एपीडा
APEDA

देवेन्द्र कुमार सिंह, आई ए एस
अध्यक्ष

D. K. Singh, IAS
Chairman

कृषि और प्रसंस्कृत खाद्य उत्पाद
निर्यात विकास प्राधिकरण
(वाणिज्य एवं उद्योग मंत्रालय, भारत सरकार)

Agricultural and Processed Food Products
Export Development Authority
(Ministry of Commerce & Industry, Govt. of India)

Ref No: CM/APEDA/EPS/INF-2017-18-00009(II)
Dated: 8th November 2017

Export promotion strategy of APEDA products

In continuation to proposed promotion strategy of APEDA products (Part-I) dated 20th September 2017, we have now prepared a draft product specific strategy of APEDA (Part -II) which is also being hosted for seeking valuable suggestions or comments which may be sent to Chairman, APEDA on email ID apedastrategy@apeda.gov.in within 15 days of this notice.

D.K. Singh
Chairman

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APEDA Export Strategy

Part II

Focus Products

The Agricultural & Processed Food Products Export Development Authority (APEDA)

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1. Introduction

The Agriculture sector in India has the potential to re-emerge as a strong engine of economic growth and social development. India has the highest proportion of arable land, as compared to most countries, and more than 20 per cent of the world's irrigated land is in India. Though the productivity levels are low at present, India already ranks among the top producers of cereals, fruit, vegetable, milk, etc., By virtue of its wide ranging agro-climatic zones, geographical location, long history of agriculture production and its extensive range of products, India has the potential to become "The outsourcing destination" for agriculture and processed food products for the world, in addition to its famed information technology services.

APEDA, the nodal agency for promotion of agriculture and processed food products export from India, has consulted various stakeholders about the requirements for market promotion, infrastructure development, quality development, etc., and has produced the Export Strategy Part I document outlining the present status, opportunities and broad action plan.

Further to that, APEDA has identified a set of focus products for aggressive export promotion, based on the following parameters:

1. Identify products that have good production in India, imported substantially by major importing countries, but low market share by Indian exports
   E.g. Cassava, Sorghum, etc.,
2. Identify products where India is already a decent player in exports, explore ways to increase market share OR new markets
   e.g Grapes, Gherkins, etc
3. Pick up products where India is already a market leader, go aggressively for new markets OR increase market share in existing markets
   e.g Basmati Rice, Mangoes, etc.,
4. Select a niche product group and aggressively promote Indian products abroad to create a positioning for India
   e.g Organic Produce of India, Ethnic Foods, etc.,

2. Export strategy of individual products

2.1 Mangoes

About the Product

Mango (*Mangifera indica* L) is a tropical fruit, native to India, Bangladesh, and Pakistan. Indian mangoes come in various shapes, sizes and colours with a wide variety of flavour, aroma and taste.

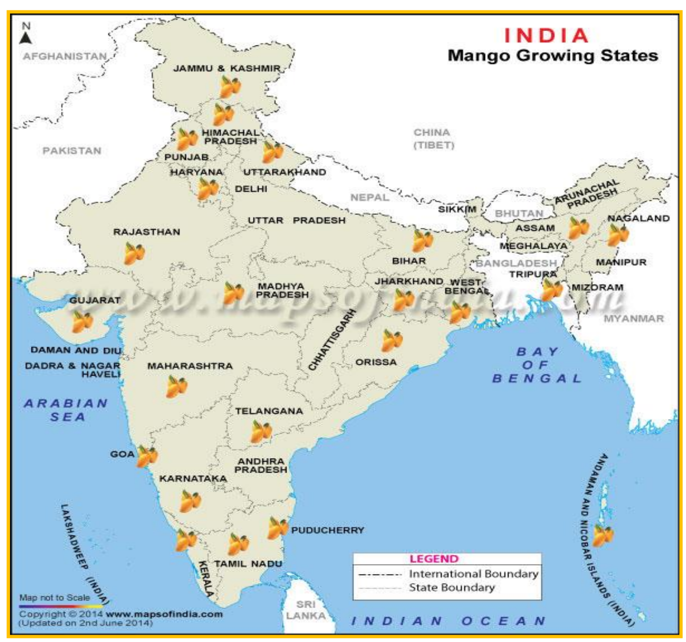
Mango is rich in potassium, beta - carotene and antioxidants.

Production of Mango

India is the largest producer of Mango in the world, with a production of around 18.52 million MT in 2014 accounting for 41.83% share in global production of 44.27 million MTs.

Major producing states

Major producing states are Andhra Pradesh, Gujarat, Maharashtra, Karnataka, West Bengal and Uttar Pradesh are major mango producing states in India.



Calendar of Mango Production in India

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Andhra Pradesh	Lean	Lean	Lean	Peak	Peak							
Arunachal Pradesh												
Assam						Peak	Peak	Peak	Lean			
Bihar						Peak	Peak	Lean				
Chattisgarh			Lean	Peak	Peak	Peak	Lean					
Dadra & Nagar Haveli				Lean	Peak		Lean					
Daman & Diu				Lean	Peak		Lean					
Goa												
Gujarat				Lean	Peak	Lean	Lean					
Haryana						Lean	Peak	Lean				
Himachal Pradesh							Peak	Lean				
Jammu & Kashmir							Peak	Lean				
Jharkhand					Peak	Peak	Lean					
Karnataka				Peak	Peak	Peak	Lean					
Kerala	Lean	Peak	Peak	Lean	Lean							Lean
Lakshadweep												
Madhya Pradesh					Peak	Peak	Lean					
Maharashtra			Lean	Peak	Peak	Lean						
Manipur												
Meghalaya												
Mizoram						Lean	Peak					
Nagaland						Lean	Peak					
Orissa				Peak	Peak	Peak						
Pondicherry				Lean	Lean	Peak	Peak	Lean				
Punjab						Peak	Lean					
Rajasthan						Peak	Lean					
Sikkim						Peak	Lean					
Tamil Nadu				Lean	Peak	Peak						
Telangana												
Tripura					Lean	Peak	Lean					
Uttar Pradesh				Lean		Peak						
Uttarakhand						Peak	Peak	Peak				
West Bengal					Lean	Peak	Peak	Lean				
Andaman & Nicobar	Peak	Peak	Peak	Peak								

Peak Lean

Production of Mango (2014-15) and availability of Infrastructure for export

Sr No.	State	Production ('000 MTs)	Share (%)	Availability of the Pack House	Post Harvest Treatment		
1	Uttar Pradesh	4,347.50	23.47	3	HWT	VHT	Irradiation
					3	2	--
2	Andhra Pradesh	2,822.07	15.23	3	HWT	VHT	Irradiation
					2	1	--
3	Telangana	1,801.75	9.72	1	HWT	VHT	Irradiation
					1	--	--
4	Karnataka	1,646.51	8.89	3	HWT	VHT	Irradiation
					2	--	1
5	Bihar	1,272.00	6.87				
6	Gujarat	1,219.71	6.58	8	HWT	VHT	Irradiation
					7	--	--
7	Tamil Nadu	896.78	4.84				
8	West Bengal	799.65	4.32				
9	Orissa	769.93	4.16				
10	Maharashtra	758.84	4.10	18	HWT	VHT	Irradiation
					14	2	2
11	Jharkhand	523.14	2.82				
12	Madhya Pradesh	396.00	2.14				
13	Chattisgarh	386.67	2.09				

14	Kerala	252.86	1.36				
15	Uttarakhand	150.62	0.81				
16	Punjab	113.44	0.61				
17	Haryana	88.72	0.48				
18	Rajasthan	78.67	0.42				
19	Tripura	62.56	0.34				
20	Himachal Pradesh	47.61	0.26				
21	Assam	45.69	0.25				
22	Jammu & Kashmir	20.93	0.11				
23	Goa	8.89	0.05				
24	Mizoram	4.18	0.02				
25	Nagaland	3.57	0.02				
26	Pondicherry	3.57	0.02				
27	Andaman & Nicobar	2.93	0.02				
28	Daman & Diu	2.05	0.01				
29	Delhi	0.15	0.00				
30	Dadra & Nagar Haveli	0.00	0.00				
31	Chandigarh	0.00	0.00				
	Total	18,526.99			HWT 29	VHT 5	Irradiation 3

Source: NHB

Existing infrastructure: Currently **37 pack houses** are recognized by APEDA for export of Mango from India. There are 37 nos. of post treatment facilities across the country as per following:

States	HWT	VHT	Irradiation
Telangana	1	--	--
Andhra Pradesh	2	1	--
Karnataka	2	--	1
Gujarat	7	--	--
Uttar Pradesh	3	2	--
Maharashtra	14	2	2
Total	**29**	**5**	**3**

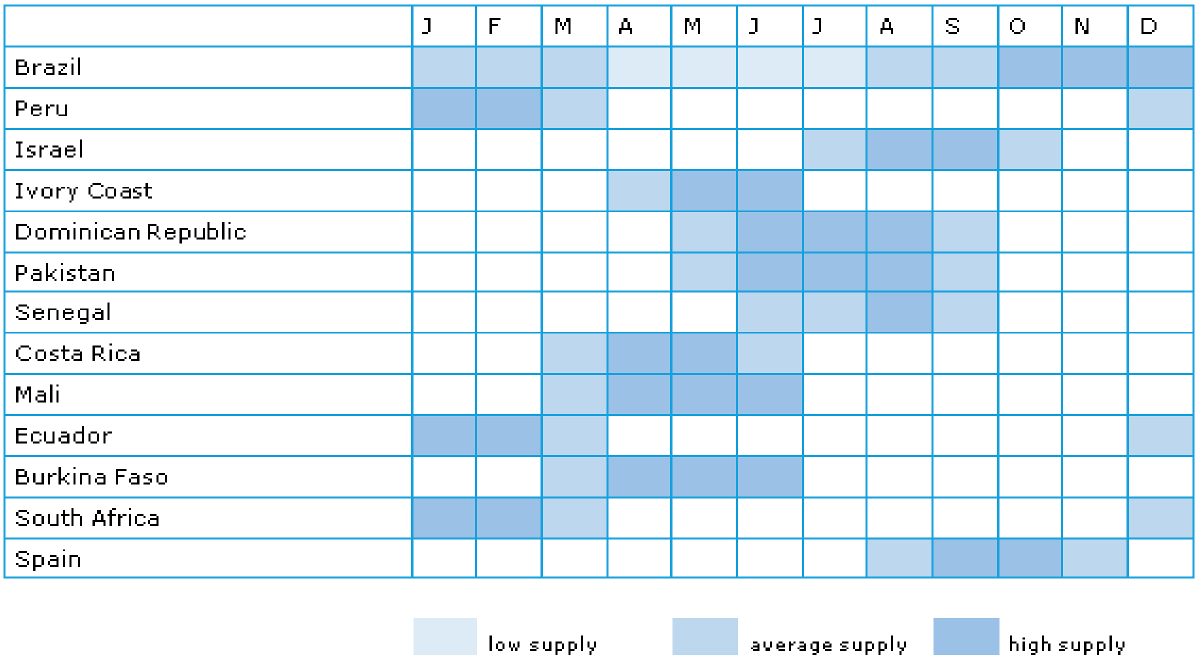
India Export:

During 2016-17, total export of Mango from Indian was 52,761 MT valued at US$ 66.9 million. Major destinations were UAE, UK, Saudi Arabia, Qatar, Kuwait, USA, Singapore, Oman etc.

India Export Statistics			
Product Group : Fresh Mango			
Country	**2016-17**		**% Share**
	Qty In MT	**Value in US$ Mill**	
United Arab Emirates	28,483	37.5	56.0
United Kingdom	3,031	7.4	11.1
Saudi Arabia	2,372	3.7	5.5
Qatar	2,254	3.2	4.8
Kuwait	1,100	2.9	4.3
Nepal	9,415	2.4	3.6
United States	616	2.3	3.5
Bahrain	1,086	1.5	2.2
Singapore	841	1.3	2.0
Oman	898	1.2	1.9
Other Countries	2,665	3.5	5.2
Total	**52,761**	**66.9**	100.0

Source: DGCIS

Calendar of Competitive Countries:



World Import

Total global demand of Mango (including Mangosteens, Guavas) in the year 2016 was 1.5 million MT.

Major importing countries are USA, China, EU countries, Korea RP, France, Canada, Saudi Arabia, Singapore, Japan, Kuwait, and Malaysia etc.

Global Import			
Product Group : Mangoes, Mangosteens, Guavas			
Country	**2016**		**% Share**
	Qty In MT	**Value in US$ Mill**	
U S A	464,797	583	24.7
NETHERLAND	166,017	250	10.6
Germany	73,649	174	7.4
U K	82,937	171	7.2
CHINA P RP	72,773	169	7.2
France	58,109	127	5.4
U ARAB EMTS	103,417	106	4.5
Canada	57,117	87	3.7
Spain	37,938	71	3.0
HONG KONG	32,462	56	2.4
Other Countries	377,180	565	24.0
Total	**1,526,396**	**2,359**	100.0

Source: UN Comtrade

Tariff duty on importation of Mango charged by major importing countries: Annexure-I

Market access issue for Mango: Currently market access issues for export of Mango are pending with following countries:

S.No.	Country	Current Status	Pending with
1.	United States of America	Irradiation upon arrival in US for Indian Mangoes (High cost due to irradiation treatment)	USDA, APHIS
2.	Peru	NPPO sent PRA of Mango to Peru. Reply awaited	Peruvian Authority
3.	Malaysia	Technical and additional information submitted by NPPO.	DAC
4.	South Africa	Technical information submitted by NPPO for PRA.	DAC
5.	Canada	PRA for Market access for Mango has been sent to Plant Protection Division,	Plant Protection Division,

		Canada to undertake the consideration in Phyto-sanitary matters	Canada
6.	Argentina	Technical information sent by NPPO	Argentinean Authority

Constraints identified:

(a) Improper extension work at the farm level to address pest infestation

(b) Lack of required post harvest infrastructure in various potential mango growing states except Maharashtra and Gujarat

(c) Lack of proper infrastructure at the sea ports and air ports

(d) Lack of awareness among farmers about the necessary regulatory, sanitary and phyto-sanitary compliance for the export market.

Interventions required:

i) **Capacity Building**: In order to create awareness amongst farmers about the proper package of practices to be followed, the use of only authorized and registered agrochemicals, pre harvest intervals of agrochemicals , dosages to be imparted etc, there is need for regular structured training programmes. Respective state horticulture departments of mango producing states will be assisted by APEDA in organizing such programs.

ii) **Creation of more infrastructure facilities**: Since mango is a tropical fruits and it requires a temperature of 12-14^{0}C to retain its quality and shelf life , there is need to have more integrated pack houses with required pre shipment treatment facilities such as Vapor Heat Treatment (VHT), Hot Water Treatment (HWT) and Irradiation etc . Emphasis will be given by APEDA in encouraging private investment into such facilities through exporters.

iii) **Strengthening of exit port infrastructure**: Proper infrastructure at sea ports and air ports for quick movement of consignments are very crucial. APEDA proposes to assess the need for such infrastructure facilities viz material handling equipment, screening facilities, cold rooms etc. The concerned agencies like AAI, AI and similar other organizations will then be prompted to strengthen the infrastructure with assistance under APEDA scheme.

iv) ***Proper handling of produce at airport: Capacity building of handlers is required; APEDA proposed to get the training organized for the handlers at major airports.***

v) ***Deputation of quarantine inspectors by importing countries needs to be taken up for waiver.***

vi) ***Export to be allowed through pack houses.***

vii) ***Export of Alphonso Mangoes to be allowed after scanning through X-ray.***

Export strategy:

i) **Development of sea protocol for exports to long distance markets**: Since airfreight costs are too exorbitant and have a direct bearing on the export cost, APEDA proposes to work in tandem with ICAR institutions like IIHR, CISH etc. to get a robust scientific sea protocol developed for export by sea. This is likely to reduce freight costs and improve exports.

ii) **Market promotion**: APEDA proposes to plan promotion programs for mango in various potential and emerging markets in consultation with trade and the Indian Missions in target countries. Focus will also be laid on such programs in countries where market access is recently gained such as South Korea, Mauritius***, Iran and other countries China, Thailand, Malaysia, USA*** etc. Since the idea to create a recall value amongst consumers, it is proposed to repeat the promotion programs for at least three consecutive years.

iii) **Organizing Buyer-Seller Meetings (BSM) in target countries**: APEDA also proposes to conduct Buyer-Seller

Meetings (BSMs) in target countries. The BSMs will be followed by reverse BSMs where importers would be invited to India during peak season so that they can see the scenario for themselves. These BSMs are likely to help in boosting exports.

iv) **Branding**: APEDA proposes to initiate branding of Indian export worthy mangoes which can result in augmenting exports with better realization to stakeholders.

Annexure-I

Importing Countries	HS Code	Import Duty(MFN in %)	Non AV Duty	Products
Bahrain, Kingdom of	080450	**0.0**		Fresh or dried guavas, mangoes and mangosteens
Bangladesh	080450	**25.0**		Fresh or dried guavas, mangoes and mangosteens
Egypt	080450	**20.0**		Fresh or dried guavas, mangoes and mangosteens
European Union	080450	**0.0**		Fresh or dried guavas, mangoes and mangosteens
Hong Kong, China	080450	**0.0**		Fresh or dried guavas, mangoes and mangosteens
India	080450	**30.0**		Fresh or dried guavas, mangoes and mangosteens
Korea, Republic of	080450	**30.0**		Fresh or dried guavas, mangoes and mangosteens
Kuwait, the State of	080450	**0.0**		Fresh or dried guavas, mangoes and mangosteens
Malaysia	080450		[5% and RM 0.22045] [5% and RM 0.4409] [5% and RM 0.4409]	Fresh or dried guavas, mangoes and mangosteens
Maldives	080450	**15.0**		Fresh or dried guavas, mangoes and mangosteens
Nepal	080450	**10.0**		Fresh or dried guavas, mangoes and mangosteens
Oman	080450	**0.0**		Fresh or dried guavas, mangoes and mangosteens

Qatar	080450	**0.0**		Fresh or dried guavas, mangoes and mangosteens
Russian Federation	080450	**4.0**		Fresh or dried guavas, mangoes and mangosteens
Senegal	080450	**20.0**		Fresh or dried guavas, mangoes and mangosteens
Singapore	080450	**0.0**		Fresh or dried guavas, mangoes and mangosteens
South Africa	080450	**35.0**		Fresh or dried guavas, mangoes and mangosteens
Sri Lanka	080450	**25.0**		Fresh or dried guavas, mangoes and mangosteens
Thailand	080450		[40% or 33.50 Baht/KG whichever is higher] [40% or 33.50 Baht/KG whichever is higher] [40% or 33.50 Baht/KG whichever is higher]	Fresh or dried guavas, mangoes and mangosteens
United Arab Emirates	080450	**0.0**		Fresh or dried guavas, mangoes and mangosteens
United States of America	080450		[6.6 cents/kg] [1.5 cents/kg] [6.6 cents/kg]	Fresh or dried guavas, mangoes and mangosteens

2.2 Grapes

About the product:

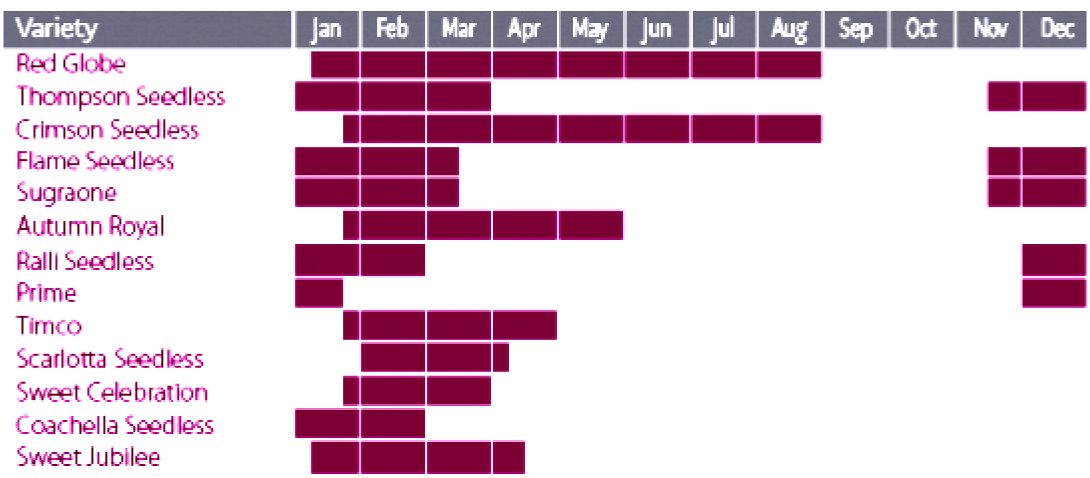
- Grape is a berry fruit grown under a variety of soil and climatic conditions in sub-tropical, hot tropical and mild tropical climatic regions in India.
- The best production is in Hot Tropical Region covering Nashik, Sangli, Solapur, Pune, Satara, Latur and Osmanabad, districts of Maharashtra; Hyderabad, Ranga Reddy, Mahbubnagar, Anantapur and Medak districts of Telangana; and Bijapur, Bagalkot, Belgaum, Gulberga districts of northern Karnataka.
- Major varieties are Thompson Seedless and its clones (Tas-a-Ganesh, Sonaka), Anab-e-Shahi, Sharad Seedless and Flame Seedless, Bangalore Blue (Syn. Isabella), Gulabi (Syn. Muscat Hamburg), and Bhokri.
- Major producing states in India are Maharashtra, Karnataka, Tamil Nadu, Telangana, Andhra Pradesh, and Punjab. Mizoram has also started growing wine grapes of late.
- Production in India as reported in 2^{nd} estimates of National Horticulture Board for 2016-17 was 2.68 m MTs which

accounts for overall global production of 75.70 m MTs reported for 2015 by FAO.

