reduce the risk, they advise farmers to do multi-cropping and not single cropping for products like herbs and fruits and vegetables especially in cases where farmers own their lands. They also advise the farmers on more sustainable agriculture practices such as having appropriate feed for cow, ducks, and other animals so that the farmers can also earn from products like organic *ghee* and organic eggs. Many of them advise farmers on beekeeping or apiculture for organic honey.

Figure 7 shows the major risks that the companies face in organic food production. Pest infestation is the most common risk, and this is more acute for organic farming vis-à-vis conventional farming due to the lack of knowledge regarding bio-alternatives to chemical pesticides. This leads to crop spoilage. Some of the common pests include fruit fly infestation in mangoes and oranges, thrips infestation in eggplants and okra, etc. The lack of knowledge regarding bio-alternatives to pesticides results in farmers resorting to using chemicals to save their crops.

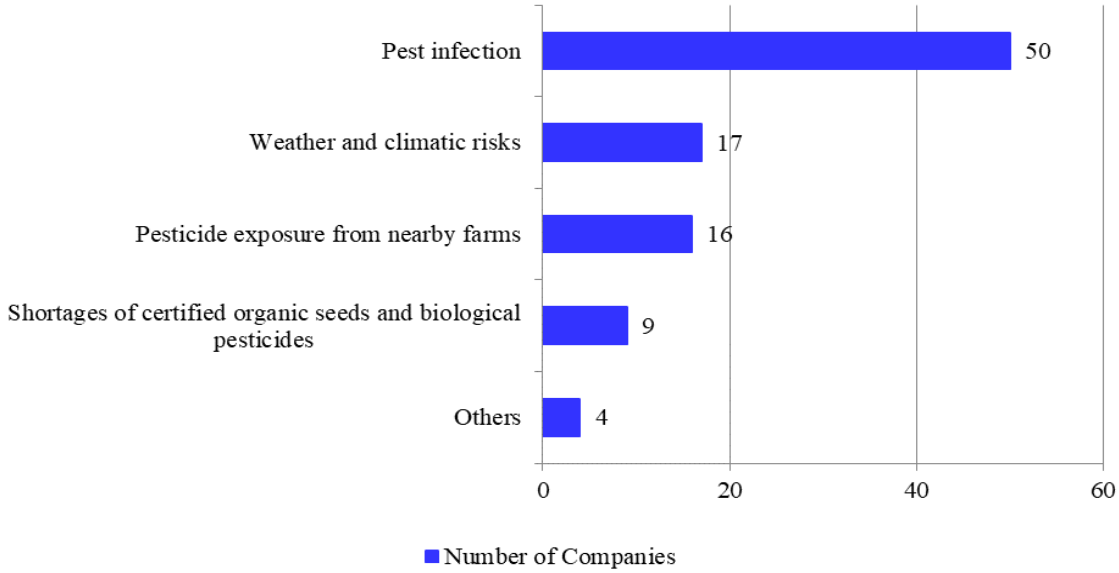
Further, due to the close proximity of conventional and organic farms, pesticide exposure from nearby farms can lead to product contamination. This spoils the organic farmer's produce through no fault of the farmer. Another common risk is the risk associated with unpredictable weather and climatic conditions. In India, organic farming is mostly done in tribal belts and hilly regions. The irrigation facilities in these areas are not well-developed and the weather is unpredictable. This issue affects both conventional and organic produce equally. All organic products surveyed face a problem from pest infection but pesticide exposure from nearby farms and weather and climatic risks in organic production are reported as serious threats to tea and spice farming in particular.

When asked about how they mitigate the risk, wholesalers, distributors and retailers said that they have lower risk as they source from several processors and farmers. Some of the processors pointed out that if they cannot meet the market demand from their own farms, they source from other organic farms. In some cases, an NPOP certified processor can source from both NPOP certified farmers and farmers under PGS-India, especially for produce such as fresh fruits and vegetables to supply to retailers in the domestic market. The demand for organic food products in the domestic market is much higher than supply, and if the

producer/manufacturer/supplier is not able to meet the demand, the retailers tend to procure from competitor producers/manufacturers.

When asked how they mitigate the risk of pest infestation, most producers and companies working with farmers said that they use *neem* oil. However, under NPOP, the use of *neem* oil in organic agriculture to control pests and diseases is restricted.[26]

Figure 7: Business Risks Involved in Organic Production



Notes:

1. The question above was a multiple-choice question
2. The "others" category includes shortage of specialised farm equipment designed for organic production, etc.

3.11.5 Organic Food Retailing: Reaching out to Consumers

Regarding marketing, a number of companies pointed out that they market their products through fairs, exhibitions and *melas* while others use multiple retail formats. There are 24 companies in the survey, which are engaged in organic retailing. Of these, eight are solely engaged in retail business while the remaining 16 are also engaged in other businesses such as exporting, manufacturing and processing.

Retailers operate through various store formats, such as supermarkets, general stores, hyper markets and convenience stores; stores can be single-brand or multi-brand. In the survey, eight retailers said that they are single-brand while eight said that they have on-line retail formats. Most organised retailers operated through multiple formats.

[26] Source: http://apeda.gov.in/apedawebsite/organic/organic_contents/Appendix_1_Crop%20Production.pdf (accessed on April 26, 2017)

Companies also shared their experience on how they expanded their retail business. For example, one Kolkata based company pointed out that they started with a single-brand retail outlet in a premium location and a distribution centre. Through the distribution centre, they provide home delivery services. The company also sells unbranded organic products in bulk – that is, supply to other organic companies who then brand the products.

Large corporate retailers such as RP-Sanjiv Goenka Group (Spencer's Retail), Aditya Birla Group (Aditya Birla Retail Limited) and Future Group (Foodhall, Big Bazaar, etc.) are generally present across major cities, but there are several organic standalone single stores in the cities surveyed. Fifteen out of 24 retailers in the survey have more than one retail outlets. Of these, 14 more than one outlet in the same city.

Retailers can store solely organic products in their stores or have a combination of both organic and conventional food products. Fourteen companies out of 22 claimed[27] that they only store organic products, that is, they are 100 per cent organic retail outlet. Retailers selling organic and conventional products (8 retailers) said that they do not put organic and conventional products together on the same shelf.

Seventeen companies out of 23 said[28] that they always check the certificate of the organic supplier before sourcing. Six do not check for the certificate because they have their own manufacturing base.

When asked about their consumer base, 22 retailers[29] said that their customers are from the upper middle income and higher income groups and their percentage share of customers in these two income groups are 33 per cent and 62 per cent respectively. Thirteen retailers out of 22 have reported that consumers are willing to pay more for organic produce while 9 said that consumers are not willing to pay more for organic produce. Thirteen retailers reported that consumers showed no preference for imported organic products over domestic organic products; the remaining did not respond to the question. Overall, retailers pointed out that the Indian market for imported organic food products is still at a nascent stage.

3.12 Growth Projections and Future Business Plan

The next set of questions focused on companies' perceptions about current growth and growth projection for a short term period, that is, the next 5 years. Sixty-nine companies have reported current growth of organic business in India while only 36 have reported growth in organic business in the next 5 years (see Figure 8 for the current growth of organic business and the growth in the next 5 years). Companies, on an average, forecast a growth rate of approximately 14 per cent growth in the organic food market in India in the current year and an annual growth rate of 20 per cent in the next five years. This indicates that the organic market is a fast growing market in India.

[27] Two companies did not respond to the question on the store format.
[28] One company did not respond to this question on verification of certificate from organic supplier.
[29] Two retailers did not respond to the question on income group of consumers.

