

*Study on
identification of
export oriented
integrated
infrastructure for
agri products
from*

*Maharashtra &
Gujarat*

APEDA

(Agriculture

Produce Export

Development

Authority)

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pwc

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1. Introduction

1.1. Background

Agriculture is the backbone of Indian economy and provides employment to a large majority of Indian work force. The nation has a vast potential in contributing to international food trade on the account of its cultural dependence on agriculture and the agro climatic variety that gives rise to a large food basket suitable for international trade and earning foreign exchange for Indian economy. India has an edge in production of a number of food commodities such as cereals, milk, buffalo meat, fruits such as mango, banana, guava and papaya, vegetables and fish. Despite large production volumes and huge potential in strategic development role in Indian economy through processing, majority of the production is consumed in the domestic market with low levels of processing and export. Food processing links the largely unorganized Indian agriculture sector and industry. In India, the sector is in nascent stage and contributes only 1.49% to national GDP.¹ Optimizing the production, processing and enabling them to work in tandem, is bound to boost Indian economy and the farming community alike. To accelerate the both aspects of the supply chain synergistically, strategic investment is required in the infrastructure pertaining to transportation, storage, processing and export. In the current scenario, up gradation of availability and quality of food processing and export infrastructure complimenting the endeavors in market development for food export demands the most attention.

Agricultural and processed Food Products Export (APEDA) is the leading government body to augment the agri production and its suitability to meet food processing and export requirements by providing technical and financial assistance to the stakeholders in agri value chain from production to export. The current study fits in the scope of APEDA to outline the production potential and catchment areas of suitable agricultural produce, and to identify the gaps in export oriented infrastructure of food and the potential role of various stakeholders in the value chain for upgrading the infrastructure, process and creating a momentum in the nation’s food export. The following table gives a snapshot of the status of various food processing industry segments in India and the underlying opportunities:

Table 1: Market overview and opportunities¹

Segment	Market Overview	Opportunities
Meat & Poultry	The segment is dominated by unorganized sector	Only 1-2% of the raw meat undergoes value addition Most of the raw meat meets domestic consumption in raw form Eggs and broilers show a growth rate of 16% and 20% respectively
Fruits and Vegetables	Equally divided between organized and unorganized sector Organized sector dominates juices and pulp products while unorganized sector deals in pickles and sauces	World’s 2nd largest production Current processing level of around 10% High suitability for export
Dairy	Segment dominated by unorganized sector Cooperatives are the major players	India is the leading producer in the world Large production base

¹ Food Processing Industry in India: Adding value by creating synergy between agriculture and industry, ONICRA, available online <http://www.onicra.com/images/pdf/publications/foodprocessingindustry31may.pdf>

Segment	Market Overview	Opportunities
	A few FMCG brands have focus in the segment	
Fish	Small scale unorganized sector is dominant	Third largest producer globally Second largest inland fish production globally Very high export potential
Cereals/ grains	market controlled by the unorganized sector	High scope of technological upgradation Self-sufficiency in production

1.2. Need of Study

Despite a strong position in production of agri commodities, Indian contribution in the global food trade is limited to 1.5%² which is drastically low as compared to the respective share in the production. Despite government’s sustained efforts to enhance production through a spectrum of assistance schemes and programmes, implementation of these schemes has to be orchestrated with a strong focus on channelizing the production through creation of supporting infrastructure and optimizing the value chain that terminates in the domestic and overseas markets for processed food. There are a number of limiting factors that afflict Indian food export scenario such as:

- Lack of market oriented production
- Inadequate backward linkages
- Lack of implementation of global food quality and safety management systems
- Predominance of unorganized sector
- Capital intensive nature of the sector
- Inadequate post-harvest handling and processing infrastructure and low economies of scale
- High cost of transportation and low quality resulting in the loss of volume and quality of perishables
- Instability in the commodity prices and unpredictable market forces

To address the above challenges and optimizing the utilization of production surplus for foreign exchange, following thematic areas need to have a critical focus:

- Promoting Public-Private Partnerships for infrastructure creation, introducing suitable processing and logistical technology and upgrading the current supporting infrastructure.
- Developing a dynamic cold chain and transportation system with focus on air-conditioned cargo, and refrigerators/ insulated containers for perishables, processed products to minimize post-harvest losses at transportation stage and at retail level.
- Providing financial incentives for creation of facilities for procurement of commodities, sorting, grading and transportation of agri produce to markets and processing facilities.

To take impactful initiatives, the existing infrastructure and process flow in the agri supply chain has to be evaluated. This would help in identifying the enablers and inhibitors of agri export from India. In addition to these factors, importance of the current study is also heightened by growing competition from other countries in the global food trade.

² India food industry – high growth, high – profit sector, FnB News, Retrieved online <http://www.fnbnews.com/Top-News/highgrowth-highprofit-sector-38270>

1.3. Objectives

The current study was carried out keeping in view the following objectives as per the terms of reference of the assignment:

- A study of the currently available infrastructure in the states of Maharashtra and Gujarat and identifying the gaps in the above mentioned infrastructure facilities for enabling higher exports.
- State-wise assessment of the availability, performance and utilization of existing infrastructure associated with agricultural export.
- Assessment of the key commodities suitable for export and their availability.
- Identifying the possible areas for PPP approach for infrastructure and technology up gradation.
- Formulating recommendations based on the study.

1.4. Scope of the assignment

For meeting the objectives stated as per the terms of reference under the assignment, an in depth study has been conducted assimilating the data from secondary sources in the public domain and our interactions with the stakeholders in the agri export value chain such as exporters, State Government officials of Gujarat and Maharashtra, Officials of exporter associations and local officials of APEDA. Following areas of study have been scoped out under the assignment:

- Cold chain system, pre and post-harvest handling facilities, storage and processing facilities and the infrastructure facilitating value addition of the agricultural commodities in Gujarat and Maharashtra.
- Identifying the sea ports, ICD's, warehouses, distribution centers, quality testing infrastructure and CPC's at airport etc.
- Study of the commodities suitable for export from the two states (raw, semi processed & processed), their statewise availability and surplus volumes available for processing, value addition and export.
- Assessment of infrastructure requirements specific to Gujarat and Maharashtra based on the production profile and the suitability of the currently available infrastructure thereof for implementing PPP model.
- Statewise gap analysis of the available infrastructure to enhance export potential pertaining to the production clusters.
- Analysis of the available procurement infrastructure for cluster specific commodities and the gaps to be bridged in this regard.
- Commodity wise analysis of the required infrastructure for boosting the export of products with production concentrated in Gujarat and Maharashtra.
- Recommendations on operations and management of existing export oriented infrastructure based on gap analysis and specific agricultural commodities suitable for export **produced therein.**

2. Current Scenario of Agricultural Export from India

2.1. Demand for agricultural products at international level

For centuries countries have relied on trade in agricultural and food commodities to supplement and complement their domestic production. The uneven distribution of land resources and the influence of climatic zones on the ability to raise plants and animals have led to trade between and within continents. Historical patterns of settlement and colonization contributed to the definition of trade patterns and to the emergence of infrastructure to support such trade. Changes in consumer taste have encouraged the emergence of global markets and added to the significance of trade. Few countries could survive the elimination of agricultural trade without a considerable drop in national income, and none could do so without considerable reduction in consumer choice and well-being.

In 2013, the agriculture trade performance was a reflection of the global economic context: many key players in agricultural trade displayed stagnant or lower exports and imports and though the demand in developing economies continued to grow, it was at a slower pace. China is trying to keep up the domestic demand and it has become a major player both as an agricultural importer and exporter.

In 2013, the top 5 agricultural exporting nations were US, Brazil, China, European Union and Canada. The major traded agriculture commodities around the world include fruits and vegetables, cereals and cereals preparation, meat and meat products, fish and marine products, coffee, tea, cocoa, spices and dairy products. The major agricultural products importing nations in the world include US, China, Japan, Russia, European Union and Canada.

Agriculture in India is the mainstay of the rural population of the country. Since independence, India has made a lot of progress in agriculture in terms of growth in output, yields and area under crops. It has gone through a Green Revolution (food grains), a White Revolution (milk), a Yellow Revolution (oilseeds) and a Blue Revolution (aquaculture). Today, India is one of the largest producers of milk, fruits, cashew nuts, coconuts and tea in the world. It is also well known for the production of wheat, vegetables, sugar, fish, tobacco and rice.

Certain types of agriculture such as horticulture, organic farming, floriculture, genetic engineering, packaging and food processing have the potential to see a surge in revenues through exports. Over the past few years, the government has stressed on the development of horticulture and floriculture by creating vital infrastructure for cold storage, refrigerated transportation, packaging, processing and quality control. If India wishes to optimize the production and export potential of these commodities, then it is essential to improve these facilities, marketing and export networks much further.

India is a major exporter of commodities like apples, mangoes, grapes, onions, pomegranates, cut flowers, vegetables, processed fruits and vegetables, fishes, meat and meat products, eggs, tea, tobacco etc. Apart from the export of above commodities, India is also an importer agricultural commodities like apples, edible oils, coconuts, marine products, meat products and dairy products.

2.2. Trend analysis of agricultural export from past data (5 or 10 years)

The exports of agricultural products around the world have increased by almost 6 per cent to US\$ 1,745 billion in 2013, as compared to the previous year. The growth rate registered by global trade in agriculture is three times higher than the world average for all goods (2 per cent in 2013). Exports of food increased more markedly (6 per cent) than exports of non-food agricultural products (3 per cent) according to estimates by World Trade Organization.

Top six exporters of agricultural commodities in the world are European Union, USA, Brazil, China, Canada and India. India leads countries such as Indonesia, Argentina, Thailand and Australia. In 2013, India registered highest rate of growth in agriculture export with 11% rise as compared to previous year. The following table figure gives an overview of the trend in global export volumes and major exporters of agricultural commodities for the year 2013.

