

Indian Agri Exports:

Study on Difficulties faced by the exporters in the supply chain of agriculture products



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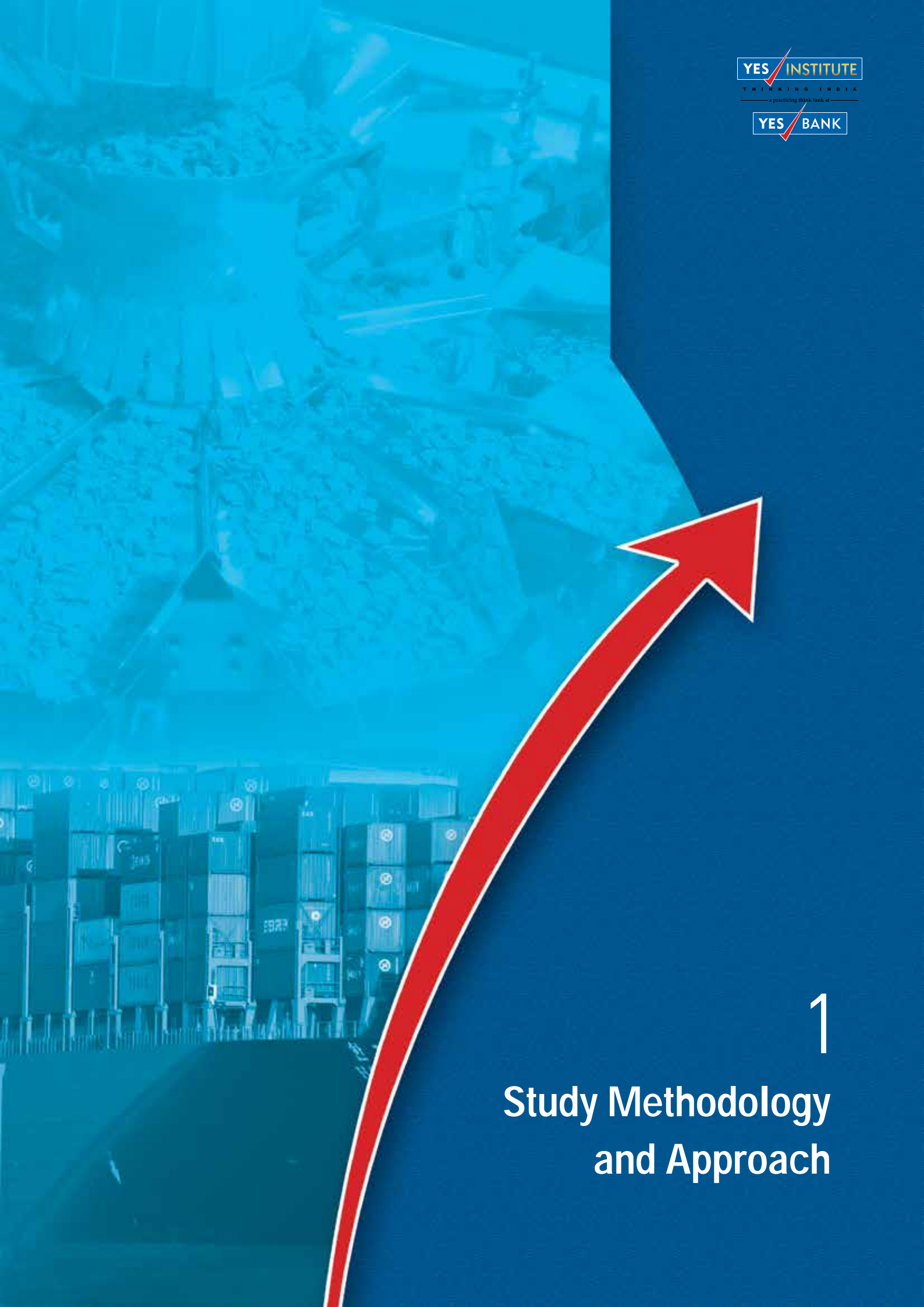
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A b b r e v i a t i o n s

APEDA	Agricultural and Processed Food Products Export Development Authority
AQ	Animal Quarantine
ASSOCHAM	The Associated Chambers of Commerce and Industry of India
CA	Controlled Atmosphere
CB	Certification Body
CII	Confederation of Indian Industry
CONCOR	Container Corporation of India
CPC	Central Perishable Cargo
D-3	Three Hours Prior Departure
D-4	Four Hours Prior Departure
D-6	Six Hours Prior Departure
DGFT	Directorate General of Foreign Trade
ECGC	Export Credit Guarantee Corporation of India
EIC	Export Inspection Council.
EXIM Bank	Export–Import Bank
FICCI	The Federation of Indian Chambers of Commerce and Industry
GST	Goods and Service Tax
ICAR	The Indian Council of Agricultural Research
ICD	Inland Container Depot
ICRISAT	The International Crops Research Institute for the Semi-Arid Tropics
ICS	Internal Control System
IIM	Indian Institute of Management
IIP	Indian Institute of Technology
IIT	Indian Institute of Packaging
MA	Modified Atmosphere
MEIS	Merchandise Exports from India Scheme
MoA	Ministry of Agriculture

A b b r e v i a t i o n s

MoC	Ministry of Commerce
MoFPI	Ministry of Food Processing Industries
NPPO	National Plant Protection Organization
PPP	Public Private Partnership
QC	Quality Control
TAS	Transport Assistance Scheme
TSS	Total Soluble Solids
VAT	Value Added Tax



1

Study Methodology and Approach



1

Study Methodology and Approach

Background

The Agricultural and Processed Food Products Export Development Authority (APEDA) was established by the Government of India in 1985. APEDA is mandated with the responsibility of export promotion and development of the scheduled products which includes Fruits, Vegetables & their Products, Meat & Meat Products, Poultry & Poultry Products, Dairy Products, Confectionery, Biscuits & Bakery Products, Honey, Jaggery & Sugar Products, Cocoa & its products, chocolates of all kinds, Alcoholic & Non-Alcoholic Beverages, Cereal & Cereal Products, Groundnuts, Peanuts & Walnuts, Pickles, Papads and Chutneys, Guar Gum, Floriculture & their Products, Herbal & Medicinal Plants. To increase the exports of Indian horticultural products, APEDA regularly interacts with the exporters through various forums and outreach programs. In these programs, exporters have expressed their concerns on the supply chain of agricultural products. Looking at the concerns of exporters, APEDA mandated Yes Bank Ltd to conduct a Study on the "Difficulties faced by the exporters in the supply chain of agriculture products".

Objectives

The main objective of the study was to identify the problems of the exporters across major export categories including fresh fruits and vegetables, processed food, animal

products, cereals, floriculture (fresh and dried flowers) and organic products and to recommend solutions to overcome these problems. The key components of the report include:

1. Identification of key challenges faced by exporters including issues relating to logistics, infrastructure, policy, research and development, market promotion and administrative issues.
2. Recommendations and strategies to overcome the identified challenges
3. Actionables to strengthen the value chain and to prevent recurrence of the problem.

Methodology & Approach

The study covered the key export categories including fresh fruits and vegetables, processed food, animal products, cereals, floriculture (fresh and dried flowers) and organic products across the four regions of the country i.e. North, South, East and West as per the Terms of Contract. YES BANK adopted a mixed approach i.e. combination of secondary and primary research to achieve the desired objectives of the study. The Secondary Research was based on qualitative/quantitative data, records, documents and information available in public domain. As a part of the primary research, the team carried out in-depth stakeholders' consultations and one to one interviews with identified stakeholders/officials through structured questionnaires and interview guidelines. The study has covered more than 100 stakeholders across the value chain, including exporters across the categories under study, industry associations, DGFT, IIP, ECGC, EIC, CONCOR, EXIM Bank and research and educational institutions.

Research Methodology	
Primary Survey	Meeting with government organizations like APEDA, Ministry of Agriculture, Ministry of commerce,.
Customized Questionnaire	
Sample size-125 stakeholders	Data gathering from Indiastat
States covered- Gujarat, Maharashtra, Delhi, NCR, Uttar Pradesh, Punjab, West Bengal, Andhra Pradesh, Karnataka, Tamil Nadu, Kerala	Meeting with Industry associations
Process followed- Stakeholder consultation, Personal interview	Study on journals and research publications
Qualitative and Quantitative analysis	



2

Overview of the Global and Indian Agricultural Exports



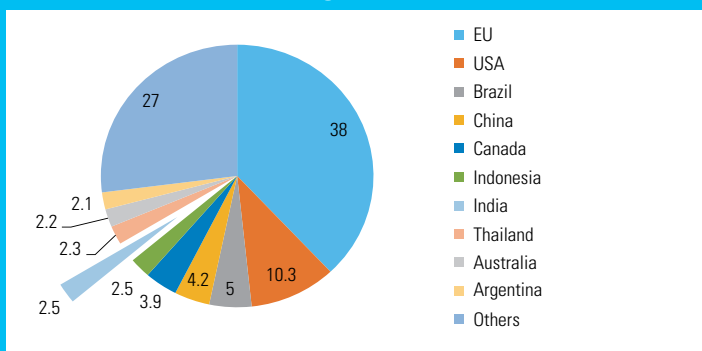
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Overview of the Global and Indian Agricultural Exports

Global Trade

The global agriculture exports are valued at USD 1.76 trillion (2014) of which India's share is only 2.5%¹. The largest exporting nations include EU, USA, Brazil, China and Canada. The major importing nations include EU, China, USA, Japan and Russian Federation. These nations account for around 60% of the total imports.

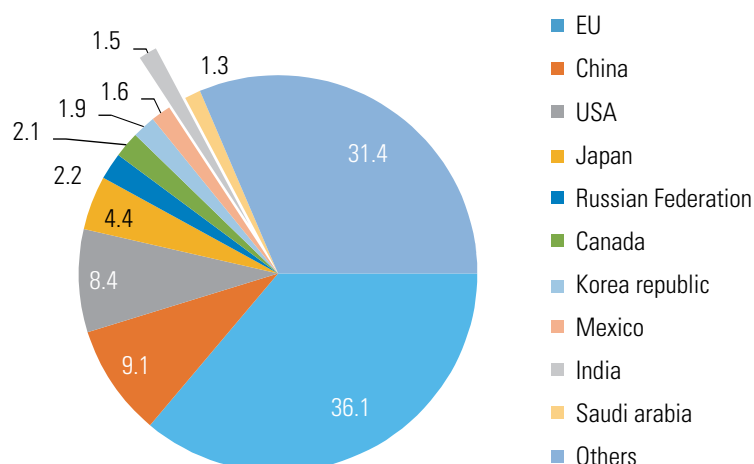
Exhibit 1: Top 10 exporting countries 2014 (% Share)



Source: International Trade Statistics-WTO 2015

¹International Trade Statistics 2015- WTO

Exhibit 2: Top 10 importing countries 2014 (% Share)



Source: International Trade Statistics-WTO 2015

Globally, alcoholic beverages, dairy products and miscellaneous preparations are the top three exported commodities (share of 28%). India's contribution to export of each of these products is less than 1%.

Top 15 Commodities in Global Trade

The global trade of APEDA products² is around USD 0.86 trillion (2014), which constitutes around 50% of the total agri trade. These products do not include tea, coffee, cotton, non-organic sugar, non-organic oil etc.

The top 15 commodities which include alcoholic beverages, dairy products (fresh butter, butter oil, skimmed milk powder, ghee etc.), miscellaneous preparations (soups, soft drink concentrated, sauces and ketchup etc.), other fresh fruits (banana, guava, citrus, melon, berries etc.), other processed fruits & vegetables (fruits juices, nuts etc.), cereal preparations (biscuits, cornflakes, bread, pasta etc.), other fresh vegetables (cabbage, okra, cauliflower, brinjal etc.), cocoa products (beans, powder, shells, butter fat and oil), other meat (horse, swine, rabbits etc. in fresh and frozen form), buffalo meat, wheat, maize, poultry products jaggery & confectionery and floriculture contribute around 88% to the total global export of the major APEDA products.