Figure 8: Current Growth Rate and Growth in Next Five Years of Organic Farming in India (in percentage)

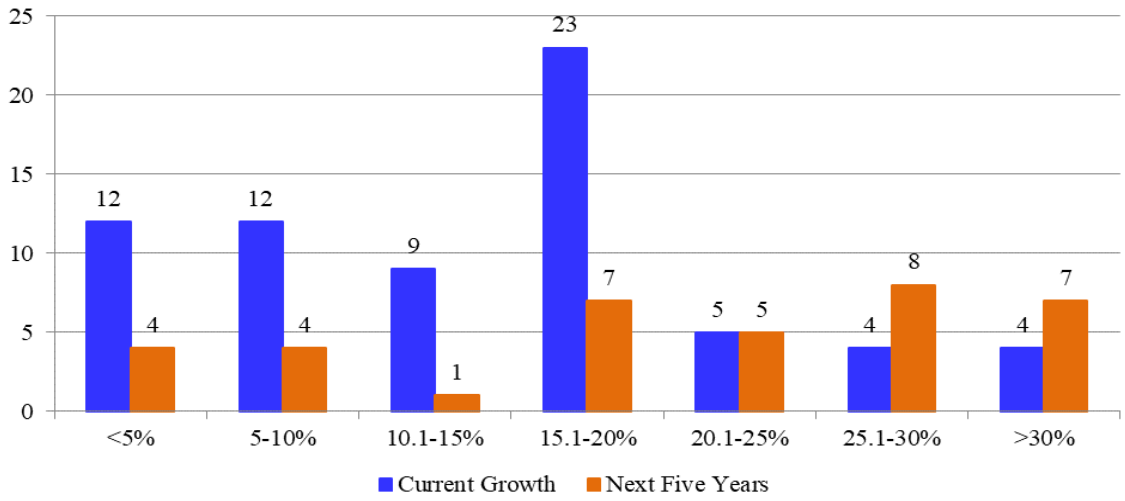
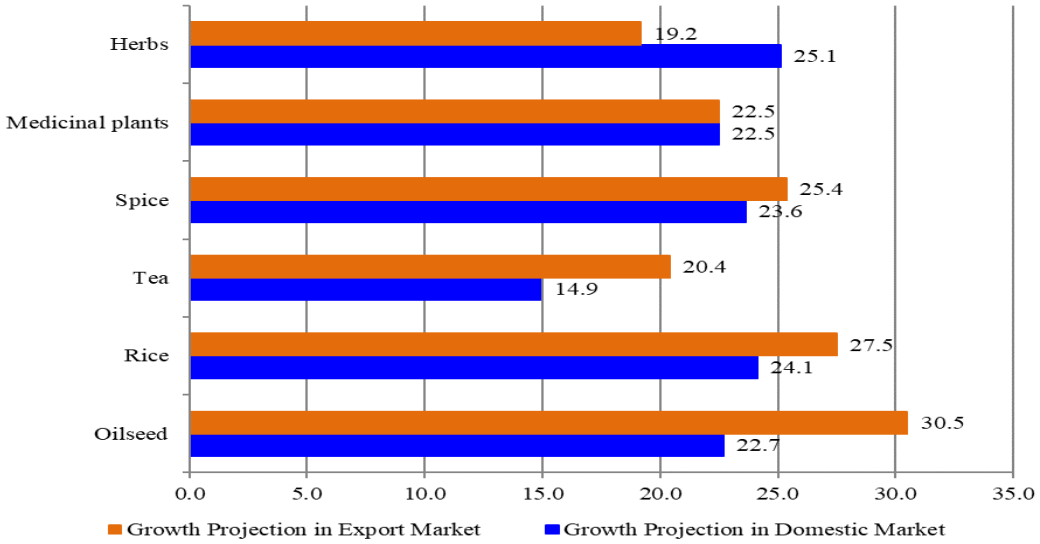


Figure 9 gives an estimate of the growth projections in the next 5 years of organic products in the domestic market and in the export market by different product categories. Growth projections for the export market are on average higher than for the domestic market except for herbs. The highest projected growth in domestic markets is for fruits and vegetables at 25.6 per cent[30] while for exports, it is oilseeds at 30.5 per cent.

Figure 9: Growth Projections of Organic Products in the Domestic Market and the Export Market in the Next 5 Years (in percentage)



Note: For fruits and vegetables, the projected growth in exports cannot be calculated because of lack of observations (most of the respondents did not respond to this question). The growth projection for fruits and vegetables for the domestic market is 25.6 per cent over the next five years.

[30] For fruits and vegetables, the projected growth in exports cannot be calculated because of lack of observations.

Given that the organic sector is growing at a fast pace in India, companies were asked whether they wish to expand their product portfolio and diversify across products or vertically expand (for example, from processing to retailing) in the next five years. Thirty-four companies out of 71 companies (48 per cent) [31] said that they would like to diversify their product portfolio and diversify the supply chain operations in the future while the remaining 37 companies did not want to diversify. Fourteen out of 34 companies whose business in a particular product is more than 80 per cent want to diversify. However, there is no trend for any particular product. Out of 37 companies who do not want to diversify, 20 of them are presently producing only tea and four primarily producing rice.

When asked specifically in which areas they would like to diversify, companies said that they would like to diversify in terms of increasing the volume of business, increasing their share in the domestic market and increasing the product range. One of the major products in which companies would like to enter into is organic pulses and soyabeans.

4. Trade in organic products

In India, the harmonised system codes (HS codes) for organic food products are not specified in the Directorate General of Foreign Trade (DGFT) and Directorate General of Commercial Intelligence and Statistics (DGCI&S) databases nor does APEDA provide HS codes in its website. It is, therefore, difficult to analyse data on organic trade data. In 2016-17, export of organic products from India was valued at USD370 million, which increased by approximately 17.5 per cent compared to 2015-16.[32] In 2015-16, some of India's top markets for the export of organic products were the EU, the US, Canada, Korea and Australia.[33] Data on India's import of organic products is not available.

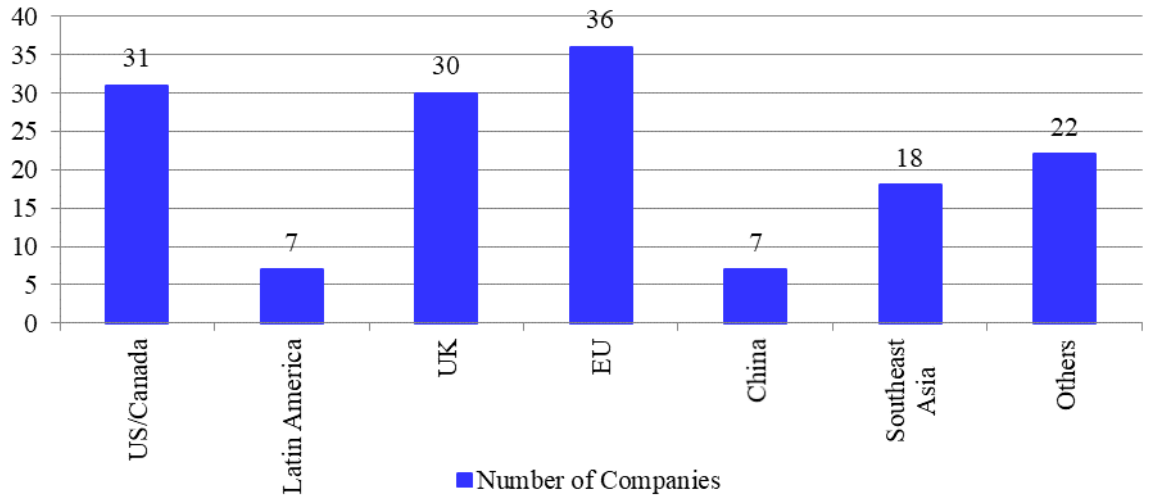
Out of the 75 companies that were surveyed, 39 companies are engaged in exports and 6 companies are engaged in imports. The companies were asked in detail about their international trading partners and key markets. Interviews were then conducted with their buyers in the UK. The survey found that there are certain products like organic tea, organic rice and organic spices, which have a high demand in the export market. Comparatively, export of organic herbs (in fresh format) and fresh fruits and vegetables is low.