Figure 1: Global Trend in Agriculture and Food Products

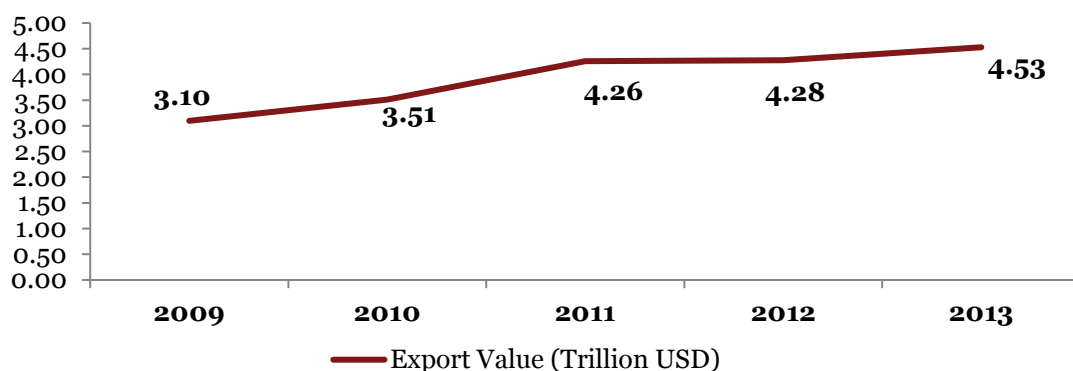
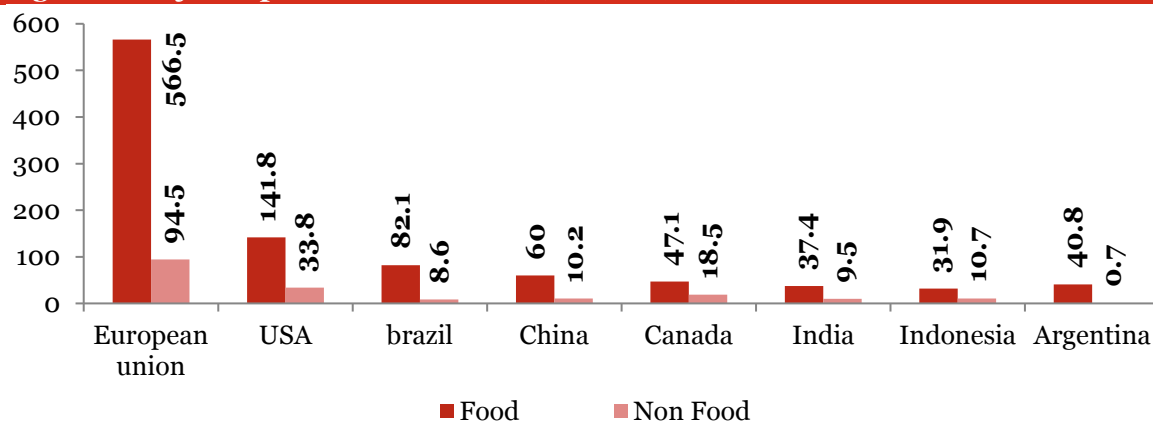


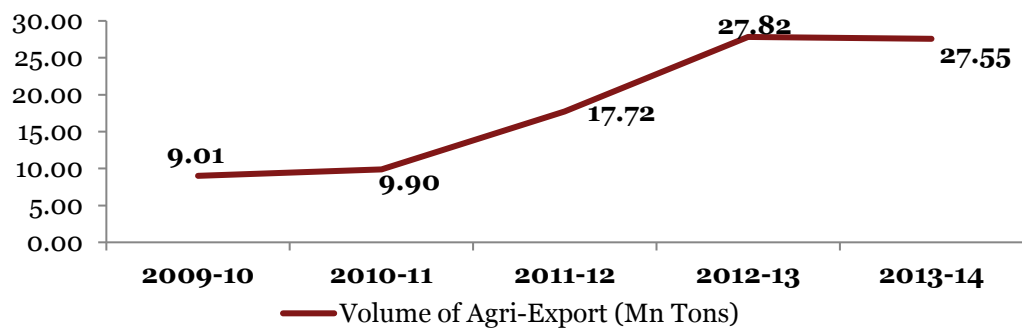
Figure 2: Major Exporter in the World (in Mn Tonnes)



Source: World trade Organization

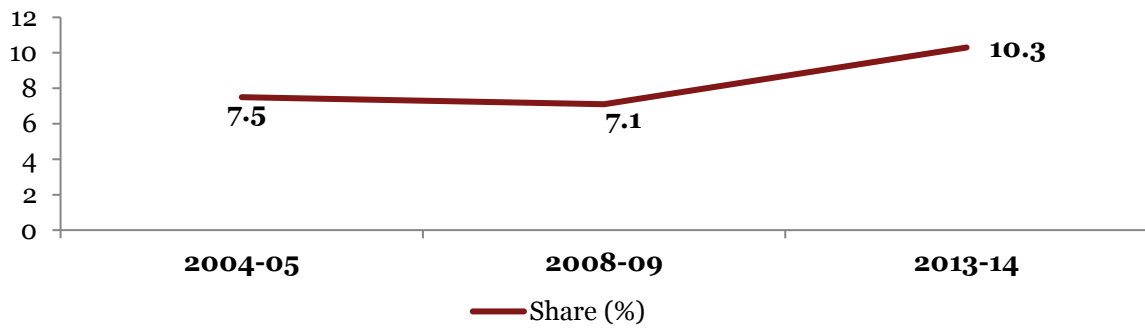
Analysis of the time series data on Indian Export reveals an increasing share of agriculture in the total exports of the country. In the past five years, agricultural export has shown a CAGR of around 32% in terms of volumes exported. However the rate of growth in the value of agricultural export from the country has slowed down. The following figures provide a snapshot of the trend in agriculture and allied exports in terms of volumes exported, share of agriculture and allied products in Indian Export in terms of quantity, value and the rate of growth achieved in past 10 years:

Figure 3: Agriculture Exports from India (in Mn Ton)



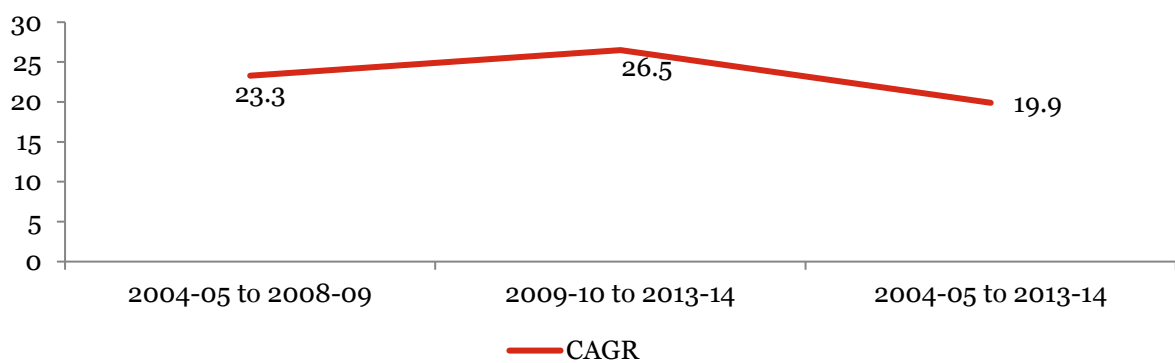
Source: APEDA Agri Exchange

Figure 4: Share of Agriculture and Allied Sector in Total Indian Export



Source: APEDA Agri Exchange

Figure 5: Growth in Agri and Allied Sector Export and CAGR

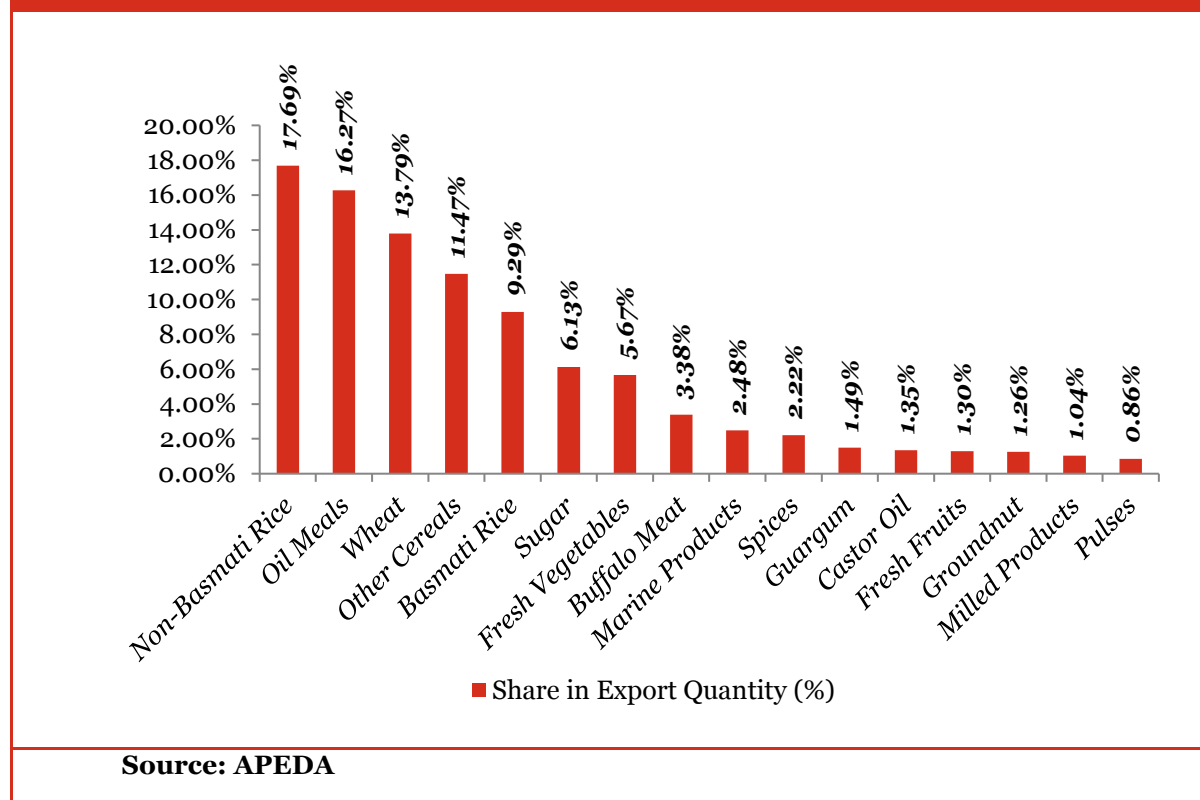


Source: Ministry of Finance, India

2.3. Major commodities exported

As per APEDA, in 2013-14 Indian agricultural export valued at around USD 39 bn ³ (INR 2,35,988.86 crores) which shows a growth of around 16%. Rice leads the list of exported commodities with oil meals in the second place in terms of quantity exported. Other top commodities constituting the largest section of export from India are wheat, other cereals, basmati rice, sugar, fresh vegetables, buffalo meat, marine products and spices. Share of processed fruits and vegetables has been drastically low in terms of share in total exports. As per the data available from APEDA till November 2014, share of processed fruits, juices and processed vegetables was 2.3% of the total value of exports in the year 2014-15. The low share of processed agricultural products and perishable products such as fruits and vegetables simply states the need for upgrading the existing processing infrastructure in the country. The following table gives a comparative snapshot of key commodities exported by India:

Figure 6: Major Commodities Exported from India and their share in total agriculture exports from India