The top 15 exported commodities account for 88% of the total global exports

Exhibit 3: Top 15 Commodities in Global Trade (value-wise)

S. No	Commodity	Share to total trade	Top 3 exporting Countries	% share of top 3 exporting countries	India's position	India's Share
1	Alcoholic Beverages	11%	France, UK, Italy	40%	54 th	0.12%
2	Dairy Products	9%	Germany, New Zealand, Netherlands	38%	37 th	0.24%
3	Miscellaneous Preparations	9%	USA, Germany, France	28%	35 th	0.53%
4	Other Fresh Fruits	8%	Spain, Mexico, USA	26%	59 th	0.14%
5	Other Processed Fruits & Vegetables	7%	China, USA, Netherlands	25%	26 th	0.74%
6	Cereal Preparations	7%	Germany, Italy, France	28%	33 rd	0.50%
7	Other Fresh Vegetables	6%	Spain, Netherlands, Mexico	38%	20 th	0.90%
8	Cocoa Products	5%	Germany, Côte d'Ivoire, Netherlands	33%	43 rd	0.25%

² APEDA products include Buffalo Meat, Basmati Rice, Non Basmati Rice, Groundnuts, Cereal Preparations, Guar gum, Other Processed Fruits & Vegetables, Fresh Onions, Miscellaneous Preparations, Other Fresh Vegetables, Alcoholic Beverages, Pulses, Other Fresh Fruits, Fresh Grapes, Jaggery & Confectionery, Cocoa Products, Maize, Milled Products, Cucumber and Gherkins (Prepd. & Presvd), Wheat, Dried & Preserved Vegetables, Sheep/Goat Meat, Mango Pulp, Poultry Products, Dairy Products, Natural Honey, Other Cereals, Fruits & Vegetables Seeds, Floriculture, Fresh Mangoes, Casein, Albumin (Eggs & Milk), Walnuts

9	Other Meat	5%	USA, Germany, Spain	42%	74th	0.003%
10	Buffalo Meat	5%	Australia, USA, Brazil	41%	4th	11.18%
11	Wheat	4%	USA, Canada, France	45%	12th	1.40%
12	Maize	3%	USA, Ukraine, Argentina	58%	9th	1.93%
13	Poultry Products	3%	Brazil, USA, Netherlands	44%	35th	0.24%
14	Jaggery & Confectionery	3%	Brazil, USA, Germany	30%	23rd	0.80%
15	Floriculture	2%	Netherlands, Colombia, Germany	59%	29th	0.33%

Source: APEDA

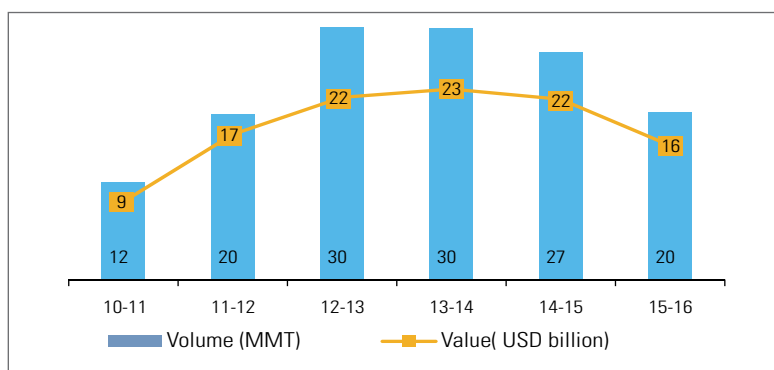
Only APEDA products have been considered in the table above.

The share of India in the globally traded key commodities is very low, accounting for less than 1% in most of the products. However, given the production strengths, the potential to increase exports from India majorly lies in the fresh fruits/vegetables segments, meat, processed food and floriculture segments.

Indian Trade

Agricultural export constitutes 10% of the country's exports and is the fourth-largest exported principal commodity.³ India exported around 20 million MT of agricultural products worth value around USD 16.2 billion in the year 2015-16. Agricultural exports have grown by around 10% in value as well as volume terms since 2010-11.

Exhibit 4: Agri Exports 2010-16

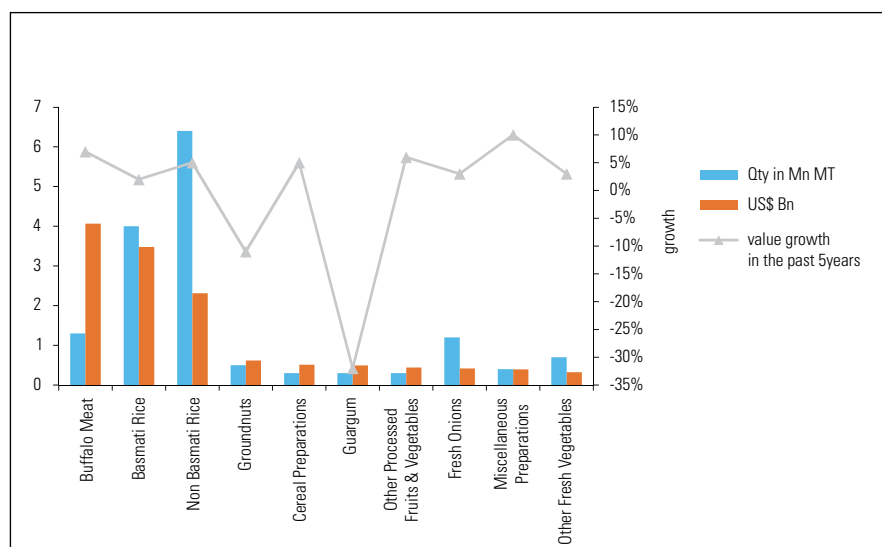


Source: APEDA

The top 10 commodities including- Buffalo meat, Basmati rice, Non basmati rice, Groundnuts, Cereal Preparations (biscuits, pasta, cornflakes etc.), Guar gum, Other processed F&V (juice, jams, jellies etc.), Fresh onions, Miscellaneous preparations (sauces, ketchup, dried soups, etc.) and other fresh vegetables

(Potato, Tomato, Cabbage, Cauliflower etc.) contribute approximately 80% to the total value of exports (of APEDA products), with buffalo meat, basmati rice and non basmati rice contributing shares of 25%, 21% and 14% respectively (value wise). In the past 5 years, categories like buffalo meat, non basmati rice, cereal preparations, other processed F&V and miscellaneous preparations have shown significant growth in value terms.

Exhibit 5: Export value/volume and growth

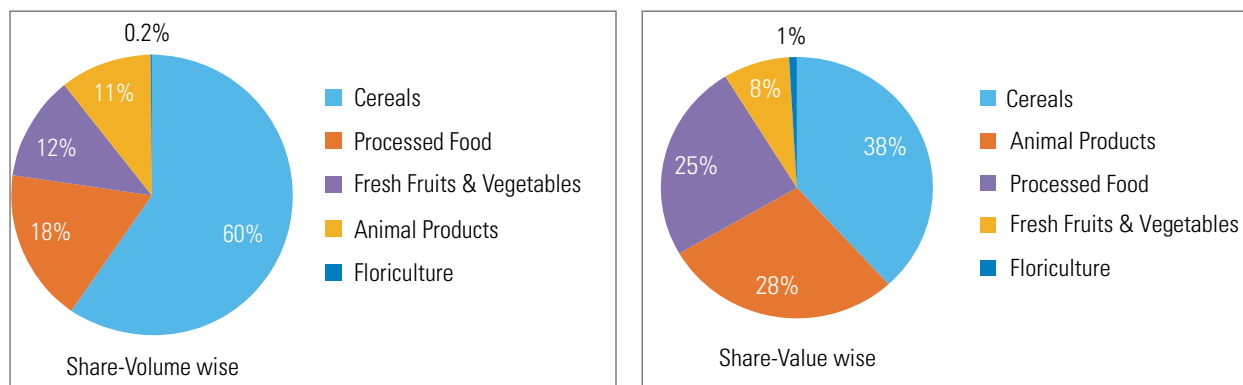


Source: APEDA

³IBEF

The key categories of export include cereals, fresh fruits and vegetables, processed food, animal products and floriculture. The share of cereals category is the largest, both in terms of volume and value exports. The graph below depicts the share of key categories in exports.

Exhibit 6: Volume and Value share of all categories in exports (2015-16)

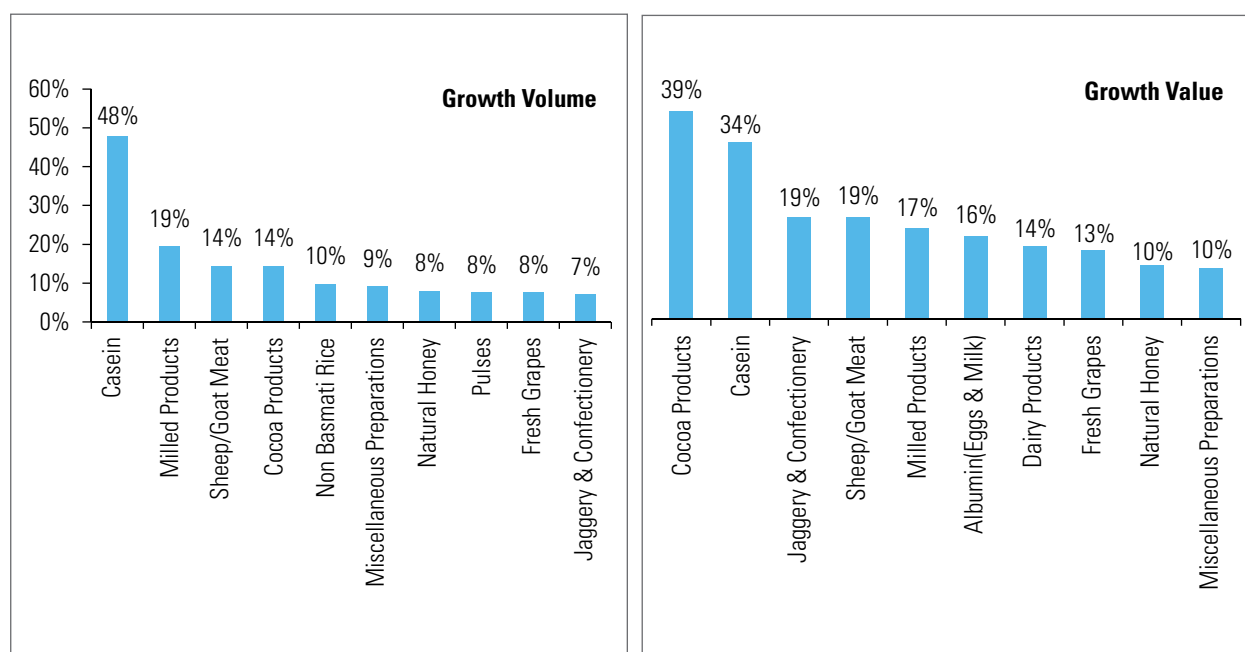


Source: APEDA

In terms of volumes, the highest growing categories (2011-16) were caesin (48%), milled products (19%), sheep/goat meat (14%), cocoa (14%) and non basmati rice (10%). Export volumes of groundnut, guar gum, fresh onions and other fresh vegetables have declined over the years.

In terms of value, the highest growing categories (2011-16) were cocoa products (39%), casein (34%), sheep/goat meat (19%), jaggery and confectionery (19%) and milled products (17%). Guar gum and groundnut have seen negative growth in value terms. The figures clearly indicate that there has been significant growth in animal products in terms of quantity and value. Animal products should be one of the key focus area for increasing export revenue from the country.

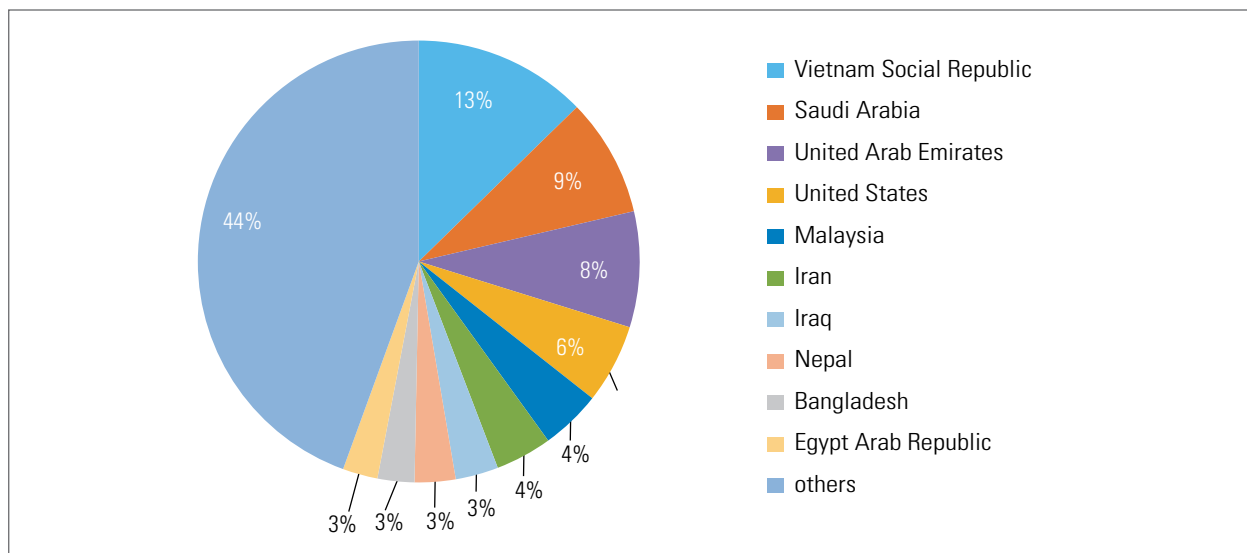
Exhibit 7: The key growing products in terms of quantity and value CAGR 2011-16



Source-APEDA & DGCIS

India exports its agricultural and processed food products to around 200 nations. The top five export destinations for Indian agri exports - Vietnam, Saudi Arabia, UAE, United states and Malaysia, account for around 80% of India’s exports. The graph below depicts the share of major countries with respect to India’s agricultural products (APEDA products).

Exhibit 8: Share of major countries in India’s exports (2015-16)



Source-APEDA & DGCIS

Exhibit 9: Key destinations for the major agri exports (2015-16)

Commodity	Vietnam	Malaysia	Egypt A Rp	Indonesia	Thailand	USA	UAE	Bangladesh	Saudi Arab	Iran	Senegal	Benin	Nepal	Sri Lanka	Pakistan	Netherland	China P Rp	Germany
Buffalo Meat	49%	10%	9%															
Basmati Rice							14%		24%	16%								
Non Basmati Rice											11%	9%	8%					
Groundnuts		14%		33%	12%													
Cereal Preparations						17%	7%	7%										
Guargum						52%											9%	6%
Other Processed F&V						15%			10%							11%		
Fresh Onions		21%						23%						16%				
Misc. preparations						17%	9%						7%					
Other Fresh Vegetables							19%						11%		13%			

Source-APEDA

Exports from India are majorly done through the sea route. The important ports in India for export of agri products include Nhava Sheva- Mumbai, Mundra Sea Port & Kandla Sea Port- Gujarat and Kakinada Sea port- A.P and Dadri ICD.