- Other major producing countries are China (12.60 m MTs) ; Italy (8.2 m MTs); USA (7 m MTs); France (6.3 m MTs) , Spain (6 m MTs); turkey (3,.6 m MTs) and Chile (3.0 m MTs).

Calendar of Export Season for competing Countries:

Calendar of Export season for Chilean Grapes



Calendar of Export season for other competing country:

Origin	JAN	FEB	MAR	APR	MAY	JUNE	JUL	AUG	SEPT	OCT	NOV	DEC
Europe							11111	11111	11111			
Brazil										1111		
Peru					11111	1111	11111	11111		1111		
Egypt												
India		11111	11111	11111	11111							
South Africa	11111	1111	11111									

Production of Grapes:

Year: 2014-15

Sr No.	State	Production (`000 MTs	Share(%)	No. of Pack houses available
1	Maharashtra	2,292.53	81.22	139
2	Karnataka	420.81	14.91	2
3	Tamil Nadu	32.63	1.16	
4	Telangana	26.81	0.95	2
5	Mizoram	22.55	0.80	
6	Andhra Pradesh	11.19	0.40	
7	Punjab	9.21	0.33	
8	Madhya Pradesh	3.00	0.11	
9	Kerala	1.88	0.07	
10	Nagaland	1.14	0.04	
11	Jammu & Kashmir	0.73	0.03	
12	Haryana	0.16	0.01	
13	Himachal Pradesh	0.14	0.00	
14	Rajasthan	0.01	0.00	
15	Chattisgarh	0.00	0.00	
16	Gujarat	0.00	0.00	1
	Page Total	**2,822.79**		144

Source: National Horticulture Board (NHB)

Existing infrastructure: Currently **144 pack houses** are recognised by APEDA for export of grapes from India. These pack houses are located in the States of Maharashtra, Karnataka, Telangana and Gujarat.

Trade:

1. Total global demand of Grape in year 2016 was 4.7 m MTs with major importing countries being USA, UK, EU countries, China, Canada, Korea Republic, Russia, Mexico, Japan, Thailand, Saudi Arabia, Australia, Singapore, New Zealand etc.

Global Import			
Product Group : Fresh Grapes			
Country	**2016**		**% Share**
	Qty In MT	**Value in US$ Mill**	
U S A	570,740	1,706	17.5
U K	382,522	891	9.2
Germany	402,113	841	8.6
NETHERLAND	335,428	753	7.7
CHINA P RP	289,483	685	7.0
Canada	197,343	493	5.1
HONG KONG	238,683	466	4.8
France	170,886	271	2.8
RUSSIA	225,982	233	2.4
Indonesia	65,827	202	2.1
Other Countries	1,868,989	3,189	32.8
Total	**4,747,996**	**9,730**	100.0

Source: UN Comtrade

2. During the year 2016-17, India exported 231,117 MT grapes worth US$ 311 million. Major destinations for Indian grapes are EU countries, Russia, Saudi Arabia, Bangladesh, Thailand, Sri Lanka, Taiwan, Ukraine, Malaysia, Sweden etc.

India Export Statistics			
Product Group : Fresh Grapes			
Country	**2016-17**		**% Share**
	Qty In MT	**Value in US$ Mill**	
Netherland	55,152	92	29.7
Russia	27,073	41	13.2
United Kingdom	13,883	24	7.7
United Arab Emirates	16,712	21	6.9
Germany	11,174	18	5.9
Saudi Arabia	12,389	17	5.5
Bangladesh	38,359	16	5.0
Thailand	4,656	9	2.9
Belgium	4,747	8	2.4
Sri Lanka	3,379	5	1.7
Other Countries	43,593	59	18.9
Total	**231,117**	**311**	100.0

Source: DGCIS

Market access issue for Grapes:

Currently market access issues for export of top countries markets of grapes are pending with following countries: The brief current status as indicated in the Table form.

Sr. No.	Country	Current Status	Pending with
1	USA	Import Risk Assessment yet to be finalized by USDA-APHIS	USA
2	Japan	Import Risk Assessment yet to be finalized Ministry of Agriculture, Forestry & Fisheries (MAFF).	Japan
3	Australia	Import Risk Assessment yet to be finalized by Department of Agriculture and Water Resources, Govt. of Australia	Australia
4	New Zealand	Fumigation protocol (SO_2 & Co2) as required by	CIPHET, Ludhiana &

		Ministry for Primary Industries(MPI), New Zealand	NRC-Grapes, Pune
5	South Africa	Import Risk Assessment yet to be finalized by Department of Agriculture, Forest and Fisheries South Africa.	South Africa
6	Vietnam	Import Risk Assessment yet to be finalized by Plant Protection Department , Vietnam	Vietnam

Tariff duty on importation of Grapes charged by major importing countries: Annexure- I

Constraints identified: The major constraints have been identified as :

a. Concentration of production only in a limited major pockets of Maharashtra, Karnataka, Tamil Nadu, Telangana and Andhra Pradesh.
b. EU being the single major destination for Indian grapes and exports primarily being executed by sea shipments, lack of proper infrastructure at sea port is seen as an inhibiting factor since the growth trends are like to put strain on seaport infrastructure in the near future.
c. Exports are primarily EU and Gulf-centric, which leads to exploitation by importers.
d. Extending Label claim based on the Local package of practices recommended by State Agricultural Universities and KVK's.
e. Lack of awareness among the Officials of State Agricultural Department (Quality and Input Licensing Authority) about the label claim.

f. Varieties available are not as per requirement of importing countries.

7. Interventions required:

a. Expansion/diversification of export oriented production in other grape production areas through Ministry of Agriculture, Cooperation & Farmer Welfare. This would help not only in expanding the production base but also boosting exports.
b. New successfully Indian commercial varieties of Nana purple, Krishna seedless (black seedless) and super sonaka, Manik chaman, SS, RK (white seedless varieties), which are popular in middle east market, Bangladesh, needs to be formally recognized/registered and post harvest protocols for the same to be published.
c. Market advisory to be issued based on market reports from specialized market research agencies in potential importing countries combined with APEDA's GrapeNet system on a periodical basis during the grape season.
d. Green channel/ strengthening of infrastructure facilities for handling perishable cargo at sea ports/airports for movement of grape /perishable containers to allow for quick disposal**-** Ministry of Shipping and concerned port authorities.
e. Up-gradation of support infrastructure facilities at the exit point needs to be taken care for smooth and quick handling of consignments.
f. There is a need for putting a system in place for regular interaction with NPPO (Pest and Diseases), CIB & RC (MoA & FW) and FASSI on the ***Food Safety*** MRL related issues.
g. To develop the mechanism and Regular meeting of CIB & RC with State Agricultural officials for sharing the updates in the Label claim by NRL (Pune).

h. To develop knowledge bank through technical expert of CIB & RC and FSSAI for providing required technical information, data to defend India for representation of specific issues at International platform i.e. WTO, Food Safety authorities of Importing countries for resolving the issues affecting trade.
i. Import of new plant varieties.

Export Strategy:

a. Efforts for Import of planting material of colored grape varieties which are preferred in international market: India currently produces green, red and black grapes. Most varieties have been cultivated traditionally in India over the years. Since demand for coloured grapes has been increasing, there is a need for developing new varieties for which planting material is to be imported from overseas. New improved planting material will help in cultivating robust and internationally demanded varieties. For this purpose, APEDA will work closely with Ministry of Agriculture and Grape exporters.
b. **Market Development and Market Access**: Currently India's Grape exports are primarily EU-centric with Middle East being the next big market. Grapes with red color are most preferred in the South East Asian Markets. Hence, APEDA proposes to develop newer destinations for Indian grapes so as to diversify the market base. In this regard, close liaison with NPPO will be maintained wherever phyto sanitary issues in the proposed new market would figure.
c. **Grape Promotion programs/ Buyer-Seller Meets**: Grape specific promotional programs would be organized in potential markets and this exercise is proposed to be conducted for at least three consecutive years for better results. Buyer-seller meets/reverse buyer-seller meets

are also proposed to be conducted in identified overseas markets.

d. ***Self Certification / Declaration of Plant Product and its originated products by the Exporters for issuance of Plant Passport (Phytosanitary Certificate) for export of Fresh Fruits and Vegetables including grapes, if the annual exports of grapes is Rs. 25 Crore or more.***

2.3 Banana

About the Product:

Banana (*Musa acuminata Colla)* is the most popular fresh fruit in all over the world.

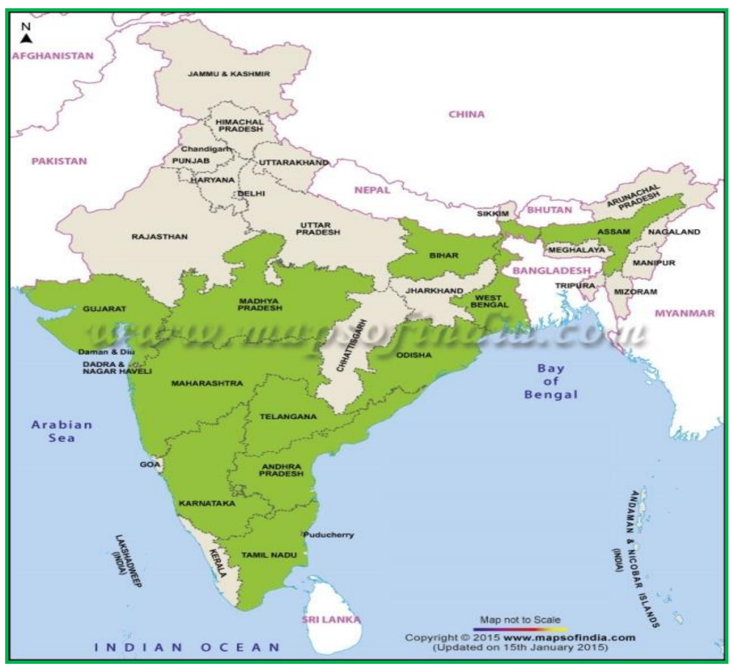
Commercially, it is one of the widely cultivated crops in the tropical and subtropical zones. Its year round availability, affordability, varietal range, taste, nutritive and medicinal value makes it the favorite fruit among all classes of people. It is one of the high-calorie tropical fruits.

Besides, it contains a good amount of health benefiting fiber, anti-oxidants, minerals, and vitamins.

Major producing states are Gujarat, Tamil Nadu, Maharashtra, Andhra Pradesh, Karnataka, Uttar Pradesh, Madhya Pradesh, Bihar, Kerala, West Bengal etc.

Production of Banana

India is the largest producer of Banana in the world, with a production of around 2,97,24,550 MT, accounting for around 27% of the global production.



Calendar of Banana Production in India

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Andhra Pradesh	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year
Arunachal Pradesh	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year
Assam	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year
Bihar								Lean	Peak	Peak	Peak	Lean
Chattisgarh		Peak	Peak				Peak	Peak	Peak			
Dadra & Nagar Haveli	Lean	Lean	Lean					Lean	Peak	Peak	Peak	Lean
Daman & Diu	Lean	Lean	Lean					Lean	Peak	Peak	Peak	Lean
Goa	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year
Gujarat	Lean	Lean	Lean					Lean	Peak	Peak	Peak	Lean
Himachal Pradesh							Peak	Peak	Lean	Lean		
Jharkhand								Lean	Peak	Peak	Peak	Lean
Karnataka	Lean	Lean	Lean	Lean	Lean	Lean	Peak	Peak	Peak	Peak	Peak	Lean
Kerala	Lean	Lean	Lean	Lean	Lean	Lean	Lean	Peak	Peak		Peak	Peak
Lakshadweep	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year
Madhya Pradesh							Peak	Peak	Lean	Lean		
Maharashtra	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year
Manipur				Lean	Lean			Peak				
Meghalaya				Lean			Peak					
Mizoram		Peak									Lean	
Nagaland	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year
Orissa	Lean	Lean	Lean	Lean	Lean	Lean	Lean	Lean	Peak	Peak	Peak	Peak
Pondicherry						Lean	Lean	Peak	Lean			
Punjab												
Rajasthan												
Sikkim								Lean	Peak	Peak	Lean	
Tamil Nadu	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year
Telangana												
Tripura	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year
Uttar Pradesh							Lean	Peak	Peak			
Uttarakhand					Peak	Peak	Peak	Peak	Lean	Lean		
West Bengal							Lean	Peak	Peak	Lean		
Andaman & Nicobar	Peak	Peak	Peak	Lean	Lean	Lean	Lean	Lean	Lean	Peak	Peak	Peak

Peak | Full Year | Lean

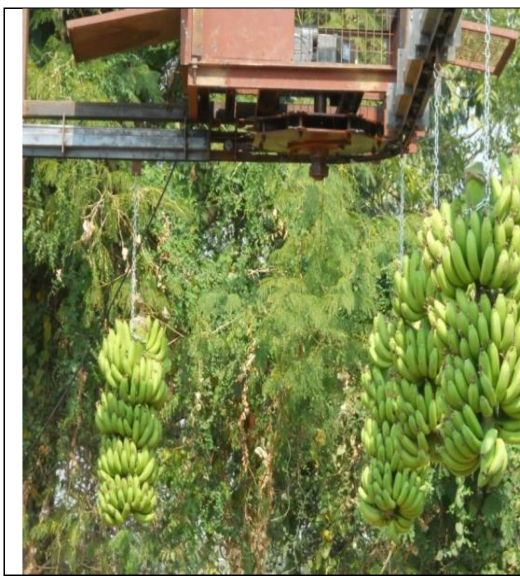
Major Producing States

Sr No.	State	Production (in '000 MT) 2014-15	Share (%)	Existing infrastructure in the form of Recognised Pack House as on October' 17
1	Gujarat	4,324.36	14.80	2
2	Tamil Nadu	4,147.18	14.19	
3	Maharashtra	4,030.58	13.79	1
4	Andhra Pradesh	3,487.31	11.93	
5	Karnataka	2,593.33	8.87	
6	Uttar Pradesh	1,990.58	6.81	
7	Madhya Pradesh	1,836.00	6.28	
8	Bihar	1,535.00	5.25	
9	Kerala	1,270.57	4.35	
10	West Bengal	1,124.00	3.85	
11	Assam	865.67	2.96	
12	Chattisgarh	564.43	1.93	
13	Orissa	469.25	1.61	
14	Telangana	325.51	1.11	
15	Tripura	141.31	0.48	
16	Mizoram	141.00	0.48	
17	Nagaland	109.80	0.38	
18	Manipur	94.22	0.32	
19	Meghalaya	88.70	0.30	
20	Goa	26.88	0.09	
21	Arunachal Pradesh	20.00	0.07	
22	Andaman & Nicobar	15.96	0.05	
23	Pondicherry	10.12	0.03	
24	Punjab	7.51	0.03	
25	Jharkhand	1.30	0.00	

26	Lakshadweep	0.30	0.00	
27	Himachal Pradesh	0.29	0.00	
28	Rajasthan	0.25	0.00	
29	Daman & Diu	0.04	0.00	
30	Dadra & Nagar Haveli	0.00	0.00	
31	Sikkim	0.00	0.00	
32	Uttarakhand	0.00	0.00	
	Total	**29,221.45**		

Source: National Horticulture Board (NHB)

Existing infrastructure: Currently 3 **pack houses** are recognised by APEDA for export of banana from India.



Trade:

Total global demand of Banana in year 2016 was 18.8 Million MT of worth USD 12.7 Billion. Major importing countries are USA, EU countries, Russia, Japan, UK, China, Korea RP, Italy, Canada, Saudi Arabia, Ukraine, Turkey, Kuwait etc.

Global Import			
Product Group : Banana			
Country	**2016**		**% Share**
	Qty In MT	**Value in US$ Mill**	
U S A	4,596,810	2,436	19.0
Belgium	1,282,785	1,203	9.4
RUSSIA	1,355,990	999	7.8
Germany	1,378,888	990	7.7
Japan	956,410	923	7.2
U K	1,166,493	801	6.3
CHINA P RP	887,192	586	4.6
Italy	712,548	478	3.7
France	560,464	440	3.4
Canada	569,870	396	3.1
Other Countries	5,372,266	3,545	27.7
Total	**18,839,717**	**12,796**	100.0
Source: UN Comtrade			

During the year 2016-17, total export of Banana was 112693 MT of worth USD 58.6 Million. Major exporting countries are UAE, Iran, Saudi Arabia, Oman, Kuwait, Nepal, Qatar, Bahrain, Iran, Malaysia etc.

India Export Statistics			
Product Group : Banana			
Country	**2016-17**		**% Share**
	Qty In MT	**Value in US$ Mill**	
United Arab Emirates	24,413	17.8	30.4
Iran	15,816	8.3	14.1
Saudi Arabia	10,481	7.9	13.5
Oman	12,933	6.9	11.8
Kuwait	10,460	6.5	11.0
Nepal	28,837	4.2	7.1
Qatar	3,757	3.4	5.7
Bahrain	2,608	2.0	3.3
Maldives	1,504	0.7	1.2
Iraq	593	0.3	0.5
Other Countries	1,291	0.8	1.4
Total	**112,693**	**58.6**	100.0

Source: DGCIS

Tariff duty on importation of Banana charged by major importing countries: Annexure 1

Market access issue for Banana: Currently market access issues for export of Banana are pending with following countries:

S. No.	Country	Issues	Pending With
1.	Canada	PRA for market access has been sent to Plant Protection Division, Canada	Canadian Authority
2.	Kyrgyzstan	Phyto-sanitary conditions proposed by Kyrgyzstan authority along with pest of concern.	Kyrgyztan Authority
3.	Malaysia	Technical information sought by importing country, not yet sent by Indian NPPO.	NPPO
4.	China	Technical information sent by NPPO to AQSIQ and Response from AQSIQ awaited.	AQSIQ, China
5.	South Africa	Technical information sent by NPPO to Quarantine Authority of South Africa.	Quarantine Authority of South Africa

Constraints identified

- Fragmented land holdings which affect the consolidation of produce of same quality and standard.
- Lack of awareness among farmers about pre and post harvest aspects in the production supply chain.
- Lack of post-harvest infrastructure for handling the produce in banana growing areas
- Improper handling of produce at airport at exit point and in transit airports.
- Lack of standardised sea protocol for pushing volumes to long destinations.

Interventions required for enhancement of the exports

- Contract farming in large areas to get the export oriented production of same quality.
- Regular training programmes for farmers on pre and post harvest requirements for export oriented production.
- Setting up of post harvest infrastructure facilities in banana production clusters.
- Development of sea protocol for export to long distant markets.
- Banana promotion programmes to be organised.