2.4. Major importing countries / Major markets

As per the information sourced from APEDA, export market for Indian agricultural commodities is currently constituted by 218 countries. In terms of quantities imported, Bangladesh occupies the leading position followed by Iran and Vietnam. The table given below enlists the major importing countries of Indian agricultural commodities with their percentage share in the quantity of total agricultural export from India and the major commodities exported to these countries:

³ Conversion done at the exchange rate of 1USD = INR 60

Table 2: Major Export markets of India along with the commodities exported

Sno.	Country	Share in the Exported Quantity (%)	Major Commodities Exported
1	Bangladesh	11.12	Wheat, Non-Basmati Rice, Fresh Onions, Maize, Dairy Products, Cereal Preparations, Other Fresh Fruits, Other Fresh Vegetables, Miscellaneous Preparations, Fresh Grapes
2	Iran	8.33	Basmati Rice, Buffalo Meat, Non Basmati Rice, Other Cereals, Other Processed Fruits & Vegetables, Maize Groundnuts, Guar gum, Dairy Products, Miscellaneous Preparations
3	Vietnam	5.98	Buffalo Meat, Maize, Groundnuts, Wheat, Alcoholic Beverages, Fresh Onions, Walnuts, Poultry Products, Pulses, Albumin(Eggs & Milk)
4	Indonesia	5.39	Maize, Groundnuts, Wheat, Fresh Onions, Non Basmati Rice, Milled Products, Miscellaneous Preparations, Guar gum, Poultry Products, Cocoa Products
5	UAE	5.26	Basmati Rice, Wheat, Buffalo Meat, Non Basmati Rice, Alcoholic Beverages, Sheep/Goat Meat, Other Fresh Fruits, Fresh Onions, Dairy Products, Other Fresh Vegetables
6	Korea	5.10	Buffalo Meat, Maize, Fresh Onions, Groundnuts, Dairy Products, Wheat, Miscellaneous Preparations, Non Basmati Rice, Basmati Rice, Guar gum
7	Malaysia	4.05	Buffalo Meat, Maize, Fresh Onions, Groundnuts, Dairy Products, Wheat, Miscellaneous Preparations, Non Basmati Rice, Basmati Rice, Guar gum
8	Saudi Arab	3.81	Basmati Rice, Buffalo Meat, Non Basmati Rice, Other Processed Fruits & Vegetables, Wheat, Mango Pulp, Sheep/Goat Meat, Dairy Products, Other Fresh Vegetables, Miscellaneous Preparations
9	Pakistan	3.12	Other Fresh Vegetables, Pulses, Dairy Products, Fresh Onions, Other Cereals, Groundnuts, Fruits & Vegetables Seeds, Buffalo Meat, Cereal Preparations, Maize
10	Benin	2.91	Non Basmati Rice, Alcoholic Beverages, Jaggery & Confectionery, Basmati Rice, Cereal Preparations, Buffalo Meat, Cocoa Products, Dairy Products, Maize, Miscellaneous Preparations
11	Nepal	2.90	Non Basmati Rice, Maize, Cereal Preparations, Other Fresh Vegetables, Miscellaneous Preparations, Wheat, Other Fresh Fruits, Dairy Products, Fresh Onions, Jaggery & Confectionery
12	U S A	2.21	Guar gum, Basmati Rice, Casein, Natural Honey , Cereal Preparations, Miscellaneous Preparations, Other Processed Fruits & Vegetables, Cucumber and

Sno.	Country	Share in the Exported Quantity (%)	Major Commodities Exported
			Gherkins(Prepd. & Preserved), Non Basmati Rice, Cocoa Products
13	Thailand	1.92	Buffalo Meat, Groundnuts, Wheat, Fresh Grapes , Fresh Onions, Miscellaneous Preparations, Guar gum, Dairy Products, Maize, Fruits & Vegetables Seeds
Source: APEDA Agri Exchange			

2.5. Major origins / states producing export quality products

India has a large production base and diverse agriculture commodities in the categories such as fruits and vegetables. Based on secondary research we have enlisted major agricultural commodities and their major centers of production. The data highlights the potential of various states in production of fruits, vegetables, cereals and animal products.

Table 3: Major Production Centers in India

Sno.	Category	Commodity	Major Producers
1	Fruits	Apple	Jammu & Kashmir, Himachal Pradesh, Uttarakhand
		Grapes	Maharashtra, Karnataka
		Mango	Andhra Pradesh, Uttar Pradesh, Karnataka, Bihar, Gujarat, Odisha, West Bengal
		Banana	Tamil Nadu, Gujarat, Maharashtra, Andhra Pradesh, Karnataka, Bihar, Madhya Pradesh
		Citrus	Andhra Pradesh, Madhya Pradesh, Punjab, Maharashtra, Rajasthan, Gujarat
		Sapota	Maharashtra, Gujarat, Karnataka, Tamil Nadu and Andhra Pradesh
		Pomegranate	Maharashtra, Karnataka and Gujarat
		Papaya	Andhra Pradesh, Gujarat, Maharashtra, Karnataka, Madhya Pradesh, West Bengal
		Pineapple	West Bengal, Assam, Tripura, Karnataka, Nagaland, Manipur
		Gooseberry	Madhya Pradesh, Uttar Pradesh, Tamil Nadu, Gujarat
2	Vegetables	Onion	Maharashtra, Madhya Pradesh, Karnataka, Andhra Pradesh, Bihar, Gujarat
		Potato	Uttar Pradesh, West Bengal, Bihar, Gujarat, Madhya Pradesh, Punjab
		Tomato	Andhra Pradesh, Karnataka, Madhya Pradesh, Odisha, Gujarat, Bihar, West Bengal, Maharashtra
		Peas	Uttar Pradesh, Madhya Pradesh, Jharkhand, Himachal Pradesh, Punjab
		Brinjal	West Bengal, Odisha, Andhra Pradesh, Gujarat, Bihar, Madhya Pradesh
		Okra	Andhra Pradesh, West Bengal, Bihar, Gujarat, Odisha, Jharkhand, Maharashtra, Tamil Nadu
		Tapioca	Tamil Nadu, Kerala, Andhra Pradesh, Karnataka
		Drum Sticks	Andhra Pradesh, Tamil Nadu, Karnataka, Kerala
		Cabbage	West Bengal, Odisha, Bihar, Gujarat, Assam, Madhya Pradesh, Jharkhand
		Cauliflower	West Bengal, Bihar, Madhya Pradesh, odisha, Gujarat, Haryana, Assam, Jharkhand
		Cucumbers	Andhra Pradesh, Karnataka
		3	Other Agricultural Commodities
Groundnut	Gujarat, Tamil Nadu, Andhra Pradesh, Rajasthan, Karnataka, Maharashtra, Madhya pradesh		
Sunflower	Karnataka		
Pulses	Madhya pradesh, Uttar Pradesh, Rajasthan, Maharashtra, Andhra Pradesh, Karnataka		

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	Category	Commodity	Major Producers
		Rice	West Bengal, Uttar Pradesh, Andhra Pradesh, Punjab, Bihar, Tamil Nadu, Chhattisgarh, Odisha
		Wheat	Uttar Pradesh, Punjab, Haryana, Madhya Pradesh, Rajasthan, Bihar
		Bajra	Rajasthan, Uttar Pradesh, Gujarat, Haryana, Maharashtra
4	Animal Products	Total meat	Uttar Pradesh, Andhra Pradesh, West Bengal, Maharashtra, Tamil Nadu, Haryana, Bihar, Punjab
		Buffalo Meat	Uttar Pradesh, Andhra Pradesh, Maharashtra, punjab, Kerala, Bihar, Delhi
		Cattle Meat	Kerala, Maharashtra, Meghalaya, Bihar, Nagaland, West Bengal, Karnataka, Tamil Nadu
		Goat meat	West Bengal, Uttar Pradesh, Andhra Pradesh, Maharashtra, Bihar, Odisha, Rajasthan
		Swine Meat	Uttar Pradesh, Bihar, Nagaland, West Bengal, Assam
		Sheep Meat	Andhra Pradesh, Karnataka, Maharashtra, West Bengal, Jammu and Kashmir, Rajasthan, Tamil Nadu
		Poultry	Andhra Pradesh, Tamil Nadu, Maharashtra, Haryana, West Bengal, Uttar Pradesh
		Egg	Andhra Pradesh, Tamil Nadu, Maharashtra, West Bengal, Haryana, Punjab, Karnataka
		Milk	Uttar Pradesh, Rajasthan, Andhra Pradesh, Punjab, Gujarat, Maharashtra, Madhya Pradesh, Tamil Nadu, Bihar, Haryana
Source: APEDA Agri Exchange			

3. Identification of crop clusters and surplus availability for exports from Maharashtra

This section focuses on major crops that are exported from Maharashtra. Different methodologies have been used to study the export surplus depending on data availability and potential for export. The crops analyzed for Maharashtra are Grapes, Papaya, Pomegranate, Tomato, Banana, Mango, Citrus, Onion and Guava.

3.1. Methodology adopted for identification of the potential/focus crop

There are varied type of fruits and vegetables produced in Maharashtra. The crops are identified on the basis of –

- ✓ What crops are being exported from the state
- ✓ Crops in which the state is strongly placed vis-à-vis rest of India
- ✓ Any crop that has small volume product but still has reasonable potential for exports

On the basis of the criteria defined above, the potential crops selected from Maharashtra are grapes, papaya, pomegranate, tomato, banana, mango, citrus, onion and guava. Maharashtra has considerable share in the overall production of these crops in the country and these crops also have export potential. These crops also have strong market linkages and high potential for export. Apart from these crops, livestock products like eggs and buffalo meat also have the potential to be exported from the state.

The calculation of the surplus present in the state that can be exported is based on the total production of the commodity in the state, wastage and domestic consumption. After deducting domestic consumption and wastage from the total production we realize the total surplus available with the state that can either be exported or can be domestically consumed in other states of the country. After this we apply Pareto principle for calculating the overall exportable potential from the state. Out of the total production of the commodity only 20 percent of the produce is suitable for export in the international market. Out of this suitable exportable produce, again 80 percent of the quantity will be directed into the domestic market and thus only 20 percent of the exportable produce is actually the potential exportable surplus. This way, with the application of Pareto Principle, we calculated the total surplus available for exports. Subsequently we have assessed the current markets for India and other major markets not being catered to by India. These markets are also assessed for potential. Then the market potential has been cross checked with availability of raw produce suitable for exports. Based on a cross section of the available raw produce and market potential, an estimate of export potential is arrived at. This estimate has then been then discounted on value judgement based expert opinions and stakeholder feedbacks.

The projection of the future potential quantity available for export, we forecasted the future potential export quantity based on the trends of the last 10 years exports and projected them for further coming years. Based on the current capacity and the future capacity required we identified the capacity of the proposed infrastructure.

The crops identified on the criteria's defined above were vetted with the exporters of agriculture commodities in Maharashtra and verified that only these crops holds potential for exports from India.