Exhibit 11: Product-wise key ports/ICDs in the country for the top 10 commodities (2015-16)

	NHA-VA SHEVA SEA	ICD DADRI	ICD LONI	MUN-DRA SEA	KAND-LA SEA	ICD SONI-PAT	KAKINA-DA SEA	KOL-KATA SEA	CHEN-NAI SEA	PIPAVAB-SEA	ICD HY-DERABAD	ICD JODHPUR	ICD PATLI	KOTWALI-GATE (MOHEDI-PUR) ROAD/RAILWAY	HILI (WEST) ROAD/RAILWAY	ATTARI ROAD, AMRITSAR ROAD/RAILWAY	MUMBAI AIR
Quantity in Mn MT																	
Buffalo meat	0.53	0.22	0.14														
Basmati rice				2.18	0.46	0.28											
Non Basmati rice				1.02			1.94	0.56									
Groundnut				0.15					0.18	0.12							
Cereal preparations	0.08			0.04							0.05						
Guar gum				0.14								0.12	0.02				
Other processed F&V	0.11			0.02					0.10								
Fresh onions	0.76													0.13	0.12		
Misc preparations	0.10			0.07					0.02								
Other fresh vegetables	0.13															0.12	0.03

Source-APEDA

3

**Analysis of Key
Challenges in
Agri Exports and
Recommendations to
Strengthen Supply Chain**



3

Analysis of key challenges in Agri Exports and Recommendations to strengthen the supply chain

Agriculture plays a vital role in India's economy. Over 58%⁴ of the rural households depend on agriculture as their principal means of livelihood. Agriculture, along with fisheries and forestry, is one of the largest contributors to the Gross Domestic Product (GDP). As per estimates by the Central Statistics Office (CSO), the share of agriculture and allied sectors (including agriculture, livestock, forestry and fishery) was 15.35% of the Gross Value Added (GVA) during 2015–16 at 2011–12 prices.

Agricultural export constitutes 10%⁵ of the country's exports and is the fourth-largest exported principal commodity. The agro industry in India is divided into several sub segments such as canned, dairy, processed, frozen food to fisheries, meat, poultry, and food grains. However in the global trade, the share of India is only close to 2%⁶. To achieve the true potential and export a greater share of what is being produced in India, there is an immediate need to address the export challenges. In the section below, an attempt has been made to highlight the challenges being faced by the exports in India, and the probable solution for the same.

⁴ IBEF

⁵ IBEF

⁶ WTO

Key Challenges and Recommendations for exports

Key Challenges	Recommendations	Actionable	Stakeholders
Backward Integration			
<ul style="list-style-type: none"> The backward integration in India especially for perishables is inefficient and unorganized, resulting in quality and longevity issues. From the export perspective, the importing nations are becoming more and more stringent with respect to the production norms/traceability at the farm level. Lack of synergy between the state and central government as agriculture is a state subject, while the state's role for exports is undefined 	<ul style="list-style-type: none"> The backward linkages need to be strengthened not only to boost the Indian exports, but also to reduce wastages at the farm level. Currently the wastages account for: <ul style="list-style-type: none"> F&V- 4.6 -15.9% Inland fish- 5.2% Marine fish-10.5%, Meat- 2.7 % Poultry- 6.7 % The state governments need to come forward and proactively assist the exports from their respective states. 	<ul style="list-style-type: none"> Inter-ministerial consultation between MoC and state agri/ horti departments of key states (Maharashtra, Gujarat, Tamil Nadu, West Bengal, Uttar Pradesh, Karnataka, Andhra Pradesh) to prepare a guidebook to define the role of states for exports. Some of the key aspects of the guidebook should encompass : <ul style="list-style-type: none"> Farmer Registration for establishing traceability atleast for key horticulture products like Mango, Grapes, Okra, Rice etc. Demarcating commodity specific clusters and basis this conducting need gap analysis of infrastructure (roads, packhouses, storage structures, processing units, testing labs etc.) Propagation of Good Agricultural Practices for enhancing quality through extension departments, research institutions and state universities 	<ul style="list-style-type: none"> APEDA to facilitate dialogue between MoC and State agri/ horti departments to prepare the guidebook for the states. Inputs from respective associations need to be considered State agri departments/ horti departments and SAUs to implement the actionables
Training & Skill development at farm level			
<ul style="list-style-type: none"> Unregulated input (chemicals) usage at the farm level Inadequate harvest and post harvest management affects quality and shelf life of the produce 	<ul style="list-style-type: none"> Region and commodity specific package of practices need to be developed and disseminated to the last mile. Farmer awareness is critical to regulate the chemical usage on the farm. 	<ul style="list-style-type: none"> APEDA to collaborate with Ministry of Agriculture/ICAR to mandate Agriculture Research Universities to prepare commodity and region specific cultivation practices manuals and evaluate the progress regularly (including optimum input usage, right harvesting time, scientific harvesting practices, post harvest handling at farm level, etc.). Inputs from the industry associations shall play a critical role in preparing the manuals. The extension departments of each state, extension wings of SAUs and KVVs to take up the task of disseminating these practices at utmost priority APEDA to collaborate with industry chambers (CII, FICCI, etc.) NGOs, State government departments, private bodies like ASCI (Agriculture Skill Council of India) to provide last mile trainings on harvest and post harvest management. 	<ul style="list-style-type: none"> MoA/ICAR, MoC, Industry chambers- CII, FICCI, ASSOCHAM, ICC etc. NGOs Private training institutes

Key Challenges	Recommendations	Actionable	Stakeholders
Training & Skill development at exporters' level			
<ul style="list-style-type: none"> Documentation and procedures to be followed for exports Lack of awareness on existing schemes and policies related to exports. 	<ul style="list-style-type: none"> Biannual workshops between exporters and APEDA at their regional offices. Participation of other concerned departments facilitating trade also at the workshops. 	<ul style="list-style-type: none"> The workshops to focus on aspects like- challenges, awareness on non tariff barriers and applicable schemes on various commodities and components. The workshop shall also act as a platform to invite other stakeholders like DGFT, NPPO, customs, SAUs etc. to give their inputs and interact with exporters. To address the challenges (research, technology, process, packaging, manufacturing etc.) that do not come under the purview of APEDA, it may link its grievance redressal system with the Key Research Institutes (State / central) to address the related issues. 	<ul style="list-style-type: none"> APEDA to conduct the workshops through regional offices Ancillary stakeholders- DGFT, NPPO, Customs, SAUs, Dept of horti/agri Research institutions like ICAR, IIP, NRCs, IIT, CFTRI, NIFTEM
Infrastructure and Logistics			
<ul style="list-style-type: none"> The connectivity of the land locked production areas to the ports or terminals is a stiff challenge. E.g. Bihar, Jharkhand, NE states and hilly regions like Himachal Pradesh, Uttarakhand and J&K. Also, the link roads from farms to the main road is underdeveloped in most of the states Congestion at the ports due to high waiting periods of the shipment. Most exporters reported about the congestion at JNPT 	<ul style="list-style-type: none"> Since the transportation cost of perishables from landlocked states is very high, a provision to include interstate movement in the TAS can be considered with suitable ceilings such as minimum distance/quantity/ value/ commodity. In order to connect hinterlands, efficient multimodal transportation system needs to establish in a phased manner with more focus on developing the dedicated corridors. Also introduction of technology in loading/unloading/packaging. Increase capacity and provision for exports from airports of tier 2 & 3 cities after viability assessment with the airport authority. Green channel to be created at key ports (Vol/value to be considered) to boost the export of perishables (JNPT, Kandla). 	<ul style="list-style-type: none"> MoC to take up with Ministry of Railways to have a provision for refrigerated vans linked with superfast trains from land-locked states to key export terminals. APEDA to discuss the extension of TAS for landlocked states for perishables with relevant stakeholders (MoC, industry associations, CONCOR, logistics companies) and decide on the suitable ceilings/limits 	<ul style="list-style-type: none"> APEDA/MoC Railways Ministry Industry associations CONCOR Private logistics companies NHAI Ministry of Road Transport and Highways Airport Authority of India

Key Challenges	Recommendations	Actionable	Stakeholders
Subsidy/Incentives			
<ul style="list-style-type: none"> Delay in the Transport Assistance Scheme affects the working capital cycle of the exporters as the exporters consider TAS while determining the final selling price. SAARC nations/neighboring nations fail to qualify for TAS, though, the transport cost when transported through frozen containers is higher than the transportation cost through normal containers to other nations 	<ul style="list-style-type: none"> As per the exporters, subsidy (TAS) should be released within 2-3 months post application. Timely allocation of funds by central government will smoothen up the process. Transport of commodities through frozen containers may be considered under TAS to SAARC nations. A separate criterion for chilled/ frozen products may be developed for neighboring nations to qualify for TAS. 	<ul style="list-style-type: none"> APEDA to raise concern with MoC and MoC to prioritize on time disbursement of the subsidy amount APEDA to evaluate the cost of transportation for perishables in reefers to SAARC/neighboring nations Vs transportation cost through normal containers to other nations. Basis this final decision to be taken for setting up TAS for SAARC nations/neighboring nations. 	<ul style="list-style-type: none"> MoC APEDA Industry associations
Administrative issues			
<ul style="list-style-type: none"> Certification & Signing authority at the ports are not available round the week and 24*7. For a consignment to be shipped on Sunday, the formalities need to be completed beforehand which affects the cost and longevity of the product Instances of system breakdown in customs have resulted in exporters not getting a printed receipt/bill, resulting in free shipping 	<ul style="list-style-type: none"> Delegation of signing authority to more than one person, so that the procedure can be completed at any point in time. Shift system can also be an alternative and there should be a provision for manual bills or else a mirror server 	<ul style="list-style-type: none"> APEDA/MoC to take up this issue with Department of Revenue, Ministry of Finance to sensitize them over this issue and the challenges in exporting perishables. APEDA should take up the issue of system breakdown with DGFT and ensure that at no point of time, there should be a problem of receipt/bill. This can be easily resolved through a mirror site. 	<ul style="list-style-type: none"> APEDA Department of Revenue, Ministry of Finance

Besides the common challenges, there are certain category/commodity specific challenges that are faced by the exporters. In the following section, the key challenges specific to a category are highlighted.

Commodity Category: Fruits & Vegetables

India is the second largest producer of fruits and vegetables in the world after China. The demand of fruits and vegetables has increased in the international market and India's presence has also been enhanced with gamut of products in the trade basket. The major export commodities are Mango, Grapes, Walnut, Onion, and other fresh fruits and vegetables. The table below compares the production and export volumes over the past two years:

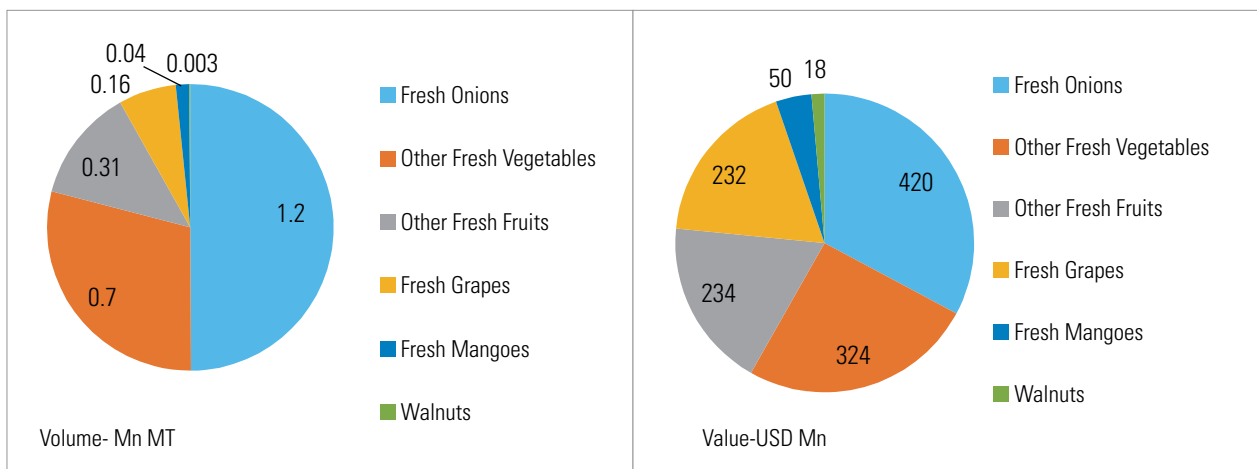
Exhibit 1 : Production and Export of Fruits and vegetables

Category	2013-14	2014-15	2015-16*
Total Production-F & V (million tonnes)	251.87	256.08	257
Export (Mn MT)	2.92	2.50	2.40
Export (USD Mn)	1,451	1,222	1,278
Share of F & V Export to Total production	1%	1%	1%
Share of F&V Export to total Agri Export (Vol)	10%	9%	12%
Share of F&V Export to total Agri Export (Value)	6%	6%	8%

Source- APEDA, NHB/*(second advance estimates)

The export of fruits and vegetables was around 2.4 Mn MT (worth USD 1.28 Bn) for the year 2015-16⁷. The share of fruits and vegetables export to total agri export was around 12% and share in total Fruits and Vegetable production was around 1% in 2015-16. India has a geographical advantage on account of its diverse and conducive climatic conditions for cultivation of fruits and vegetables. However, India's share in the global trade stands insignificant i.e. around 1%⁸ which requires attention to address the issues related with the export. There is a need to attain an economic scale of production, cost competitiveness, build adequate storage distribution infrastructure and technological interventions to have a substantial share in the global market. The study entails to capture issues at various levels of supply chain and provide suitable suggestions to address the same.