Annexure 1

Importing Countries	HS Code	Import Duty(MFN in %)	Non AV Duty	Products
Bahrain, Kingdom of	0803	**0.0**		Bananas, including plantains, fresh or dried.
Bahrain, Kingdom of	080390	**0.0**		Fresh or dried bananas (excl. plantains)
Bangladesh	0803	**25.0**		Bananas, including plantains, fresh or dried.
Bangladesh	080390	**25.0**		Fresh or dried bananas (excl. plantains)
Egypt	0803	**40.0**		Bananas, including plantains, fresh or dried.
Egypt	080390	**40.0**		Fresh or dried bananas (excl. plantains)
European Union	0803	**16.0**		Bananas, including plantains, fresh or dried.
European Union	080390	**16.0**	[122 EUR/1000 kg]	Fresh or dried bananas (excl. plantains)
Hong Kong, China	0803	**0.0**		Bananas, including plantains, fresh or dried.
Hong Kong, China	080390	**0.0**		Fresh or dried bananas (excl. plantains)
India	0803	**30.0**		Bananas, including plantains, fresh or dried.
India	080390	**30.0**		Fresh or dried bananas (excl. plantains)
Korea,	0803	**30.0**		Bananas, including plantains,

Republic of				fresh or dried.
Korea, Republic of	080390	**30.0**		Fresh or dried bananas (excl. plantains)
Kuwait, the State of	0803	**0.0**		Bananas, including plantains, fresh or dried.
Kuwait, the State of	080390	**0.0**		Fresh or dried bananas (excl. plantains)
Malaysia	0803			Bananas, including plantains, fresh or dried.
Malaysia	080390		[5% and RM 1.32277] [5% and RM 1.32277] [5% and RM 1.32277] [5% andRM 1.32277] [5% and RM 1.32277]	Fresh or dried bananas (excl. plantains)
Maldives	0803	**15.0**		Bananas, including plantains, fresh or dried.
Maldives	080300	**15.0**		Bananas, incl. plantains, fresh or dried
Nepal	0803	**10.0**		Bananas, including plantains, fresh or dried.
Nepal	080390	**10.0**		Fresh or dried bananas (excl. plantains)
Oman	0803	**25.0**		Bananas, including plantains, fresh or dried.
Oman	080390	**25.0**		Fresh or dried bananas (excl. plantains)
Qatar	0803	**0.0**		Bananas, including plantains,

				fresh or dried.
Qatar	080390	**0.0**		Fresh or dried bananas (excl. plantains)
Russian Federation	0803			Bananas, including plantains, fresh or dried.
Russian Federation	080390		[4, but not less than 0,015 euro per 1 kg] [4, but not less than 0,015 euro per 1 kg]	Fresh or dried bananas (excl. plantains)
Senegal	0803	**20.0**		Bananas, including plantains, fresh or dried.
Senegal	080390	**20.0**		Fresh or dried bananas (excl. plantains)
Singapore	0803	**0.0**		Bananas, including plantains, fresh or dried.
Singapore	080390	**0.0**		Fresh or dried bananas (excl. plantains)
South Africa	0803	**5.0**		Bananas, including plantains, fresh or dried.
South Africa	080390	**5.0**		Fresh or dried bananas (excl. plantains)
Sri Lanka	0803	**25.0**		Bananas, including plantains, fresh or dried.
Sri Lanka	080390	**25.0**		Fresh or dried bananas (excl. plantains)
Thailand	0803			Bananas, including plantains, fresh or dried.

Thailand	080390		[40% or 33.50 Baht/KG whichever is higher]	Fresh or dried bananas (excl. plantains)
United Arab Emirates	0803	**0.0**		Bananas, including plantains, fresh or dried.
United Arab Emirates	080390	**0.0**		Fresh or dried bananas (excl. plantains)
United States of America	0803	**0.4**		Bananas, including plantains, fresh or dried.
United States of America	080390	**0.0**		Fresh or dried bananas (excl. plantains)

Source: WTO

2.4 Pomegranate

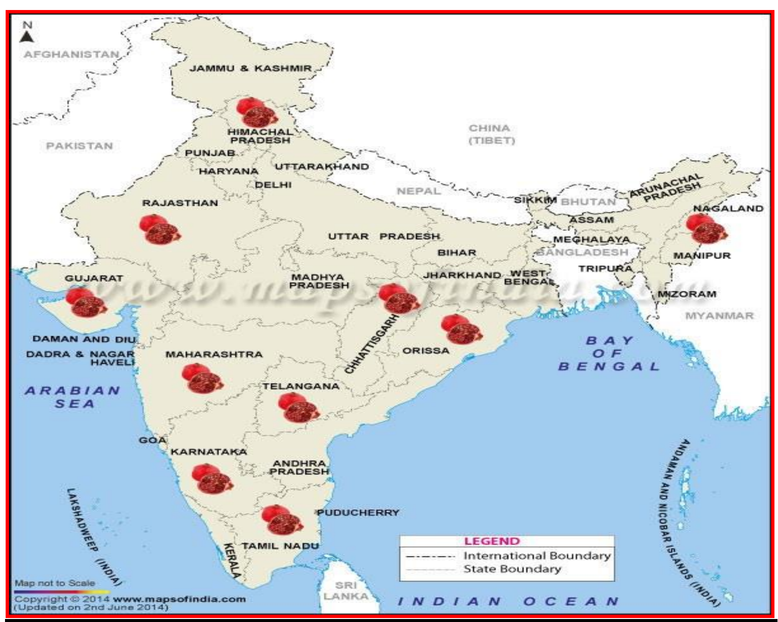
About the Product:

Pomegranate is a deciduous shrub grown in tropical and subtropical regions of the world. Pomegranate has both health and medicinal values.

India is the largest producer of Pomegranate in the world, with a production of around 24.42 Million MTs in 2016-17 (2nd estimate by NHB).

Major producing states are Maharashtra (1.31 Million MTs), Karnataka (0.20 Million MTs), Gujarat (0.099 Million MTs), Andhra Pradesh (0.070 Million MTs), Telangana (0.032 Million MTs), Madhya Pradesh (0.028 Million MTs), Tamil Nadu (0.015 Million MTs).

India produces 6 of the World's finest varieties. Major Pomegranate varieties of India are Ganesh, Arakta, Mrudula, Ruby, Phule Bhagwa, Phule Bhagwa Super, Muskat, Jyoti, and Dholka.



Calendar of Pomegranate Production in India

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Andhra Pradesh			Peak	Peak	Lean	Lean						
Arunachal Pradesh												
Assam												
Bihar												
Chattisgarh		Lean	Lean			Peak	Peak	Peak				
Dadra & Nagar Haveli			Peak	Peak	Peak					Lean	Lean	Lean
Daman & Diu			Peak	Peak	Peak					Lean	Lean	Lean
Goa												
Gujarat			Peak	Peak	Peak					Lean	Lean	Lean
Himachal Pradesh							Lean	Peak	Lean			
Jharkhand												
Karnataka	Lean	Lean	Lean				Peak	Peak	Peak	Peak	Peak	Peak
Kerala												
Lakshadweep												
Madhya Pradesh						Peak	Peak		Lean	Lean		
Maharashtra	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year
Manipur												
Meghalaya												
Mizoram												
Nagaland								Lean				
Orissa	Peak	Peak									Peak	Peak
Pondicherry		Lean	Lean	Peak	Peak	Lean	Lean					
Punjab												
Rajasthan			Peak	Lean				Peak	Lean		Peak	Lean
Sikkim	Peak											Peak
Tamil Nadu	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year	Full Year
Telangana												
Tripura				Lean	Lean	Lean	Peak	Peak	Lean	Lean	Lean	
Uttar Pradesh												
Uttarakhand												
West Bengal												
Andaman & Nicobar	Peak										Peak	Peak

Peak | Full Year | Lean

Production of Pomegranate:

Sr. No.	Name of the State	Production ('000 Tonnes) 2014-15	Existing infrastructure in the form of Recognised Pack House as on October' 17
1	Maharashtra	1,197.71	114
2	Karnataka	261.82	6
3	Gujarat	171.66	9
4	Andhra Pradesh	76.69	2
5	Telangana	33.52	2
6	Madhya Pradesh	28.00	--
7	Tamil Nadu	12.19	--
8	Jharkhand	2.21	--
9	Chattisgarh	2.04	--
10	Himachal Pradesh	1.70	--
11	Orissa	0.88	--
12	Nagaland	0.73	--
13	Kerala	0.12	--
	Total	**1,789.31**	**133**

Source: National Horticulture Board (NHB)

Trade:

- Total global demand of Pomegranate (including Tamarind, Sapota, Litchi, Custurd Apple , Bore) in year 2016 was 2.1 Million MT. Major importing countries are China, EU countries, USA, Russia, France, Kuwait, UK, Saudi Arabia, Korea RP, Thailand, Singapore, Malaysia etc.

Global Import			
HS Code :081090 (Includes Pomegranates, Tamarind, Sapota, Litchi, Custurd			
Country	2016		% Share
	Qty In MT	Value in US$ Mill	
CHINA P RP	983,809	758	31.9
NETHERLAND	60,499	207	8.7
U S A	173,679	161	6.8
HONG KONG	151,120	134	5.6
Germany	51,574	109	4.6
Indonesia	72,631	99	4.2
U ARAB EMTS	58,786	93	3.9
France	37,209	82	3.4
RUSSIA	49,382	63	2.7
U K	23,186	61	2.6
Other Countries	475,790	610	25.7
Total	**2,137,665**	**2,377**	100.0

Source: UN Comtrade

India's Export:

India Export Statistics			
Product Group : Pomegranate			
Country	2016-17		% Share
	Qty In MT	Value in US$ Mill	
United Arab Emirates	20880	37.7	51.4
Bangladesh	12058	4.9	6.7
Saudi Arabia	2664	4.6	6.2
Netherland	1300	4.3	5.9
United States	343	2.7	3.7
Nepal	5144	2.6	3.5
Kuwait	1187	2.3	3.1
United Kingdom	369	2.1	2.8
Thailand	687	2.1	2.8
Sri Lanka	956	1.5	2.1
Other Countries	4265	8.7	11.9
Total	**49852**	**73.5**	100.0

Source: DGCIS

Market access issue for Pomegranate: Currently market access issues for export of pomegranate are pending with following countries:

S.No.	Country	Current Status	Pending with
1.	United States of America	Irradiation upon arrival in US for Indian Pomegranate (High cost due to deputation of inspector). USDA in principle agreed to waive off the condition of deputation of inspector. Final decision awaited .	USDA, APHIS
2.	Canada	PRA for Market access for Pomegranate has been sent to Plant Protection authority, Canada to provide market access with mitigation measure if required .	Plant Protection Division, Canada
3.	Japan	For pomegranate Arils, technical information sent by DAC to Quarentine authority, Japan for gaining the market access.	Plant quarantine authority, Japan
4.	China	For Arils, technical information sent by DAC to AQSIQ, China for gaining market access.	AQSIQ, China
5.	Republic of Korea (RoK)	RoK plant quarantine authority has been pursued to complete the PRA for Market access.	Republic of Korea

6.	Australia	Technical dossier was forwarded by NPPO to Australian Plant Quarantine Authority for Market Access of Pomegranate.	Australian Plant Quarantine Authority

Constraints identified:

a) Improper extension work leading to problem of pest and disease and pesticide residues.
b) Lack of post harvest infrastructure facilities in pomegranate production areas other than Maharashtra.
c) Lack of awareness among farmers and exporters about the requirements of importing countries for exports.
d) Ensuring use of pesticide with label claim. Currently only 7 agrochemicals used in pomegranate cultivation have label claim. More number of agrochemicals to be registered by CIB (DPPQS).
e) Sea protocol required for export to long distance markets.
f) Export to be permitted through APEDA recognized pack houses only.
g) Size of Indian pomegranate is small in comparison to competitor countries.
h) Lack of marketing assistance.

Interventions required:

a) Proper extension work to be carried out with residue monitoring protocol by state horticulture departments.
b) Efforts by research institutions to increase the size of fruit.
c) New Varieties to be developed or imported as per the requirement of international market.
d) Setting up of Post harvest infrastructure facilities for fresh and arils in pomegranate production areas other than Maharashtra.
e) Regular farmer training programs to be organized for farmers in the production areas.
f) Liaison with CIB&RC for label claims for all agrochemicals used in pomegranate cultivation.
g) Branding of Indian pomegranate for international markets.
h) Value addition to be encouraged through CFTRI and DFRL .

Export Strategy:

i) **Promotion programmes /BSM**: In order to popularize Indian pomegranates, APEDA proposes to organize promotion programs in potential importing countries for a consecutive period of three years. It is also proposed to conduct Buyer-Seller Meets (BSM) overseas to coincide with the promotion programs and also reverse BSMs by inviting buyers from potential importing countries. APEDA proposes to explore the market for pomegranate and arils in CIS and East European countries.

ii) **Market access:** Efforts to be expedited for gaining market access in Australia, Japan, Korea, China and South Africa.

iii) **Development of Post Harvest infrastructure facilities**: There is currently lack of pack houses for handing of pomegranates. APEDA plans to encourage private exporters to set up pack houses with APEDA's assistance.

iv) **Branding** of the fruit for better value addition and value realization in exports.

v) Development of protocol for sea shipments for export to long distance markets .

vi) **Creation of separate HS Code for Pomegranate arils**: At present pomegranate arils are also given the same HS code like Pomegranate i.e. 08109010. The total export of arils is approximately more than Rs 150 Cr. The arils fall under the category of minimally processed ready-to-eat fruits. Therefore, DGFT/DoR may consider creating separate HS code.

vii) **Removal of requirement of phyto-sanitary certificate for arils**: There is no threat of introduction of any pests from the exporting country along with pomegranate arils. The arils are 100% free from pests. The process of arils extraction is manual in India and it prevents the chance of pest occurrence during the processing. There are separate steps involved from washing, dipping, and separation of arils from the fruit etc which are done under controlled environmental condition and in proper manner. Therefore, NPPO may amend its manual indicated under Export Inspection and phyto-sanitary certification manual requiring phyto-sanitary certification. The relevant SoPs need to be amended.

viii) **Creation of SION:** There is wide variation in domestic prices of pomegranate at farm gate. If prices are very high in domestic market, import of pomegranate may be permitted from the other pomegranate producing countries for processing and export of arils. Necessary SION may be developed by DGFT after taking inputs from the exporters of arils.

ix) **Development of technology**: Suitable technology may be developed for development of animal feed from the waste generated during processing of pomegranates.

x) **Exploration of new markets**: APEDA proposes to explore the market for pomegranate and arils in CIS and East European countries.

Tariff duty on importation of Pomegranate charged by major importing countries:

08109010 | Other fruit, fresh: Other: Pomegranates	SPS-TBT
Saudi Arabia(as of 15-09-2017)	
Most Favoured Nation Tariff	30
United Arab Emirates(as of 15-09-2017)	
Most Favoured Nation Tariff	30
United States of America(as of 15-09-2017)	
Most Favoured Nation Tariff	30
Bangladesh(as of 15-09-2017)	
Most Favoured Nation Tariff	30
Asia-Pacific Trade Agreement Preferential Tariff	No Preference
Asia-Pacific Trade Agreement Preferential Rules Of Origin	Not Applicable*
Duty Free Tariff Preferential Tariff	0
Duty Free Tariff Preferential Rules Of Origin	CTH + 30% RVC
South Asian Free Trade Area Preferential Tariff	0
South Asian Free Trade Area Preferential Rules Of Origin	CTH + 40% RVC
SAARC Preferential Trading Arrangement Preferential Tariff	12
SAARC Preferential Trading Arrangement Preferential Rules Of Origin	40% RVC
Nepal(as of 15-09-2017)	
Most Favoured Nation Tariff	30
South Asian Free Trade Area Preferential Tariff	0
South Asian Free Trade Area Preferential Rules Of Origin	CTH + 40% RVC
SAARC Preferential Trading Arrangement Preferential Tariff	12
SAARC Preferential Trading Arrangement Preferential Rules Of Origin	40% RVC
Netherlands(as of 15-09-2017)	
Most Favoured Nation Tariff	30

2.5 Potato

About the Product:

The potato (*Solanum tuberosum*) is a starchy, tuberouscrop, staple food in many countries. Potatoes are used as vegetable, processed into potato products and food ingredients; as a cattle feed; processed into starch for industry.

India is the second largest producer of Potato in the world, with a production of around 46.61 million MTs in 2016-17 (2nd estimated by National Horticulture Board).

In India major producing states are Uttar Pradesh (14.3 Million MTs), West Bengal (10.2 Million MTs), Bihar(0.30 Million MTs) , Madhya Pradesh(0.24 Million MTs) and Punjab(0.223 Million MTs)

Calendar of Potato Production in India

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Andhra Pradesh												
Arunachal Pradesh												
Assam												
Bihar												
Chattisgarh												
Dadra & Nagar Haveli												
Daman & Diu												
Goa												
Gujarat												
Haryana												
Himachal Pradesh												
Jammu & Kashmir												
Jharkhand												
Karnataka												
Kerala												
Madhya Pradesh												
Maharashtra												
Manipur												
Meghalaya												
Mizoram												
Nagaland												
Orissa												
Pondicherry												
Punjab												
Rajasthan												
Sikkim												
Tamil Nadu												
Telangana												
Tripura												
Uttar Pradesh												
Uttarakhand												
West Bengal												

Peak | Full Year | Lean

Production of Potato and availability of infrastructure:

S.No.	Name of the State	Production (in '000 MT) 2015-16	Existing infrastructure in the form of Recognised Pack House as on October' 17
1	Uttar Pradesh	13851.76	**No Pack House**
2	West Bengal	8427	
3	Bihar	6345.52	
4	Gujarat	3549.38	
5	Madhya Pradesh	3161	
6	Punjab	2385.26	
7	Haryana	853.81	
8	Maharashtra	251.46	
9	Rajasthan	229.83	
10	Himachal Pradesh	183.25	
11	Tamil Nadu	72.23	
12	Andhra Pradesh	38.86	
13	Other States	4067.69	
	Total	**43417.05**	

Source: National Horticultural Research Development Foundation (NHRDF), Nashik, 2016

Trade:

- Total global demand of Potato in year 2015 was 1.04 Million MT. Major importing countries are EU countries, Russia, USA, UK, Malaysia, Ireland, Canada, Kuwait, Portugal, Mexico, Korea RP, Nepal, Sri Lanka, Oman, Singapore, Japan, Fiji etc.

Global Import			
Product Group : Potato			
Country	**2016**		**% Share**
	Qty In MT	**Value in US$ Mill**	
Belgium	2,001,183	463	12.1
NETHERLAND	1,788,643	343	8.9
Germany	592,485	268	7.0
Spain	728,936	254	6.6
U S A	495,933	218	5.7
Italy	637,511	205	5.3
EGYPT A RP	279,078	162	4.2
France	439,239	128	3.3
U K	254,724	123	3.2
Portugal	442,216	122	3.2
Other Countries	4,120,807	1,552	40.4
Total	**11,780,755**	**3,838**	100.0

Source: UN Comtrade

India's Export:

India Export Statistics			
Product Group : Potato			
Country	**2016-17**		**% Share**
	Qty In MT	**Value in US$ Mill**	
Nepal	311227	73.6	73.8
Sri Lanka	32278	8.4	8.5
Oman	16838	4.9	4.9
Mauritius	7280	2.7	2.7
Kuwait	7144	2.2	2.2
Malaysia	6627	2.0	2.0
Maldives	5277	1.9	1.9
United Arab Emirates	4876	1.3	1.3
Senegal	1291	0.6	0.6
Seychelles	1436	0.5	0.5
Other Countries	3214	1.5	1.5
Total	**397487**	**99.7**	100.0

Source: DGCIS

Market access issues for export of Potato: Currently ongoing market access issues for export of Potato are pending with following countries:

S.No.	Country	Issues	Pending With
1.	**European Union**	NPPO has sent Technical information and subsequently required additional information to concerned European authority.	European Authority
2.	**Azerbaijan**	NPPO has sent required additional information sought by Azerbaijan plant quarantine Authority on pest of concern.	Azerbaijan plant quarantine Authority
3.	**Philippines**	NPPO has sent required Technical information to Philippines quarantine Authority	Philippines quarantine Authority
4.	**Thailand**	DAC has submitted required Technical information to Thailand plant quarantine authority.	Thailand plant quarantine authority.
5.	**Pakistan**	NPPO has submitted required Technical	Pakistan plant

		information Pakistan plant quarantine authority.	quarantine Authority

Tariff duty on importation of Potato charged by major importing countries: Annexure 1

Constraints identified:

The major constraints in potato have been identified as

(a) Lack of post-harvest and processing infrastructure in terms of pack houses , state of the art storage facility
(b) Insufficient extension work in terms of production of pest free and controlled pesticide residue produce
(c) Absence of mechanism for controlling domestic prices – which lead to glut and scarcity
(d) Prevalence of brown rot ,ring rot and other pest and disease of concern of importing countries

Interventions required:

i) Development of processable varieties: APEDA will also seek assistance from Central Potato Research Institute (CPRI), Solan, HP for the development of processable varieties of potato by developing a robust Standard Operating Procedures (SoPs) for export oriented production.

ii) Control of fungal diseases: To address the problem of ring rot, brown rot and other pest and disease of concern of importing countries in potatoes, APEDA will work in a time bound manger with CPRI to get necessary research work done for finding out the solution to control these diseases.

iii) Development of packaging and Sea protocol: Efforts would be made for development of packaging for increasing shelf life and sea protocol for export to long distance markets.

iv) Creation of a dedicated export cell by concerned state governments to coordinate with farmers / processors / cold storage and exporters.