Out of the 39 companies that are engaged in exports, companies other than those in the tea industry are often engaged in the exports of more than one agriculture (fresh or processed) commodity. In the sample, 28 companies are in tea export, 13 companies are engaged in the exports of spices, 12 in rice exports, 7 in fruits and vegetables, 6 each in oilseeds and medicinal plants respectively and another 5 companies in herbs. Twenty-five companies are exporting only one product, out of which 21 are in tea, two are in rice, and one each in spices and fruits and vegetables respectively. Four companies exporting across two product

[31] Four companies did not answer the question on whether they want to expand their portfolio and diversify.
[32] See http://pib.nic.in/newsite/PrintRelease.aspx?relid=160780 and Response to Lok Sabha Unstarred Question Number 3574 (H) and 1929 (H) (accessed on May 24, 2017)
[33] See http://apeda.gov.in/apedawebsite/organic/Organic_Products.htm (accessed on March 15, 2017)

categories and the remaining nine are dealing with three or more product categories.[34] Figure 10 gives the distribution of companies which are engaged in exports, by major markets. A majority of the companies are exporting to the EU (excluding the UK), followed by the US/Canada and the UK. Within the EU, the major destination country being catered to is Germany.

Figure 10: Distribution of Companies Exporting to Various International Markets



Notes:

1. The question above was a multiple-choice question.
2. 'Others' include Japan, Australia, and the Middle East countries. Since the survey was conducted after the Brexit referendum, questions on the UK was asked separately and the EU excludes the UK for the purpose of understanding the key markets.

In the sample, the percentage of revenue from exports of organic products for nine companies is less than 10 per cent while for another 10 companies the percentage of revenue from exports of organic products lies between 50-75 per cent. Four companies have 75 to 90 per cent of their revenue and another 11 companies have between 90-100 per cent of their revenue coming from the export of organic products. Five companies have not reported the percentage of revenue from exports. Of the 11 companies whose percentage of revenue from exports lies between 90-100 per cent, eight companies are in tea, one in spices, one in rice and the other one is primarily in pulses.

In the tea sector, 24 out of 28 companies responded to the question regarding changes (increase/decrease) in revenue from exports for the last two years. Out of these, 22 companies experienced an increase in revenue from export of organic tea while the export revenue of the remaining two companies declined. Five of the 22 companies registered an increase in revenue of less than 10 per cent while that of another 13 companies increased in the range 10-20 per cent.

[34] One company did not answer the question in the survey.

Companies shared in details about how they established the export process. In some cases, Indian entrepreneurs in countries such as the UK have started sourcing organic products from India.[35] They mostly sell through non-store retail formats. While in the past, most processors and exporters used to sell their produce to buyers in developed country markets, of late some of them have started selling directly using non-store retail formats such as Amazon Global to reach consumers. Organic food product retailing through on-line/e-retailing format is one of the fastest growing modes of retail in countries such as the UK. These products are also available in specialised health product and nutraceutical stores in developed country markets. Multi-brand retailers sell organic produce in their stores.

Some well-known UK companies such as Bart Ingredients for spices,[36] VeeTee Rice Limited[37] for rice and Wessanen UK for tea[38] have been sourcing organic ingredients from India for quite some time now. In-depth meetings were conducted with 12 organic product buyers in the UK to understand their procurement process in India. In the case of spices, some of the UK companies source organic spices from India, Thailand and Sri Lanka, among other countries. These spices have already been processed in the countries from which they are sourced. In case of rice, brown rice is sourced from India and the processing (milling in rice mills) is done in the UK itself. For tea, unbranded tea is procured from India and then processed in the UK. Some of the UK buyers pointed out that they buy in bulk and then brand, package and label the product in the UK and sell the final product *via* multi-retail chains and e-retail. They sell the product under their own brand or under the brand name of the retailer.

In India, some foreign buyers have entered into partnerships/contract with local companies, which work with small to mid-sized producers and processors. All the Indian companies have third-party certification and the foreign buyers can only source from processors who source from third–party certified farmers. No sourcing is done from farmers under the PGS-India or those who are by default organic as it is not allowed in developed markets such as the EU. The Indian company has to maintain complete traceability and provide details of the whole supply chain and sourcing process to ensure transparency.

The UK companies often send representatives to visit the factories/processing units in India to ensure that all requirements are met and food safety and health standards are followed. To identify potential suppliers and exporters from India, procurement teams of UK companies attend seminars, business council meetings and trade shows. They prefer to create long term partnerships and they clearly specify the product and standards that they would require the Indian counterpart to adhere to. If there is a change in the EU Directives or any other policy, they inform their Indian suppliers.

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35 For details see , http://www.spice-root.com/about/ (accessed on June 6, 2017)

36 For details see, http://bart-ingredients.co.uk/ingredients/ (accessed on June 6, 2017)

37 For details see, https://www.veetee.com/our-story/ (accessed on June 6, 2017)

38 For details see, https://www.wessanenuk.com/fairtrade-visit-clippers-indian-tea-suppliers/ (accessed on June 6, 2017)

Organic products in the UK are often sold alongside conventional products in the same store. A number of UK retailers have their own private label for organic products. The on-line market for organic food products is growing at a fast pace and these products are also sold through specialised food stores. Consumers in the UK have started demanding fair trade, ethical and vegan products along with organic certifications and multi-brand retailers are catering to that need.

The survey showed that globally, while the organic market has expanded rapidly consumer preferences have also been changing. Preferences are switching from traditional products such as Darjeeling (flavoured) tea to herbal infusions, from conventional aromatic Basmati rice to non-Basmati organic brown rice and ready-to-eat microwaveable rice mixed with vegetables and spices. Companies in the UK catering to these demands will source their products from countries where the market is able to adapt and accommodate changing tastes.

As far as importing organic products to India are concerned, it is important to note that no government data on imports is available. There is no policy for organic imports and, hence, survey participants pointed out that imported products often come into the country as conventional products and are then they are repacked as organic products. According to them, the import process is pretty relaxed compared to the export process.

The survey found that while developed countries such as the UK are key importers of organic food product from India, until recently, there were limited incentives in these countries at a policy level to push for exports of organic food products to India, since they perceived the Indian market for such products to be small and price sensitive. Since their own demand for organic products is more than what farmers and processors can supply, such countries were willing to enter into unilateral equivalence arrangements with developing countries like India. However, now this scenario is changing. India is looked upon as a growing market for organic produce. The EU and other developed countries are no longer keen to have unilateral equivalence with India – they want bilateral equivalence to support exporters exporting to India and UK policymakers and industry have the same view. Further, the Organic Trade Board in the UK has received EU funding of EUR 10.4 million (USD 11.45 million)[39] (along with its counterpart, Organic Denmark)[40] to promote the organic business in the UK and in developing countries such as India. Such projects will help promote exports of organic produce to India.

There are only six companies in the sample that are engaged in imports out of which three are in tea. Only one tea company said that it imports ingredients from China and Vietnam because of their good quality. Others import organic food products such as juice concentrate from the US, olive oil from Italy and organic herbs from various countries.

A number of UK based companies are trying to sell products like herbal infused tea (such as organic Moringa tea) and vegan products (such as vegan chocolates) in India through

[39] Converted using www.x-rates.com with an exchange rate of EUR 1 = 1.100899 USD (as on May 16, 2017)

[40] Source: http://www.foodbev.com/news/organic-trade-board-secures-share-of-e10-4m-european-funding/ (accessed on April 25, 2017)

established retail chains such as Godrej's Nature's Basket and HyperCity, and on-line retailers. However, according to them, the Indian organic market is still undeveloped and Indian consumers are less willing to pay a premium for specific products like vegan chocolates. The market has to be more mature for such products to penetrate it.

Two companies in fresh fruits and vegetables pointed out that although they are not importing now, they would soon start importing from neighbouring countries such as Bhutan, Myanmar and Nepal. The issue that they face in sourcing from Bhutan is that the country does not have third-party certified farmers. Hence, they cannot use these products for manufacturing and exports to developed countries. Nevertheless, given the growing demand in the Indian market for organic produce, all survey participants agreed that there will be a rise in imports if the current policy persists or if FSSAI allows imported products from PGS farmers.

5. Issues Related to Organic Business in India

The companies were asked to explain the issues they faced in setting up their business, in their day-to-day operations and the organic certification process, among others. Most companies said that they did not face major problems in getting their third-party certification. They faced a number of issues related to policy uncertainty, trade and lack of infrastructure in the organic supply chain. The issues that were raised are discussed in the following sub-sections.