Exhibit 2: Volume and Revenue share of fruits and vegetables (2015-16)



Source- APEDA

⁷ APEDA

⁸ APEDA



Exhibit 3: Growth and Key Destinations for Major F&V

Category	CAGR -2011-16 (Value)	CAGR- 2011-16 (Vol)	Key Destinations
Fresh Grapes	13%	8%	Netherland, UK, Russia
Other Fresh Fruits	8%	3%	UAE, Nepal, Saudi Arabia
Other Fresh Vegetables	3%	-1%	UAE, Pakistan, Nepal
Fresh Onions	3%	-2%	Bangladesh, Malaysiya, S. Lanka
Fresh Mangoes	3%	-11%	UAE, UK, Saudi Arabia
Walnuts	-18%	-11%	Germany, UK, Netherland

Source- APEDA

The key challenges faced by the exporters and possible recommendations to address them have been tabulated below:

Key Challenges	Recommendations	Actionable	Stakeholders
Traceability			
<ul style="list-style-type: none"> Importing norms are becoming stringent for fresh fruits and vegetables To comply with the norms of importing nations, it is requisite to procure the produce from registered farmers only. If the farmers' registration is not put in place, exports may be adversely affected. At present, except few states, not much efforts have been put in by the state governments to get the farmers registered. 	<ul style="list-style-type: none"> Agriculture being a state subject, State governments need to be pro active to get the farmers registration done. State Agriculture universities, KVKs, Block development units need to work extensively towards providing extension services to the farmers in context to GAP (Good Agriculture Practice). 	<ul style="list-style-type: none"> Inter-ministerial meeting between MoC and MoA to prepare a guidebook (in consultation with states) to define the role of states for exports (as already mentioned in the section above). Some of the key aspects of the guidebook should encompass the following: <ul style="list-style-type: none"> Farmer Registration for establishing traceability Demarcating commodity specific clusters and basis this need gap analysis of infrastructure (roads, packhouses, storage structures, processing units, testing labs etc.) Propagation of Good Agricultural Practices for enhancing quality through state extension departments, research institutions and state universities 	<ul style="list-style-type: none"> APEDA to facilitate and take up with MoC and state agri departments MoC and MoA/ state agri departments to prepare the guidebook for the states. Inputs from respective associations need to be considered State agri departments/ horti departments and SAUs to implement the actionables

Key Challenges	Recommendations	Actionable	Stakeholders
Training & Skill development			
<ul style="list-style-type: none"> Besides the other common challenges, one specific challenge is with respect to the right harvesting time. There is scarcity of skilled labor for harvesting and handling of commodities specially Mango and Pomegranate 	<ul style="list-style-type: none"> Periodic training to the farmers on production, harvesting practices and post harvest management at the farm level. 	<ul style="list-style-type: none"> APEDA to collaborate with Agriculture Research Universities to prepare commodity and region specific cultivation practices manuals (including optimum input usage, right harvesting time, scientific harvesting practices, post harvest handling at farm level, etc.). E.g. Developing color pellets for indicating right time to harvest for F&V The manual can be prepared in consultation with the industry 	<ul style="list-style-type: none"> APEDA Industry association Research Institutions
Logistics			
<ul style="list-style-type: none"> Since, the commodities are perishable in nature, availability of containers at the optimum time at the ports is critical. Volatile freight rates in the peak season. There is no dedicated space offered for offloading of the perishable commodities at CPCs. A serious issue of congestion at JNPT and airport was raised by the exporters in Mumbai. Inadequate number of trolleys also adds up to the problem. Trucks line up in queue for 2-3 days, exorbitant costs have to be borne as the containers are to be run on generators to address the perishability. 	<ul style="list-style-type: none"> There should be dedicated containers for perishables at the ports to facilitate the exports Horticulture sector needs to be given priority to boost up the quantum of exports. There should be a dedicated green channel for perishable goods to avoid deterioration and congestion. Green channel to be created at key ports (Vol/ value to be considered) to boost the export of perishables (JNPT, Kandla) 	<ul style="list-style-type: none"> APEDA to facilitate inter-ministerial meeting between MoC (Ministry of Commerce) and Ministry of Shipping to dedicate a specific quota of containers for horticulture produce and also to address the congestion issue at ports A specific quota may be designated for the export of horticulture commodities, which will address the fluctuation of freight rates. APEDA to take up the issue of congestion with port authorities 	<ul style="list-style-type: none"> APEDA MoC Ministry of Shipping

Commodity specific Challenges and Recommendations	
Challenges	Recommendations
Mango	
<ul style="list-style-type: none"> Inefficient post harvest practices are followed at farm level which affects the shelf life and quality of the produce. Karnataka growers raised concern that Malaysia has declined the imports (presence of stone weevil). India has gained market access for Mangoes in South Korea and Mauritius. However, the exporter's confidence is low for entering into the new markets. 	<ul style="list-style-type: none"> Initiatives in post harvest management (right time to harvest, pre-cooling, packaging) needs to be designed and executed. Expertise needs to be looked for either at national or international level to guide the exporters. A protocol through movement by Sea needs to be developed to address the perishability issue. APEDA to initiate bilateral talks with the Malaysian government to resolve the issue. For gaining market access a lot of resources are required. A long term market campaign program needs to be designed and implemented wherever market access is gained so as to realize the actual market potential.

Challenges	Recommendations
Grapes	
<ul style="list-style-type: none"> Quality wise (Shelf life, Color, Size, Aroma, etc.), Indian grapes are non competitive in the global market. 	<ul style="list-style-type: none"> APEDA needs have bilateral talks with the major grapes producing nations to import seeds of exportable variety of grapes In longer term NRC to take up the mandate for producing exportable varieties. Focus on the untapped markets like France, Poland, Mexico and Indonesia where our presence is minimal.
Orange	
<ul style="list-style-type: none"> Indian variety is not suitable for exports (loose skin). 	<ul style="list-style-type: none"> APEDA may take up the issue with NRC to develop export oriented varieties
Tomato & Banana	
<ul style="list-style-type: none"> Tomato and Banana are not in the preview of FoB (Free on Board) as they fail to qualify the TAS cap (Less than INR 30/kg) while the threshold value to qualify for TAS is INR 30/kg). Earlier Nendran variety of banana from Kerala, that were exported from airports in Kerala or Tamil nadu was applicable for TAS (for middle east countries) 	<ul style="list-style-type: none"> Tomato and Banana can be considered for FoB under special case to give an impetus to the exports.
Potato	
<ul style="list-style-type: none"> Huge potential in Russian market which is not being realized because of brown rot issue. 	<ul style="list-style-type: none"> APEDA may take up the issue with CPRI (Central Potato Research Institute) to develop a protocol to declare pest free zone in major potato cultivating areas such as UP, Bihar, West Bengal etc.

Commodity Category: Processed Food

The food processing industry in India ranks fifth in terms of production, consumption, export and growth⁹. Currently only 8-10%¹⁰ of the perishables are processed in the country. Processed food industry is expanding globally and India being one of the largest food producers needs to tap the burgeoning market. India has abundant resources in context to raw materials for food production such as fruits and vegetables, spices, edible oil, milk and others. India exported around 3.5 Mn MT of processed food worth around USD 3.98 Bn in 2015-16.¹¹



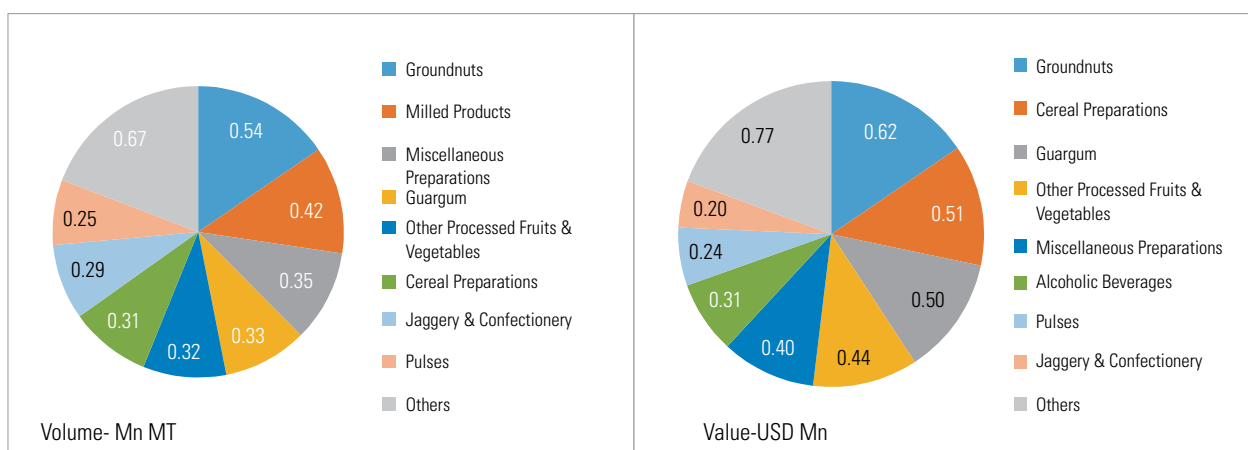
The major contributors are Guar gum, Milled products, miscellaneous preparations, other processed fruits and vegetables, Jaggery and confectionery etc. The table below is a snapshot of the export of processed food for the last three years:

Exhibit 4 : Export of processed foods from India (2013-2016)

Parameter	2013-14	2014-15	2015-16
Export (Million MT)	3.87	4.02	3.48
Export (USD bn)	5.25	5.16	3.98
Share to Total export (Quantity)	13%	15%	17%
Share to Total export (Value)	23%	24%	25%

Source-APEDA

Exhibit 5: Volume and Revenue share of processed food (2015-16)



Source: APEDA

⁹ IBEF

¹⁰ YBL analysis

¹¹ Markets and Markets

Exhibit 6: Growth and Key Destinations for Processed Food

Category	CAGR (2011-16) (Value)	CAGR (2011-16) (Volume)	Key Destinations
Cocoa Products	39%	14%	USA, Singapore, UAE
Jaggery and Confectionery	19%	7%	Nigeria, Nepal, UAE
Milled Products	17%	19%	UAE, USA, Somalia
Miscellaneous Preparations	10%	9%	USA, UAE, Nepal
Other Processed Fruits & Vegetables	6%	3%	USA, Netherland, Saudi Arabia

Source- APEDA

The key challenges faced by the exporters and possible recommendations to address them have been tabulated below:

Key Challenges	Recommendations	Actionable	Stakeholders
Processable grade			
<ul style="list-style-type: none"> Although India is the second largest producer of fruits and vegetables globally, the share of processable varieties is minimal. 	<ul style="list-style-type: none"> There is a pressing need to develop cluster wise processable varieties for commodities such as guava, orange, papaya, potatoes etc. so that desired quality raw material is available to the processing industry. 	<ul style="list-style-type: none"> Ministry of Commerce to take up this matter with the Ministry of Agriculture/ICAR so that the respective research institutes/SAUs develop region-specific processable varieties in a time bound manner. Inputs to be taken from industry associations to understand the requirement of processable grades Special emphasis may be given to key F&V producing states in India (AP, Karnataka, WB, U.P, Bihar, Maharashtra, Tamil Nadu, Gujarat, M.P, Odisha¹² etc.) so that processable varieties can be grown in these regions 	<ul style="list-style-type: none"> APEDA MoC MoA/ICAR SAUs Industry Associations
Approval for imports of ingredients			
<ul style="list-style-type: none"> The process of approval for importing ingredients is very long drawn and takes upto months. For several ingredients there are no protocols developed as yet 	<ul style="list-style-type: none"> The process for such approvals should be smoothened and protocols should be prepared by FSSAI for all food ingredients. 	<ul style="list-style-type: none"> As the Indian processed food industry is developing, the import requirement for ingredients will further increase. APEDA to sensitize FSSAI on this issue and facilitate to define the process of import. Industry association to provide the list of ingredient for which protocols need to be developed 	<ul style="list-style-type: none"> APEDA FSSAI Industry Association
<p>The government has finalised as many as 12,000 standards for food additives and ingredients in line with global safety standards for food companies. The move will help food companies as they will not be required to seek product approval from Food Safety and Standards Authority of India (FSSAI) for minor changes and alterations if they comply with these declared standards. Earlier, only standards pertaining to 375 ingredients were harmonised with international standards; now about 8,000 ingredient standards have been harmonised. Soon this number will be about 12,000 ingredients. The companies faced immense problems. If some minor ingredients used to be sprinkled on cakes or to make sweet buttermilk salty, the approval process took months. Now things will be much easier.</p> <p>The new FSSAI standards are in harmony with the global food standards of Codex Alimentarius Commission, established by the United Nations Food and Agriculture Organization and the World Health Organization.</p> <p><i>This abstract has been taken from Business Standard dated June 2, 2016</i></p>			