Export strategy:

- **Focus markets:** APEDA will continue to focus on Russia, CIS, South East Asian and other potential countries for the export of potatoes.

- **Introduction of better varieties for production:** Indian potatoes are sugar rich and hence not very suitable for either long term retention or for processing. Hence, there is need for development of better varieties and APEDA proposes to work with ICAR institutions in this regard.

- **Creation of post-harvest and processing infrastructure:** Pack houses with modern sorting and grading lines for ware potato and processing facilities for value added products are needed. Identified exporters will be sensitized and encouraged to set up such facilities by availing assistance available under SAMPADA/MIDH in the potato producing belts.

Annexure 1

Importing Countries	HS Code	Import Duty (MFN in %)	Non AV Duty	Products
Bahrain, Kingdom of	070110	**0.0**		Seed potatoes
Bahrain, Kingdom of	070190	**0.0**		Fresh or chilled potatoes (excl. seed)
Bangladesh	070110	**0.0**		Seed potatoes
Bangladesh	070190	**25.0**		Fresh or chilled potatoes (excl. seed)
Egypt	070110	**2.0**		Seed potatoes
Egypt	070190	**5.0**		Fresh or chilled potatoes (excl. seed)
European Union	070110	**4.5**		Seed potatoes
European Union	070190	**9.0**		Fresh or chilled potatoes (excl. seed)
Hong Kong, China	070110	**0.0**		Seed potatoes
Hong Kong, China	070190	**0.0**		Fresh or chilled potatoes (excl. seed)
India	070110	**30.0**		Seed potatoes
India	070190	**30.0**		Fresh or chilled potatoes (excl. seed)
Korea, Republic of	070110	**304.0**		Seed potatoes
Korea, Republic of	070190	**304.0**		Fresh or chilled potatoes (excl. seed)
Kuwait, the State of	070110	**0.0**		Seed potatoes
Kuwait, the State of	070190	**0.0**		Fresh or chilled potatoes (excl. seed)
Malaysia	070110	**0.0**		Seed potatoes
Malaysia	070190	**0.0**		Fresh or chilled potatoes (excl. seed)
Maldives	070110	**15.0**		Seed potatoes
Maldives	070190	**15.0**		Fresh or chilled potatoes (excl. seed)
Nepal	070110	**10.0**		Seed potatoes
Nepal	070190	**10.0**		Fresh or chilled potatoes (excl. seed)
Oman	070110	**0.0**		Seed potatoes
Oman	070190	**0.0**		Fresh or chilled potatoes (excl. seed)

Qatar	070110	**0.0**		Seed potatoes
Qatar	070190	**0.0**		Fresh or chilled potatoes (excl. seed)
Russian Federation	070110	**5.0**		Seed potatoes
Russian Federation	070190	**10.0**		Fresh or chilled potatoes (excl. seed)
Senegal	070110	**5.0**		Seed potatoes
Senegal	070190	**35.0**		Fresh or chilled potatoes (excl. seed)
Singapore	070110	**0.0**		Seed potatoes
Singapore	070190	**0.0**		Fresh or chilled potatoes (excl. seed)
South Africa	070110		[0,44c/kg]	Seed potatoes
South Africa	070190		[0,44c/kg]	Fresh or chilled potatoes (excl. seed)
Sri Lanka	070110	**0.0**		Seed potatoes
Sri Lanka	070190		[Rs.20/= per Kg]	Fresh or chilled potatoes (excl. seed)
Thailand	070110	**125.0**		Seed potatoes
Thailand	070190	**125.0**		Fresh or chilled potatoes (excl. seed)
United Arab Emirates	070110	**0.0**		Seed potatoes
United Arab Emirates	070190	**0.0**		Fresh or chilled potatoes (excl. seed)
United States of America	070110		[0.5 cents/kg]	Seed potatoes
United States of America	070190		[0.5 cents/kg] [0.5 cents/kg]	Fresh or chilled potatoes (excl. seed)

Source: WTO

2.6 Fresh Flowers

About the product:

Floriculture is one of the branch of agriculture that known as horticulture. Floriculture deals with cultivation, marketing and arranging of flowers and foliage plants. The major flowers grown in India are ***marigold, aster, roses, tuberose, gladiolus, jasmine and crossandra, gerbera, carnation, roses, anthurium, orchids***, etc. As per nature and form of use, flowers can be classifies in following types:

i) **Loose Flowers:** These kinds of flower plants are discarded after the one crop, and picking up as loose flowers i.e., marigold, aster, lilies, chrysanthemum, jai-jue, bijali, gladioli, lilies, lilium, dalia, tuberose etc.

ii) **Cut flowers:** These flower plants are continued in growth. The new shoots, which develop below the place where the flower stem was cut, eventually form flowers that are cut and the procedure is repeated until it is determined that would be economic advantage in replacing the plants. These flowers picking up with some lengths i.e. gerbera, carnation, rose, orchids, tuberose etc.

Production of Fresh Flowers:

STATE/UTs	FLOWERS (2014-15)		
	Area ('000 Ha)	Production ('000 MTs)	
		LOOSE	CUT
ANDAMAN & NICOBAR	0.18	0.19	0.00
ANDHRA PRADESH	15.68	106.13	28.31
ARUNACHAL PRADESH	0.02	0.01	1.86
ASSAM	3.53	22.80	33.04
BIHAR	1.43	13.68	2.76
CHHATTISGARH	10.96	50.03	0.00
D & N HAVELI	0.00	0.00	0.00
DAMAN & DIU	0.01	0.03	0.00
DELHI	0.00	0.00	0.00
GOA	0.01	0.03	0.12
GUJARAT	18.79	177.63	0.00
HARYANA	6.07	62.85	4.92
HIMACHAL PRADESH	0.80	27.21	11.55
JAMMU & KASHMIR	0.46	0.35	0.00
JHARKHAND	1.60	22.03	52.81
KARNATAKA	30.90	220.00	70.77
KERALA	13.37	0.05	32.86
LAKSHADWEEP	0.00	0.00	0.00
MADHYA PRADESH	17.75	208.00	0.00
MAHARASHTRA	7.25	38.53	0.00
MANIPUR	0.81	0.30	0.00
MEGHALAYA	0.06	0.00	2.61
MIZORAM	0.20	181.54	1.83
NAGALAND	0.01	0.00	0.00
ODISHA	7.50	25.86	57.16
PUDUCHERRY	0.18	1.49	0.00
PUNJAB	1.37	10.65	0.00
RAJASTHAN	2.71	2.91	0.00
SIKKIM	0.24	16.50	1.92
TAMILNADU	55.03	343.65	12.87
TELANGANA	7.44	21.71	6.01
TRIPURA	0.00	0.00	0.00

UTTAR PRADESH	17.21	34.32	0.05
UTTARAKHAND	1.63	2.09	14.69
WEST BENGAL	25.32	68.15	148.03
TOTAL	**248.51**	**1658.72**	**484.17**

Source: NHB

India's export:

Qty in MT; Value in Rs. Crore & US$ Mill

Sr. no.	Country	2016-17		
		Qty	Rs. Crore	US$ Mill
1	United Kingdom	1639.99	43.75	6.53
2	United States	1041.42	33.36	4.99
3	Netherland	495.92	31.95	4.79
4	United Arab Emirates	1001.13	29.52	4.41
5	Singapore	1339.85	16.46	2.46
6	Canada	469.46	14.5	2.17
7	Germany	522.08	13.4	2.01
8	Japan	317.08	12.42	1.86
9	Australia	208.47	11.96	1.79
10	Malaysia	514.21	11.93	1.78
11	Saudi Arabia	442.2	6.47	0.97
12	Italy	115.58	5.45	0.81
13	New Zealand	150.93	5.22	0.78
14	Lebanon	99.46	4.26	0.64
15	Maldives	183.9	3.72	0.55
16	Spain	63.45	3.56	0.53
17	Qatar	98.5	3.52	0.53
18	South Africa	418.19	2.79	0.42
19	Kuwait	137.32	2.55	0.38
20	China P Rp	150.16	2.39	0.36
21	Poland	92.97	2.13	0.32
22	Greece	88.17	1.95	0.29
23	Korea Republic	16.53	1.74	0.27
24	Bahrain	87.65	1.62	0.24
25	Hong Kong	19.82	1.59	0.24
26	Thailand	72.01	1.56	0.24
27	Hungary	139.05	1.41	0.21

28	Indonesia	10.72	1.34	0.2
29	Morocco	3.46	1.34	0.2
30	France	39.63	1.32	0.2
31	Oman	61.16	1.28	0.19
32	Mauritius	10.1	1.1	0.16
33	Jordan	41.22	1.09	0.16
34	Belgium	50.16	1.08	0.16
35	Sri Lanka	82.99	1	0.15
36	Others	7.194	13.78	2.04
	Total	10,944.88	294.51	44.03

Source: DGCIS

Global import:

Qty in MT; Value in US$ Mill

Sr. no	Importing Country	2015	
		Qty	Value
1	Germany	754279.39	2479.57
2	U.S.A	246718.08	1866.86
3	NETHERLAND	864887.8	1845.49
4	United Kingdom	325428.09	1566.94
5	France	304058.23	1046.76
6	Russian Federation	183911.82	694.44
7	CZECH REPUBLIC	284025.33	570.21
8	Switzerland	172770.36	514.52
9	Italy	139794.2	504.96
10	Japan	83613.61	482.15
11	Austria	109940.64	378.89
12	Belgium	107604.62	367.72
13	Canada	74344.03	353.76
14	Denmark	79185.32	286.35
15	Sweden	100374.19	256.27
16	Poland	91871.51	252.4
17	Norway	53100.89	232.61
18	China	86511.05	214.39
19	Spain	53178.48	197.63
20	KOREA RP	121722.55	189.52
21	Ireland	57603.72	180.56

22	Lithuania	35942.58	130.74
23	Finland	26202.79	119.49
24	Portugal	30788.6	98.95
25	Mexico	22260.18	92.64
26	Romania	80950.38	86.11
27	Turkey	49171.71	80.68
28	Australia	17882	80.39
29	Singapore	17862.31	79.75
30	Hungary	22041.47	67.96
31	Slovakia	20035.87	56.35
32	Saudi Arabia	12035	50.73
33	China, Hong Kong SAR	22206.3	50.34
34	Latvia	22203.57	45.15
35	Kazakhstan	9920.07	44.67
36	Others	3,92,083.55	838.74
	Total	**50,76,510.29**	**16,404.69**

Source: UN Comtrade

Tariff duty on importation of floriculture products charged by major importing countries: Annexure- I

Constraints identified: The major constraints have been identified as followings:

- Logistic cost is higher due to fragmented small holdings of land 1-2 Acre.
- Infrastructure needs to be set up for the large projects in terms of pack houses and processing units.
- Import duty approx 30% on imported inputs like raw material i e. manure, fertilizer, pesticide needs to be reduced.

- Relaxation on Import permit for inputs to be used in the floriculture i e. usage like manure, fertilizer, pesticide for management of quality and pest control.
- Relevant variety of species to be facilitated for import.
- Dedicated space to be provided for highly perishable flowers in Airlines.
- Improper availability of power needs to be offset by solar power energy/renewable power sources

Interventions required: The interventions required include:

- Large scale projects (>10 hectare) may be provided financial assistance under MIDH and other schemes for production, sourcing and promoting buy back arrangement.
- Identification of appropriate technology for cost effective production of flowers. This will bring the economy of sale for boosting the exports. In Kenya, the roses are produced in wooden green house.
- The sufficient reefer vans need to be provided by the service providers through state government for movement of flowers.
- Possibility to be explored for running a dedicated freighter for export of fresh flowers from the north east region.

- CPC Bagdogra to be made operational for better handling of flowers exported from International Airport Bagdogra.

Export Strategy:

- Participation in specialized International trade fairs i e. International Floriculture Trade Fair (IFTF) in Holland etc. and organizing market promotion programmes in potential importing countries
- The NRC-Orchids Pokyang, CAEPHT Gangtok, Sikkim and Central Agriculture University, Imphal needs to be activated for looking after the issues related to export of Fresh Flower from Eastern region.
- The packaging standard for Fresh flowers needs to be developed for increasing shelf life and quality by any research Institution i e. NRC-Orchids Pokyang, CAEPHT Gangtok, Sikkim.
- Ministry of Agriculture may be requested to provide export oriented production of flower in the cluster by involving private players in fresh and dry flower.
- Reduction of GST on Poly houses/Shade Houses/work shop/ware house from18% to just 5% in both fresh and dry flower.
- For export of fresh flowers from the North eastern region, the existing flower auction centres/Pack houses for export needs to be made operational by state Government.

- In Floriculture and Fresh fruits and vegetables seeds, the specific packaging material and others inputs are required. At present these are purchased by the exporters from supplier/traders who are not able to get duty exemption. A provision may be made in a Chepter-2 in Foreign Trade Policy to facilitate duty free import of such finished products to APEDA registered exporters.
- ***Self certification/ Declaration of Plant Products and its originated products by the exporters for issuance of Plant passport (Phytosanitary Certificate) for export, if the annual exports of floriculture products is Rs. 10 Cr. or more.***

Annexure- I

HS Code	MFN Tariff (%)	Non AV Duties	Product Description
060110	**5.0**		Bulbs, tubers, tuberous roots, corms, crowns and rhizomes, dormant (excl. those used for human consumption and chicory plants and roots)
060120	**5.0**		Bulbs, tubers, tuberous roots, corms, crowns and rhizomes, in growth or in flower; chicory plants and roots (excl. those used for human consumption and chicory roots of the variety cichorium intybus sativum)
060210	**5.0**		Unrooted cuttings and slips
060220	**5.0**		Edible fruit or nut trees, shrubs and bushes, whether or not grafted
060230	**5.0**		Rhododendrons and azaleas, grafted or not
060240	**5.0**		Roses, whether or not grafted
060290	**5.0**		Live plants, incl. their roots, and mushroom spawn (excl. bulbs, tubers, tuberous roots, corms, crowns and rhizomes, incl. chicory plants and roots, unrooted cuttings and slips, fruit and nut

			trees, rhododendrons, azaleas and roses)
060311	**60.0**		Fresh cut roses and buds, of a kind suitable for bouquets or for ornamental purposes
060312	**60.0**		Fresh cut carnations and buds, of a kind suitable for bouquets or for ornamental purposes
060313	**60.0**		Fresh cut orchids and buds, of a kind suitable for bouquets or for ornamental purposes
060314	**60.0**		Fresh cut chrysanthemums and buds, of a kind suitable for bouquets or for ornamental purposes
060315	**60.0**		Fresh cut lilies "Lilium spp." and buds, of a kind suitable for bouquets or for ornamental purposes
060319	**60.0**		Fresh cut flowers and buds, of a kind suitable for bouquets or for ornamental purposes (excl. roses, carnations, orchids, chrysanthemums and lilies)

Source: WTO

2.7 Dried Flowers

About the product:

- Dehydration is an important post harvest technology for enhancing the ornamental quality of flowers.
- Dried or dehydrated flowers or plant part or botanicals (Roots, leaves, Stem, Bark or Whole plant) can be used for ornamental purposes.
- The processing of dried flowers involves drying, bleaching and colouring after their collection.
- Drying of flowers and foliage by various methods like air drying, sun drying, oven and microwave oven drying, freeze drying and embedded drying can be used for making decorative floral crafts items like cards, floral segments, wall hangings, landscapes, calendars, potpourris etc for various purposes.

- Dried flower products on the other hand are long lasting and retain their aesthetic value irrespective of the season.
- Dried ornamental plant parts are generally less expensive and are sought for their everlasting and attractive appearance.

India's export:

Qty in MT; Value in Rs. Crore & US$ Mill

Sr no.	Country	2016-17		
		Qty	Rs. Crore	US$ Mill
1	United States	2721.28	65.66	9.81
2	Germany	1917.59	49.02	7.34
3	Netherland	1313.41	25.56	3.82
4	United Kingdom	817.85	24.64	3.68
5	Italy	439.52	10.65	1.59
6	China P Rp	345.29	10.29	1.54
7	Poland	235.6	6.89	1.03
8	Belgium	247.63	5.48	0.82
9	United Arab Emirates	437.71	4.97	0.74
10	France	187.69	4.28	0.64
11	Switzerland	180.85	4.16	0.62
12	Austria	152.14	3.68	0.55
13	Canada	279.06	3.43	0.51
14	Greece	139.09	3.13	0.47
15	Spain	122.86	3.05	0.46
16	Japan	47.97	2.37	0.36
17	Estonia	99.5	2.36	0.36
18	Qatar	54.11	2.18	0.32
19	Latvia	78.31	1.93	0.29
20	South Africa	78.21	1.6	0.24
21	Hungary	128.42	1.45	0.22
22	Mexico	33.21	1.43	0.21
23	Sweden	78.72	1.42	0.21

24	Australia	41.6	1.11	0.17
25	Korea Republic	35.27	1.09	0.16
26	Chile	63.37	1.09	0.16
27	Saudi Arabia	86.55	1.05	0.16
28	Denmark	37.02	0.75	0.11
29	Brazil	32.41	0.7	0.1
30	Oman	239.93	0.66	0.1
31	Kuwait	18.83	0.57	0.09
32	Bahrain	122.43	0.57	0.09
33	Puerto Rico	30.62	0.54	0.08
34	Finland	24	0.47	0.07
35	Czech Republic	15.32	0.36	0.05
36	Slovenia	11.3	0.31	0.05
37	Others	180.79	3.36	0.47
	Total	11,075.46	252.26	37.69

Source: As per the feedback of trade, data captured under HS code: *06042000* and *06049000*.