3.2. Crop wise identification of the surplus available in Maharashtra

Please refer Annex 1A – Maharashtra for details to calculations of crops

3.2.1. Grapes

Grapes are one most popular fresh fruits in the world besides being used as juice, wine and resins. From the perspective of export infrastructure, the fresh produce export is what needs the maximum infrastructure. Therefore the first focus is on export of fresh grapes.

Globally the market is dominated by Chile with about 25% volume share of the total global export sales of about 4.2 million tons annually, followed by USA, Italy and South Africa. While Italy matches US in volumes, the US leads in the value terms.

In the international trade, India stands 9th with 0.15 million tons exports.

Table 4: Exporters for Fresh Grapes in the World

Rank	Area	Quantity (MMT)	Value (Mn USD)	Global Share (%)
1	Chile	1.05	246	25
2	US	0.53	127	13
3	Italy	0.5	921	9
4	S. Africa	0.32	843	8

Source: Uncomtrade

3.2.1.1. Grape export potential of India

India's grape export volume has grown from about 22,000 tons to about 140,000 tons in the last 10 years. This reflects a CAGR of about 23%. The export from India is almost entirely from the state of Maharashtra. Maharashtra produces over 80% of India's grape production.

Maharashtra produces about 2.0 million tons of grapes and exports about 6-8% of the produce as fresh grapes. The major varieties produced are Tas-A-Ganesh, Sonaka, Manik Chaman, Maruti Seedless, Sangli, Thompson Seedless, Sarita Seedless (Black Sonaka), Nanasaheb Purple Seedless, Nath Jambo Seedless, Krishna Seedless, Ambe Seedless, Mahadev Seedless etc. The state is now also introducing international varieties. In the year 2008 – 09 four varieties viz. Autumn Seedless, Blush Seedless, Marquis and Autumn Royal were imported from Davis University, California and recently two varieties namely Victoria and Crimson Seedless were imported from South Africa.

The major varieties of Karnataka are Bangalore blue, Anab-e-shahi, Thompson Seedless, Gulabi, Arka Vathi, Shyam etc. Thompson Seedless is the largest (area under cultivation) table variety that is grown in Karnataka. It is estimated that out of the total production about 55% of the produce is of table variety while the rest are more suited for wine and juice manufacture.

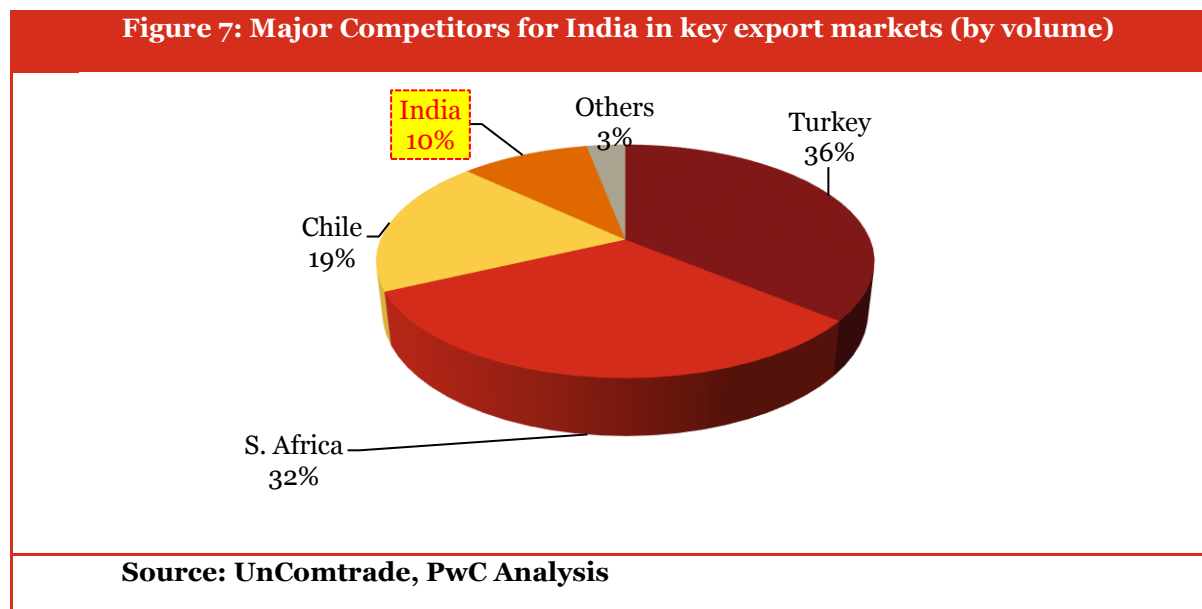
3.2.1.2. Analysis of exports from India

As discussed earlier, the presence of India in the international market with volume share of 3.5% while only about 2.5% in value share. Production wise as well India contributes, 3-4% of the global production.

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So this is one of the very few crops where India’s export performance is commensurate with its production performance.

The top destinations for Indian exports are Netherlands, Bangladesh, Russian Federation, UK, UAE and Saudi Arabia; together they constitute 80% of India’s export. However, India’s position within these markets (taken together) is not very strong. India is in 4th largest exporter with only 10% market share.

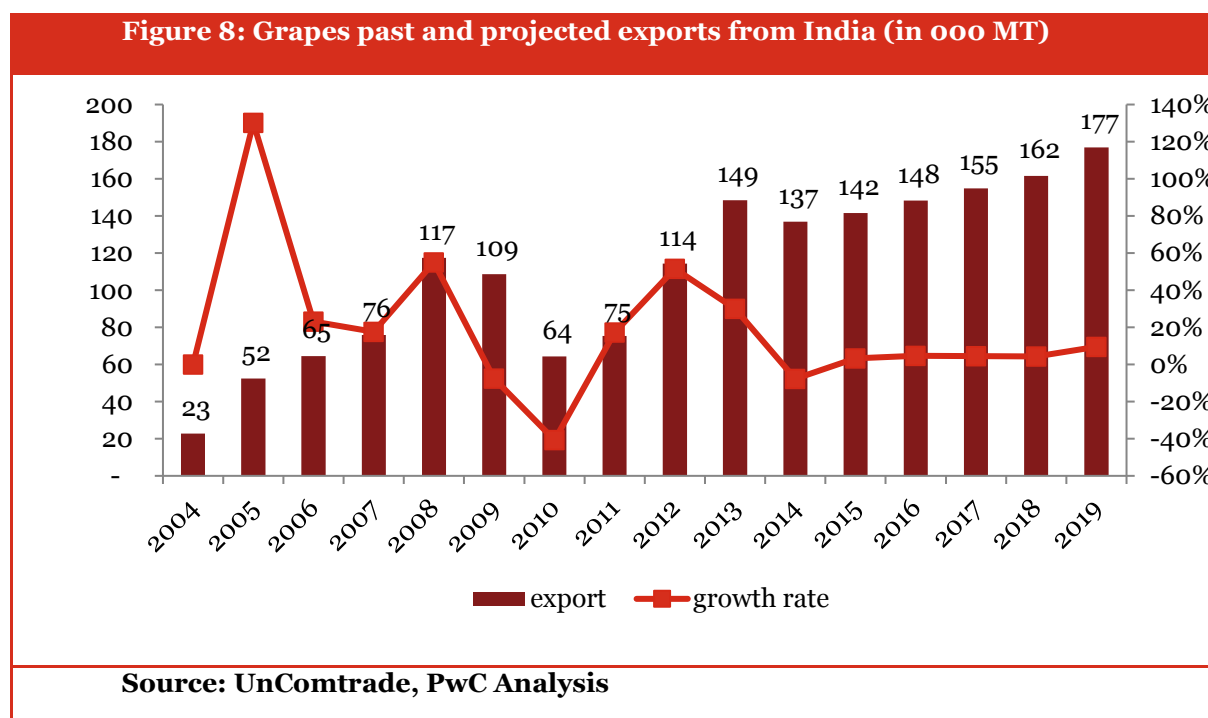


Grape Seasons in India and the competing countries

The harvest time difference is a major creator of opportunity for the fresh fruit supplying country and so is the case with Grapes –

In Chile and India, the harvest time is February to April while in South Africa the harvest period is December to February (for Thompson Seedless) and the harvest season in Turkey is between August and October. In order to capture larger market share, we need to add varieties that can be counter cyclical to our usual harvest season. A case in the point - Maharashtra has imported Crimson Seedless from South Africa and trying to develop the same. Interestingly, in South Africa the Crimson Seedless is a grape which is harvested for 2 months after the Thompson Seedless harvesting is over.

3.2.1.3. Projection of Exports



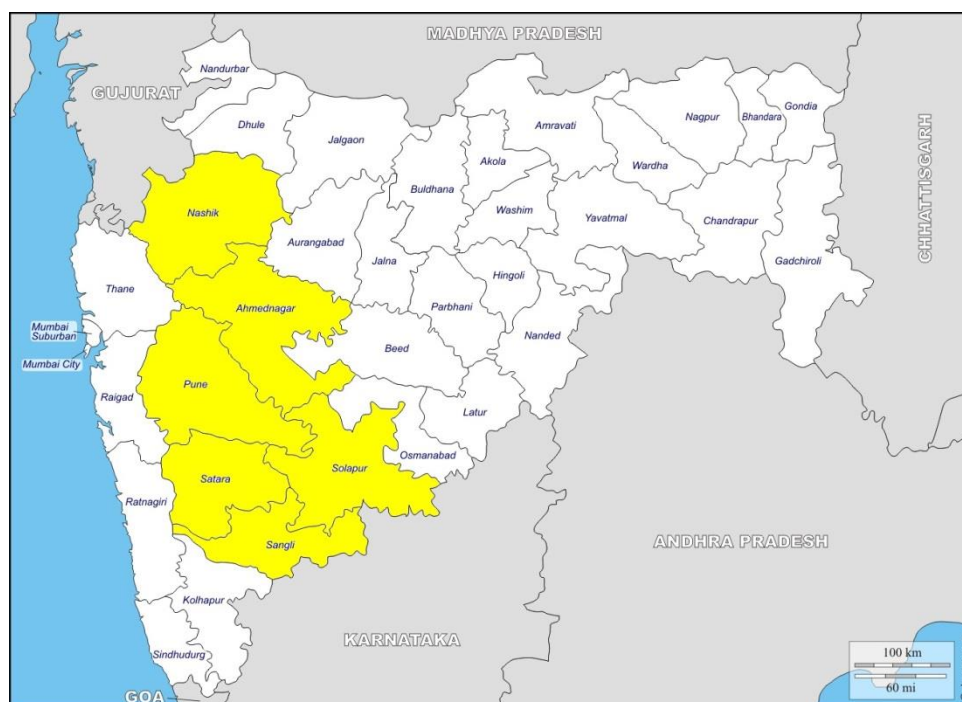
Step 1 – Projecting India’s export over next 5 years based on last 10 years’ performance

- Based on the last 10 years’ export performance, if the export potential is projected (using the least square method) then it can be expected that the total exports should reach the 175,000 tons by 2019. The key question is how much of this export can be achieved by Maharashtra.