5.1 No Nodal Government Agency for Organic and Multiple Government Bodies are Doing Piecemeal Regulations

The survey showed that one of the major issues raised by all companies is the lack of a nodal agency for organic products. Unlike most countries where the agriculture ministry is the nodal agency for organic products, in India, multiple government bodies are trying to come up with regulations and standards for organic food products, which are difficult to adhere to if a company is catering to both the domestic market and exports. There are concerns about which standard will be applicable pan-India. At the time of the survey, the FSSAI was holding consultations on drawing up guidelines for organic products. The survey participants were worried that FSSAI regulations may not be applicable to farmers and exporters since neither come under FSSAI's jurisdiction. Organic farming is based on supply chain traceability and farmers are an integral part of the supply chain. Therefore, survey participants are of the view that there should be a holistic approach to regulating this sector.

Survey participants pointed out that farmers can have both third-party certification and PGS-India scheme. However, punishment for fraudulent practices is mostly based on mandatory standards and not voluntary standards. If FSSAI approves multiple standards, logos, labelling requirements, it will give rise to malpractices and will create confusion in the minds of the consumers. Further, global players point out that different standards for exports and imports make it difficult for them to establish production networks through India.

5.2 Lack of Understanding of the Policy

Multiple regulations by different government bodies can make it difficult to understand the policy. Given that farmers can be NPOP certified or under the PGS-India, there has been some confusion among some of the entrepreneurs about which farmers they should source their produce from. One entrepreneur pointed out that after acquiring a farm and connecting to a group of 50 farmers, the person tried to get registered under the PGS-India. The entrepreneur first contacted an NGO in PGS-India in Bengaluru and the NGO sent over forms for the registration. The forms were filled without understanding that PGS-India was not applicable to his company since he wants to export in near future. He was told that some countries recognise PGS. After more than two years he realised that he should have opted for NPOP certification as it is a mandatory requirement set by APEDA for exports.

5.3 Issues in Adhering to the Regulations

There are certain issues in adhering to the policy even with clear understanding of the policy. Firstly, the organic policy in India is evolving. For example, APEDA's NPOP requirements have changed. Recently, APEDA uploaded a list of laboratories from which products have to be tested for exports while all laboratories listed with FSSAI can be used for testing imports. Secondly, there is no root cause analysis if the product is rejected in export markets. APEDA solely puts the blame on exporters and their certification bodies. The exporters, in turn, argue that since they are sourcing from APEDA certified processors and farmers, they should not be held solely liable for product rejections in the export market.

5.4 Occurrences of Fraudulence and Malpractices

All companies pointed out that there is prevalence of fraud and malpractices in the organic business. These malpractices can be of different types, the most serious of which is mixing organic products with conventional products. There are cases where once a company gets an NPOP certification, it uses the NPOP logo and certification body logo to put quantities of produce in the market that are far higher than the produce of the farms for which it has got the NPOP certification. Thus, if one adds up the products that are exported and supplied in the domestic market by such companies, it will be far higher than the quantity for which they got the NPOP certification and yet they use the logo. This malpractice happens because data on actual organic production under NPOP certification and PGS-India is scattered and FSSAI has not yet developed guidelines for organic food products, which can help check such practices. In India, there is no mandatory requirement for processors and retailers to be third-party certified and hence, there cannot be audits and checks. The processors and retailers may not even be aware that they are indulging in any fraudulent practice. According to most companies, malpractices occur due to lack of regulatory clarity and accountability.

A number of companies pointed out that the authenticity of the transaction certificate is an issue. It is not possible for company officials to visit every field. They select the product based on the transaction certificates and there are cases of malpractices with transaction

certificates at the field level where transaction certificates are transferred on the payment of a fee. This is an issue faced by retailers as well.

5.5 Trade and Investment Related Issues

Exporters and their buyers referred to certain issues while importers and their suppliers have raised another set of issues. Foreign companies who want to invest in India pointed out the reasons why they find it difficult to invest. All these issues are discussed below.

a) ***Issues Raised by Buyers and Exporters from India*:** The issues faced by international buyers and exporters of organic products from India are listed below.

i) Withdrawal of Unilateral Equivalence for Processed Food Products by the EU: At present, there is no equivalence between India and the EU for processed food products as the EU has withdrawn the unilateral equivalence that it gave to India in the year 2006. Other countries such as Canada are also not keen on unilateral equivalence arrangements. The non-recognition of standards itself acts as a barrier to trade and the product has to be then certified and tested in both importing and exporting countries/markets. Moreover, it is not clear how the issue of organic equivalence should be discussed in multilateral forums such as the WTO. For example, while APEDA has been raising the issue of the EU's withdrawal of equivalence for processed organic products in the WTO's Committee on Sanitary and Phytosanitary Measures, the view of most developed countries and that among policymakers and organic experts in India is that organic food is not a food safety issue; it is a labelling issue [41](for details see Box 1). The survey participants pointed out that unless India is willing to and has the standards and processes in place that allows it to sign bilateral equivalence, the country may not be able to raise this issue in multilateral forums.

Due to the lack of equivalence, buyers tend to import fresh and semi-processed produce and do the processing in their home market. The survey participants further argued that organic produce generally has a lower shelf life than conventional produce and, hence, it is easier to export processed rather than fresh/perishable produce. Unless processing is done in India, the country will not gain from value addition and the establishment of a manufacturing base in the country.

[41] For details see WTO Committee on Sanitary and Phytosanitary Measures Document G/SPS/GEN/204/Rev.17 Dated March 7, 2017. Available at http://spsims.wto.org/en/OtherDocuments/Search?DoSearch=True&DocumentSymbol=G%2FSPS%2FGEN%2F204%2FRev.17&DistributionDateFrom=07%2F03%2F2017&DistributionDateTo=07%2F03%2F2017&SubmittingMembers=&SubmittingObservers=&SubmittingObserverOrganizations=&Secretariat=&DevelopmentStatus=&GeographicGroups=&Title=&Keywords=&DocumentTypes= (accessed on May 3, 2017)

Box 1: The Issue of EU's Withdrawal of Equivalence for Processed Organic Products

In July 2014, India raised concerns with the EU in the WTO's Committee on Sanitary and Phytosanitary Measures about the withdrawal of equivalence for processed organic products by the latter, which it had recognised since the year 2006. In response, the EU communicated to India that organic is not a food safety issue and hence, lay outside the scope of the WTO's Sanitary and Phytosanitary (SPS) Agreement but offered to discuss the issue bilaterally. When India insisted, the WTO's Secretariat pointed out that most notifications regarding organic products had been submitted under the Technical Barriers to Trade (TBT) Agreement. The US also supported the EU stand that organic products did not fall under the ambit of the SPS Committee.

In March 2015, India again raised its concerns in the WTO's SPS Committee. In response to India's concerns, the EU reiterated its commitment towards engaging with India bilaterally at a technical level on this issue, within the appropriate framework. It suggested that an audit of the EU's Food and Veterinary Office (FVO) would take place in India on April 13-24, 2015.

India again raised the issue about the withdrawal of equivalence for processed organic products by the EU in the WTO's Committee on Sanitary and Phytosanitary Measures in July 2015. The WTO's Secretariat explained that many Codex standards included requirements related to nutrition, labelling and packaging for food products and were thus relevant for the TBT Committee and were not under the purview of SPS committee. Subsequently, India again raised the same concern in October 2015. Other countries such as Chile, which had earlier expressed the view that Codex standards did not define the scope of the SPS Agreement, agreed in October 2015 that organic products should be discussed under the TBT Agreement and not under the SPS agreement.

In March 2016, India recalled its statements from previous SPS Committee meetings and reported that in April 2015, an FVO mission by the EU had taken place to inspect the control systems but the report had not been received until February 2016. The report did not address the equivalence issue and India remained unaware of any gaps or of the steps the EU was taking to address this issue. India restated its position that if any regulation addresses food safety in the context of Article 2.1 or Annex A, it falls under the scope of the SPS Agreement. In June 2016, India pointed out that the EU wants reciprocity and mutual benefits and wanted the EU to communicate that in writing but EU continued to maintain that the issue of withdrawal of equivalence for processed organic products was not within the scope of the WTO's SPS Agreement.