Global import:

Qty in MT; Value in US$ Mill

Sr. no	Importing Country	2015	
		Qty	Value
1	NETHERLAND	108885.53	285.2
2	Germany	51151.68	141.98
3	Japan	15488.47	71.16
4	United Kingdom	33111.34	64.11
5	France	21413.67	52.78
6	CZECH REPUBLIC	21349.19	50.56
7	Switzerland	8586.49	33.39
8	Belgium	7716.66	25.5
9	Mexico	25537.15	24.5
10	Russian Federation	6010.81	23.57
11	Italy	5641.64	22.18
12	Austria	6553.71	20.23
13	Denmark	7499.87	18
14	Norway	4729.73	12.75
15	Poland	4746.87	10.4
16	Spain	2829.06	7.8
17	Sweden	2924.31	7.11

18	Ireland	4016.53	6.67
19	Lithuania	1466.35	5.74
20	KOREA RP	1006.27	5.33
21	Hungary	1634.56	4.66
22	Portugal	1407.31	4.57
23	Slovakia	1079.99	3.36
24	Saudi Arabia	1039	3.35
25	China	2472.69	3.27
26	Finland	529.26	3
27	Romania	4375.39	2.84
28	Australia	560.88	2.58
29	Slovenia	1016.57	2.23
30	Panama	1238.75	1.73
31	Greece	262.22	1.64
32	Croatia	580.41	1.43
33	Luxembourg	1231.9	1.33
34	Kazakhstan	208.25	1.32
35	Other Asia, nes	430.09	1.2
36	Bahrain	559.5	1.14
37	Qatar	227.08	1.02
38	Kuwait	194.74	0.99
39	Ecuador	106.67	0.88
40	Thailand	907.32	0.85
41	Malaysia	899.61	0.82
42	Colombia	118.65	0.73
43	Turkey	158.47	0.7
44	New Zealand	148.77	0.69
45	**India**	**326.31**	**0.56**
46	Others	12,556.92	8.85
	Total	**3,74,936.64**	**944.7**

Source: UN Comtrade

Global export of floriculture products:

Qty in MT; Value in US$ Mill

Sr. no	**Exporting Country**	**2015**	
		Qty	**Value**
1	NETHERLAND	62952.03	214.48
2	U.S.A.	45467.43	127.2

3	Denmark	62362.13	91.73
4	China	14699.46	83.55
5	Italy	11657.96	74.06
6	Costa Rica	14678.21	49.45
7	Canada	3917.78	47.47
8	Germany	43665.71	45.68
9	Belgium	18652.63	35.45
10	India	4582.21	33.06
11	Israel	5012.4	29.34
12	Mexico	2923.3	26.01
13	Poland	12758.94	25.31
14	Guatemala	6329.87	24.83
15	Malaysia	10060.47	22.67
16	Colombia	273.17	18.19
17	Spain	7079.74	14.34
18	France	4583.66	13.12
19	South Africa	2934.34	12.68
20	SRI LANKA DSR	1804.3	8.03
21	Turkey	3148.06	7.97
22	CZECH REPUBLIC	2043.62	7.85
23	Ecuador	299.23	7.29
24	Philippines	618.82	7.19
25	El Salvador	1729.46	6.34
26	United Kingdom	3905.96	6.31
27	Others	26,795.78	78.04
	Total	**3,74,936.67**	**1,117.64**

Source: UN Comtrade

Tariff duty on importation of floriculture products charged by major importing countries: Annexure- I

Constraints identified: The major constraints have been identified as followings:

- Adoption of new technologies for designing and innovation for tapping the potential into western markets for dry flower.

- Databank/traceability system needs to be set up for wild collection for the local artisans in dry flower industry.
- Improper availability of power needs to be offset by solar power energy/renewable power sources

Interventions required: The interventions required include:

- NOC from the wild life department (in case of dry flower) needs to be simplified.
- Documentation and fumigation treatment of dry flower export needs to be done in time bound manure.
- The infrastructure of ware house/Cold Storage needs to be developed at Seaport area for storage for dry flowers during the testing period OR delayed shipments.

Export Strategy:

- A research institution needs to be setup under ICAR exclusively to work for research and development of technologies for dry flowers.
- The HS Codes for export oriented flowers including Dry Flower is required for using the data for analysis. Such new HS codes may be created by DOR/DGFT.

- Participation in specialized International trade fairs i e. International Floriculture Trade Fair (IFTF) in Holland etc. and organizing market promotion programmes in potential importing countries
- Ministry of Agriculture may be requested to provide export oriented production of flower in the cluster by involving private players in fresh and dry flower.
- Reduction of GST on Poly houses/Shade Houses/work shop/ware house from18% to just 5% in both fresh and dry flower.

- In Floriculture and Fresh fruits and vegetables seeds, the specific packaging material and others inputs are required. At present these are purchased by the exporters from supplier/traders who are not able to get duty exemption. A provision may be made in a Chepter-2 in Foreign Trade Policy to facilitate duty free import of such finished products to APEDA registered exporters.

- ***Self certification/ Declaration of Plant Products and its originated products by the exporters for issuance of Plant passport (Phytosanitary Certificate) for export, if the annual exports of floriculture products is Rs. 10 Cr. or more.***

Annexure- I

HS Code	MFN Tariff (%)	Non AV Duties	Product Description
060420	**30.0**		Foliage, branches and other parts of plants, without flowers or flower buds, and grasses, mosses and lichens, being goods of a kind suitable for bouquets or for ornamental purposes, fresh
060490	**30.0**		Foliage, branches and other parts of plants, without flowers or flower buds, and grasses, mosses and lichens, being goods of a kind suitable for bouquets or for ornamental purposes, dried, dyed, bleached, impregnated or otherwise prepared

Source: As per the feedback of trade, data captured under HS code: *060420* and *060490*.

2.8 FFV Seeds

About the Product:

Seed is a key component among all inputs for sustainable crop production. It is estimated that quality of seed accounts for 20-25% of productivity. The importance of quality seed has been realized by mankind long ago. The need for a good viable seed for prosperity of human race is mentioned in Rigveda of ancient India. It is mentioned in the primeval manusmriti as "Subeejam Sukshetre Jayate Sampadyate " which literally means "A good seed in a good filed will win and prosper". Saving of some portion of produce as seed for next cropping season or year in various structures is a very common and age old practice of Indian farming community. Albeit there have been few private seed industries dealing with production of vegetable seeds, the growing of crops especially for seeds in an organized fashion to maintain quality in terms of genetic and physical purity is realized for first time during green revolution period with the establishment of National Seeds Corporation (NSC) in 1963. It is setup by aiming at promoting healthy development of seed industry in India. The principle responsibilities of NSC are establishing an adequate system of quality control inspection for scientific processing, storage and marketing of seeds. It also undertakes the responsibility of multiplication of seed of pre released varieties and production of foundation seed of varieties. It is setup by aiming at promoting healthy development of seed industry in India. The principle responsibilities of NSC are establishing an adequate system of quality control inspection for scientific processing, storage and marketing of seeds. It also undertakes the responsibility of multiplication of seed of pre released varieties and production of foundation seed of varieties.

(*Source: International Journal of Plan, Animal and Environmental Sciences: Volume-4, Issue-4 Oct-Dec-2014*).

India's production Status:

Indian seed industry has been growing awfully in quantity and value over the past fifty years. Both public and private sector corporations/companies are actively involving in quality seed production. The public sector component comprises National Seeds Corporation (NSC), State Farm Corporation of India (SFCI) and 15 State Seeds Corporations (SSCs), Indian Council of Agricultural Research (ICAR) institutions and State Agricultural Universities.

ICAR launched an All India Coordinated Research Improvement project (AICRP) on seed production called National Seed Project in 1979 with 14 centres in different Agricultural Universities [11]. AICRP on production of breeder seed in vegetable crops is started under National Seed Project in 1994. Twenty two State Seed Certification Agencies and 104 State Seed Testing Laboratories are involving in quality control and certification.

The private sector comprises around 150 seed companies of national and foreign origin but only few companies like

a) M/S Bejo Sheetal
b) Indo-American Hybrid Seeds and

c) Namdhari Seeds are working exclusively on vegetable hybrids.

The Indian public sector seed industry used to dominate the private sector in the very beginning. The order of type of seeds dominating the market in terms of quantity and value has been open-pollinated varieties followed by public hybrids and private hybrids.

The situation is quite reversed currently.
Seeds of the private hybrids are forming a significant portion of the total vegetable seed market.

The availability of vegetable seeds with NSC as on 30.09.2013 is 133.43 t of which 131.68 t of varietal seeds and only 1.75 t of hybrid seeds.

India's Export:

Qty In MT ; Value in Rs. Crore & US$ Mill

Sr. no	Country	2016-17		
		Qty	Rs. Crore	US$ Mill
1	Bangladesh	6952.87	104.16	15.7
2	Pakistan	1250.18	76.75	11.45
3	United States	77.36	72.76	10.98
4	Netherland	154.87	50.56	7.61
5	Japan	221.34	27.38	4.09
6	Kenya	156.94	20.73	3.09
7	Thailand	101.11	20.43	3.06
8	Singapore	105.28	17.42	2.6
9	Korea Republic	136.04	16.97	2.55
10	Vietnam Social Republic	250.93	9.47	1.41
11	Tanzania Republic	36.65	8.95	1.34
12	France	21.19	8.82	1.34
13	Sri Lanka	60.26	8.15	1.22
14	Saudi Arabia	442.39	6.94	1.04
15	Others	1,321.24	73.24	10.92
	Total	11,288.65	522.73	78.4

Source: DGCIS

Global export:

Qty in MT, Value in US$ Mill

Sr. no	Exporting Country	2015	
		Qty	Value
1	U.S.A.	164121.75	896.03
2	NETHERLAND	80460.91	872.8
3	France	37840.51	576.9
4	Germany	60835.54	449.63
5	China	16532.28	428.8
6	Denmark	112276.16	331.99
7	KOREA RP	161946.5	290.72
8	Italy	48550.38	257.82
9	Chile	4437.7	251.64
10	Australia	177395.17	215.6
11	Belgium	8695.36	212.25
12	Thailand	2908.08	212.24
13	Japan	1389.14	161.45
14	New Zealand	35948.01	144.74
15	Israel	5994.71	138.66
16	Canada	40415.67	125.12
17	Peru	495.32	123.5
18	India	18164.28	123.07
19	Spain	15505.26	91.72
20	Argentina	14560.61	73.64
21	Others	1,61,903.03	800.22
	Total	**11,70,376.37**	**6,778.54**

Source: UNCOMTRADE

Global Import:

Qty in MT, Value in US$ Mill

Sr. no	Importing Country	2015	
		Qty	**Value**
1	NETHERLAND	129510.61	642.14
2	U.S.A	54017.16	570.27
3	Mexico	21342.37	385.64
4	France	57204.8	363.95
5	China	67339.29	346.64
6	Italy	46530.84	277.23
7	Germany	73233.61	271.7
8	Spain	24052.32	270.42
9	KOREA RP	161283.02	261.08
10	United Kingdom	41545.69	246.95
11	CZECH REPUBLIC	96863.52	231.31
12	Japan	35230.57	206.44
13	Canada	31575.38	177.98
14	Russian Federation	11284.13	152.04
15	Turkey	9831.61	140.16
16	Saudi Arabia	14874.86	128.35
17	EGYPT	1864.91	108.39
18	India	12909.89	105.91
19	Belgium	19404.17	96.68
20	Pakistan	21297.99	94.55
21	Others	2,39,179.56	1,696.16
	Total	**11,70,376.30**	**6,773.99**

Source: UNCOMTRADE

Tariff duty on importation of fruits and vegetables seeds by major importing countries: Annexure 1

Constraints identified:

- Due to advent of private seed companies with the liberalization of seed trade in 1988, the public sector seed corporations/companies have started declining and becoming inept.

- Now a day the public sector is mostly confined to certified seeds of high volume, low value segment of high yielding varieties of cereals, pulses and cotton with a limited presence in the high value hybrid sectors of cotton and cereals.

- In vegetables most of the public sector varieties and hybrids are replaced by private sector varieties and hybrids, seed production of which is solely done by the particular manufacturers.

- Corporate seed firms are mainly concentrating on vegetables like tomato, cabbage, brinjal, chilli, okra and cucurbits where the seed production of OPVs and hybrids is
- Comparatively easy and more profitable.

- The doable explanation for moribund of public sector can be incapability to generate huge funds on research and development (R&D) when compared to private seed companies and lack of proper advertisement and market for public sector bred varieties and hybrids.

- Private seed corporations are spending 10-12% of their turnover in R&D. Medium sized seed companies annual investment in R&D is growing 20% annually.

Supply side challenges (production/logistics) for increasing exports

- Low productivity (Average yield is 50-60 kg per acre (1 Acre = 0.40ha),
- Non availability of skilled labour for hybridization process,
- Non availability of seed extraction technology.
- Lack of protected cultivation (poly house/net house),

- Drip irrigation (for mulching) to be encouraged for export oriented seed production.
- Mandatory implementation of Global GAP
- Insurance against natural calamities.
- Pest & Diseases insurgence

Interventions:

- Strengthening of Seed certification system for quality production in State Government.
- Clusters needs to be identified for export oriented Fruits and vegetables seed production.
- Centre of excellence needs to be setup for providing solutions for all problems happening in exports. There is no centre of excellence.
- Exchange of available germplasm and other technical inputs between public and private sectors as per some pre made agreements.

Export strategy:

- Creation of common infrastructure (State of Art) for seed processing/training seed industry.
- Support for minimising the cost of inputs for export oriented seed industry.
- Packaging solution needs to be devised for extending the shelf life of seeds.
- MEI’s schemes not available for fruit and vegetables seeds. MEI’s benefits may be extended.

Annexure -I

HS Code	MFN Tariff (%)	Non AV Duties	Product Description
120910	**5.0**		Sugar beet seed, for sowing
120921	**15.0**		Alfalfa seed for sowing
120922	**15.0**		Clover "Trifolium spp" seed, for sowing
120923	**15.0**		Fescue seed for sowing
120924	**15.0**		Kentucky blue grass "Poa pratensis L." seed for sowing
120925	**15.0**		Ryegrass "Lolium multiflorum lam., Lolium perenne L." seed, for sowing
120929	**15.0**		Seeds of forage plants for sowing (excl. of cereals and of sugar beet, alfalfa, clover "Trifolium spp.", fescue, Kentucky blue grass "Poa pratensis L." and ryegrass "Lolium multiflorum lam. and Lolium perenne L.")
120930	**15.0**		Seeds of herbaceous plants cultivated mainly for flowers, for sowing
120991	**5.0**		Vegetable seeds, for sowing
120999	**5.0**		Seeds, fruits and spores, for sowing (excl. leguminous vegetables and sweetcorn, coffee, tea, maté and spices, cereals, oil seeds and oleaginous fruits, beets, forage plants, vegetable seeds, and seeds of herbaceous plants cultivated mainly for flowers or used primarily in perfumery, medicaments or for insecticidal, fungicidal or similar purposes)

2.9 Makhana (Foxnut)

1. About the product:

- Makhana (Foxnut), also known as Gorgon Nut, grows in India, Korea, Japan and Russia. It comes from the lotus seeds.
- Foxnut (Makhana) can be mixed with vegetables, popped like corn and made into yummy porridge.
- Makhana has been proven to be high nutrients food which is rich in medicinal properties, good for daily health diet. The nutrients contained are vitamin, minerals and fiber

2. Production:

- Makhana is cultivated in the districts of Darbhanga, Madhubani, Purnia, Katihar, Sitamarhi, Saharsa, Supaul, Araris and Kishanganj.

- Makhana is also distributed in West Bengal, Manipur, Tripura, Assam, Jammu & Kashmir, Eastern Odisha, Madhya Pradesh, Rajasthan and Uttar Pradesh.
- However, its commercial production is limited to North Bihar, Manipur, parts of West Bengal and Madhya Pradesh only.

- It is estimated that around 50,000 MTs is produced annually in India of which only around 2% is consumed domestically leaving a large marketable surplus.

3. Trade:

- Makhana falls under HS Code: 19041090 (Cereals Preparations); during 2014 the global trade under this HS code was worth around $ 4 bn. The major importing countries were Canada, France, USA, UK and Italy.

Global Import Makhana (Foxnut)			
HS Code : 190410 (Prepared Foods Obt. By the Swelling/Roasting of Cereals/Cereal Prods.)			
Country	**2016**		**% Share**
	Qty In MT	**Value in US$ Mill**	
Canada	226,966	409	10.3
France	93,207	324	8.2
U S A	119,038	320	8.1
U K	98,946	252	6.4
Italy	54,312	178	4.5
Belgium	75,142	167	4.2
Germany	68,538	161	4.1
U ARAB EMTS	61,532	155	3.9
CHINA P RP	39,414	142	3.6
Ireland	37,829	128	3.2
Other Countries	612,911	1,716	43.4
Total	**1,487,835**	**3,952**	100.0

Source: UN Comtrade

- India exported HS Code: 19041090 (Cereals Preparations) worth around $ 23 Million during 2016-17.

India Export Statistics (Makhana (Foxnut)			
HS Code : '19041090 (Other Prepared Foods Obtained By The Swelling Or R)'			
Country	2016-17		% Share
	Qty In MT	Value in US$ Mill	
United States	4723	8.7	38.0
United Arab Emirates	2660	2.6	11.5
Nepal	3728	2.4	10.4
United Kingdom	849	1.4	6.0
Pakistan	448	1.2	5.1
Australia	748	1.0	4.4
Sri Lanka	373	0.7	3.1
Saudi Arabia	652	0.7	3.0
Qatar	470	0.5	2.4
Canada	296	0.5	2.1
Other Countries	2587	3.2	14.0
Total	**17535**	**22.9**	100.0
Source: DGCIS			

4. **Constraints**:

- **Cultivation:** Lack of ownership of the pond/land , highly skilled nature of operations, lack of credit facility, lack of scientific knowledge of cultivation, lack of improved variety.
- **Technology:** Makhana is harvested manually by fishermen, diving into the pond full of mud. The manual harvesting of Makhana involves lot of drudgery and is a hazardous operation.

- **Processing**: Lack of processing machinery, high dependence on climate for drying and health risk are main constraints in Makhana processing. The roasting and splitting of Makhana seeds is very tedious work. The hot seeds are hand placed in a platter for splitting for hours together which damages the palm of the worker.

5. Export Promotion Strategy:

- APEDA proposes to interact with the State Governments of Makhana producing states and ICAR institutions to collate production data and identify specific pockets for inducing development programs for export growth.
- APEDA also proposes to conduct export awareness programs for Makahna.
- Assistance under Agriculture Export Promotion Plan Scheme of APEDA will be extended to potential export units in the producing states.
- APEDA proposes to get geo mapping conducted to estimate the number of ponds, production district wise , and productivity calculation
- APEDA also proposes to interact with ICAR RCER Research Centre for Makhana located at Darbhanga, Bihar for assistance in promoting production and processing technology for Makhana.

2.10 Jaggery
(HS code 17011310 & 17011410)

1. About the product:

- Jaggery is sugarcane based natural sweetener made by the concentration of sugarcane juice without any use of chemicals. It is a traditional unrefined non-centrifugal sugar consumed in Asia, Africa, Latin America and the Caribbean. It is available in the form of solid blocks and in semi-liquid form.

- India's total production of Jaggery is approx. 7 million MT. Major producing states are Maharashtra, UP, Karnataka, Tamil Nadu, Andhra Pradesh, Gujarat and Punjab.

- Major sugarcane producing countries are as bellow:

Countries	Value In Million Tonnes
Brazil	736
India	352
China, mainland	126
Thailand	104
Pakistan	63
Mexico	57
Colombia	37
Australia	31
Indonesia	29
United States of America	28
Total	**1884**

2. Trade:

During 2016 the world import of jaggery are as below:

Global Import			
Product Group : Jaggery			
Country	**2016**		**% Share**
	Qty In MT	**Value in US$ Mill**	
Indonesia	4,599,050	1,994	15.3
U S A	2,400,414	1,310	10.1
CHINA P RP	2,618,757	948	7.3
India	2,117,090	919	7.1
Algeria	1,894,467	794	6.1
Malaysia	1,860,987	792	6.1
Nigeria	889,320	683	5.2
KOREA RP	1,771,409	676	5.2
Japan	1,258,093	586	4.5
Morocco	1,058,518	470	3.6
Other Countries	8,231,882	3,845	29.5
Total	**28,699,987**	**13,017**	**100**
Source: UN Comtrade			

- During 2016-17 India exported 23077 MTs of jaggery valued at $ 14.9 Million. The major destinations were Malaysia, USA, Nepal, Bhutan, and UAE.

India Export Statistics			
Product Group : Jaggery			
Country	**2016-17**		**% Share**
	Qty In MT	**Value in US$ Mill**	
Malaysia	9,014	5.2	35
United States	2,390	2.4	16
Nepal	5,170	2.0	13
Bhutan	1,562	1.0	6
United Arab Emirates	1,075	0.9	6
United Kingdom	833	0.8	5
Canada	726	0.7	5
Saudi Arabia	390	0.4	3
Oman	339	0.3	2
Kuwait	319	0.3	2
Other Countries	1,260	1.1	8
Total	**23,077**	**14.9**	100

Source: DGCIS

3. Constraints identified:

Major constraints identified in jaggery exports are

(a) Lack of infrastructural facilities in jaggery production and insufficient price dissemination in jaggery marketing

(b) Production unorganized , conventional methods followed under unhygienic conditions , without automation

(c) There is no standard Protocol being followed for making of Jaggery.

(d) Since the demand for dark yellow Jaggery is high , producers use Sodium Hydrosulphite & other chemicals (non-food grade and harmful to the human health) to obtain the desired yellow colour.