¹² Top Fruits and Vegetables producing states- NHB 2014-15

Key Challenges	Recommendations	Actionable	Stakeholders
Technological up-gradation			
<ul style="list-style-type: none"> High cost of production due to inefficiencies in processing technology. The industry (e.g. Confectionery units, milling units, pulping units and other processing units) use obsolete technology which hampers efficiency and adversely affects the cost of production. 	<ul style="list-style-type: none"> APEDA should encourage exporters to identify new technology from different nations that can bring efficiencies (& lower cost of production) in the process and make the price competitive for exports. Also the seasonal processing industries like pulping/puree/dehydrations should try to diversify into multi-commodity to build the capacity utilization of the unit and hence bring in viability. 	<ul style="list-style-type: none"> The identified technologies need to be evaluated in consultation with CFTRI (Ministry of Science & Technology) and NIFTEM (MoFPI) and similar technologies suited to Indian conditions need to be developed. CFTRI to take up such mandates in association with APEDA/MoFPI 	<ul style="list-style-type: none"> APEDA CFTRI (Ministry of Science & Technology) NIFTEM (MoFPI) Industry Associations
Promotions related activities			
<ul style="list-style-type: none"> Dehydrated industry falls under ingredient segment. There is need for specialized showcasing of potential of the industry at events focussed on Food Ingredients. 	<ul style="list-style-type: none"> Europe and US are the primary markets for dehydration industry. 	<ul style="list-style-type: none"> APEDA should promote the dehydration industry aggressively at the international events and exhibitions focused on Food Ingredients. Events like IFT, Food ingredient global etc. can be tapped. 	<ul style="list-style-type: none"> APEDA Exporters

Commodity Specific Challenges														
Challenges	Recommendations													
Gherkins														
<ul style="list-style-type: none"> Gherkin is an export oriented commodity and 99%¹³ of the produce is being exported. Due to lack of R&D in this segment in India, the seeds need to be imported which increases the cost of productions and reduces competitiveness. Globally Indian gherkins are considered to be of one of the best quality. The minimum FoB value for TAS has been increased from INR 15/kg to INR 35/kg The major markets include USA, EU, Russia and Canada. However, the import duty for Indian gherkins in Canada, Russia and Europe is very high as compared to Vietnam, Germany and Turkey who have to pay no import duty. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Key Markets</th> <th>Bulk</th> <th>Bottled</th> </tr> </thead> <tbody> <tr> <td>Canada</td> <td>10.5%</td> <td>8%</td> </tr> <tr> <td>Russia</td> <td>15%</td> <td>15%</td> </tr> <tr> <td>Europe</td> <td>9.6%</td> <td>14.1%</td> </tr> </tbody> </table>	Key Markets	Bulk	Bottled	Canada	10.5%	8%	Russia	15%	15%	Europe	9.6%	14.1%	<ul style="list-style-type: none"> On a longer term, the research institutions need to develop seeds of varieties that are currently being imported. Seed/variety development can also take place on a PPP mode, wherein exporters, research institutions and seed companied come together to take up this mandate APEDA to reconsider the minimum FoB value for TAS in consultation with the industry association. Bilateral talks with Canada, Russia and Europe to reduce/nullify the import duty. 	
Key Markets	Bulk	Bottled												
Canada	10.5%	8%												
Russia	15%	15%												
Europe	9.6%	14.1%												

Dehydrated Onions	
<ul style="list-style-type: none"> There is a need to raise the TSS level in fresh onions which is used as raw material in the dehydration industry for getting more output of the finished products. Dehydrated onions have been removed from the MEIS scheme 	<ul style="list-style-type: none"> APEDA needs to facilitate the project towards enhancing the TSS level in raw onions in consultation with National Research Centre for Onion and Garlic. Higher TSS would also ensure better remunerative prices to the onion farmers. Dehydrated onions constitute over 80%¹⁴ of the exports of dried & preserved vegetables. The dried onions are a different variety than those consumed in Indian households, thus the exports do not severely impact the domestic prices. Dehydrated onion should be re-included in the MEIS scheme. APEDA should take up the same with DGFT

¹³ Industry association and Caravan magazine (sept 2014)

¹⁴ Industry estimate

Commodity Category: Floriculture (Flowers and Dry Flowers)



The global floriculture industry is estimated at around USD 70 bn and is growing at a rate of 8-10% per annum¹⁵. India ranks second in flower production, next only to China. Despite huge production, the share in global trade is minimal – 0.33%.¹⁶

The export basket of the Indian floricultural products comprises of dry flowers(77.1%), cut flowers(6.1%), bulbs and rhizomes (0.8%), cut foliage (0.02%) and others (15.9%)¹⁷. The major flower producing states include Tamil Nadu, Madhya Pradesh, West Bengal, Odisha and Karnataka.

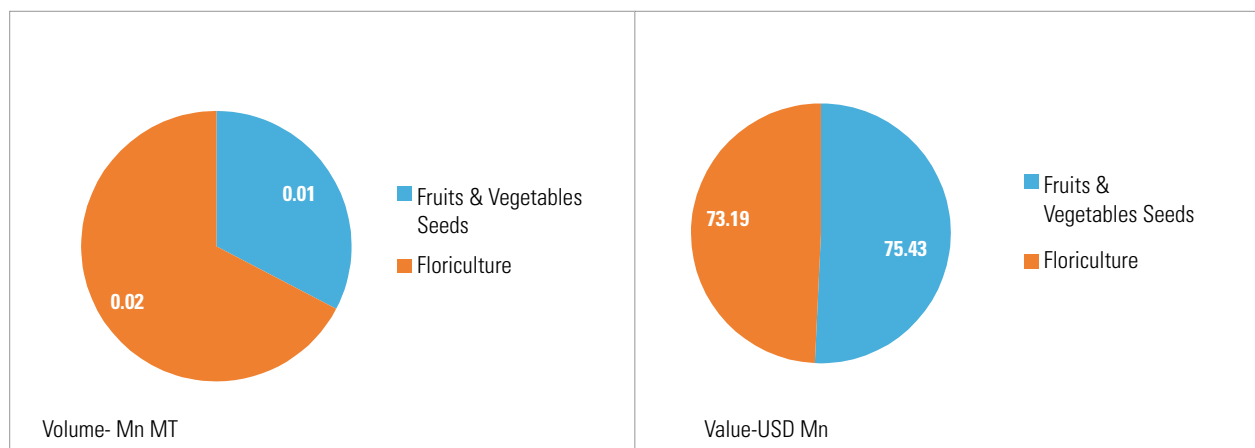
The table below depicts the production and export data for the last two years:

Exhibit 7 : Floriculture production and export (2013-2016)

Category	2013-14	2014-15	2015-16
Export (Million MT)	0.04	0.04	0.03
Export (USD million)	143.13	145.35	148.62
Share to export (Volume wise)	0.1%	0.1%	0.2%
Share to Export (Value wise)	0.6%	0.7%	0.9%

Source-APEDA

Exhibit 8: Volume and Revenue share of floriculture products (2015-16)



Source-APEDA

¹⁵ Vision -2050, ICAR

¹⁶ APEDA

¹⁷ Vision -2050, ICAR

Exhibit 9: Growth and Key Destinations for Major F&V

Category	CAGR -2011-16 (Value)	CAGR- 2011-16 (Vol)	Top 3 destinations
Fruits & Vegetables Seeds	5%	-6%	Bangladesh, Pakistan, USA
Floriculture	-1%	-6%	USA, Germany, UK

Source-APEDA

The key challenges faced by the exporters and possible recommendations to address them have been tabulated below:

Key Challenges	Recommendations	Actionable	Stakeholders
Documentation			
<ul style="list-style-type: none"> Any discrepancy in the scientific name of the imported raw material/dry flower takes a long time in getting quarantine clearance. Sometimes it has to be sent to Plant Quarantine department in Faridabad followed by series of approvals. It takes around three to four weeks which results in corrosion of money and time. Eg. <i>Cinnamomum verum</i> is imported without any issue, however, <i>Cinnamomum burmannii</i> which belongs to the same genus/family is stopped by the quarantine division. The officer in charge at the custom clearance is not updated on the botanical classifications which further aggravate the problem. At present, the botanical name of the species is documented in scattered form in different versions. 	<ul style="list-style-type: none"> Data bank- Scientific name needs to be clearly documented as it is mandatory for getting clearances. Documentation should encompass each and every part of the plant (where it is grown, how it is grown and where it can be grown) as plant parts are used in different ways. Any plant part if given can be identified using the document. 	<ul style="list-style-type: none"> ICAR and other state agriculture universities need to assist in documenting the data bank on a priority basis. Industries need to come forward and share the new identifications and inputs in documentation of data bank. APEDA needs to take up the issue with ICAR and industry players. The embassies of the importing nation may be approached to provide the required information from authentic industrial sources. 	<ul style="list-style-type: none"> APEDA Industry ICAR/ SAUs Embassies
Quality assurance, SPS, MRL & Certification			
<ul style="list-style-type: none"> The dry flower industry requires chemicals for bleaching and fixation of dyes for which the range is vast due to different composition and properties unique to dry flower industry. The treatment needs to be customised and at present the industry does not have enough expertise. 	<ul style="list-style-type: none"> The industry needs to have access to the pool of experts like research laboratories (university laboratories, chemical engineering departments, other research organizations). 	<ul style="list-style-type: none"> APEDA to identify research institutions with help of industry and take up the matter with them to assist the industry to standardize the use of chemicals in bleaching, dying, preservation and others. 	<ul style="list-style-type: none"> APEDA Industry Research organizations- ICAR/Indian Institute of Chemical Research, IIT etc.

Key Challenges	Recommendations	Actionable	Stakeholders
Transactional cost			
<ul style="list-style-type: none"> The interstate movement of material is a great challenge as transit pass issued by the originating state is not accepted at the interstate borders and also at the forest posts. This makes the industry vulnerable to monetary and time loss. Government of West Bengal has increased the royalty upto Rs 30 per Kg (which extends upto 100% of the cost) on the issue of transit pass which has made the products price wise non-competitive 	<ul style="list-style-type: none"> The issued transit pass should be valid for the interstate movements to avoid cost and time overruns. With the implementation of GST, the issue is expected to get resolved 	<ul style="list-style-type: none"> APEDA/MoC should take up the matter with various state governments (few of them Including Andhra Pradesh, Bihar, Jharkhand, Madhya Pradesh, Odisha, West Bengal, Uttar Pradesh, etc.) so that issued transit pass by the origin authority has statutory validity across India. APEDA should take up the matter of increasing royalty fee with the Govt. of West Bengal to reduce it so as to make it price competitive. 	<ul style="list-style-type: none"> APEDA State Governments
Packaging			
<ul style="list-style-type: none"> The availability of quality packing material to suit the export requirement is a challenge. The packaging is important as it adds value to the product. 	<ul style="list-style-type: none"> At present, APEDA provides a subsidy upto INR 5 lakh to get IIP certification but is limited only to fresh fruits and vegetables. The same may be extended for dry flowers. 	<ul style="list-style-type: none"> IIP to develop packaging material in consultation with the industry players which is mostly imported in the present scenario. 	<ul style="list-style-type: none"> APEDA IIP Industry
Logistics for fresh flowers			
<ul style="list-style-type: none"> There is lack of vacuum cooling facility at the CPC, Mumbai airport for the fresh flowers. It has been observed that there are wide temperature fluctuations from 4 degree Celsius to 22 degree Celsius from farm to the boarding which adversely affects the quality. 	<ul style="list-style-type: none"> Vacuum cooling is preferable before boarding and post completion of all the custom and quarantine facilities in CPC. 	<ul style="list-style-type: none"> APEDA should take this matter with CPC for an appropriate inclusion of vacuum cooling. 	<ul style="list-style-type: none"> APEDA CPC -Mumbai

Supply development of cut flowers for export in Northwestern province of S. Lanka

To boost up the exports of “Anthurium” flowers from Sri Lanka, an enterprise linked outgrower system was devised in partnership with small growers, laboratories, exporters, government and a Specialized Public Sector institution for export promotion known as Sri Lanka Export Development Board (SLEDB). The objective of the scheme was to produce “Anthurium Flowers” of export quality. The program covered both cultivation and marketing aspects of cut flowers.

Key Aspects:

- SLEDB facilitated the import of mother plants whereas the multiplication aspects were fulfilled by bio technology laboratories.
- About 1000 plants were made available to the growers at a minimal cost of INR 60 per plant.
- SLEDB also provided financial aid of INR 50,000 per out grower (fifty percent of cost) to source the mother plant.
- Arrangements were made by SLEDB and local government to provide technical assistance to the growers on a cost sharing basis.
- Growers were assisted to form growers association linked to an exporter to sell their produce.
- An additional financial assistance was also provided on a monthly basis till the plants became commercially viable (commencement of flower production). Expansion assistance to the best growers was also provided.

Source: Business services in support of farm enterprise development: case studies, FAO

Disease Resistant Okra Variety-Thailand

The case study highlights the partnership between Uniseeds Co Ltd and National Centre for Genetic Engineering and Biotechnology for developing a disease resistant (Yellow vein virus) Okra Seed in Thailand (2004-2007) to restore the high value export market which declined due to the outbreak of Yellow Vein Virus (YVV) in the year 2000.

Objectives of National Centre for Genetic Engineering and Biotechnology:

- To substitute the seed import of Okra seeds with indigenously developed varieties.
- Reduced on farm losses and chemical use
- To regain the high value export market which declined by 22% due to serious outbreak of YVV (Yellow Vein Virus)

The investment cost for the whole project was USD 114000 which was shared by both the stakeholders in 85:15 ratio i.e. 85% of the project cost was borne by Uniseeds Co Ltd. and rest by National Centre for Genetic Engineering and Biotechnology.

Incentives for Uniseeds Co Ltd.:

- Access to technology
- Ownership of IP (Intellectual Property)

Public-private partnerships for agribusiness development

A review of international experiences, FAO

Commodity Category: Animal Products

India has the world's largest livestock population and as per the latest estimates (19th livestock survey), the livestock population stands at around 512 million¹⁸. The cattle population stands at around 191 million¹⁹ and that of buffalo population stands at 109 million²⁰ in India. India has also one of the largest poultry populations in the world which stands at around 729 million²¹.