Source: WTO Committee on Sanitary and Phytosanitary Measures Document G/SPS/GEN/204/Rev.17 Dated March 7, 2017. Available at http://spsims.wto.org/en/OtherDocuments/Search?DoSearch=True&DocumentSymbol=G%2FSPS%2FGEN%2F204%2FRev.17&DistributionDateFrom=07%2F03%2F2017&DistributionDateTo=07%2F03%2F2017&SubmittingMembers=&SubmittingObservers=&SubmittingObserverOrganizations=&Secretariat=&DevelopmentStatus=&GeographicGroups=&Title=&Keywords=&DocumentTypes= (accessed on May 3, 2017); http://spsims.wto.org/en/SpecificTradeConcerns/View/378 (accessed on May 3, 2017)

ii) **Certification Body has to be Present in India:** Unlike countries such as US and Canada where the physical presence of a certification body in the country is not mandatory, in India it is. APEDA does not recognise certification bodies such as the Soil Association, UK, which certifies more than 10,000 organic processors and retailers in the UK, as it does not have a presence in India. So an exporter and his/her buyer has to first get a product approved and certified by a certification body approved by AEPDA and then by a body like Soil Association, to export to the UK. This process takes 6 to 8 months.

iii) **Variation in Laboratory Results:** There are problems related to chemical contamination in products like tea and spices sourced from India. Even when the buyer and exporters take all precautions like proper sampling, sometimes samples from the same land have different results. Further, there are variations in laboratory testing procedures and human skills.

iv) **Products have to be Tested in Multiple Laboratories:** Exporters of spices pointed out that they have to get the product tested in APEDA approved laboratories and for selected spices, they further need the Spices Board India's approval, which has a different type of testing. Moreover, their client asks them to test the product in client approved laboratories. Thus, a spice exported from India is tested by three different laboratories, which increases the cost. Further, there are 112 laboratories[42] accredited by the NABL, which are also approved by FSSAI for carrying out analysis of food samples under the Food Safety and Standards Act, 2006. Only 14 laboratories out of the 112 laboratories are listed on the APEDA website[43] to carry out sampling and testing of organic products under the NPOP. Respondents are not sure why they are not allowed to test the products in all 112 NABL and FSSAI approved laboratories, restricting their freedom to select the laboratory.

v) **Shortage of Qualified Auditors for Third-Party Certification:** Some exporters pointed out that there is a shortage of qualified auditors in certification bodies who can audit specific standards such as the Japanese and Korean standards. Some of the certification bodies agree that there is a shortage and said that they meet the shortage by sub-contracting to other certification bodies.

vi) **No Identified Organic Clusters or Organic Export Agri-zones:** Although India has organic clusters in tribal and hilly areas, limited steps have been taken by the government to covert these clusters into third-party certified agri-zones. This would have helped buyers from developed countries such as the UK to go on field visits and source products from farmers in these clusters. Some states like Sikkim have been promoting organic products and Sikkim has been declared as India's first

[42] Source: http://www.old.fssai.gov.in/Portals/0/Pdf/Order_NABL_Lab_09_08_2016.pdf (accessed on May 16, 2017)

[43] See http://apeda.gov.in/apedawebsite/HACCP/xlistofauthorizedlaborganicproducts.pdf (accessed on May 16, 2017)

organic state. However, UK buyers are not sure how they can source from Sikkim and they do not know if the farms are third-party certified farms.

vii) **The Database in India for Organic Production and Trade is Weak:** The list of organic product exporters on APEDA's website is outdated – some do not export, while some have faced issues in the past. This list has to be updated. A robust database can help buyers identify suppliers. At present, buyers find it difficult to locate a supplier for products like spices and herbs. APEDA and NCOF do present the latest statistics on organic production and processing by states in their website but this has to be made more user-friendly for analysis.

viii) **Multiple Organisations Control Exports**: There is lack of clarity on the role of various organisations involved in exports, for example, the Export Inspection Council India (EIC) and APEDA for organic Basmati rice and black pepper or Spice Board and APEDA for certain spices such as turmeric. One company pointed out that even if a black pepper consignment is for 50 kg, the Export Inspection Agencies (EIAs) sometimes ask for around six kilograms as a sample for testing. The EIA takes around 15 days in testing the sample. The sample has to be sent to the laboratory in another city and then brought back *via* air. If APEDA has already tested whether the products are organic under NPOP, they are not sure what the role of EIC is in such cases. Customs officers are also sometimes confused about the documents and clearances that the consignment should carry from various agencies. The lack of well-defined procedures creates delays at the border and reduces India's rank in ease of doing business and logistics indicators.

ix) **Lack of Understanding of Compliance and Trading Standards of the Importing Country and that of the Private Retailers and Processors:** Many times, Indian exporters raise concerns about standards implemented by importing countries while exporters from competing countries are able to meet the standards. Buyers in the UK gave some examples to substantiate this point. These examples are not specific to organic products but it nevertheless helps to understand their views. For example, the EU recently proposed a ban on the chemical tricyclazole for rice. Certain countries exporting rice to the EU such as Cambodia have already decided to ban tricyclazole.[44] India still has no clear guideline on the use of this chemical. A UK-based company pointed out that although they have long standing relationships with processors in India, they have had to start sourcing from Cambodia since government policy in Cambodia is tuned to EU requirements.

b) ***Import Related Issues:*** There are some issues faced by exporters of organic produce to India and importers in India. First, there are no FSSAI guidelines for organic products, which implies that there is no standard for organic product labelling, logo, etc. This creates an uncertain environment for exporters to India and importers in India. Second,

[44] Source: http://www.khmertimeskh.com/news/36979/ministry-bans-tricyclazole-imports/ (accessed on April 6, 2017)

there are issues with labelling. The purpose of the label is to provide information to consumers. Thus, a label should have details of ingredients, additive, allergens, the date of expiry, etc. In India, date of manufacturing has to be included in the label and the product should enter the country with 65 per cent or more shelf life. This is an issue as organic products have a short shelf life and it can take a month for product travel and clearances. Consumers see the date of manufacturing and think that the product is old without seeing the date of expiry. This makes it commercially risky.

The interview in the UK brought out the lack of clarity in FSSAI's position with respect to fraudulent practices. The traceability system is underdeveloped and once the product reaches the Indian market, it is very difficult to ensure traceability. This makes it impossible to identify the source of any malpractice.

The tariff rates in India are very high, which increases the prices of organic food products that are imported, making them non-competitive compared to domestic products.

Three importers pointed towards the delay in clearances of consignments at ports. According to exporters from the UK, it is difficult to identify a genuine partner or distributor for organic products in India as there is no comprehensive database of organic traders, distributors, wholesalers, etc., by product categories.

c) ***Restricted Scope for Establishing Manufacturing Base in India:*** When asked whether there is scope for establishing manufacturing base in India, UK based companies pointed out that barriers to import restrict them from establishing a manufacturing base in India. They gave the example of tea manufacturing. While India is one of the largest producers of tea, consumers' preference for tea has changed and there are a number of ingredients that are added to create different varieties of tea. Some of these ingredients have to be imported from countries such as China and Thailand and India has a high import duty, which makes it difficult to establish a production network in India and make India a part of their global value chain.

Those who want to establish a manufacturing base in India pointed out that the Ministry of Food Processing Industries hardly has any policy on promoting India as an organic agro-processing hub. Organic agro-processing hubs are generally located around organic farming clusters and there is a need for a developed organic supply chain. The APEDA's National Accreditation Body has no representation from the Ministry of Food Processing Industries, although it has representation from the Ministry of Agriculture and Farmer's Welfare. Further, high tariffs on imports of certain ingredients make it unprofitable to set up a manufacturing base in India. Manufacturers from developed countries are not interested to invest in manufacturing of organic products in India unless third-party certification is mandatory for exports and domestic market, and export, import and domestic market have a uniform standard and a single nodal agency for organic food products. They are not keen to work with multiple ministries, departments and government agencies.