(e) Mostly units are using Iron utensils for Jaggery making which are not permitted since iron is prone to gathering rust and making the product food unsafe

(f) There are no packaging standards for Jaggery

(g) There is no Research & Development for product development and value-addition of Jaggery.

4. Export Strategy:

- There is need for diversification in product range of Jaggery based on international demand. APEDA proposes to work with DFRL and CFTRI for development of new products based on Jaggery for boosting export of value-added Jaggery products.

- APEDA proposes to get the standards through FSSAI for improvement of quality in Jaggery.

- Innovative packaging is proposed to be introduced for Jaggery with the help of IIP which can help in value addition and better price realization.

- APEDA proposes to collaborate with State governments of Maharashtra and UP to submit proposals under MoFPI schemes and TIES of Commerce Ministry to develop infrastructure for proper storage of Jaggery.

- APEDA will promote Jaggery in general and Palm Jaggery of West Bengal in International market during participation in trade fair and generic promotion.

- APEDA will provide the financial assistance under infrastructure development scheme to improve mechanization in Jaggery production to help increase capacity and efficiency of plant and increase quality production of Jaggery and Jaggery products.

2.11 Indian Wine

1. About the product :

- Wine is an alcoholic beverages made from different varieties of grapes by fermentation without the use of sugar, acids, enzymes, water, or other nutrients.

- Red wine, white wine and sparkling wine are main varieties of wine.

- Sparkling wine is made by double fermentation. In India red wine grape varieties like Shiraz, Cabernet Sauvignon, and Zinfandel are cultivated

- White wine grape varieties like Viognel, Sauvignon Blanc, Chardonnay and Chenin Blanc are cultivated.

- Internationally other wine varieties of grapes cultivate include Merlot, Cabernet Franc, Cinsault, Pinotagere, Pinot Noir, Chenin Blanc, Ugni Blanc, Clairette and Riesling.

- Despite large grape production, wine production in India is still at a nascent stage. This is primarily due to the fact that only 1% of the 123,000 acres of vineyards are actually dedicated to production of wine grapes

- As per International Organization of Vine and Wine(OIV), the wine production in the world during 2015 was 274 million litres and major producing countries were Italy (50 m Ltrs); France (47.4 m Lit); USA (22.10 m Lit); Argentina (13.4 m Lit); Chile (12.9 m Lit); Australia (11.9 m Lit); China (11.5 m Lit), South Africa (11.2 m Lit).

- In India, major wine producing states are Maharashtra, Karnataka and some parts in Himachal Pradesh.

2. Trade:

- During 2016, the global import of wine is 10296 Million litres valued at US$ 32102 Million. The major importers were USA (18%); UK (12.7%); Germany(8.5%); China(7.4%) and Canada(5.5%)

Global Import			
Product Group : Wine			
Country	**2016**		**% Share**
	Qty In MT	**Value in US$ Mill**	
U S A	1,114,303	5,793	18.0
U K	1,450,662	4,082	12.7
Germany	1,469,391	2,733	8.5
CHINA P RP	638,142	2,365	7.4
Canada	415,701	1,775	5.5
HONG KONG	62,935	1,553	4.8
Japan	276,356	1,500	4.7
NETHERLAND	459,691	1,310	4.1
Switzerland	184,885	1,076	3.4
Belgium	295,134	999	3.1
Other Countries	3,929,350	8,916	27.8
Total	**10,296,550**	**32,102**	100.0
Source: UN Comtrade			

- As per DGCIS data, India exported wine worth US$8.2 million during 2016-17. Major destinations were The Netherlands, Sri Lanka, UAE, France, UK, Japan and UK.

India Export Statistics			
Product Group : Wine			
Country	**2016-17**		**% Share**
	Qty In MT	**Value in US$ Mill**	
Netherland	328	4.7	57.7
Sri Lanka	87	0.7	8.4
United Arab Emirates	140	0.5	6.6
France	110	0.5	5.6
Japan	82	0.4	4.4
United Kingdom	132	0.4	4.3
United States	116	0.2	2.6
Singapore	18	0.2	2.1
Spain	59	0.1	1.7
Nepal	17	0.1	1.6
Other Countries	186	0.4	5.2
Total	**1,273**	**8.2**	100.0
Source: DGCIS			

3. **Constraints identified** : The following constraints are identified in export of wine from India :

a) The overall production of wine grapes in India is decreasing specially for the Red wine. Only 1% of the 123,000 acres of vineyards are actually dedicated to wine grape production.

b) The wineries compromise on quality of wine. Further, much of the domestic wine suits the sweeter Indian palate and to date has not been suitable for exports.

c) Despite distinguished Indian cuisine, we have not succeeded in promoting Indian wine alongside Indian Cuisine at the international level.

d) Compared to Indian exporters, other major wine exporting countries provide heavy subsidies to their exporters which makes Indian wine uncompetitive in the global market

4. **Interventions required :**

i) Support for Wine grape production in India by way of incentivization of vineyards.

ii) Introduction of internationally well known wine grape varieties through ICAR institutions.

iii) Upgradation and strengthening of wine production infrastructure.

iv) Formulation of norms and guidelines for export worthy wine processing units so that the units can graduate to international standards in terms of facility and quality standards.

5. Export Strategy

a) APEDA proposes to conduct Wine promotional events alongside Indian cuisine in identified countries in conjunction with Indian Missions. The exercise will be continued for at least three consecutive years.
b) Brand building of Indian wines in identified markets.

2.12 Dehydrated Onion

1. About the product:

- Onion is dehydrated and ground to produce onion powder, commonly used as a seasoning. It is a common ingredient in seasoned salt and spice mixes.

- Dehydrated onion flakes can be processed into onion powder by proper grinding. 10 Kgs of raw onions produce 1 Kg of dehydrated onion powder.

- Onion powder dissolves very easily and reconstitute quickly compared to onion flakes.

- India is second largest producer of onion in the world after China.

- The world production of dehydrated onion during 2013 was estimated at 210,000 MTs with USA producing 110,000 MTs, India 50,000 MTs, Egypt 15,000 MTs, and China 14,000 MTs.

- Major producing states for onions in India are Maharashtra, Karnataka, Gujarat, Bihar, Rajasthan and MP. But required variety for processing is white onion, which is available in Gujarat only.

- According to the ICAR-Directorate of Onion and Garlic Research, the state-wise production of onion in the country during 2015-16 was 20.93 million MTs (Maharashtra 6.53 m MTs; MP 2.85 m MTs, Karnataka 2.7 m MTs, Rajasthan 1.44 m MTs, Gujarat 1.36 m MTs, Bihar 1.25 m MTs)

2. Trade:

- Total global import of dehydrated onion for the year 2016 was equivalent to US$ 375 million.

Global Import			
Product Group : Onion, dehydreted			
Country	**2016**		**% Share**
	Qty In MT	**Value in US$ Mill**	
Germany	25,940	62	16.5
U K	16,152	34	9.1
Japan	6,123	25	6.7
NETHERLAND	6,584	18	4.8
Belgium	8,809	16	4.3
Canada	4,822	15	4.0
Indonesia	4,108	14	3.7
U S A	9,489	13	3.5
Poland	9,178	13	3.5
Australia	3,585	11	2.9
Other Countries	81,253	154	41.1
Total	**176,043**	**375**	100.0
Source: UN Comtrade			

- Major importing countries were Germany (16.5%); UK (9.1%), Japan (6.7%), The Netherlands (4.8%) and Belgium (4.3%).

- India is leading exporter of dehydrated onion to Germany, UK, USA, Poland and Russia During the year 2016-17.

India Export Statistics			
Product Group : Onion, dehydreted			
Country	**2016-17**		**% Share**
	Qty In MT	**Value in US$ Mill**	
Germany	11,565	19	16.6
United Kingdom	5,965	11	9.7
United States	5,661	10	9.2
Poland	4,246	6	5.6
Russia	4,295	6	5.6
Brazil	3,759	6	5.2
Belgium	3,468	6	5.1
South Africa	2,537	4	3.7
Spain	2,067	3	2.7
Canada	1,536	3	2.7
Other Countries	21,557	38	33.9
Total	**66,655**	**112**	100.0

Source: DGCIS

3. Constraint identified

a) Presently processing industry is suffering from non availability of high TSS white onion varieties, irregular year round supply, poor seed supply, high post harvest losses, etc.

b) The production area for white onion, good for dehydration, is limited to Gujarat only and the productivity levels are low.

c) The pollution control norms for dehydrated onion production factories are very stringent though the waste water produced in dehydration process is usable for agriculture. The cost of up gradation to comply with new pollution control norms is prohibitive considering that most of the units are falling under MSME category.

d) High import duty in the major importing countries.

e) Export Credit required in the interest of Exporters. It may be included in interest subvention scheme of DGFT**.**

4. Interventions required/Export Strategy

- Development of high TSS white onion varieties through Directorate of Onion and Garlic Research / IIHR.

- Till such varieties are developed and commercially cultivated, state governments may import seeds of white onion with high TSS value.

- APEDA to pursue with the Central Pollution Control Board to look into the pollution control norms with reference to the factories of processed food like dehydrated onion.

- Duty Drawback (DBK): Earlier drawback on Dehydrated Onion was 1% of FOB value, post GST it has been reduced to 0.15% of FOB value whereas input GST on consumables such as chemicals, coal, diesel and services such as storage and transportation impacts on rise in cost of production.

To counter this hike in production cost government may like to consider restoration of drawback on Dehydrated Onions back to 1%.

- FTA: Egypt - which is one of India's competitor in onions and they have FTA with Europe whereas dehydrated onions being exported from India to EU attracts duty of 8% to 15% - which makes us less competitive.

2.13 Sorghum (Jowar) and Sorghum Products

1. About the product :

- Sorghum is one of the top five cereal crops in the world.
- Sorghum known as a high-energy, drought tolerant crop that is environmentally friendly.
- FAO estimates of Sorghum during 2014 are as follow:

International Production of Sorghum			
			Production in MT
		2014	
Sr No.	Country	Production	Share(%)
1	Mexico	8,394,057	14.8
2	Nigeria	6,741,100	11.9
3	Sudan	6,281,000	11.0
4	India	5,390,000	9.5
5	Ethiopia	4,339,134	7.6
6	Argentina	3,466,410	6.1
7	China P Rp	2,887,203	5.1
8	Brazil	2,279,114	4.0
9	Burkina Faso	1,707,613	3.0
10	Niger	1,425,980	2.5
	Total	**56,893,864**	

Source: Food & Agricultural Organisation (FAO)

- As per Agriculture Statistics at a Glance 2016 , of the all India production of 4.41 m MTs, the major producing states of during 2015-16 are Maharashtra (1.31m MTs), Karnataka (1.15 m MTs), Tamil Nadu (0.55 m MTs), MP (0.44 m MTs) :

2. Trade :

- As per UN Comtrade, during 2016 the world import of sorghum and other Millets was 8.9 Million MTs valued at $ 2025 Million. The major importing countries are as below:

Global Import			
Product Group : Sorghum and other Millets			
Country	**2016**		**% Share**
	Qty In MT	**Value in US$ Mill**	
CHINA P RP	6,647,504	1,428	70.5
Mexico	648,696	143	7.1
Japan	640,809	128	6.3
PAKISTAN IR	153,932	49	2.4
Other Asia, nes	73,818	23	1.1
Spain	103,574	20	1.0
South Africa	99,329	19	0.9
Italy	71,957	18	0.9
U K	35,782	17	0.8
Belgium	43,548	14	0.7
Other Countries	471,198	166	8.2
Total	**8,990,147**	**2,025**	100.0

Source: UN Comtrade

- Since value added products of sorghum are not separately classified under ITC HS Code classification, data for the same is not available.
- During 2016-17, the Export of Sorghum grain from India $ 24 Million with major export destinations as Kenya, Pakistan, Ethiopia, Saudi Arabia and Egypt.

India Export Statistics			
Product Group : Sorghum (Jowar)			
Country	**2016-17**		**% Share**
	Qty In MT	**Value in US$ Mill**	
Kenya	20,002	4.9	20.3
Pakistan	6,416	4.1	16.7
Ethiopia	10,000	2.5	10.4
Saudi Arabia	5,585	2.0	8.4
Egypt Arab Republic	1,243	1.4	5.9
United Arab Emirates	2,885	1.3	5.4
Sudan	4,315	1.1	4.7
Bangladesh	2,229	0.8	3.4
Kuwait	1,558	0.7	3.0
United States	826	0.7	2.9
Other Countries	11,068	4.6	19.0
Total	**66,127**	**24.3**	100.0

Source: DGCIS

3. Constraints identified :

a) Very few companies are preparing Sorghum products which are not familiar in the market.

b) Appearance and packing of the products are not attractive.

c) Manufacturers are not aware of the required quality standards in international market.

4. Export strategy:

- Awareness programs will be organized in conjunction with Indian Institute of Millets Research (IIMR), Hyderabad in various parts of India to educate the people and manufacturers for preparation of value added products from sorghum.

- Tasting of value added products made from Indian sorghum will be organized in wet sampling during India's participation in international event and manufacturer exporters will be offered preference in participation in international events.

- Quality standards for value added products of Sorghum to be developed through FSSAI.

2.14 Cassava (Tapioca Starch)

1. About the product:

- Cassava is is a tuber crops like yam and sweet potato and is used to extract starch known as Tapioca Starch

- Tapioca Starch is a food grade product refined from cassava roots.

- Starch is an important constituent in many foods. It helps in achieving the desired viscosity in cornstarch pudding, sauces, pie fillings and gravies, biscuits, muffins, popovers, pastry, cake and bread.

- It is used as a water binding and texturizing agent. It has a high viscosity, water-holding capacity and binding abilities.

- The pulp left over after extracting starch is used as animal fodder.

- Total Production of Tapioca in India during the year 2014-15 was 4.37 Million MTs.

Indian Production of TAPIOCA			
Production(000 Tonnes)			
		2014-15	
Sr No.	State	Production	Share(%)
1	Tamil Nadu	2,700	61.7
2	Kerala	1,207	27.6
3	Andhra Pradesh	258	5.9
4	Nagaland	92	2.1
5	Meghalaya	34	0.8
6	Pondicherry	32	0.7
7	Assam	30	0.7
8	Karnataka	13	0.3
9	Andaman & Nicobar	3	0.1
10	Mizoram	2	0.0
	Total	**4,373**	

Source: National Horticulture Board (NHB)

- Major producing states are Tamil Nadu, Kerala, Andhra Pradesh, Nagaland etc.

2. **Trade** :

- As per UNCOMTRADE, the global import of Tapioca/Cassava Starch are as below:

Global Import			
Product Group : Cassava starch			
Country	**2016**		**% Share**
	Qty In MT	**Value in US$ Mill**	
CHINA P RP	2,073,084	729	51.4
Indonesia	630,127	227	16.0
Other Asia, nes	327,464	118	8.3
Malaysia	290,225	101	7.1
U S A	96,060	63	4.4
Japan	130,833	48	3.4
Singapore	61,150	24	1.7
KOREA RP	29,651	11	0.8
NETHERLAND	12,930	9	0.6
South Africa	19,158	8	0.6
Other Countries	150,833	80	5.6
Total	**3,821,515**	**1,418**	100.0
Source: UN Comtrade			

○ India does not have a significant presence in the global market for export of Tapioca Starch. Very insignificant quantities have been exported to South Africa, Qatar, Reunion Island etc.

3. **Constraints identified**:

i) Non availability of qualitative high yield varieties

ii) Crop frequently prone to attack of diseases (cassava mosaic virus, tuber rot etc)

iii) Poor resource base of farmers limiting adoption of proper technologies

iv) Short shelf life

v) Lack of structured market intelligence and marketing system

vi) Lack of awareness about the product

vii) Lack of organized efforts in tapping the export potential of cassava products

4. Export Strategy

a) Development of quality standards through FSSAI.

b) APEDA proposes to work with ICAR institutions for:

(i) Identifying and supplying short duration early bulking cassava varieties and improved productivity

(ii) To develop pre and post harvest package of practices for Cassava

(iii) Development of starch extraction technologies and to modernize the age-old equipment used in cassava products manufacturing units.

(c) APEDA proposes to get a study conducted to assess the potential markets for cassava and cassava based products in international markets

2.15 Gherkins

1. About the product:

- Originated from West Africa, gherkins is a small cucumber horned in texture

- China is the world's largest producer of cucumbers and gherkins followed by Russia and Turkey. These three countries account for 3/4th of world production of around 71 Million Tonnes.

International Production of Cucumbers And Gherkins			
			Production in MT
		2014	
Sr No.	Country	Production	Share(%)
1	China P Rp	56,904,098	79.28
2	Russia	1,820,123	2.5
3	Turkey	1,780,472	2.5
4	Ukraine	940,940	1.3
5	Spain	775,903	1.1
6	Uzbekistan	718,570	1.0
7	Mexico	707,632	1.0
8	Japan	548,800	0.8
9	Poland	532,039	0.7
10	Indonesia	477,989	0.7
	Total	**71,773,537**	
Source: Food & Agricultural Organisation (FAO)			

- Gherkin production is around 2 lakh MT primarily grown in Karnataka, Andhra Pradesh and Tamil Nadu.

Indian Production of CUCUMBER			
		Production(000 Tonnes)	
		2014-15	
Sr No.	State	Production	Share(%)
1	Karnataka	121	17.8
2	Andhra Pradesh	94	13.9
3	Assam	72	10.6
4	Bihar	67	9.9
5	Jammu & Kashmir	65	9.5
6	Telangana	61	9.0
7	Madhya Pradesh	34	5.0
8	Orissa	33	4.9
9	Kerala	32	4.7
10	Jharkhand	26	3.8
	Total	**678**	
Source: National Horticulture Board (NHB)			

2. Trade:

- As per UNCOMTRADE, global import of gherkins in 2016 was valued at US$ 618 Million.
- Major importers are given below:

Global Import			
Product Group : Gherkin			
Country	**2016**		**% Share**
	Qty In MT	**Value in US$ Mill**	
U S A	53,904	64	10.4
Canada	49,882	63	10.2
France	46,424	58	9.4
NETHERLAND	71,248	55	8.9
Germany	48,739	53	8.6
U K	41,939	41	6.6
RUSSIA	65,185	34	5.5
Belgium	24,058	33	5.3
Japan	23,867	22	3.6
Spain	27,048	18	2.9
Other Countries	201,443	177	28.6
Total	**653,737**	**618**	100.0
Source: UN Comtrade			

- Major exporting countries were Germany, Turkey, India, USA and The Netherlands

3. Constraints identified:

a) Stiff competition from other global exporters like Vietnam, Ukraine, China and Turkey.
b) High duties imposed on Indian gherkins by Canada (8.5%) EU (14.5%),Russia (22%) and Germany (17.5% (MFN) or 14.5% (GSP)
c) Dependence on only imported seeds makes the input more expensive every year
d) Crop Insurance Schemes not available
e) Turkey and Netherlands who are major supplier to Germany enjoy 0% duty.

4. Export Strategy:

i. Development of innovating packaging for preserved gherkins
ii. APEDA will assist exporters to submit proposals to MoFPI for capital subsidy or assistance for water treatment / water recycle plants.
iii. Government intervention sought for speedy FTA negotiations.
iv. APEDA to pursue with Government for considering exemption of EoUs from GST. Gherkin crop may be considered as mandatory crop by ICAR and conduct research to evolve local exportable varieties.

2.16 Potato Flakes/Powder

1. About the product:

- The products based on potato include potato flakes, dehydrated potato, potato granules, pellets, powder, shredded and sliced potato.

- Dehydrated potato flakes are made by pressing cooked mashed potatoes onto a drum drier, which forms a sheet that can be broken up and ground to the required density.

- Potato flakes, apart from food use, are also used in products like instant mashed potatoes, croquettes, pasta and fabricated snacks. As a thickener, they enhance creamy frozen desserts, gravies and chocolate milk. Like other dehydrated potato products, they extend the shelf life of baked goods.

- India is the second largest producer of Potato in the world, with a production of around 46.61 million MTs in 2016-17 (2^{nd} estimated by National Horticulture Board).

- As per FAO Database 2014, in a world production of 350 Million MTs, major producers are China(95.52 m MTs), Russia(31.50 m MTs), Ukraine(23.69 m MTs) , USA (20.05 m MTs).