Meat Exports

India is the fifth largest meat producer in the world²². The meat production for the year 2013-14 was 6.2 Mn MT which was 5.9 Mn MT for the year 2012-13. The export of meat for the year 2015-16 was 2.0 Mn MT. The table below shows the meat exports and share of meat exports to total exports.

Exhibit 10 : Meat production and export (2013-15)

Category	2013-14	2014-15	2015-16
*Meat Export (Million MT)	1.9	2.1	2.0
*Meat Export (USD Million)	4565.05	5029.2	4318.07
Share to total exports (%) -Vol	6%	8%	10%
Share to total exports (%) -Val	20%	23%	27%

Source- APEDA

*includes buffalo meat, sheep/goat meat, poultry products (including eggs), processed meat, other meats and animal casings

India is the largest exporter of buffalo meat in the world in terms of volume. Buffalo meat has the largest share in total meat exports from India i.e. 63% by volume and 88% by value (2015-16). The total export of buffalo meat was 1.31 Mn MT worth value around USD 4.1 Bn.

Dairy and Poultry exports

Globally, dairy industry is emerging as one of the biggest domains of the food industry. There is a huge demand of dairy products in the international market. Value added dairy products (cheese, dairy whitener, and cream) fetches higher price in the global market. India is the largest milk producer (146 Mn MT²³) and third largest egg producer in the world (2013)²⁴. The table below depicts the production and export of milk, poultry and honey.

Exhibit 11 : Production and export of milk, dairy and poultry products

Category	2013-14	2014-15	2015-16
Milk production	137.68 Mn MT	146.31 Mn MT	NA
Egg production	73438 million	78484 million	82929 million
*Export of Dairy products	0.16 Mn MT	0.07 Mn MT	0.03 Mn MT
Export of Honey	0.03 Mn MT	0.03 Mn MT	0.04 Mn MT

Source- Indiastat, Annual report DAHD (2014-15), DGCIS

*The dairy products include butter oil, fresh butter, milk & cream powder, ghee, fresh cheese, skimmed milk powder, whole milk and others.

¹⁸ 19th livestock census, DAHD

¹⁹ 19th livestock census, DAHD

²⁰ 19th livestock census, DAHD

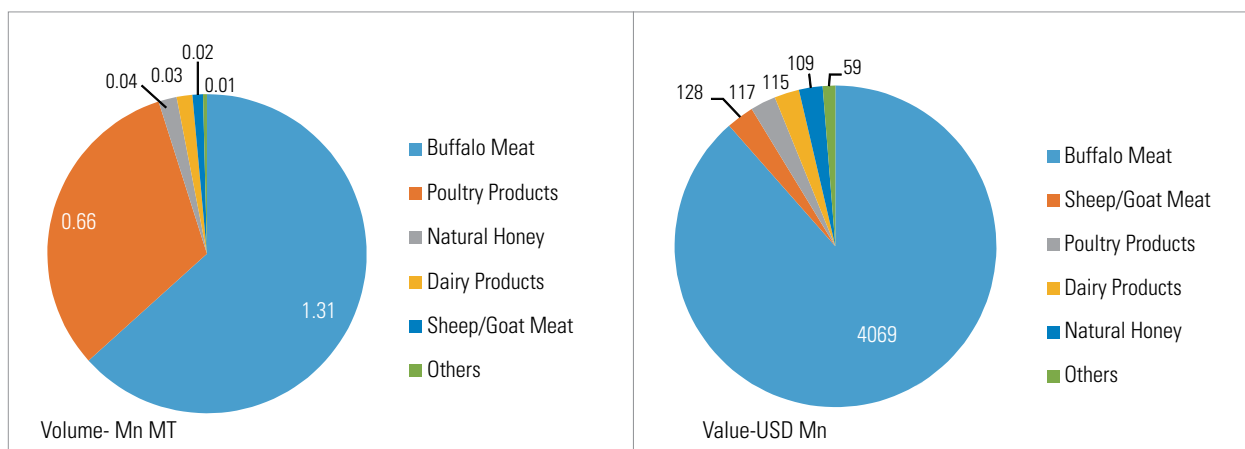
²¹ 19th livestock census, DAHD

²² APEDA

²³ PIB

²⁴ Indiastat

Exhibit 12: Revenue share of animal products and export details



Source- APEDA

Exhibit 13: Growth and Key Destinations for Animal products

Category	CAGR (Qt)	CAGR (Value)	Top 3 destinations
Casein	48%	34%	USA, Poland, Thailand
Sheep/Goat Meat	14%	19%	UAE, Saudi Arabia, Qatar
Dairy Products	5%	14%	UAE, Pakistan, Bangladesh
Natural Honey	8%	10%	United States, Saudi Arabia, UAE
Buffalo Meat	6%	7%	Vietnam, Malaysia, Egypt Arab Rp.
Poultry Products	1%	4%	Oman, Saudi Arabia, Japan

Source: APEDA

The key challenges faced by the exporters and possible recommendations to address them have been tabulated below:

Key Challenges	Recommendations	Actionable	Stakeholders
Animal Health			
Subsidy/ Incentive			
<ul style="list-style-type: none"> Transport Assistance Schemes is not applicable to frozen (boneless) buffalo meat 	<ul style="list-style-type: none"> The freight cost for transporting Buffalo meat and to western African countries is very high as no direct transportation is available. Thus, TAS should be applicable at least in such cases. The TAS was earlier applicable and should be restarted as the trans shipment cost increases by 30-40%²⁵ to western African nations over normal transportation cost to other nations 	<ul style="list-style-type: none"> APEDA to take up this matter with DGFT so that the meat being exported to Western African countries can be brought under the purview of TAS 	<ul style="list-style-type: none"> APEDA DGFT

²⁵ Industry estimates

Key Challenges	Recommendations	Actionable	Stakeholders
Market Promotion			
<ul style="list-style-type: none"> Growth in demand for meat in India's export markets, largely in Southeast Asia, the Middle East and Africa, has been strong relative to that in developed-country markets and is expected to remain so over the next decade. India may benefit from the opening of important new markets, particularly Russia and China 	<ul style="list-style-type: none"> A long term market promotional strategy should be developed to brand Indian meat in the potential new markets. 	<ul style="list-style-type: none"> APEDA in lieu with AIMLEA may conduct a detailed study based on import, consumption and preference in different regions and based on the outcomes market specific strategy and promotion program to be implemented. Indonesian market has been opened up for Indian Meat; however the taste for it is yet to be developed in the consumer base. APEDA may design a promotional campaign along with major meat exporters to set up kiosks at key locations and prepare traditional dishes (Eg. Bakso) with Indian buffalo meat to develop the taste. 	<ul style="list-style-type: none"> APEDA AIMLEA
Challenges		Recommendations	
Poultry			
<ul style="list-style-type: none"> Repeated bird flu attacks outbreaks take a toll on the export. The export gets banned if bird flu outbreak is reported from any corner of the country. The feed cost is very high and fluctuates with the changes in maize and soya prices which affect the profitability 		<ul style="list-style-type: none"> An initiative has already been taken to divide India into 22 Compartments so that the exports are not impacted from the entire country, if there is bird flu outbreak in one part of the country. 	

Commodity Category- Cereals

India is the second largest producer of rice, wheat and other cereals²⁶. The demand of cereals in the global market is on the increasing trend which provides an impetus to the Indian export. India is also one of the largest exporters of rice. The export details of rice along with production is tabulated below:



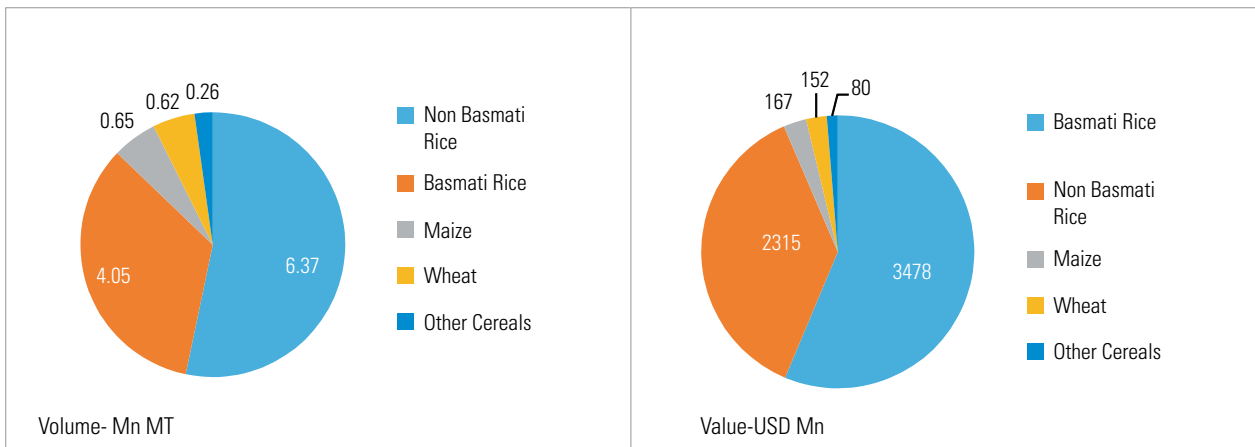
Exhibit 16 : Production and export of Rice (2013-16)

Category	Production (Mn MT)	Export (Mn MT)	Share to total production	Share to total export (volume wise)
2013-14	107	10.9	10%	36%
2014-15	105	12.0	11%	44%
2015-16	104	10.4	10%	52%

Source- DGCIS, Indiastat

The share of cereals in the total export is around 60% volume wise and 38% value wise with rice being the major contributor with a share of around 87% volume wise and 94% value wise. The export of cereals has grown at a CAGR (2010-15) of 23% (value wise).

Exhibit 17: Revenue share of cereals and export details (2015-16)



Source: APEDA

²⁶ APEDA

The challenges faced by the exporters and the recommendations are tabulated as follows:

Key Challenges	Recommendations	Actionable	Stakeholders
Market promotion			
<ul style="list-style-type: none"> Opportunity in the new markets like Mozambique, Israel, Malaysia, Mexico, Japan, Brazil and France. 	<ul style="list-style-type: none"> To tap the potential of Indian rice in major rice consuming zones of the world, long term promotional plans need to be designed and carried out. This shall help establishing the Indian brand Rebranding of Basmati rice in the traditional markets like S. Arab, Iran, Iraq, UAE and others to maintain the market share and curb the competition 	<ul style="list-style-type: none"> APEDA in lieu with AIREA may conduct a desktop study based on import, consumption and preference of rice in different regions/ clusters/ zones. Potential countries will be identified based on the study. A long term promotional strategy to be developed to brand Indian rice in these potential markets. 	<ul style="list-style-type: none"> APEDA AIREA

Commodity Category: Organic Products



Globally, the organic sector has gained attention with increased health awareness among the consumers. The premium price of the produce attracts the grower as well as the exporters. The world market is assumed to have reached USD 72 billion (2013)²⁷ in which India has a minimal share. India with its conducive climatic conditions and diverse product basket has the potential to have substantial share in the global market. The top three categories in the organic export are Oil Seeds & crops, Cereals & Millets, and processed foods which contribute around 87% of the total export. The major organic producing states include MP, Karnataka, Maharashtra, Gujarat, Rajasthan and the major export destinations include USA, EU, Canada, Switzerland, Japan, Australia and Israel (share of more than 95% volume and value wise in the year 2014-15).

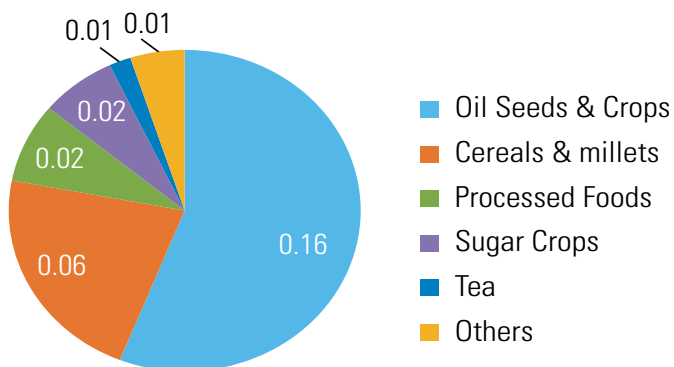
The table below depicts the production and export data for the last two years:

Exhibit 14 : Organic production and export (2013-2015)

Year	2012-13	2013-14	2014-15
Production (Million MT)	1.34	1.24	1.1
Export (Million MT)	0.16	0.18	0.29
Export (USD Million)	213	220	327
Share of Export to total production (%)	12%	14%	26%

Source-APEDA

Exhibit 15: Volume share of organic products (in Mn MT)



Source: APEDA

²⁷ Report by FiBL and IFOAM

The key functional and operational challenges faced by the organic food products exporters along with the recommendations have been tabulated below:

Key ChallengeS	Recommendations	Actionable	Stakeholders
Tracenet			
<ul style="list-style-type: none"> Streamlining of Tracenet required- To be made more user friendly. There is limited flexibility for adding new products 	<ul style="list-style-type: none"> Tracenet needs to be streamlined in close coordination with the industry 	<ul style="list-style-type: none"> Task Force needs to be to be set up with members from the industry, CBs and APEDA to review, streamline and make it practical for industry requirement. 	<ul style="list-style-type: none"> Organic industry players AIOI APEDA
Subsidy/ Incentive			
<ul style="list-style-type: none"> Organic products treated at par with conventional products. MEIS scheme closed for certain organic categories like soybean 	<ul style="list-style-type: none"> Organic products need a boost to establish their market both in domestic and other nations. Organic Commodity and Processed food products to be given a separate identity from Conventional products. 	<ul style="list-style-type: none"> MEIS scheme to be made available to all organic exports. Additional subsidy of 2% to be considered on organic products under MEIS scheme. 	<ul style="list-style-type: none"> APEDA DGFT
Training & Skill Development			
<ul style="list-style-type: none"> Unavailability of skilled manpower at all levels– farming, handling, processing, exporting Inadequate extension activities and non availability of trained trainers. Inadequate budgetary allocation for capacity building in organic farming Limited Research & Limited transfer of technology from lab to land 	<ul style="list-style-type: none"> Efficient backward integration is the key to boost the organic exports. Skills play an important in strengthening these linkages. To augment the availability of skilled manpower in the organic sector, it is essential to implement Credit course on organic agriculture in all agricultural universities. Recommendations from private sector (from Indian and global stakeholders) for the curriculum design. Allocations for promotion of organic farming be scaled up substantially. 	<ul style="list-style-type: none"> Universities and ICAR institutions needs to develop Model Organic Farms for demonstration and extension purposes. MoC to request MoA to mandate ICAR to implement at least 1 credit course program in the graduation on commercial aspects of organic farming 	<ul style="list-style-type: none"> APEDA MoC MoA ICAR SAUs Industry players KVKs
Policy related			
<ul style="list-style-type: none"> Random midyear policy corrections kill the innovations and spirit of the industry. Also the communication is delayed. NPOP- should be the only standard for both domestic and international market and enforced strictly. 	<ul style="list-style-type: none"> Intensive consultation with the organic industry may be considered for policy or regulation implementation. Communication should go out directly to organic exporters and not via CBs. 	<ul style="list-style-type: none"> A biannual stakeholder meeting be conducted at regional offices to update the exporters on policy changes and regulatory issues. 	<ul style="list-style-type: none"> Exporters APEDA

Market Development			
<ul style="list-style-type: none"> Along with global market, the domestic market for organic food also needs to be promoted. 	<ul style="list-style-type: none"> The domestic market is as important as the export market for the organic industry. Increasing disposable incomes, consumer awareness and health consciousness are the key drivers of growth for the industry. 	<ul style="list-style-type: none"> Campaign to be launched by Gol on consumer awareness for organic food. (on similar lines as NECC launched for egg consumption) Brand India stores in major airports- showcasing the organic products of India. 	<ul style="list-style-type: none"> Gol APEDA
Infrastructure			
<ul style="list-style-type: none"> State-of-the-art residue testing labs are not available in India Importers adamant for multiple tests in the importing country which makes it economically unviable. Dedicated warehousing/cold chain and transportation facilities absent in India for organic produce. Commodity specific supply chain infrastructure is inadequate. Limited incentives for infrastructure creation 	<ul style="list-style-type: none"> Harmonization with the testing lab in the importing nation for method of testing, sampling and other required parameters Special emphasis to be given to dedicated infrastructure for organic produce through various schemes and subsidies by MoFPI, NHB, State governments. 	<ul style="list-style-type: none"> Incentives to individual companies meeting criterion for infrastructure support as against creation of common facilities, except in very special cases like North East. 	<ul style="list-style-type: none"> Exporters APEDA NHB MoFPI State governments
Inputs			
<ul style="list-style-type: none"> Organic varieties of seeds are not available in India. Plant protection (weedicides) is a big challenge in organic industry. 	<ul style="list-style-type: none"> Present agricultural policy is skewed towards making available chemical fertilizers across India. Similarly the outreach for bio-fertilizers needs to be promoted by utilizing conventional fertilizer channels. Three generations of seed breeding program for organic seed varieties needs to be developed. Crop Rotation needs to be promoted to ensure round the year utilization of organic farm and increase its profitability. 	<ul style="list-style-type: none"> MoC and Ministry of Chemicals and fertilizers to jointly work on mandating fertilizer companies to sell minimum quantum of bio-fertilizers to promote organic farming. ICAR, SAUs need to identify high yielding region specific varieties suitable for organic cultivation. 	<ul style="list-style-type: none"> MoC Ministry of chemicals and fertilizers ICAR/SAUs Fertilizer companies
Challenges		Recommendations	
Processed Organic Food			
<ul style="list-style-type: none"> EU's withdrawal of equivalence for processed organic food. 		<ul style="list-style-type: none"> Bilateral talk with EU government to restore the equivalence. 	

4

Way Forward and Conclusion



4

Way Forward and Conclusion

The experience of many countries world over suggests that export orientation of the agriculture sector is one of the prerequisites for its success in global trade. Further, it has also been observed that export orientation of agriculture sector is sustained when complemented with a quality produce, sizeable processing industry and strong domestic market. As India lacks in these requirements, agri exports potential has not been fully tapped. Though India is at the forefront of production of various agri commodities but there is a need for strategic interventions in line with prevailing export requirements to provide a boost to agri exports. Eight pronged strategy covering Product Segmentation, Quality Enhancement, Market Diversification, Market Penetration, Value Addition, Agriculture Infrastructure Upgradation, Skill Development and Branding/Promotion supported by conducive exports policy and regulations will be critical in ensuring competitiveness of India's agri export trade globally.

- **Product segmentation** - Indian production should take into account the current and estimated trade volumes in the product category based on underlying demand trends, potential for differentiation, comparative cost advantage, quality enhancement at farm level and value addition across the value chain.

- **Quality Control and Assurance at Farm Level** - To enhance the quality and the shelf life of the produce meant for exports, farmer awareness on exportable varieties, production techniques, harvesting and post harvest management, export market requirements with due attention on mechanized harvesting, sorting, grading, pre-cooling, waxing, packaging, and others needs to be generated in a coordinated way through active participation of State Agriculture departments, Commodity Boards, Research institutions and APEDA. The objective should be to enhance quality and shelf life of the produce meant for exports.
- **Awareness generation** - Updated information and knowledge in context to the export procedures/ ISO/HACCP, certification needs focused approach. Awareness generation on EurepGap Certification and promotion of Organic farming in phased manner should be encouraged. The organic growers should be registered with the horticulture/agriculture department of the concerned states to ensure traceability from farm level to the consumer end.
 - ✓ Food safety and agricultural health risk management must be developed as a core competence in India's competitive strategy. Although new or more stringent standards can serve as a trade barrier, they act more often as a catalyst for progressive change in the long run.
 - ✓ Stringent standards can provide an impetus for investments in supply-chain modernization, to provide higher incentives for the adoption of better safety and quality control practices in agriculture and food manufacturing. It will also help to clarify the appropriate and necessary roles of government in attaining food safety and agricultural health management. Rather than degrading the comparative advantage of developing countries, the compliance process can result in new forms of competitive advantage and contribute to more sustainable and profitable trade over the long term.
- **Judicious use of agri inputs** - The farmers and even exporters are not aware about the insecticide/ pesticide/fumigation spray schedule for exports as common chemicals under different trade name with different active ingredients are used on a large scale. There is a need for generating awareness about the agri inputs including agro chemicals, their usage and MRL to avoid chances of residue detection and consignment rejection. It is recommended to strengthen the residue testing system through establishment of accredited laboratories within production clusters especially for fresh F&V for exports.
- **Market Intelligence** – Mapping of commodity wise importing markets across the globe, India's unique competitiveness vis-à-vis key competitors, existing tariff structure and non tariff barriers, and export norms in the context of WTO requirements, current status of quality standards and food regulations in target markets for imports of defined products need to be disseminated to the exporters in timely manner. There should be an option of public relation officer to address the trade related information and import being followed across the countries.
- **Harmonization with international standards/practices, certification and testing** – It is essential to substitute post arrival testing with pre-shipment inspection, encourage testing laboratories to obtain accreditation from international agencies, streamline certification system and establish certification offices near to production clusters, introduce traceability to promote certification of organic farming.
- **Supply chain alignment with international standards** – It is imperative to enable direct farmer-exporter linkages and setting-up of independent world class food testing and inspection infrastructure. There should an alternate system for specification of processed products based on internationally accepted norms. There is a need to support private sector initiatives to invest in specialized logistics transport infrastructure. APEDA should encourage investment in infrastructure to improve product quality and shelf life.
- **Consistent supply** - The focus should be on regular and dedicated exports volumes each year. The demand needs to be complemented with the uninterrupted supply. It can be achieved by dedicated quality agro production for exports for the identified crops from states. For promoting exports of processed agro products, it is important to have nexus between industry and agriculture which can help disseminate the best technology and good cultivation practices among farmers on one front and orienting agro products industry towards exports on the other.

- **Infrastructure** - Availability of post harvest infrastructure and ease in logistics is important for promoting exports. Policy makers should attract investments in logistics sectors including cold chains, warehouses, reefer vans, silos. Adequate and upgraded infrastructure not only facilitates the exports but also puts a check on the wastage, decay and losses associated with perishable products.
 - ✓ Export infrastructure, particularly port related infrastructure is inadequate. The best of our ports do not have state-of-the-art technology that exists in Singapore, Rotterdam and Shanghai. Currently, the port infrastructure issues include lack of port connectivity; congestions; poor cargo handling; high transaction costs etc., which challenges the market access and competitiveness.
 - ✓ Export infrastructure needs immediate attention. The priority should be to bring in drastic changes in terms of upgrading and developing world class infrastructure in India's airports, sea ports, railways in terms of warehouses, advanced cargo handling customized to handle agricultural produce.
- **Convergence of Government Schemes** - Convergence of schemes offered for export promotion through various Ministries and allied agencies is necessary to have access to symmetrical information and efficient use of the grant/incentives. Endeavours should be made in establishing processing infrastructure across production clusters.
 - ✓ It's also important to encourage testing laboratories to get accreditation from international agencies and setting-up of independent world class testing and inspection infrastructure particularly in clusters with significant presence of exporters and to support a responsive research and development infrastructure to provide technological upgradation.
- **Market Promotion and Market development** - The government is providing several promotional schemes to direct exports of agricultural produce to the specified markets and to promote their products overseas. However, exporters are still facing difficulty to effectively promote their products in the international market on account of lack of adequate finance and market intelligence. Building an information hub for providing comprehensive information relating to trade opportunities and business environment in the different countries can be a right move in this direction. A common platform to access information can be established. The platform will also help the exporters to mutually benefit from each other.
 - ✓ These activities need to be strengthened to create a market for the country's products. Export promotion needs to be given priority and some schemes developed to assist exporters. These could be in terms of financial/technical assistance to exporting units to set up in-house laboratories with basic test facilities, for implementing ISO. A logo may be developed and brand promotion campaigns launched in various countries. Participation in trade fairs may be intensified. Moreover, the airport terminals can be showcased with stalls promoting the India's produce.
- **Transparency** - All specifications, inspection and testing methods and procedures need to be documented. The operative part of the legislation needs to be clearly laid down in the form of regulations or executive instructions, and given to each inspecting official so that they are available at the point of use. All specifications, inspection and testing methods should also be accessible to interested parties overseas to enable 'transparency' in line with the SPS Agreement. The sanitary and phyto sanitary specifications are subjected to quick transformations. The exporters need to be aware of the changing norms.
- **Inspection systems** followed by different inspection and certification agencies need to be aligned with ISO and the Codex Guidelines for the Design, Operation, Assessment and Accreditation of Food Import and Export Inspection and Certification Systems.

- **Accreditation** - A system of accreditation needs to be developed for both inspection bodies and certification bodies as well as laboratories as per ISO and all organizations performing such activities would need to accredit. This would result in much-needed credibility to inspection and certification activities.
- **Training** - Personnel need to be trained and updated within the country as well as overseas on a regular and systematic basis to bring about awareness on the scenario for quality, inspection and testing in the country as well as the latest testing techniques, methods of sampling, risk analysis, document and record control, auditing techniques, etc.
- **Computerization and digitalization** - All organizations need to be networked so that information can be coordinated and accessed by all organizations and stakeholders. Websites need to be developed to contain information on standards as well as export inspection and certification systems and procedures to enable transparency for internal and outside personnel. Digitalization should be promoted to ease the fulfilment of the required formalities.
- **Single window clearance for exports** - Coordination amongst various departments involved in exports is a critical step to ease the challenges faced by exporters. A single window system needs to be developed so that all clearances/approvals/applications and discrepancies can be resolved at a single point- saving on time as well as cost.
- **Guidelines for Exporters/Importers** - A category wise guideline document for exporters needs to be developed which gives an overview of the system of exports and imports as well as broadly the role of different organizations as also clearly laid down steps which an exporter would need to follow for exports.
- **Capacity Building** - Clear areas need identifying for 'Capacity Building' of export inspection and certification systems to meet international requirements to include:
 - ✓ Laboratory strengthening in terms of equipment and testing procedures.
 - ✓ Human resource empowerment especially inspectors in area of inspection and audits
 - ✓ Using a systematic approach in export certification.
- In case of rejections, an export control body should enter into dialogue with importing authorities with relevant documents (export certification) to resolve the issues. The issues need to be documented and communicated down the line to avoid the recurrence in future.