5.6 Issues with Subsidies in Organic

One key issue raised by companies is that NPOP certification is costly but farmers do not get subsidy. PGS-India is costless yet it is subsidised but products under the PGS-India cannot be exported, and hence farmers will not benefit from the premium that organic products fetch in the international market. Further, subsidies under PGS-India may discourage farmers from going in for third-party certification. Farmers in organic agricultural practices need specific support such as financial support for poly house farming, support for covering yield losses during the conversion period, etc. The survey participants pointed out that subsidies may be given in a piecemeal way by some states for certain activities but, there is no pan-India support or uniformity across states in the subsidy policy for organic products.

General subsidies are announced but they are not disbursed on time. For example, APEDA provides transport subsidies to exporters under the "Transport Assistance for Export of Horticulture, Processed Food Products and Poultry Products" for each shipment, including organically grown products.[45] The whole process of applying for the subsidy is completed online by the exporter and an application tracking number is issued by APEDA to acknowledge the application by the exporter.[46] Exporters revealed in the survey that they receive their subsidies 12-15 months after applying for it and, for some shipments they are yet to receive the subsidies even though more than 2 years have elapsed. Further, there is hardly any marketing support from APEDA for organic products.

5.7 Poor Quality Inputs and its Non-availability

There are fraudulent practices in inputs and even companies, which work with farmers, have sometimes purchased low quality inputs like vermicompost. According to some survey participants, vermicompost companies market their products at the local level through *gram panchayat*, local stores, etc., and some of them lobby to sell the products to farmers. In the initial period, when there is a risk of low yield, companies also cannot put much pressure on farmers as to what inputs they should use. If the farmer uses poor quality inputs, it may lead to further loss of yield and the farmer may shift back to conventional farming. There is also shortage of seeds and saplings. Indian consumers are expanding the variety of foods they consume and are trying products like iceberg lettuce or Brussels sprouts. However, organic seeds for these vegetables are not easily available.

5.8 Quality Issues in Final Product

A number of retailers pointed out that there is quality inconsistency in organic products. The quality varies from farm to farm, processor to processor, and within the same company, there could be difference between two product lots. This can be because they are sourcing from different types of farmers or they may not be strictly adhering to quality standards. Further,

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[45] See http://agriexchange.apeda.gov.in/Market%20Profile/one/SCHEMES_FOR_TRANSPORT_ ASSISTANCE. aspx (accessed on May 4, 2017)

[46] Source: http://apeda.gov.in/apedawebsite/Announcements/APEDA-TAS-2015-16.pdf (accessed on November 7, 2016)

inorganic and organic products can be mixed up. In this context, they also pointed out that organic products pose neither a food safety nor health hazard issue. Hence, FSSAI will not be able to address quality concerns unless there are other ways such as label, logo and specific organic standards to ensure quality. A number of survey participants pointed out that when the product is rejected in foreign markets, it is easily sold in India due to the lack of a policy on sale of organic products in the domestic market, which is harmful for the health of consumers, especially because sometimes sick consumers are adviced by their doctors and nutritionist to have organic food.

5.9 Tax Issues Related to Processing

There is lack of interest in processing fruits and vegetables as processed food products attract taxes while fresh produce is tax free. Processing increases the shelf life but the taxation system discourages processing.

5.10 Sourcing and Supply Chain Related Issues

Organic farming, except for certain products like tea, is usually done in small and mid-sized farms scattered across the country. The supply chain infrastructure is not well-developed in the hilly states, north-eastern states, tribal regions, etc., where there is potential for organic farming. It is extremely difficult to set up the sourcing network, especially in the case of products like fresh fruits and vegetables, and it is difficult to transport the product from remote areas in absence of basic facilities such as pack houses, cold storages and refrigerated vehicles.

Lack of an efficient supply chain and storage is more acute for organic products than conventional products because of their short shelf life. Poor storage and warehousing facilities also increase the chances of contamination such as aflatoxin contamination while the product is in transit. Further, the cost of transportation is very high and there are delays at ports. Another issue that came up in the survey with respect to sourcing from different states is that most of the farmers in a state may be organic by default but may not be third-party certified. This is the case of Sikkim. The state has been declared as organic but farmers may not be third-party certified organic and there is only one regional council for PGS-India in the state. Another issue faced by organic producers and processors is that unless their backend supply chain is sophisticated, efficient and they have proper inventory management system, they cannot work with large multi-brand retailers or buyers in developed country markets who need a steady supply of produce.

5.11 Business Risk

Organic food products fetch a premium and farmers can increase their incomes if they are NPOP certified. However, they often need training and help to get the certification done. While some companies are willing to do so, they do face some business risk. Demand for organic food products is far higher than supply and, therefore, other companies tend to poach farmers once they are trained and certified. This is a major problem in the case of NPOP

certified farmers but not in the case of farmers under PGS-India. In a number of cases, a corporate may have helped the farmer to get NPOP certification and train him but his/her rival offers a better price and gets the produce from the farmer. In states like West Bengal where contract farming is not allowed and the whole business is based on trust, this is a major issue.

5.12 Low Consumer Awareness

Most of the awareness about benefits of organic food products is limited to the upper middle class and high-income groups. Moreover, they are not aware of how to distinguish an organic product by its logo and how to distinguish an organic product from a natural product. In general, Indian consumers are less aware than consumers in developed countries with respect to healthy and nutritional food.

6. Policy Recommendations

The companies in the survey were asked to provide their opinion on various policy recommendations on organic which could be implemented by the government. Seventy-four out of 75 companies pointed out that India should develop a comprehensive regulation for organic products, encompassing the export, import and domestic markets. The regulations should lay down organic standards as per international standards (NPOP meets the requirement), certification process, labelling guidelines and logo to ensure product authenticity and its premium value.

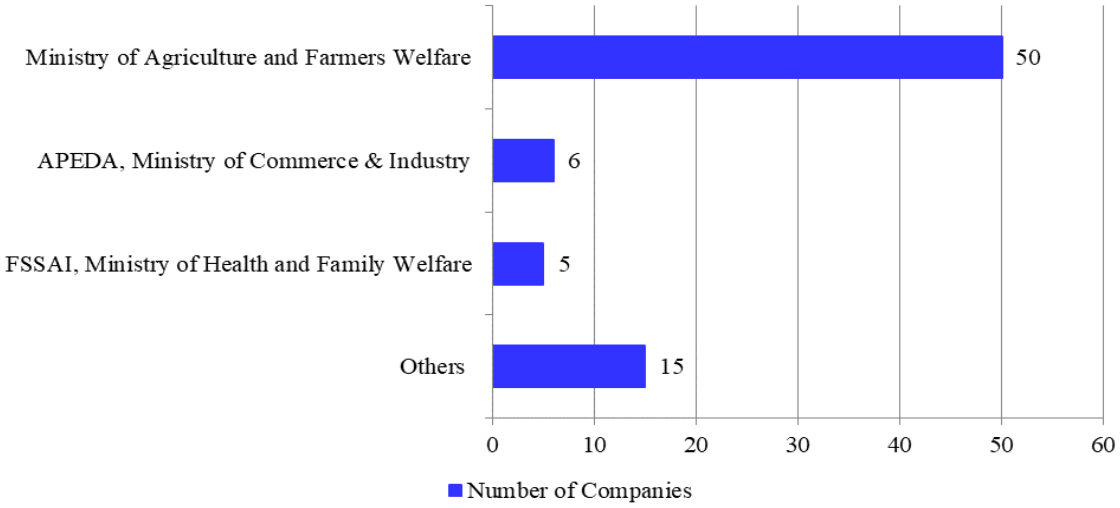
6.1 Have a Clear /Strategy Document

The survey participants pointed out that the government should have a vision document for organic products laying out short term and long term goals and how it plans to achieve these goals. This may be called '*Organic Vision 2022 and Beyond'*. It can lay out short term (five years) and long term (for example, ten years) targets, which will take into account sustainable development goals and agriculture practices, how to improve environment and soil quality, ensure food safety and consumer health. The vision document will help companies to invest as it will ensure some kind of certainty in policy.