International Production of Potatoes			
			Production in MT
		2014	
Sr No.	Country	Production	Share(%)
1	China P Rp	95,570,393	27.3
2	India	46,395,000	13.3
3	Russia	31,501,354	9.0
4	Ukraine	23,693,350	6.8
5	Germany	11,607,300	3.3
6	Bangladesh	8,950,000	2.6
7	France	8,085,184	2.3
8	Poland	7,689,180	2.2
9	Netherland	7,100,258	2.0
10	Belarus	6,279,715	1.8
	Total	**349,935,343**	
Source: Food & Agricultural Organisation (FAO)			

- In India major producing states are Uttar Pradesh (14.8 Million MTs) , West Bengal (12 Million MTs) , Bihar(6.3 Million MTs) and Madhya Pradesh (3 Million MTs)

Indian Production of POTATO			
			Production(000 Tonnes)
		2014-15	
Sr No.	State	Production	Share(%)
1	Uttar Pradesh	14,879	31.0
2	West Bengal	12,027	25.1
3	Bihar	6,346	13.2
4	Madhya Pradesh	3,048	6.4
5	Gujarat	2,964	6.2
6	Punjab	2,262	4.7
7	Assam	1,706	3.6
8	Haryana	723	1.5
9	Jharkhand	660	1.4
10	Chattisgarh	601	1.3
	Total	**48,009**	
Source: National Horticulture Board (NHB)			

3. Trade

- During 2015, the global import of Potato (Flour, Meal, flakes, granules and pellets) was 494,542 MTs worth US$ 583 Million. The major importers were Italy ($50 m), UK ($ 42 m), Malaysia ($ 38 m); France ($ 33 m) and USA ($ 26 m).

Global Import			
Product Group : Potato (Flour, Meal, flakes, granules and pellets)			
Country	**2016**		**% Share**
	Qty In MT	**Value in US$ Mill**	
Italy	49,800	52	8.9
U K	41,891	46	7.9
Malaysia	37,763	43	7.4
France	32,581	42	7.2
U S A	26,372	35	6.0
Japan	23,182	32	5.5
Mexico	21,353	28	4.8
Belgium	20,504	28	4.8
Germany	22,400	24	4.1
Spain	16,623	19	3.3
Other Countries	202,073	234	40.1
Total	**494,542**	**583**	100.0

Source: UN Comtrade

- Major exporters were Germany, The Netherlands, Belgium, Canada, and USA.

- India ranks is 17th as exporting country for potato Flakes with an export of USD 3.37 million and share of 0.6% of total global export.

India Export Statistics			
Product Group : Potato (Flour, Meal, flakes, granules and pellets)			
Country	**2016-17**		**% Share**
	Qty In MT	**Value in US$ Mill**	
United States	2457	1.4	31.7
Malaysia	580	0.7	16.5
Algeria	528	0.6	13.8
Thailand	202	0.3	6.3
Oman	275	0.3	5.9
Australia	481	0.3	5.9
United Arab Emirates	178	0.2	4.1
Nepal	160	0.1	2.7
Turkey	105	0.1	2.3
Japan	72	0.1	2.0
Other Countries	579	0.4	8.8
Total	**5617**	**4.4**	100.0
Source: DGCIS			

4. Constraints identified:

(a) Lack of technical expertise and technology

(b) Shortage of processing potato varieties with high solid content

(c) Higher Custom duty for India in EU

5. Export Strategy:

i) An important feature of realizing higher yields and returns in potato flakes industry is the separation of lumps before the product goes for drying. With this new process step a significant yield improvement is achieved. APEDA shall assist Indian manufacturers to adopt such technologies to realize more returns in the export markets.

ii) APEDA shall collaborate with Central Potato Research Institute (CPRI), Shimla and their station at Modipuram to develop the processing variety of potato.

iii) APEDA shall take up the import duty issue during bilateral discussions with EU.

iv) APEDA will identify the required processing variety of potatoes in consultation with industry and collaborate with state horticulture departments to facilitate capacity building activities to ensure availability through contract farming.

2.17 Groundnut

1. About the product:

- Groundnut is the major oil seed crop in India, available throughout the year due to a two-crop cycles, harvested in March and October.

- India is the second largest producer of groundnuts in the world. Indian groundnuts are available in different varieties: Bold, Java and Red Natal.

- Apart from raw edible peanuts, India is also in a position to supply Blanched Peanuts, Roasted Salted Peanuts and Dry Roasted Peanuts, Peanut Butter and a variety of peanut based products.

- Annual production of groundnut in India is in excess of 7.4 million MTs primarily in Gujarat, Rajasthan, Karnataka, Andhra, Telangana, Maharashtra, and Tamil Nadu. India is the second largest producer and accounts for 16% share of the global production of 39.4 million MT.

Indian Production of Groundnut			
			Production(000 Tonnes)
		2014-15	
Sr No.	**State**	**Production**	**Share(%)**
1	Gujarat	3,020	40.8
2	Rajasthan	1,010	13.7
3	Tamil Nadu	930	12.6
4	Karnataka	500	6.8
5	Andhra Pradesh	490	6.6
6	Maharashtra	380	5.1
7	Madhya Pradesh	370	5.0
8	Telangana	300	4.1
9	Uttar Pradesh	80	1.1
10	Others	260	3.5
	Total	**7,400**	
Source: National Horticulture Board (NHB)			

- The other major producers are China, Nigeria, Sudan, Argentina, Myanmar etc.

International Production of Groundnuts, With Shell			
			Production in MT
		2014	
Sr No.	**Country**	**Production**	**Share(%)**
1	China P Rp	16,550,213	42.0
2	India	6,557,000	16.6
3	Nigeria	3,413,100	8.7
4	Sudan	1,767,000	4.5
5	Argentina	1,165,924	3.0
6	Myanmar	865,900	2.2
7	Chad	791,088	2.0
8	Senegal	669,329	1.7
9	Indonesia	638,896	1.6
10	Cameroon	614,000	1.6
	Total	39,401,648	
Source: Food & Agricultural Organisation (FAO)			

2. Trade:

- The global Import during 2014 was around 2.4 million tonnes of Groundnuts.
- Major importers are Netherland, China, Indonesia, Germany, Mexico and Russia
- India ranks 3rd in export of groundnuts with a share of 13.70%.
- Major markets for Indian groundnuts are Indonesia, Vietnam, Malaysia, Philippines, Thailand, Pakistan, china, Russia and EU.

India Export Statistics			
Product Group : Groundnuts			
Country	**2016-17**		**% Share**
	Qty In MT	**Value in US$ Mill**	
Indonesia	185902	216	26.6
Vietnam Social Republic	158388	170	21.0
Malaysia	62783	75	9.3
Philippines	50737	61	7.5
Thailand	44125	52	6.5
Pakistan	35940	30	3.7
China P Rp	22382	23	2.8
Russia	20999	23	2.8
Algeria	17213	19	2.4
Hong Kong	14571	19	2.3
Other Countries	112663	124	15.3
Total	**725704**	**812**	100.0

Source: DGCIS

3. Constraints Identified:

i) Lack of good quality export worthy groundnut varieties.

ii) Lack of groundnut varieties which are aflatoxin free.

iii) Poor quality of infrastructure facilities

4. Interventions required:

a) Production of export-worthy, aflatoxin resistant Groundnut varieties: In order to improve the varietal quality of export worthy groundnut, there is need to identify the groundnut seeds for best suitable variety for export which is resistant to aflatoxin.

b) Re-Classification of Peanut Butter under Chapter 20: The HS code for peanut butter is not aligned with the HS codes used by most of other countries. As can be seen from India's ITC (HS) Classification of Exports & Imports Items, the Peanut Butter has been placed under chapter 15 with HS Code 1517.90.20. On the other hand, Peanut Butter is classified under Chapter 20 with HS code 2008.11.10 by most other countries including US, EU, Canada and Turkey. In the absence of harmonization, the exports of peanut butter are being significantly impacted. The exporters are not able to take advantages of the benefits of the PTA/RTAs as the HS codes differ in the two partner countries. Besides, the exporters of peanut butter are also facing immense difficulty in Customs documentation. The HS Classification of Peanut Butter in

India needs to be synchronized with global classification i.e. Peanut butter should be classified under HS code 2008.11.10 in order to facilitate smooth export of Peanut Butter from India.

d) Terminal Handling charges : The Terminal Handling Charges (THCs) are hiked arbitrarily by shipping lines . The shipping lines have also started charging THC in dollar terms instead of rupees. In order to promote competition and lower costs, it is proposed to take up this issue with Ministry of Shipping for rationalization of THCs.

e) Improvement in port infrastructure: There is need for increasing the ability of ports to accept large size vessels which would help in lowering pre-berthing cost and turnaround time. The connectivity with inland transport networks also needs to be increased. The agricultural cargo should be provided with special purpose agri jetties in ports like Kandla and Mundra to reduce ship turnaround time.

6. Export Strategy:

i) Improving export infrastructure: The groundnut processing units in India are still old fashioned and there is need for improvement in this sector. This is essential in view of the stringent sanitary and phytosanitary requirements by extending financial assistance under the proposed new Agriculture Export Plan Scheme.

ii) **Inclusion of more laboratories for issuance of pre-shipment quality certification for exports of groundnut to Russian Federation:** Presently there are 8 recognized laboratories out of them only two are operational for testing and analysis of groundnut consignments for Russia which is insufficient to cater to the requirements. APEDA proposes to augment the laboratories so that testing can be carried out at various locations.

iii) **Negotiating duty free access to Indian groundnuts in China:** China is one of the key markets for groundnuts. Despite India being the largest exporter of groundnuts, its share in China is less than 10%. This can be attributed to the fact that China imposes 15% import duty on Indian groundnut. The competitive edge of Indian groundnuts gets erazed due to the zero duty access provided by China to the competing countries. Several African countries enjoy zero duty access for the groundnuts in China. APEDA proposes to take this matter further through DoC and EOI.

2.18 Biscuits

1. About the product:

Biscuit & Other bakers is a term used for a variety of primarily flour-based baked food products.

Bakery products, due to high nutrient value and affordability, are an item of huge consumption. Due to the rapid population rise, the rising foreign influence, the emergence of a female working population and the fluctuating eating habits of people, they have gained popularity among people, contributing significantly to the growth trajectory of the bakery industry. Bakery holds an important place in food processing industry and is a traditional activity. With regard to bakery products, consumers are demanding newer options, and the industry has been experiencing fortification of bakery products in order to satiate the burgeoning appetite of the health-conscious Indian. A number of healthy products have been launched in the bakery segment, and are gaining popularity at a high rate. The mounting presence of bakery chains has further triggered the growth in the sector.

In India major producing Centres are Kolkata and Hyderabad for exports.

2. Trade

- During 2016, the global import of Biscuits is 9059532 MT with a value of U$D 24,542 Million.

- World top Importing countries are USA (16.5%), UK (8.8%), Germany (7.3%), France (6.8%) and Canada (5.4%).

Global Import			
Product Group : Biscuits			
Country	**2016**		**% Share**
	Qty In MT	**Value in US$ Mill**	
U S A	1,287,013	4,044	16.5
U K	849,895	2,172	8.8
Germany	654,824	1,789	7.3
France	683,306	1,680	6.8
Canada	436,843	1,315	5.4
NETHERLAND	419,862	997	4.1
Belgium	371,928	934	3.8
Italy	289,684	690	2.8
CHINA P RP	118,658	618	2.5
Spain	262,534	583	2.4
Other Countries	3,684,986	9,721	39.6
Total	**9,059,532**	**24,542**	100.0
Source: UN Comtrade			

- India Export of Biscuits during 2016-17 was around 164 Thousand MTs, valued around USD 192 Million. Major markets are listed below:

India Export Statistics			
Product Group : Biscuits			
Country	**2016-17**		**% Share**
	Qty In MT	**Value in US$ Mill**	
United States	14,013	23.9	12.5
Nepal	10,398	14.0	7.3
Haiti	9,806	12.2	6.3
Tanzania Republic	12,387	10.0	5.2
Angola	10,505	9.7	5.1
United Arab Emirates	3,819	7.5	3.9
Congo P Republic	8,120	6.5	3.4
Uganda	6,910	5.5	2.9
Canada	3,344	5.4	2.8
Guinea	5,838	5.1	2.7
Other Countries	79,158	92.0	47.9
Total	**164,299**	**191.9**	100.0
Source: DGCIS			

3. Constraints identified:

a.) Lack of standardization in manufacturing processes

b.) Difficulty meeting European health and Phytosanitory standards.

c.) Shelf life is a major issue.

d.) Lack of recognition of India as a biscuit manufacturing country

e.) Delays in clearance of imported ingredients

4. Export Strategy:

APEDA proposes the following:-

1) In order to be competitive in the global market, it is imperative that Indian manufacturers standardize their manufacturing process. The top exporting countries in this segment follow highly standardized production lines according to different product types. APEDA will undertake awareness programs among our manufacturers on the following different product lines by product type:
   - **a. Hard biscuit/cracker production lines**
   - b. **Soft biscuit production lines**
   - c. **Rusk production lines**
2) APEDA will work with IIP to develop appropriate packaging standards for biscuits to address the issue of longer shelf life and to arrest Fungal and Moisture.
3) APEDA to continue focusing on promotion programs in African Market, due to its inclination towards low cost and smaller packs.
4) APEDA will pursue FSSAI for putting in place a mechanism for speedy approvals for imported ingredients used in biscuit and confectionery industry.

2.19 Ethnic Food i.e. HS Code 21069099

1. About the product:

Ethnic Food are food products in Ready to eat, Ready to Serve and IQF products with Regional (Indian) taste and flavor and which comes under food preparation not elsewhere category.

2. Trade

- During 2016 the global import of Food Prep nes is 6.4 Million MT with a value of U$D 31,562 Million.
- World top Importing countries are USA (6.9%), UK (6.3%), Germany (4.7%), China (4.7%) and Netherland (4%)

Global Import			
Product Group : Ethinic Food i.e. HS Code 210690			
Country	**2016**		**% Share**
	Qty In MT	**Value in US$ Mill**	
U S A	463,983	2,176	6.9
U K	358,685	1,993	6.3
Germany	331,138	1,482	4.7
CHINA P RP	161,060	1,481	4.7
Canada	235,335	1,290	4.1
NETHERLAND	325,280	1,260	4.0
Australia	180,284	1,217	3.9
KOREA RP	95,600	1,067	3.4
Japan	407,161	951	3.0
France	198,252	932	3.0
Other Countries	3,600,191	17,714	56.1
Total	**6,356,969**	**31,562**	100.0
Source: UN Comtrade			

- India has an export in 2016- 17 as per DGCIS is USD 132.1 Million.

India Export Statistics (Ethinic Food)			
HS Code : 21069099(Other Food Preparation Not Elsewhere Specified)			
Country	2016-17		% Share
	Qty In MT	Value in US$ Mill	
United States	12309	42.9	38.0
Nepal	5008	13.3	11.5
United Arab Emirates	3439	10.9	10.4
Australia	3455	9.9	6.0
Canada	3036	8.4	5.1
Singapore	1411	5.2	4.4
United Kingdom	1612	4.9	3.1
Malaysia	1435	3.2	3.0
Uzbekistan	255	2.3	2.4
Sri Lanka	518	2.1	2.1
Other Countries	80	0.3	14.0
Total	**40510**	**132.1**	100.0
Source: DGCIS			

3. Constraints identified:

a.) Exceeding limits of Aflatoxin found in ingredients like peanut, maize, etc., in snacks

b.) Use of additives and preservatives that may not be permitted or lack of adherence to labeling requirements as per importing country standards

c.) Mixed consignments by merchant exporters without the knowledge of manufacturers.

d.) inadequate promotion of Indian ethnic food, among mainstream population in importing countries

4. Export Strategy:

1) APEDA will continue its awareness programs among exporters and downstream supply chain related to the best practices for controlling aflatoxin.
2) APEDA will collaborate with FSSAI to regularly educate the manufacturers for proper labeling requirements.
3) APEDA shall evolve suitable mechanism to monitor and regulate mixed consignment exports by merchant exporters.
4) We should make arrangements to visit various fairs & seminars internationally to market our exporters products.
5) APEDA proposes to setup a brand promotion portal for promoting Indian Ethnic foods using digital tools and connect Indian manufacturers with international buyers.

2.20 Basmati Rice- Registered GI product

1. **GI States and Production:** 7 States viz, Punjab, Haryana, Himachal Pradesh, Uttarakhand, Delhi, Western UP and two districts in J&K form registered GI area. As per Crop Survey carried out under Basmati Development Fund, details of area and production in last three years were 8.71 m MTs, 8.06 m MT and 6.16 m MTs respectively.

2. **Trade:**

The export of Basmati rice during 2016-17 was 4 Million MTs ($3.2bn) respectively. Apart from India, Basmati rice is produced and exported only by Pakistan, In global market Pakistan has a share of about 15% with India controlling the remaining 85%.

Major Markets: India exports Basmati rice mainly to Saudi Arabia, Iran, UAE, Iraq, EU and USA.

India Export Statistics			
Product Group : Basmati Rice			
Country	**2016-17**		**% Share**
	Qty In MT	**Value in US$ Mill**	
Saudi Arabia	809,343	673	20.9
Iran	716,582	566	17.6
United Arab Emirates	614,657	469	14.6
Iraq	453,741	338	10.5
Kuwait	162,676	150	4.7
United States	108,991	112	3.5
Yemen Republc	130,653	104	3.2
United Kingdom	150,537	102	3.2
Oman	83,153	76	2.4
Qatar	81,963	73	2.3
Other Countries	672,900	555	17.3
Total	**3,985,196**	**3,217**	100.0

Source: DGCIS

3. Constraints identified:

(i) Major constraint in supply chain is management of pesticide residues particularly for EU and USA markets. Awareness programs are proposed to be organized every year in Kharif season to sensitize farmers about judicious use of pesticides.

(ii) Towards administration of Basmati GI, APEDA has prepared a web enabled traceability system proposed to be introduced in Kharif 2017, Seven states in GI area, have been approached for registration of Basmati farmers through district level offices of the department of agriculture. Commission agents in APMC markers, rice millers, exporters and merchants are also required to register. This system in due course will help APEDA to develop a database for dissemination of information about MRLs of pesticide residue and other information with stakeholders.

4. Export Promotion Strategy:

i) Generic promotion: Basmati rice from India is well accepted in the international and is exported to about 130 countries. Generic promotion is planned in focus markets such as Iran which is major importer of Indian Basmati rice and China where market access has recently been obtained.

ii) As per trade feedback Basmati rice supplies enter China from Hong Kong. Therefore, before taking up promotion program in China and event is proposed to be held in Hong Kong. Embassy of India at Hong Kong and China will be approached to identify and event management company and coordinate organization of the event on behalf of APEDA and AIREA, Embassy in China will be request3ed to identify two cities in china where events would be organized keeping in view the potential for import and consumption of Indian Basmati and non-basmati rice.

iii) Having organized three promotion events as above, the All India Rice Exporters' Association (AIREA) has been advised to target effective participation in the 12th China (Guangzhou) International High quality Rice and Brand Grains Exhibition 2018 which may be held in June, next year.

iv) Support from Basmati Development Fund (BDF) would be extended for generic promotion of Basmati rice in the international trade fairs where APEDA would be participating in next five years.

2.21 Non-Basmati Rice

1. Global Production:

- Rice produced in several countries of the world but major producing countries are China, India, Indonesia, Bangladesh, Philippines, Vietnam and Thailand.
- The global production of Rice 2014 was 711 Million MTs.
- India produces 105 Million MTs of rice annually. Major producing states are West Bengal, Punjab, Orissa, UP, Madhya Pradesh, Chhatisgarh, Andhra Pradesh, Tamil Nadu, Maharashtra, Bihar and Haryana.

2. Trade :

- Global rice trade currently stands at around 42 m MTs. The rice export market is highly concentrated with the top five rice exporters accounting for 80% of the global rice trade. Of the top five exporters, four (Thailand, India, Vietnam and Pakistan) are from Asia.
- Other major exporter is USA.
- Major importing countries are China, Benin, Saudi Arabia, UAE, Iran, EU, and Indonesia.
- India’s export of non basmati rice during 2016-17 is 6.8 m MTs ($ 2.5 Billion) respectively.