Key Actionables

To boost the Indian Food and agri exports a comprehensive approach is required that shall encompass:

- ✓ Establishment of a nodal agency with representatives from all relevant ministries and departments.
- ✓ Linkage of grievance redressal system on APEDA's website to premier research institutions.
- ✓ Prepare guidelines for the state pertaining to exports

Convergence of different departments to form a single decision making nodal agency

- Establishment of a nodal agency with representatives from all relevant ministries and departments. A tentative list is as follows
 - ✓ APEDA- chairman
 - ✓ MoC- secretary
 - ✓ MoA- secretary
 - ✓ MoFPI- secretary
 - ✓ Ministry of road, transport and highways- secretary
 - ✓ Ministry of shipping –secretary
 - ✓ Ministry of Civil Aviation- secretary
 - ✓ Ministry of Finance- secretary
 - ✓ Ministry of Rural development- secretary
 - ✓ Ministry of Railways- secretary
 - ✓ Ministry of science and technology
 - ✓ FSSAI- chairman
 - ✓ ICAR- DG
- The nodal agency shall be a decision making body for the challenges put forth by APEDA (post consultation with exporters/export associations) where inter-ministerial interventions are required. This shall result in efficient and effective implementation to address the challenges in a time bound manner

A National Single Window (NSW) Case Study-Thailand

NSW has been recognized as an important national strategy to improve the efficiency in documentary procedures required to expedite the movement of goods in and out of Thailand with two broad objectives i.e. a reduction in average trade transaction cycle time and reduction in trade logistics costs. It has been an integrated endeavor of Thai Customs Department, Ministry of Information and Communication Technology, Ministry of Commerce, Ministry of Agriculture and many other government agencies and business stakeholders as part of National Single Window initiative.

As a lead agency, Thai Customs Department initiated a working group to serve as an organizational mechanism to facilitate communication and coordination among NSW stakeholders. The working group had representatives from controlling government agencies as well as relevant trade and transport community.

Key success factors:

- Involvement of stakeholders from different agencies
 - ✓ National and Regional Collaboration
 - ✓ Division of responsibilities among stakeholders
- Simplified Business Process
 - ✓ Automation of business processes.
 - ✓ Electronic approval- time and cost saving
- Data Harmonization

Transport related, Business Process requirements (Permits, License, Certificates) and requirements of other departments.

- Interoperability Framework
 - ✓ Integration and exchange of informations among different department
- Legal Framework
 - ✓ Robust legal framework to facilitate e-business and e-transactions

Source: UNESCAP

Linkage of Grievance Redressal System to Premier Research Institutes:

- APEDA's grievance redressal system to be linked with the premier research institutes so as to have technical guidance on issues that are not under the purview of APEDA.
- This shall be attained by joint collaboration between APEDA and different research organizations. Each research institution shall have a single point of contact that shall facilitate and flag off the challenge to the concerned departments.
- This shall help the exporters to have multiple views and solutions on respective challenges through a single window which otherwise would have been a stiff challenge to address in a time bound manner. Based on the feasibility, the exporter can choose the solution and approach the institution for further guidance.
- The same window can also act as a platform for scientists to flag off their research work. This shall help the exporters to access the research works pertaining to their field on a single platform.



Define the role of states for facilitating Indian Exports

- Agriculture is a state subject while exports is a central subject. Thus, there is a need to create synergy between the two to achieve the true potential of agri exports from India.
- This requires formation of clearly defined guidelines and role of state departments in facilitating agri exports.
- The guidelines shall be collaboratively prepared through inputs from MoA, MoC, MoFPI and state agri/horti departments.
- APEDA to lead the initiative and also take inputs from the industry so that a comprehensive guideline is prepared.
- Some of the points to be emphasized on are:
 - ✓ Farmer registration
 - ✓ Efficient extension services/capacity building
 - ✓ Infrastructure mapping (need gap analysis)
 - ✓ Logistics



5

Annexure

Annexure

Region : South (Karnataka, Kerala and TN)			
Sr No	Name of the Company	Name of the Representative	Sector
1	Safal Market (Mother Dairy)	Mr. K D Singh	F&V
2	Safal Market (Mother Dairy)	Mr. Naga Bhushan	F&V
3	Safal Market (Mother Dairy)	Mr. Anil Dev	F&V
4	Kubu Farms Pvt Ltd	Mr. Vel Murgan	F&V
5	Namdhari Seeds Pvt Ltd	Mr. Natraj	F&V
6	MTR Foods Pvt Ltd	Mr. Prathviraj	Processed Foods
7	Suvarna Florex Ltd	Mr. Praveer Kumar G	Flowers
8	Vivdis Vatika Fresh Ltd	Mr. M R Reddy	Flowers
9	Vikram Global Commodities	Mr. Srinivas H G	Processed Oil
10	Vikram Global Commodities	Mr. Raghunathan	Processed Oil
11	Field Fresh Foods Pvt Ltd (Del Monte)	Mr. Nishikant Tol	Processed F&V
12	Indo Bloom Ltd	Mr. Mannen Mapillai	Flowers
13	Kulzman India Pvt Ltd	Mr. Pradeep G Nair	
14	Indian Gherkins Exporters Association	Mr. B A Channappa Gowda	Gherkins
15	Indo American Hybrid Seeds (I) Pvt Ltd	Mr. G V Jagdish	F&V
16	Ferns & Roses	Mr. Sunil Chandra Shekhar	Flowers
17	MCI Agro Industires	Mr. A M Sathya Murthy	Dry fruits & Nuts, Organic
18	Om Shakthi Plantations	Dr J Ranga Nathan	F&V
19	Innova Agri Biopark	Mr. R Krishna Chaitonya	F&V, Flowers
20	Mysore Green Exports	Mr. R Kantharaja	F&V
21	KRS Florttech	Mr. Anil Kumar	Flowers
22	KRS Global Impex	Mr. Manu	F&V, Flowers
23	Vita Agro	Mr. Vikas Sharma	Processed
24	Vita Agro	Ms Smita Sharma	Processed
25	Blooms and Greens Pvt Ltd	Mr. V H Prasad	Flowers
26	Jealth Exports	Mr. Roshan	F&V
27	Fan Flora	Mr. Najeeb Ahmed	Flowers
28	Vinayaka Agritech Ltd	Mr. Sridhar Chowdary	F&V
29	Greeners Agro Products (I) Pvt Ltd	Mr. Ezhilan Ka Ve	F&V, Spices, Flowers, Ingredients
30	Sathya Associates	Mr. H M Sathyamurthy	Agri Business Consultant
31	CONCOR, Railways	Mr. Abbas Rijvi	Logistics
32	APEDA	Mr. P P Waghmare	

Region : North (Delhi-NCR)			
Sr No	Name of the Company	Name of the Representative	Sector
1	Roller Millers Federation of India	Ms. Veena Sharma	Cereals
2	Kejriwal Bee Care India (P) Ltd + AIFPA	Mr. Amit Dhanuka	Honey
3	McCain FoodS (India) Pvt Ltd	Mr. Ajay Chawla	Processed F&V
4	McCain FoodS (India) Pvt Ltd	Mr. Subhajit Mukerji	Processed F&V
5	Allanasons Pvt Ltd + AIMLEA	Mr. D B Sabharwall	Meat
6	M K Overseas Pvt Ltd	Dr. Joginder Singh	Meat
7	Indian Sugar Exim Corporation Ltd (ISEC)	Mr. Adhir Jha	Sugar
8	FAIR Exports	Mr A S Rawat	Meat
9	ECGC Ltd	Mr. Vibinan K	Export Credit Insurance
10	ECGC Ltd	Mr. Ishnath Jha	Export Credit Insurance
11	ECGC Ltd	Mr. Anand Singh	Export Credit Insurance
12	DGFT	Dr. Amiya Chandra	Dept of Commerce
13	GMR (Delhi Indira Gandhi International Airport)	Mr. Rishi Michael Herenz	Perishable Cargo
14	GMR (Delhi Indira Gandhi International Airport)	Mr. Vibhor Puri	Perishable Cargo
15	APEDA	Mr. Sunil Kumar	
18	APEDA	Mr. R Ravindra	
19	APEDA	Mr. Nagpal Lohkhare	
20	APEDA	Mr. M V K Viyarth Dam	

Region : West (Maharashtra and Gujarat)			
Sr No	Name of the Company	Name of the Representative	Sector
1	M.K Exports	Mr. Manoj Barai	Fresh fruits and Vegetables
2	Ruchi Exports	Mr. Harshit Mehra	Fresh Fruits and Vegetables, Fresh Onions
3	INI Farms	Mr. Kalpesh Khivasara	Fresh Fruits
4	Deepak Exports and Imports	Mr. Deepak Reddy	Fresh fruits and Vegetables
5	Khushi International	Mr. Babulal Barai	Fresh fruits and Vegetables
6	Dhande Agriculture Farms Private Limited	Mr. Santosh R Jadhav	Fresh fruits and Vegetables, Fresh Onions
7	Dhillon Fresh Export	Mr. Ajay Kumar Singh	Fresh fruits and Vegetables
8	Jayshree Exports	Mr. Ramchandran	Fresh fruits and Vegetables
9	Shreeji Mango	Mr. Sunil Kumar Nishad	Fresh fruits and Vegetables
10	Akshay Impex	Mr. Bhavesh G Udeshi	Fresh fruits and Vegetables
11	Kay Bee Exports	Mr. Prakash Khakhar	Fresh fruits and Vegetables, Fresh Onions
12	Essar Exports	Mr. Ekram Hussain	Fresh fruits and Vegetables
13	Bombay Exports	Mr. Anand Setwal	Fresh fruits and Vegetables
14	KGN Exports (I)	Mr. Zafar Pirzada	Fresh fruits and Vegetables
15	Sachi Exports (India)	Mr. Kaushik	Fresh fruits and Vegetables , Groundnut
16	Indo British Export	Mr. Devi Shankar Agrahari	Fresh fruits and Vegetables
17	Mark International Foods Stuff Private Limited	Mr. Sheikh Abdul Hamid Abdul Aziz	Buffalo Meat
18	C K Exports and Imports	Mr. Vishnu R Dadas	Fresh fruits and Vegetables, Fresh Grapes

Sr No	Name of the Company	Name of the Representative	Sector
19	Superfresh Fruits Private Limited	Mr. Ravindra Gajanan Pinpalkar	Fresh Onions
20	Dipali Enterprises	Mr. Bhimas Hanze	Fresh Vegetables
21	Maharaja Dehydration Private Limited	Mr. Savji Thanth	Dehydrated Vegetables
22	AMUL	Mr. Mukesh Dave	Dairy Products
23	Soex Flora	Mr. Narendra Patil	Floriculture
24	Export Inspection Council of India	Mr. Prakash Badikar	Quality Assurance
25	EXIM Bank	Ms. Sumana Sarkar	Financial Institution
26	Indian Institute of Packaging	Ms. S.H Bandekar	Packaging Institute
27	DGFT	Dr Praveen Kumar	Dept of Commerce

Region : East (West Bengal)

Sr No	Name of the Company	Name of the Representative	Sector
1	MIDA & Co Pvt Ltd	Mr. S N Mitra	Processed Food
2	Ramesh Flowers Pvt Ltd	Mr. KR Singhwi	Dry Flowers
3	Fauna International	Mr. M R Singhwi	Dry Flowers
4	Ali Hussain Gen	Mr. Subrato Ghosh	Dairy
5	Sonali Fish & Priya International	Mr. Tuhin Bose	Fisheries
6	Elmac Foods	Mr. Sunil Upadhyia	Processed Foods
7	Parj International	Mr. Rahul Sarkar	Rice, Herbs, Spices
8	Hill Green Co of India	Mr. B Gangapathy	Medicinal and Aromatics
9	R K Impex	Mr. Vinod Kumar	F&V
10	Tanvi Impex	Mr. Mani Shankar	
11	Zigma International	Mr. Sajed Hussain	
12	Kreamery Craft	Mr. Sibanath Bhattacharya	Dairy Consultant
13	Consortium for Training Research and Development	Mr. Amit K Roy	Training & Skill Development
14	CII	Ms Pratyasha Chakrawarty	Chamber of Industries
15	Regional Plantation Quarantine Station	Mr. Rajendra Prasad Singh	Plant Quarantine
16	BCKV University	Ms Suhrita Charaborty	State Agri University
17	Jadhavpur University	Prof. Sadhan K Ghosh	State University
18	Jadavpur University	Mr. Biswajit Debnath	State University
19	ECGC Ltd	Mr S Roy Chowdhary	Export Credit Insurance
20	ECGC Ltd	Mr S Mukherji	Export Credit Insurance
21	APEDA	Dr. CB Singh	

Region : South (Hyderabad)			
Sr No	Name of the Company	Name of the Representative	Sector
1	ASRA Enterprise	Azeem Anshari	Fresh Fruits & Vegetables
2	Prabhat Udyog	Pravin Kabra	Egg, Bakery, Spices
3	Sam Agritech	GVK Naidu	Pomegranate arils
4	Ishwarya Trading co:	M S Varma	Dried and processed vegetables
5	Ravi Foods	G S Rao	Bakery
6	Pahal Foods	Rohit, V Ramesh	Bakery
7	Sresta Naturals	Srilakshmi	Organic
8	Gagan Impex	N Punna Rao	Peanuts
9	TMS Overseas Exim Pvt Ltd	D Sanjeev	Tobacco, red chillies
10	Eggway International	M Srinivas, Y Ramana	Dried Egg Powder
11	B Ramya	Frumar Marketing	Processed food
12	Golden Organic	Manoj Kumar	
13	Valve Foods	KK Gopal Rao, B Rajeshwari	Gherkins
14	Kamal International	P Srinivas Sharma	Bakery
15	Heritage	A Suresh Reddy, S dhanunjaya	Dairy & Processed food
16	Srinivasa Hatchery	Rakesh Gehlot	Poultry
17	Sneha Farms	R V Indravadan	Poultry
18	BLS Impex Pvt Ltd	A Suresh Kumar	Rice
19	ICRISAT	Jonathan Philroy	R&D, Consulting
20	APEDA	Mr Sudhakar Rao	