Step 2 – How much of India’s export will come from Maharashtra– Maharashtra has a production base of 2 million and currently exports about 7% of its production.

Step 3 – Is this estimation reasonable – Currently Maharashtra is the only major exporter of Grapes from India with export volumes of 0.15 million tons. We assume that the overall export from India is likely to cross 0.175 million tons by 2019 at a conservative growth rate of around 5%. Further considering the current production levels we can safely assume that the additional growth of 0.025 million tons will be contributed by key production state of Maharashtra (10000 tons) and Karnataka (15000 tons).

The major production zones for grapes in Maharashtra are Nasik, Sangli, Pune, Satara, Ahmednagar and Sholapur.

Figure 9: Major Production cluster of grapes in Maharashtra

Source: National Horticulture Board Database, PwC Analysis

Competitive Scenario for grapes: One of the top importers for Indian grapes is the European Union. For this region, India has competition from Chile and South Africa. India's cost of shipping – 0.5\$/kg is the lowest among the two top competitors; Chile – 0.9\$/kg and South Africa 1.3\$/kg.* (UNCOMTRADE and PwC Analysis). This implies that if India can maintain the quality of grapes that it exports, its share in the market can increase. For maintaining the quality of the produce we would need more cold storage units for proper preservation till the grapes reach the export destination.

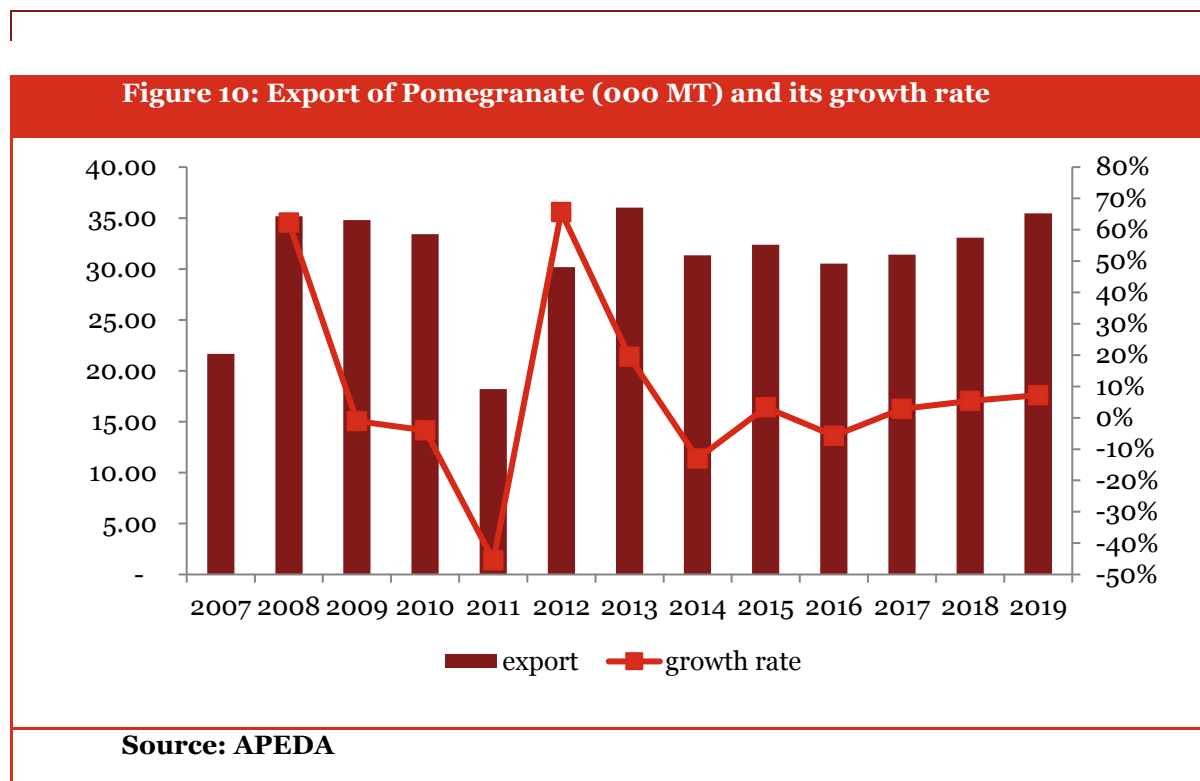
3.2.2. Pomegranate

This is a crop for which international trade data is very limited. The reason for limited information is the concentrated production in India and Iran. It is a crop that is native of Iran and is well suited for growing in dry / low rainfall conditions. Therefore the crop was found suitable in many regions of India.

India currently produces 1.35 million tons of pomegranates from 130,000 hectares of land. Further, India exports little over 2% of its production in the international market.

3.2.2.1. Projection of Exports

Step – 1 forecasting the exports of India - Since global trade in pomegranates is not recorded; therefore an assessment of the market is limited forecasting exports from India only. India's exports have also grown at sluggish CAGR of 5% over the past 7 years. And a linear progression (least square method) of the existing trade will only increase the export to 35000 tons from the current level of 31000 tons. This is demonstrated through the graph below.



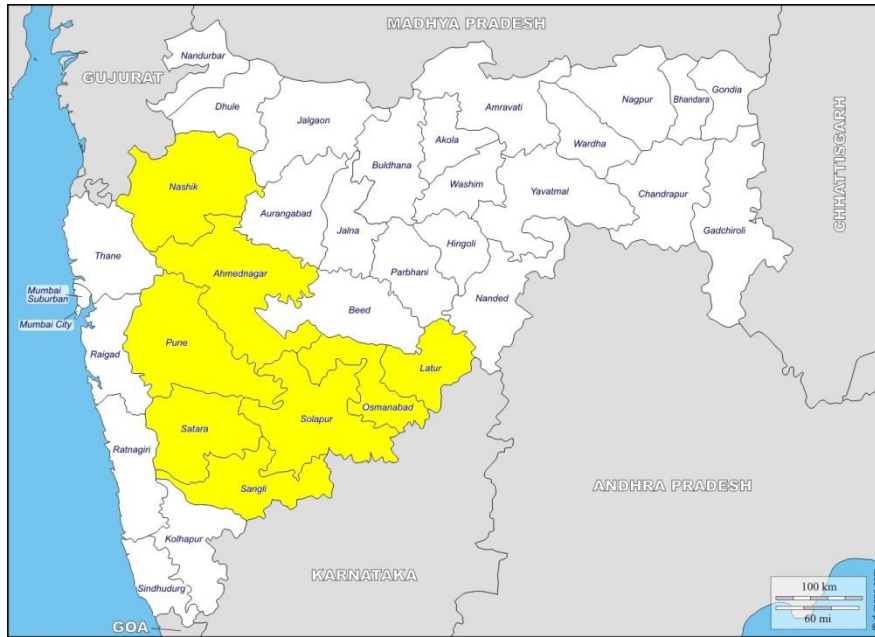
As can be observed, the export has always been range bound between 30,000 and 35000 tons, while during this period the national production has increased from 0.8 million tons in 2008 to about 1.3 million tons in 2014. This shows a clear trend that production increase will not increase international trade unless supported by suitable infrastructure and export focused cultivation is done through development of international cultivars.

Step 2 – Moderation of the forecast - So going forward and planning the investments in the infrastructure we assume that the addition of infrastructure will increase the export by an additional 20% thereby increasing export of pomegranate to 42000 tons from a current level of 31000 tons. This assumption is not mathematical; instead it is based on stakeholder discussions.

Step 3 – Maharashtra’s Share in the export – The production of the pomegranates in Maharashtra is about 0.9 million tons. Karnataka is also a major producer and between these two states, 80% of the pomegranate production in India is covered. If the projected export of 42000 tons is allocated to these states in proportion of their production then **Maharashtra can be expected to export 37000 tons of pomegranate.**

The crop can be grown in Maharashtra throughout the year and the major regions are:

Figure 11: Major Production cluster of pomegranate in Maharashtra



Source: National Horticulture Board Database, PwC Analysis

Competitive analysis could not be done due to lack of data availability for international trade.

3.2.3. Papaya

Papaya is a tropical fruit originating from Latin America but at present India is the largest producer of Papaya in the world with nearly 40% of the production. However, India has only about 6% market share in volume terms and about 4% in value terms. The problem with this fruit is its low shelf life and therefore difficulty in sending over long distances. The largest importer of this fruit is USA accounting for 50-60% of the import. Given the short shelf life, even the second largest producer, Brazil does not supply to the US market. This market is dominated by Mexico.

Table 5: Exporters for Papaya in the World

Rank	Area	Quantity (MMT)	Value (Mn USD)	Global Share (%)
1	Mexico	0.12	67	39%
2	Guatemala	0.03	12	11%
3	Brazil	0.03	42	10%
4	Belize	0.03	10	9%

Source: FAOSTAT (MMT= Million Metric Tons)

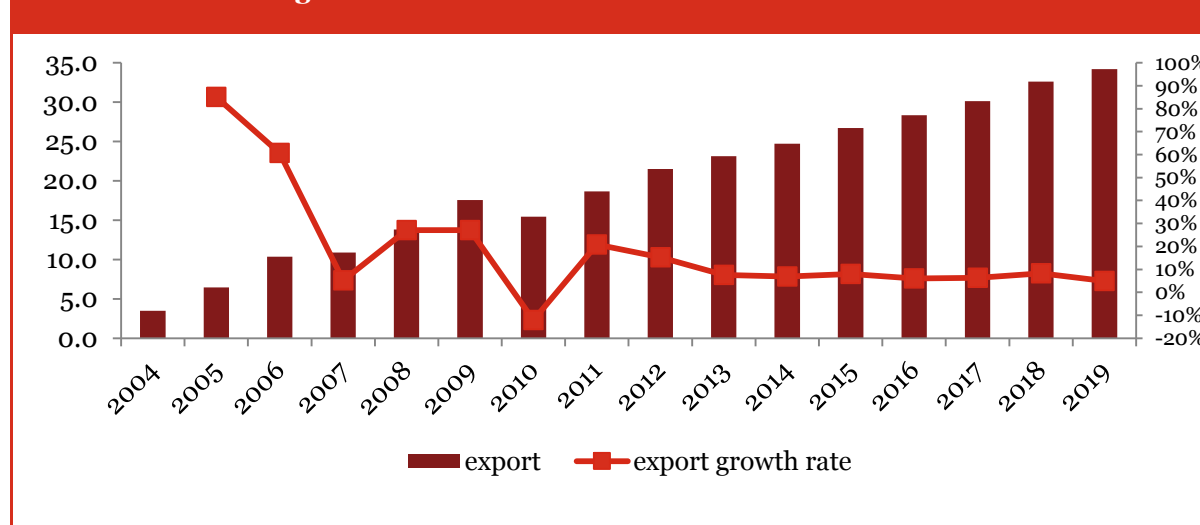
Nepal (60%), Saudi Arabia (33%), Kuwait (5%) and France (1%) are the major international markets for export of Indian Papayas. Within these key export markets, India is ranked among the highest. In Nepal India has 100% market share of the import of Papaya, while in Middle-east, the share of Indian exports is close to 80%.