India Export Statistics			
Product Group : Non Basmati Rice			
Country	**2016-17**		**% Share**
	Qty In MT	**Value in US$ Mill**	
Benin	702,182	253	10.0
Nepal	583,734	210	8.3
Senegal	676,060	190	7.5
Guinea	541,574	183	7.2
Iraq	305,671	141	5.6
United Arab Emirates	260,219	134	5.3
Cote D Ivoire	375,025	124	4.9
Somalia	354,677	122	4.8
Liberia	252,382	91	3.6
South Africa	254,070	89	3.5
Other Countries	2,465,211	994	39.3
Total	**6,770,804**	**2,531**	100.0

Source: DGCIS

3. Constraints and addressing the same:

i) As per trade feedback, defaults in payment and unreasonable complaints relating to quality from the im0proters after receiving the consignment is significant constraints in the export of non basmati rice.

ii) Nature of restrictions for export of Basmati rice have been notified vide DGFT Notification NO 18/2015-16 dated August 1, 2016. One of the new conditions notified is :

iii) "Export of Basmati rice shall not be permitted on the basis of Documents against Acceptance (D/A) unless such export is covered either by Bank Guarantee of ECGC guarantee, with effect from 01.10.2016." While examining this matter in DGFT and EP-Agri Division in

DoC, it was considered that matter will be reviewed after six months.

Trade has reported that restriction on export of Basmati rice on the basis of D/A has led to remarkable im0provement after a month or so of uncertainty. The prices have increased and trade has not seen any defaulters or complaints about payment. Overall the decision to ban business on D/A has been favorable to the trade.

iv) While requesting Government to continue the policy of restriction of export against D/a trade has proposed that this restriction may also be extended to export of non basmati rice. It is expected that restriction on export of rice on the basis of D/a would lead to reduction in payment defaults and arbitrary complaints relating to quality with intention of delay in payment and seeking reduction in price by importers after receiving the supplies.

v) Price of Thai 100% Grade B rice is used as benchmark for comparison of international price of non basmati rice. Traditionally, sortex graded non basmati rice with 5% broken from India used to command about 30 USD per MT lower than Thai 100% Grade B rice. In last one year or so the situation has changed and prices for Indian non Basmati rice are at par or slightly higher than Thai 100% Grade B Rice. Therefore, putting restriction on export of non basmati rice on the basis of D/A is not expected to impact negatively the quantum of export.

4. Export promotion strategy:

i) Non Basmati rice from India is exported to about 140 countries and is well accepted particularly in coastal nations in West Africa. Other major markets are in West Asia. Neighboring countries like Nepal and Bangladesh import quantities varying depending on change in their domestic production

Generic promotion is planned through international trade fairs where APEDA participates for promotion of all APEDA products.

2.22 Organic products

1. Export of organic products:

Export of organic products certified under National Programme for Organic Production are growing at steady pace. During the year 2016-17 India exported more than 3.0 lakh tons of various organic commodities valuing INR 2478 crore. Soybean and soybean products (54%), non-basmati and basmati rice (15.6%) pulses and oilseeds (excluding soybean) (9%) and amaranth and flaxseeds are important exported commodities. Among value added products sugar and sugar products (8%), fruit products such as pulp, puree, concentrates etc (1.5%), processed food products and essential oils (in small quantities) are important.

2. **Identification of important products:** To ensure better value realization there is a need for promotion of traditional as well as value added products.

2.1 **Important traditional products**

i. Rice
ii. Oil seeds including Soybean
iii. Pulses and lentils

2.2 **Value added products will also be targeted for promotion.**

i. Sugar and sugar products
ii. Fruit products such as pulp, puree, concentrates, dehydrated slices or powdered extracts mainly of Mango, pineapple, papaya and Guava
iii. Processed food products
iv. Essential oils such as Peppermint oil, citronella oil, tulsi oil etc
v. Honey and honey products
vi. Extracts of spices such as of ginger, turmeric, thyme etc
v. Dehydrated/ frozen vegetables.

Interventions needed to achieve high export growth rate

3.1 International issues

i. Restoration of equivalency with EU for processed foods
ii. Efforts for bilateral equivalency with emerging markets such as Japan, South Korea, Taiwan and Canada and some other countries
iii. Market promotion of India Organic Brand
iv. Showcasing India Organic Food products in national and international forums/ exhibitions/ trade fairs and exposure of states and growers to such markets

3.2 Re-vamping certification system

i. Regular up-gradation of certification procedures and standards in tune with international requirements
ii. Capacity building of certification agencies for new scope categories and extension of accreditation to new scope categories
iii. Developing protocols for certification for imports (this will facilitate quicker bilateral equivalency agreements) and policy procedures to have parity with important country certification systems

iv. Harmonization with PGS system to ensure migration of groups from PGS to NPOP

3.3 Strengthening NPOP Secretariat

i. Creation of dedicated secretariat with adequate manpower
ii. Strengthening of secretariat with technical experts and surveillance teams
iii. Strengthening of Tracenet team with additional manpower for new scope categories

3.4 Financial assistance for creation of value chain infrastructure at identified export oriented farmer clusters: Following interventions would be proposed for enhancing export of identified products:

a) Incentivizing farmers in clusters for concentrated production of targeted commodity
b) Financial assistance/ subsidy for creation of post harvest and processing value chain infrastructure
3) Financial incentives for export of value added products

3.5 Creation of virtual on-line organic products mandi platform for direct linkages between growers and exporters/ traders

2.23 Buffalo meat

1. About the product:

- India is rich in livestock wealth. With a population of 109 million, India has more than half of the world buffalo population.
- The buffaloes in India are reared on natural Pastures and no growth promoter or hormones are induced.
- It is prohibited by law to feed animal proteins to animals thereby eliminating the risk of BSE (Mad Cow Disease)
- Due to above reasons, Indian buffalo meat is lean, safe and risk free and suitable for making various meat products.

2. Production Scenario:

- As per the Annual Report of DAHDF for 2015-16, the production of buffalo meat in India is 1.61 million MTs.
- Uttar Pradesh, Punjab, Maharashtra, Andhra Pradesh, Telengana are the major meat producing states for export.
- There are some inherent problems like prevalence of various livestock disease particularly FMD, absence of rearing of animals for increasing the supply of quality livestock for meat production, shortage of trained veterinary manpower etc.
- However, the Government of India has set up world class testing and disease diagnostic facilities which has helped

in bringing down the livestock disease outbreaks in the country.

3. **Trade:**

- India is one of the leading exporters of buffalo meat in the world with a share of 20% in the total bovine meat trade.
- Brazil, Australia, New Zealand, United States are other leading exporters of bovine meat.
- During the year 2016-17, India s exported 1.32 Million MTs of buffalo meat valued at $ 3.9 Billion to more than 65 countries across the globe.

India Export Statistics			
Product Group : Buffalo Meat			
Country	**2016-17**		**% Share**
	Qty In MT	**Value in US$ Mill**	
Vietnam Social Republic	662,451	2,029	51.9
Malaysia	112,620	356	9.1
Egypt Arab Republic	107,594	304	7.8
Indonesia	65,304	228	5.8
Saudi Arabia	43,805	150	3.8
Iraq	53,988	129	3.3
Algeria	37,471	107	2.7
United Arab Emirates	35,195	103	2.6
Philippines	40,174	101	2.6
Oman	12,758	39	1.0
Other Countries	152,216	367	9.4
Total	**1,323,576**	**3,912**	100.0

Source: DGCIS

- Major destinations for Indian buffalo meat are Vietnam, Malaysia, Egypt, Indonesia, Saudi Arabia and Iraq.

- Indian Buffalo meat is price competitive in comparison to other major producer like Brazil, Australia, and New Zealand.
- India has world class meat processing facilities compliant with OIE/Codex Regulations.

4. Export Strategy

- Establishment of FMD free zones by DAHDF in the states of Punjab, Maharashtra, Telangana/Andhra Pradesh.
- Recognition of FMD free zones by OIE would help in achieving market access in countries like China, Russia, South Korea, and South Africa and in the wet markets in Philippines and Iran.
- As per UNCOMTRADE data, China imports around 6 lakh MTs of bovine meat valued at USD 2.6 billion.
- South Korea is also a major importer of bovine meat importing about 4 lakh MTs of bovine meat valued at USD 2.3 Billion.

Global Import			
Product Group : Buffalo Meat			
Country	**2016**		**% Share**
	Qty In MT	**Value in US$ Mill**	
U S A	1,009,231	5,226	13.2
Japan	570,555	3,421	8.6
CHINA P RP	600,926	2,588	6.5
HONG KONG	631,474	2,521	6.4
KOREA RP	402,918	2,281	5.8
Italy	393,137	2,120	5.3
Germany	361,290	2,065	5.2
NETHERLAND	416,483	1,857	4.7
France	281,652	1,477	3.7
U K	277,492	1,407	3.5
Other Countries	3,620,690	14,680	37.0
Total	**8,565,848**	**39,643**	100.0

Source: UN Comtrade

☐Efforts will be made for greater penetration in CIS countries. The development of INSTC route would further enhance exports from India.

☐APEDA proposes to organize Road Shows and market promotions in identified potential markets.

☐Regularliaison with Department of Animal Husbandry Dairying and Fisheries (DAHDF) for establishment of FMD free zones and revival of the Male buffalo calf rearing Scheme in order to enhance the availability of exportable meat

2.24 Pig meat (Pork)

1. About the product:

- In India, there is a largely separate but significant market for locally produced pig meat in north-eastern states as well as in Bihar, Jharkhand, West Bengal, Goa and Kerala.

- These markets tend to be for fresh pork, largely from indigenous breeds of pig, which are slower growing and less productive than modern breeds Reared mainly on agricultural by-products and kitchen waste, the pigs are slaughtered at around 40kg live weight at wet markets.
- There is rising demand for processed pork products like sausages and bacon
- A major advantage of pig farming is that they can be fed on fibrous low-quality agro byproducts and material that are not suitable for human consumption"

2. Production scenario :

- Figures from the statistical group of the United Nations' Food and Agriculture Organization, FAOSTAT, give Indian production of pig meat in 2014 at just under 115 Million Metric tons.

- There have been government-supported efforts to raise productivity through imported genetics, the establishment of pig breeding and rearing units, and disease control programs.
- Department of Animal Husbandry, Dairying and Fisheries (DAHDF) has earmarked a fund of Rs.220 Lac per year for each north eastern state for rearing of piglets which will provide a boost to this sector.

3. Trade:

- As per DGCIS data, the export of Pork during 2016-17 is 12 MTs valued at USD 0.03 Million. In the total export of meat and meat products from the country, the share of pork is meager.
- There is need for developing pig meat (pork) to diversify the export basket as the meat export is largely dominated by buffalo meat.

- Pork is processed mainly in the North Eastern states from where it is being exported to South East Asian countries in small volumes.
- The global export volume of pig meat increased from 3.2 million tons in 1993 to almost 16 million tons in 2016; an increase of more than 400 percent. The high relative growth rate shows the growing importance of pig meat as a protein source for a fast-growing global population.
- The trade mobility is depicted below:

Net Exporters	Net Importers
Canada, USA, EU, Brazil, Chile	Japan, Russia, Ukrain, Maxico, South Korea, China, Philippines, Australia

MAJOR SUPPLIER FOR ASIA

For Japan	USA, EU and Canada
For China	USA, EU, Canada, Brazil (recent)
For South Korea	USA,EU, Chile and Canada

4. Export Strategy

- There are limited pig processing facilities in India which are confined to North Eastern states only. It is proposed that to encourage setting up of a few integrated abattoirs for processing of pigs in north eastern and other states with assistance from MoFPI.
- APEDA proposes to encourage the entrepreneurs for rearing of piglets through assistance from DAHDF
- APEDA has already developed standards for abattoirs and for processing of pork for exports through National Research Centre for Pig (NRCP), Guwahati which are in the process of getting notified under EIC Act. The Notification of standards would help in promoting export of pork and pork products.
- APEDA also proposes to maintain close liaison with National Research Centre for Pig (NRCP), Guwahati for technical support for product diversification and dissemination of technology to prospective entrepreneurs and exporters.

2.25 Dairy products

1. About the product:

- India is rich in livestock wealth. The country has a population of 109 million buffaloes and about 190 million cattle.

- Dairy products include items like yogurt, cheese, butter, Ghee, Whey protein, Casein, Milk powder etc.

2. Production scenario:

- India is the largest producer of milk in the world with 18.5% share. The milk production has increased from 53.9 m MTs in 1990-91 to 155.5 m MTs in 2015-16.
- In the past decades, there has been an increase in the consumption of milk and milk products in rural and urban areas by 29 and 26 per cent, respectively. Indian dairy industry is growing at a phenomenal pace.

- The milk production is expected to increase to around 181 million MTs by 2020 with a surplus milk production of 5 million MTs.

- The per capita availability of milk has also increased to 337 gms per day in 2015-16.

➢ The majority of the milk production is by farmers through the cooperative societies further propelled by many private players and multinational companies to tap the dairy potential of our country.

3. Trade:

➢ The export of Dairy products from the country during 2016-17 was 39,167 MTs valued at USD 135 Million.

India Export Statistics			
Product Group : Dairy Products			
Country	**2016-17**		**% Share**
	Qty In MT	**Value in US$ Mill**	
United Arab Emirates	5,734	30	22.4
Bangladesh	7,093	19	13.7
Bhutan	4,363	16	12.1
Pakistan	4,365	13	9.5
Nepal	5,055	11	8.0
Singapore	3,586	7	5.3
Philippines	1,841	6	4.6
Afghanistan	1,836	6	4.3
Saudi Arabia	730	4	3.2
United States	624	3	2.5
Other Countries	3,941	19	14.3
Total	**39,167**	**135**	100.0
Source: DGCIS			

➢ Despite the largest producer of milk, exports of dairy products from India are negligible. Its share in global trade is less than 1%.Skimmed Milk Powder, Ghee and Cheese is the major products being exported from India.

- The major importers of Indian dairy products are SAARC nations, UAE, Singapore, Philippines.

- The European Union, New Zealand, Australia and USA are the four major players in the export market, which account for nearly 85% of the world's total exports.

- Russia, African countries besides the SAARC countries are emerging markets.

- There are substantial opportunities for export as India is surrounded by milk deficient countries i.e. China, Russia, Indonesia etc.

-

4. **Constraints identified**:

- The international dairy industry is highly protected through domestic support and export subsidies and does not provide an easy market access. A number of nontariff trade barriers (NTBs) are applied to deprive the developing countries from sharing the markets of developed nations.

- Hence to tap the vast global dairy market it is highly essential to maintain strict quality measures and to involve veterinary professional in each step to ensure quality production, procurement, processing and conversion into highly valuable value added dairy products

- The small size of milch animal holdings in India makes it difficult to adopt mechanized system of milking, cooling and chilled storage which hampers the efforts to improve quality at the farm production stage.

5. Export Strategy:

- Modernization/up-gradation of dairy industry through assistance from Ministry of Food Processing Industries.
- The yield of milk per animal is very low as compared to other developed countries. There is a need for increasing milk yield through cross breeding, import of germ plasma etc.
- Promotion of A2 milk.
- Road Show/Market Promotion in select African markets
- Market access for dairy products in Eurasian Economic Union (EaEU) countries.
- Strengthening of domestic standards to prevent import of dairy products from other countries.
- Concerted efforts to be made in building global brands and establishing

International marketing channels. India needs to address effectively the emerging

Challenges under the new trade order affecting exports of dairy products.

- Physical infrastructure and logistics remains a key concern for exports of dairy products from India. An integrated approach for overall enhancement of export logistics in terms of creating cold chain facilities for transportation and storage needs to be adopted.

- Besides, APEDA proposes to focus upon exports of value added products with increased shelf-life and improved packaging to compete in international markets.

- APEDA proposes to pursue market access in South Africa where the third step of response to questionnaire furnished by DAHD&F is under evaluation.

- For market access in Sudan , APEDA in conjunction with DAHD&F will follow up on market access . It is learnt that there is no phytosanitary issue for Instant milk powder and Sudanese authorities are ready to receive a delegation from India.

- In Egypt the issue of M1 aflatoxin levels limit is under consideration of revision in Codex. The revision would help India to gain market access. APEDA proposes to liaise in conjunction with DAHD&F and EOI with Egyptian authorities for expediting the issue.

ANNEXURE

Inter-Ministerial Action Plan for Promotion of Processed Food Products Export from India (indicated with the role of probable agency(ies) responsible)

1. Time bound R&D on high yielding, disease/pest resistant processing variety of produce to be carried out. (ICAR / SAU).

2. Cluster approach to address pre and post harvest issues, consistency in supply and forward linkages for exports (MoA and its relevant Deptts/ State Govt./ APEDA).

3. Technology transfer for the adoption of modern methods in horticulture production, to address low yield of Indian farms and low productivity of Indian worker due to lack of technological inputs. (MoA / NIFTEM / Agriculture Universities / State Govt.).
4. Indigenous commercialization of the transferred technology. (DST/ SIDBI).

5. Packaging innovation for bio-degradable and convenient packaging (IIP).

6. New products innovation keeping the taste of target countries in mind.(CFTRI)

7. Collection Centres / Pack houses close to farm gate and in the close proximity of processing units (MOFPI/NHB/ State Govt./APEDA).

8. Fleet of reefer vans and multimodal transport arrangement for end-to-end delivery. (MoFPI / Min. of Surface Transport / Railways / Min. of Shipping)

9. Reasonable operation cost of the food parks to make them functional (MoFPI /State Govt.)

10. Encouragement for bio-fuel operated cold storages in the electricity deprived locations (Min. of NRE & State Govt.)

11. Strong inter-ministerial co-operation in addressing various issues and to form schemes complementing each other rather than overlapping (all concerned ministries and Deptt).

12. Availability of schemes at one portal than at different places. A common link to be provided to all the beneficiaries to access the information (GOI portal).

13. Speedy clearance of food consignment at all ports by providing 24x7 operation by customs and other concerned agencies.(Min. of Finance/Customs, NPPO, EIC).

14. Involvement of our Missions abroad by creating special cell for dynamic market intelligence, who should provide regular flow of information to a centralized point of contact on trade regulation of all important countries, taste preferences, food habits, market prices, export and import information, performance of our competitors, distribution channels, leading super market, demand etc. on regular intervals.(MEA/Indian Embassy Abroad, National Centre for Trade Information (a joint venture of ITPO and NIC).

15. Establishment of Consumer Experience Centre for traditional Indian ethnic food in target markets for popularizing Indian taste among the mainstream population (with logos like "Taste of India" etc.). Government agencies to provide subsidized space in

the central business locations of the targeted country, to the interested popular Indian food chains (DoC/IBEF).

16. Focus on creating large Indian brands in processed food products (IBEF/MoFPI).

17. To promote export of branded products, support should be extended to all exporters for product registration, availability of shelf space in super markets on cost sharing basis for a reasonable period. (DoC and all EPCs).

18. Leading experts, columnists, socialites, chefs, bloggers, importers etc., should be invited in the country and be exposed to Indian food and India's strength to enable them to write good and positive about Indian food for publicity in their respective countries. (MEA / Indian Embassy Abroad / DoC / All EPCs).

19. Making use of IT tools and web for promotion of Indian Products in targeted countries. (DoC / APEDA / MPEDA / all EPCs).

20. India should aggressively negotiate with important target countries for according equivalence to our food safety management system in order to avoid duplicacy in food safety compliance. (FSSAI / MoC / EIC / MoA).

21. To set up a venture fund focused only on investment into food processing companies to provide the necessary impetus for capacity building and marketing. (SIDBI).

22. To take strong action against those certification agencies, who do not follow the required due diligence and scrutiny before issuing quality certificates namely

ISO, HACCAP, GAP, GHP, Lab test report etc. to the Food Business Operators namely (QCI and related agencies) in order to establish credible certification environment.

23. To create Demonstration/Experience Centres (including mobile) for small and medium exporters to familiarize them with international product packaging, labeling, presentation etc. Identified agency in this regard should regularly procure packaged food products from major target countries to display in this experience centre to facilitate the small and medium exporter who cannot participate in International Trade Shows.(ITPO)

24. Create a National Mission for Promotion of Agri and Processed Food products export from India headed by the Prime Minister with high level inter ministerial representation. A dedicated secretariat to address all issues under one umbrella at every stage of export (Cabinet secretariat / Secretaries of all concerned Ministries).