6.2 Nodal Agency for Organic

When asked who should be the nodal government agency for organic food products, 50 out of 75 companies in the survey responded that they preferred the Ministry of Agriculture and Farmer's Welfare to be the nodal agency for developing standards and regulating organic practices in India (see Figure 11), as is the practice in most countries.

Figure 11: Choice of Nodal Agency for Organic



Notes:

1. The question above was a multiple-choice question. One company felt that both FSSAI and the Ministry of Agriculture and Farmer's Welfare should be the nodal agencies. Four companies said that both, the Ministry of Agriculture and Farmer's Welfare and APEDA, should work together. Four companies did not answer the question.
2. The category "others" includes the Tea Board India and Spices Board India under the Ministry of Commerce and Industry.

When asked how the Ministry can monitor organic exports when exports are under the APEDA, 30 per cent of the participants are of the opinion that this would require certain institutional reforms. According to them, NCOF can be made the nodal agency for both organic third-party certification and PGS-India. APEDA's organic division can be merged with the NCOF and the NCOF can have two divisions – the 'Domestic Market Division' and the 'Organic Trade Division'. The 'Domestic Market Division' can continue to promote PGS-India while the 'Organic Trade Division' can continue with the NPOP. This will enable the signing of bilateral equivalence arrangements and the 'Organic Trade Division' can be the nodal agency for such arrangements. According to the survey participants, a department or a cell under the Ministry of Agriculture and Farmer's Welfare will be most acceptable to India's trading partners to sign bilateral arrangements as it matches with their own institutional framework. They further pointed out that the present government is open to institutional reforms to support ease of doing business. The Prime Minister's office and NITI Aayog (National Institution for Transforming India) need to look into this issue in more detail. The target set by the NITI Aayog of doubling farmers' income by the year 2022 cannot be achieved if farmers are not linked to the global supply chain through exports and earn a premium for their produce or if the Ministry of Agriculture and Farmer's Welfare, the nodal ministry for farmers, is delinked from organic agricultural exports.

Further, instead of having multiple export promotion bodies, there should be one single export promotion body for all agricultural exports with different divisions focusing on different products. Thus, companies feel that merging Tea Board India, the Coffee Board, the Spices Board India, APEDA, etc., will help improve the ease of doing business. Moreover, government funding today is thinly spread across multiple export promotion bodies and each body promotes its own vested interests rather than looking at agriculture in a holistic way. A single export promotion body will reduce cost and improve efficiency.

6.3 Role of the Government in Protecting Consumers and Addressing Malpractices

Consumers in India are not aware of how to choose the right organic produce as compared to consumers from developed countries such as the UK, and this is a cause for concern as there are fraudulent practices prevalent in the Indian market and poor quality organic products are easily available for consumption. In the survey, all 75 companies pointed out that it is the role of the government to protect the consumer from malpractices, ensure that consumers are not cheated and that they have safe food. They also clearly specified the following ways in which the government can protect consumer interest and control fraudulent practices.

- Proper vigilance has to be exercised, based on a comprehensive policy and food safety standards.
- The FSSAI can take the lead on inspecting and monitoring products based on proper standards and guidelines.
- In case of fraudulent practices, the FSSAI should have the power to punish punishment and penalise players indulging in such practices.

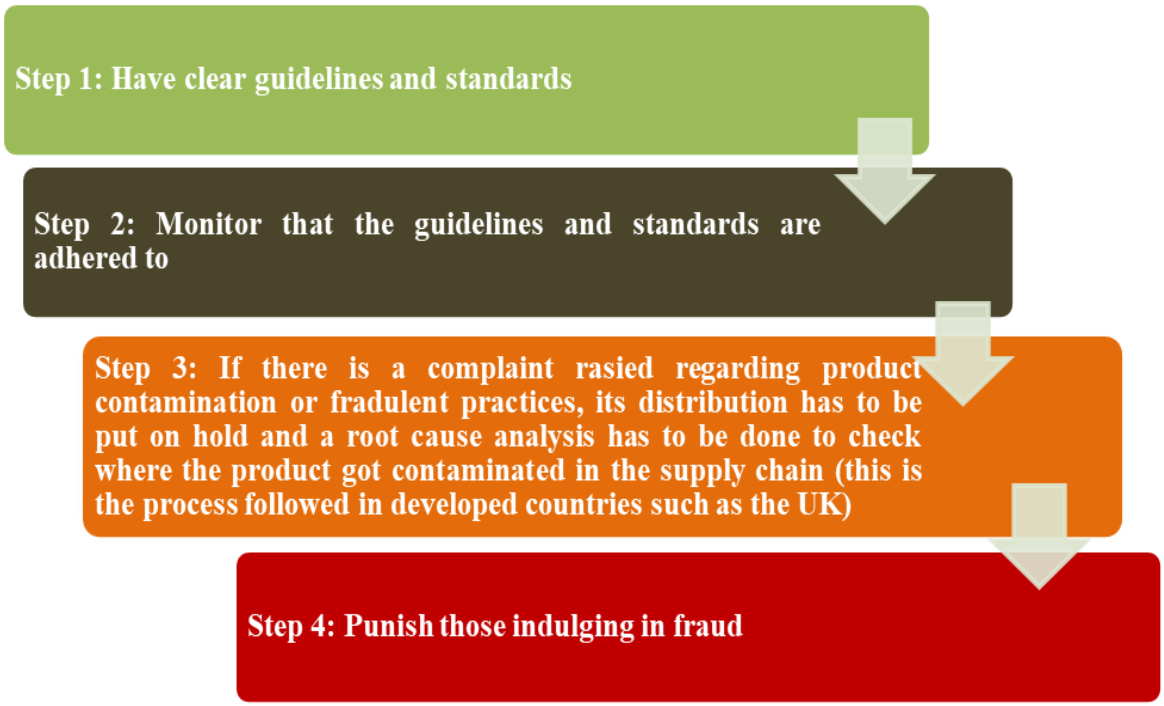
A number of companies felt that there is need for consumer awareness campaigns on safe and nutritious organic food due to lack of awareness on the part of the consumers. The government needs to start active campaigns starting from schools and at broader public forums like movie theatres, parks, and advertisements in the media on the importance of a nutritious diet.

Several environmental activists who have entered into organic farming pointed out that while it may not be possible to move from conventional to organic farming at a fast pace due to food security related issues, the government can take the initiative to ban harmful chemicals and pesticides that are already banned in other countries. As of December 2016, there were 51 pesticides used by farmers in India which have been banned in countries such as the US and the EU.[47] If these are banned, it will reduce instances of Indian food export rejections in other markets. These pesticides are harmful for consumption and the focus of the government should be on health of consumers.

[47] Source: http://www.thehindubusinessline.com/economy/agri-business/use-of-51-pesticides-banned-elsewhere-allowed-in-india-centre-tells-high-court/article9416251.ece (accessed on June 13, 2017)

Seventy-three out of 75 companies in the survey pointed out that product traceability should be implemented in both the domestic and export markets. Product traceability helps identify the source of fraud, if any. It also helps check whether products get contaminated in the supply chain. The view of survey participants is that it is important to monitor and punish fraudulent practices, but before punishment, there should a root cause analysis of how the fraud was perpetrated. The steps are listed in Figure 12.

Figure 12: Steps for Root Cause Analysis of Fraudulent Practices



In the case of food products, if food safety standards are not met, the food safety authority can punish the offenders. However, in the case of organic products, this process is difficult as organic is not a food safety issue, it is a labelling issue. Conventional food can also be safe food. Hence, in the case of organic products, the punishment is based on products not adhering to the country's organic standards and labels. There should be one clearly defined standard based on which the label and logo can be designed. Those misusing the logo and labels should be adequately punished.