US, Singapore, Canada, El-Salvador & Netherlands are the major importers of papayas, India’s share of exports to these countries has been miniscule. Proximity to major exporters, variety preference and perishability of the produce might be major reasons for the same.

While US, Canada, El-Salvador are currently impossible to cater to, Singapore market could have been considered for development. That market imports about 20,000 tons per annum and India could have targeted a 20-25% market share in this region. However even the Singapore market is not tapped by the Indian exporters. This is due their close proximity to Malaysia which is the primary supplier for Singapore.

3.2.3.1. Projection of Exports

Figure 12: India’s export performance over the years and the projected exports based on linear forecasting



Source: FAOSTAT

Papaya export shows a growth trend of about CAGR of 26% since 2004. This is a very strong performance for a crop. Going forward the analysis throws up a modest growth rate of about 6%. However this leads to a growth of about 15000 tons by the end of 2019. This as an absolute number and is unreasonable because there are limitations to the number of markets that can be serviced from India and the markets which can support this level of growth. The current level of growth is supported largely by the import markets of middle- east. However these markets have grown erratically.

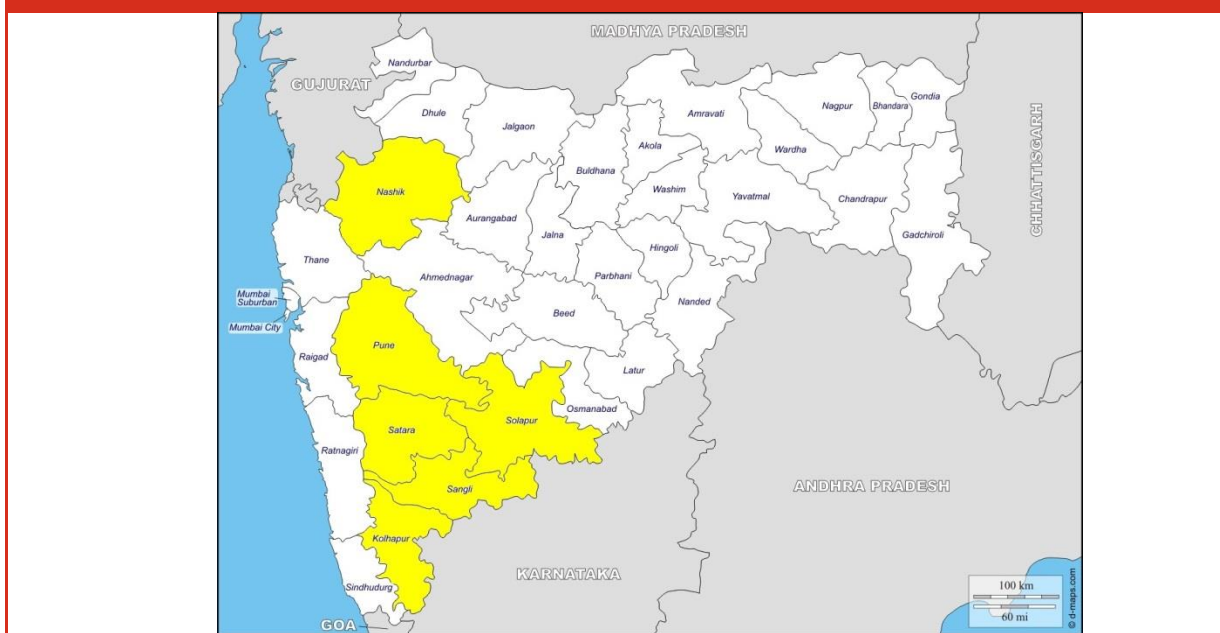
Based on the above information we make the following assumptions –

1. The growth in Papaya export will be small and assume that it will be only 0.1% (due to saturated primary markets and low shelf life) of the production of India (5.2 million) i.e. a growth of 5000 tons only
2. The growth will come from Middle-Eastern markets only
3. Since Maharashtra and Karnataka are the largest producer states in the west coast, the entire export will be provided by these 2 states.
4. Since Maharashtra’s production is over 3 time Karnataka’s production, therefore it is safe to assume that of the projected export of about 20,000 tons, ¾ quantity is export is from Maharashtra.

Based on these assumptions, it is projected that the growth in export of Papaya from Maharashtra would be about 15,000 tons.

Main papaya producing belts are Sangli, Satara, Pune, Nashik, Sholapur and Nagpur.

Figure 13: Major Papaya production centers in Maharashtra



Source: National Horticulture Board Database, PwC Analysis

Competitive scenario for Papaya: Top markets for Papaya are UAE and Saudi Arabia. For this region India has competition from South Africa. India’s cost of shipping – 0.6\$/kg is lower than South Africa which has a rate of 1.6\$/kg. The lower cost is also due to India’s proximity to these regions. Maintaining the quality of fresh papaya is a concern as it is highly perishable commodity.

In addition to fresh papaya exports, limited quantities of papaya pulp can also be exported. A more significant category of papaya based product is Pepin based enzymes. These are high value added products but do not occur on the APEDA list of products.

3.2.4. Tomato

This is one of the most widely grown crops in the world and there exist many varieties across the world developed to suit the local tastes, preferences and to resist the local weather and disease shocks. India is the second largest producer with 11% share of the global production. China is the largest producer with over 30% share of production.

3.2.4.1. Projection of Exports

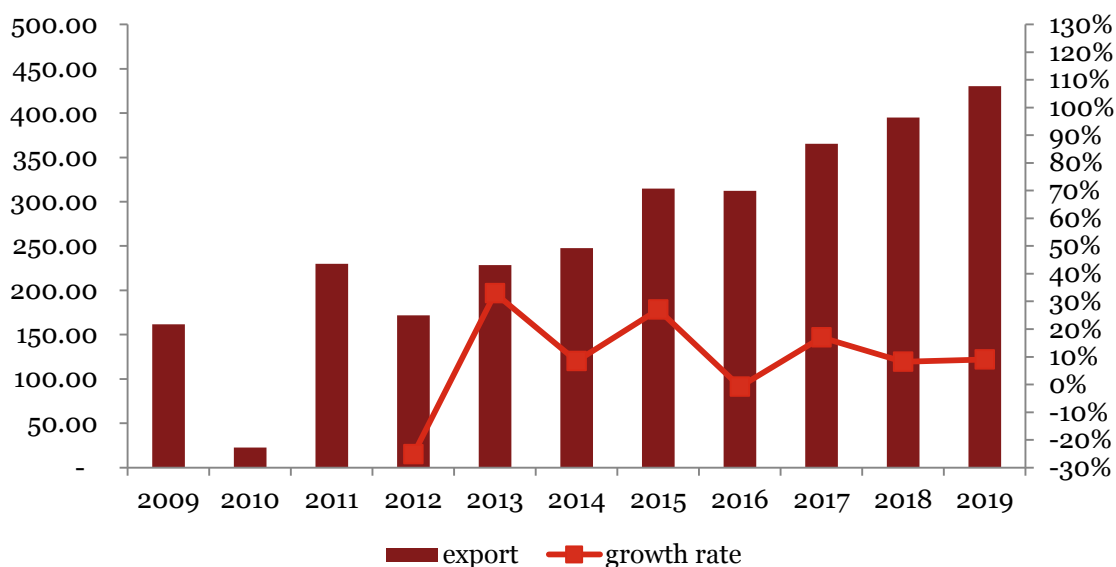
The global trade in tomato is about 7.2 million tons, while India has a miniscule share of about 0.25 million tons. So export volume is 3% while the production is about 11% of the world. So prima facie there seems potential to substantially increase exports.

India’s current tomato exports –

Pakistan (94%), Nepal (3%) constitutes India’s major tomato market accounting as much as 97% of India’s export. In these countries India has almost 100% market share in their entire tomato import bill.

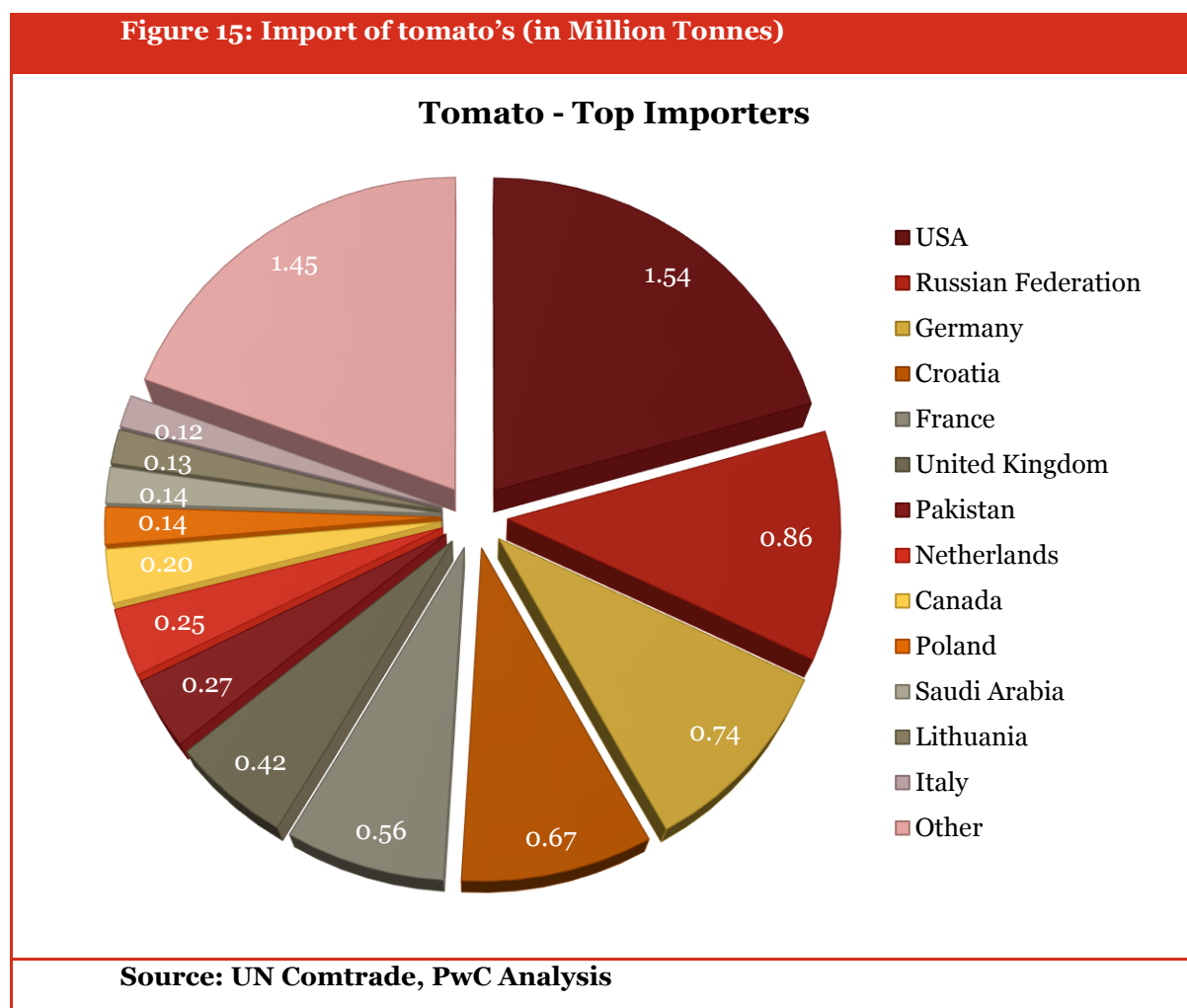
Step 1 – Projecting Exports –If we assess the trade volume growth in the past few years (though it has been achieved by creating dominance in a few markets only) and forecast the volume potential after 5 years, it can be observed that the current growth momentum shows that achieving 425,000 ton of exports should be feasible. In order to achieve this growth India needs to target new markets.

Figure 14: Export and growth rate of tomato from India



Source: UN Comtrade, PwC Analysis

Step 2 – Assessing feasibility of projected exports - New markets need to be explored in order to achieve significant growth in exports along with building the back end infrastructure. So let’s consider the potential markets to target –



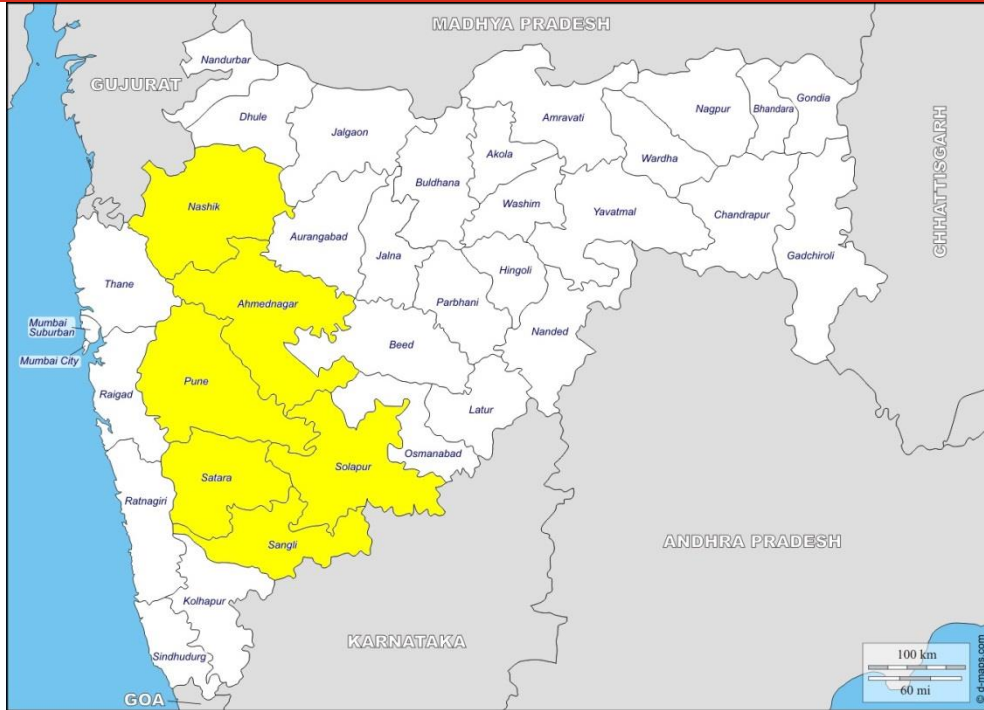
These markets together constitute 80% of the importers of tomato. Even after excluding Pakistan (because India is the dominant exporter there) and USA, which due to the distance may be difficult to serve, the remaining market is about 4 million tons per annum. Through organised and focused effort achieving 175,000 tons export growth in a 4 million ton market is quite feasible.

Step 3 - Assessing share of Maharashtra in the export growth – Maharashtra contributes only 6% (approximately 0.7 million tonnes) to total production of tomato. The top three producing states, Andhra Pradesh, Karnataka and Madhya Pradesh produce share 90% of the export.

However Maharashtra has potential for export development as the state has a year round harvesting period for Tomato. In addition to fresh produce export, private sector should be motivated to develop tomato paste, flavors, soup mixes and ketchup etc.

The major production districts are Nasik, Ahmednagar, Pune, Sholapur, Satara and Sangli.

Figure 16: Tomato produing districts



Source: National Horticulture Board Database, PwC Analysis

Competitive Scenario for tomato: One of the top importers for tomato is Pakistan and UAE. For this region, India does not have much competition. However Pakistan also imports tomato from Iran and Afghanistan. India’s cost of shipping – 0.18\$/kg which is quite competitive, also due to the proximity of the two countries. India should also target major tomato importing countries such as USA and Russia.

3.2.5. Banana

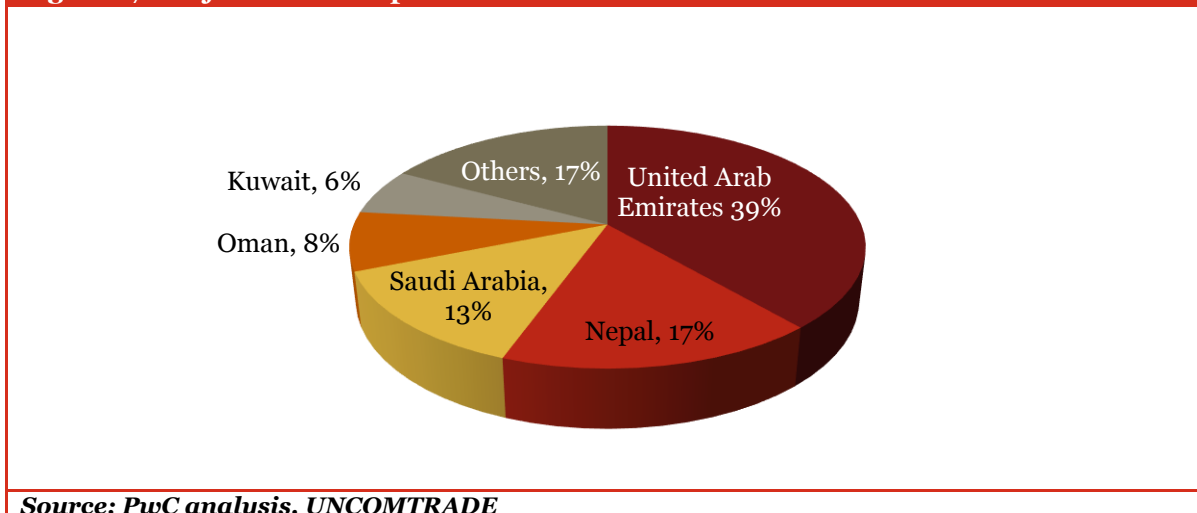
Banana is one of the most important fruit crop in India. Currently, in respect of area it ranks second and first in production only after mango in this country. India leads the world in banana production with an annual output of about 29.72 Million tonnes (National Horticulture Board, 2013). In India, Maharashtra comes second in production after Tamil Nadu, with approximately 5 million tonnes production. Tamil Nadu leads with 5.65 Million tonnes (National Horticulture Board, 2013). The banana culture in India is as old as Indian civilization. It seems that it is one of the earliest fruit crops grown by mankind at the dawn of civilization.

Considering the nutritive value and fruit value of bananas, it is the most widely available fruit among all other fruits in the country. Considering the year round availability of banana, unlike the seasonal availability of other tree fruits, it has become an inevitable necessity in any household in India, for all functions. The bananas were grown in Southern Asia even before the prehistoric periods and the world's largest diversity in banana population is found in this area. Hence, it is generally agreed that all the edible bananas and plantains are indigenous to the warm, moist regions of tropical Asia comprising the regions of India, Burma, Thailand and Indo China.

India's share in the global banana production stands at 26 percent (FAO Stat) followed by countries like China, Philippines, Ecuador, Brazil and Indonesia. In terms of exports, the top 4 exporters of banana are Ecuador, Philippines, Guatemala and Cost Rica. The overall global trade in banana is expected to be of the order of 9497 Million USD and **India's share in the total exports of bananas stand at 0.14% of the total quantity exported around the world** (UN Comtrade). So it can be concluded that although India produces a major quantity of the global banana production, its export in the international market is very low. This can be attributed to high postharvest losses and high domestic consumption.

The major importing destinations from India are UAE, Nepal, Saudi Arabia, Oman and Kuwait. These destinations together constitute more than 80 percent of the total export from India. The distribution of exports of bananas from India is provided below:

Figure 17: Major banana export markets of India



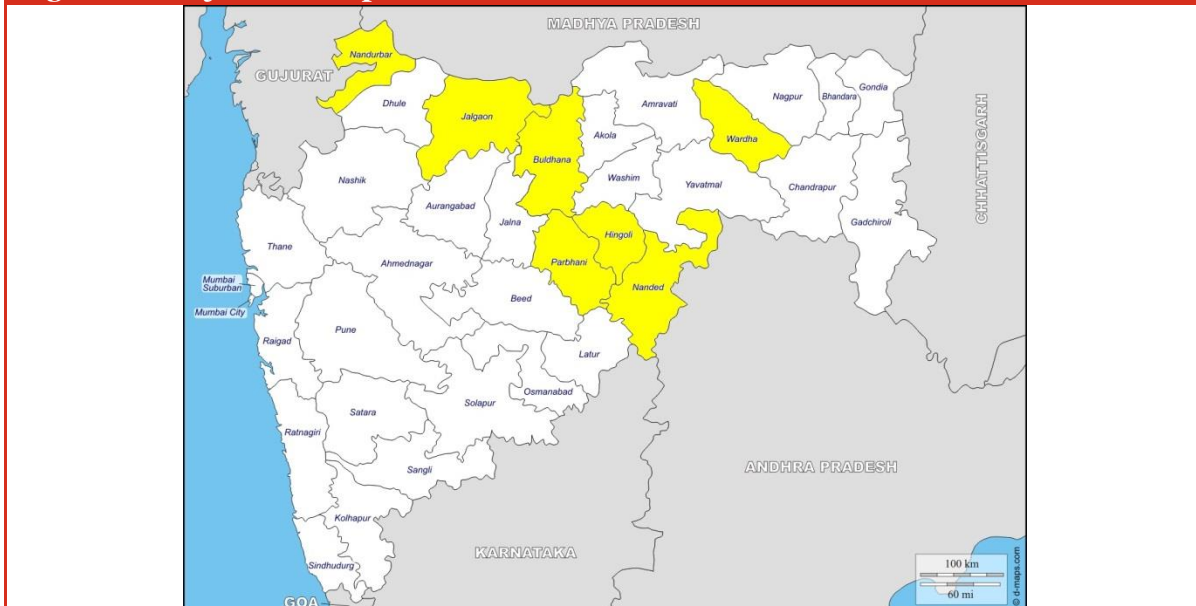
3.2.5.1. Surplus available for export

In terms of production in India, the major banana producing states are Maharashtra, Tamil Nadu Gujarat, Andhra Pradesh and Karnataka. Maharashtra is the second largest banana producing state in

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the country with a total share of 17 percent of the total production in the country⁴. The major banana producing districts in Maharashtra are illustrated below, however the variety Grand naine can be grown throughout Maharashtra.