When asked what infrastructure is available in other countries, especially in developed countries, that India should acquire, a large number of survey participants referred to good quality laboratories with sophisticated testing equipment and uniform testing practices. There is wide variation in testing procedures and equipment across laboratories in India approved by the FSSAI.[48]

[48] Please see http://www.firstpost.com/india/not-just-maggi-heres-shameful-truth-food-safety-inspection-india-2280672.html (accessed on May 3, 2017)

6.4 What should be the Standard and Certification Process?

The survey participants pointed out that there should be one common standard for organic products for the domestic, import and export markets. This standard should be in line with globally approved standards. In case of India, the National Standards for Organic Production (NSOP) under the NPOP has been approved by key trading partners such as the US and the EU. India may continue to have self-certification under PGS-India and third-party certification under NPOP, but there should be one common standard for organic products for the domestic market and trade based on international standards and this can be the NPOP standard. This standard can be adopted and approved by all government ministries, departments and agencies (BIS has already mentioned that it drew the organic standards based on NPOP) and FSSAI may also adopt it. Based on the NPOP standard, FSSAI can draw its guidelines for domestic market and imports. Standard set by the FSSAI has to be mandatory as punishment cannot be imposed for fraudulent practices based on voluntary standards and voluntary compliance.

The NPOP is based on complete traceability from the farm to the end consumer, which is not there under PGS-India. The standard and process approved by the FSSAI have to ensure complete traceability, to identify fraudulent practices, if any.

6.5 Logo and Labelling Requirements

The survey participants pointed out that an organic logo is needed, as it is used as a mark of identification and authenticity of the product. A number of companies use the NPOP logo along with the logo of the country or market they are exporting the products to (for example, the EU green leaf logo if exporting to the EU, the NOP logo if exporting to the US, etc.) and the logo of the certification body.

For the domestic market, there is ambiguity regarding the use of the logo. The companies were asked whether there should be a logo for the domestic market. All the 75 companies in the survey pointed out that there should be a logo for the domestic market to enable the consumers to identify genuine organic products. When asked what the logo should be, companies responded that the FSSAI can adopt the NPOP logo along with the logo of the certification body for third-party certified products. Other products, which are not third-party certified, can have a green logo similar to the PGS-India logo.

They also clarified that in the case of India, the NPOP regulations lay down labelling requirements similar to that in EU regulations, and the basic concept also is not different from the USDA regulations. The UK survey confirmed that NPOP labelling requirements are robust and globally acceptable.

The survey participants pointed out that there are certain issues in understanding the PGS-India labelling requirements. While the regulations allow PGS in-conversion products to be labelled as PGS-Green, the quantity of organic ingredients is not specified for PGS-Green and this logo can be misleading for consumers as PGS-Green products can have chemical

content. Further, the PGS-India manual clearly refers to the issues faced in product traceability under this system. PGS-India can ensure traceability only up to the PGS group. The PGS is an internationally applicable organic quality assurance system implemented and controlled by committed organic farmer-producers through active participation. It is a voluntary process and not a mandatory process and it is difficult to enforce punishment for violation of a voluntary process. Moreover, if there is no requirement for the products to be mandatorily tested in laboratories, it is difficult to hold someone accountable in case of non-compliance. Therefore, according to the survey participants, the PGS logo can only be treated as a mark for best practice or quality assurance but not for mandatory enforcement under which non-compliance can be punishable by the food safety authority.

The role of the FSSAI is to ensure that the food product adheres to the standards as mentioned on the label. These standards also have to be similar to international standards as FSSAI is the nodal agency for imports. If not, then India may be importing sub-standard organic produce while it may be exporting high standard products, as is laid out by the standards and processes of its export markets. This is not only harmful for domestic consumers but also harmful for domestic businesses that will face unfair competition. Therefore, FSSAI standards and labelling for organic products, according to the survey respondents, should be similar to the NPOP standards.

In this context, while the draft on Food Safety and Standards (Organic Foods) Regulations, 2017, rightly specifies that, "*labeling shall convey full and accurate information on the organic status of the product",*[49] it also states that the product can carry a certification/quality assurance mark of either NPOP, PGS-India or the standards specified by the FSSAI in addition to the FSSAI logo. This leads to lack of clarity on standard, label and logo which, in turn, makes it difficult to identify and punish non-compliance. The survey found that multiple labels and logos may give rise to fraudulent practices and it also makes it difficult for the consumer to identify the genuineness of a product.

6.6 Mitigating Risk through Appropriate Subsidies and by Lowering Taxes

Moving towards organic practices has some business risk, especially for small and mid-sized farmers. The government can help mitigate the risk of yield losses in the initial stage through subsidies that compensate for yield losses. Forty-seven per cent of the companies pointed out that subsidies should be need based and given only to small and marginal farmers for targeted activities. When asked which activities should be subsidised, a majority felt that subsidies may be given to partially cover the cost of third-party certification for small and mid-sized farmers. Farmers may be given subsidies for purchase of poly houses, vermicompost pits, netting, etc. Further, vermicompost pits can be constructed as part of other government programmes such as the Mahatma Gandhi National Rural Employment Guarantee Act, 2005.[50] Water purifying and water reservation processes and technologies, and energy saving

[49] Source: https://www.fssai.gov.in/.../Draft_Notice_Comments_Organic_Food_31_03_2017.pdf (accessed on May 3, 2017)

[50] For more information, see http://nrega.nic.in/Circular_Archive/archive/guidelines_for_New_works.pdf (accessed on May 3, 2017)

technologies are also needed by organic farmers. These can be provided by the government at a subsidised rate.

There is a large amount of subsidy available for chemical inputs. Some of these subsidies can instead be diverted to organic farming. The government can subsidise organic infrastructure such as organic pack houses and cold storages in the hilly and north-eastern states, and in tribal regions to mitigate the gaps in the availability of supply chain infrastructure, especially in these states and regions.

Thirty-two out of 75 companies pointed out that they do not need any subsidy. They need lower taxes and a simplified tax regime, which increases the ease of doing business. According to some exporters, export-linked subsidies for processed produce will soon be actionable under the WTO's Agreement on Subsidies and Countervailing Measures (SCM Agreement). India was allowed to give certain prohibited subsidies under Annex VII of the SCM Agreement. However, since India may soon graduate from the list of Annex VII countries, it is important to focus on non-WTO actionable subsidies.

6.7 Create a Robust database for Organic Food Products

A number of entrepreneurs who want to invest in the organic sector and UK companies pointed out that the list of companies in APEDA's website is outdated and it is difficult to identify a partner in India. Further, they also said that the trade data is incomplete and there is no official data on organic trade. APEDA may update the list of exporters under NPOP.

The DGFT and DGCI&S under the Ministry of Commerce and Industry should provide data for organic trade using specific HS codes as is used in countries such as the US. This will enable an analysis of the trade pattern. APEDA may analyse the data collected through *Tracenet* on area under organic production, location of exporters, and organic products of different states that are exported and put it in the public domain. This will give a true picture of the market size and its potential.

Further, the data is not consolidated. For example, the latest data on the total area covered under organic farming, including both certified and non-certified farms, is not available. The data on PGS-India is available with NCOF. The data by APEDA and NCOF have to be analysed together to examine the potential of this sector.

6.8 Need for Active Participation of the Ministry of Food Processing Industries

A bulk of the organic food that is exported is processed food. Further, organic food needs to be processed to prolong its shelf life and hence, correct processing technologies are needed. The survey found that the role of the Ministry of Food Processing Industries in organic food production and exports has been limited. The ministry can take the initiative to set up organic food production clusters or organic agri-processing zones and linking them to farming clusters, especially to NPOP certified farmers. These clusters can be dedicated to specific crops and can be third-party certified. Global buyers and NPOP certified businesses can source form these clusters. The survey found that initially 4-5 such clusters should be

developed in hilly states such as Sikkim and Assam. If successful, they can be replicated. The central and state governments should work closely to help in the development of such clusters.

To conclude, the survey of companies showed that organic food product is a fast growing sector in India where companies would like to invest and work with farmers. This sector has high growth and export potential if it is supported by the right policy. There is need for a co-ordinated effort by different government agencies and departments, and for a comprehensive policy on organic products. This will enable the sector to grow, create employment in the processing sector and supply chain, and help in doubling farmers' income by the year 2022.

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