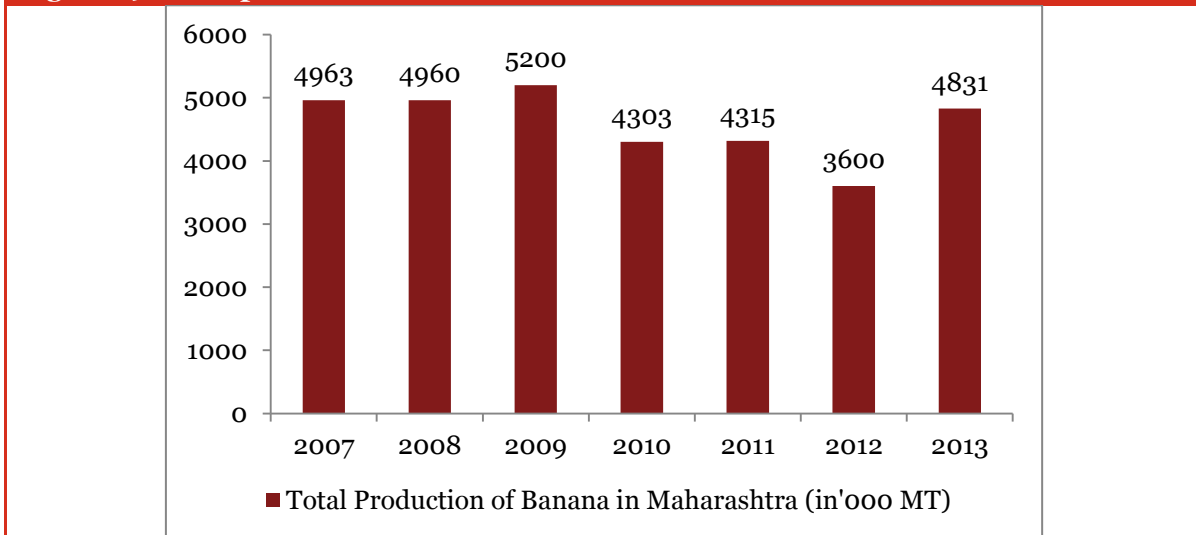
Figure 18: Major banana production centers in Maharashtra



Source: National Horticulture Board Database, PwC Analysis

The general trend in the overall production of bananas in Maharashtra is shown below:

Figure 19: Total production of Banana in Maharashtra (in '000 MT)

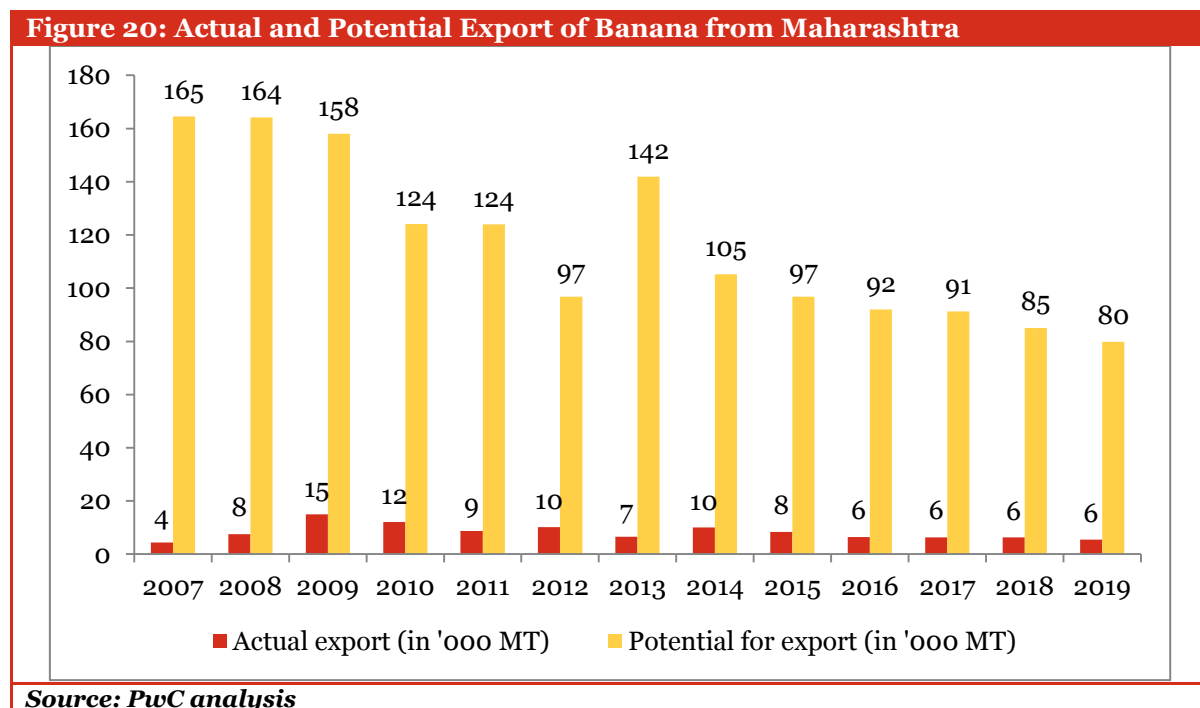


Source: PwC analysis, National Horticulture Database.

In terms of export, India is not exporting a major quantity to the international market. Only 0.2% (UN Comtrade) of the total production of banana was exported out of India in 2012-13. This shows a lot of potential for increasing the export of bananas from India. In order to enhance the overall export of bananas from India, major focus should be on increasing exports from Maharashtra and Tamil Nadu as they are leading producer states of bananas in India.

⁴ National Horticulture Database 2013

The estimated current and potential export of bananas from Maharashtra (based on previous trends) is illustrated below:



Based on the methodology discussed in section 3.1 we calculated the total potential for banana export in Maharashtra. The average available surplus with Maharashtra for export is 140 thousand MT Annexure 1.A (average taken from 2007-08 to 2013-14). This clearly indicates that there is a huge gap between the actual and potential exports in terms of banana. The calculation for the surplus available in Maharashtra is illustrated below:

Table 6: Calculation of the surplus for banana and the capacity of the identified infrastructure

Statement	Value (in '000 tonnes)
Total Production of Bananas in Maharashtra in 2013-14	4831
Applying Pareto Principle we get total potential for exports in 2013-14	142
Total projected potential in 2019	80
Total current export from India	28.1
Total exports from Maharashtra	7

Maharashtra also has a natural advantage of increased and better produce as it lies in low rainfall belt, resulting in lesser pests and insects making the quality of Banana produced more desirable as an export product.

Competitive scenario for Banana: The top importers for Indian Bananas are Saudi Arabia and UAE. For this region, India has competition from Ecuador and Philippines. Cost of shipping for the two top competitors; Ecuador – 0.2\$/kg and Philippines 0.4\$/kg is very competitive. For India this cost is even lower that it sometimes leads to losses in revenue. India should take advantage of being the second largest producer of Banana’s in the world and level out the cost for shipping while maintain its quality.

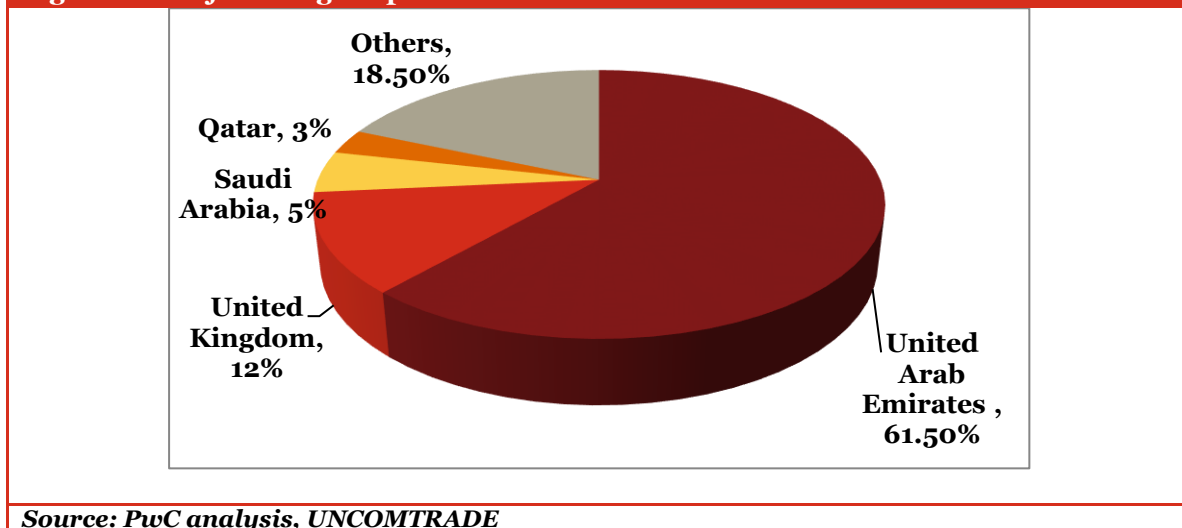
3.2.6. Mango

Mango is a native crop of South Asia; it is also the most important fruit crop in India and is known as the ‘King of Fruits’. India leads the world in mango production with a contribution of 40% to the world Mango production. In India, major Mango producing states are Andhra Pradesh and Uttar Pradesh, Maharashtra contributes 5% to the production of Mango in India. The much sought after Alphonso variety is also grown here.

India’s share in the global mango production stands at 40 percent followed by countries like China, Thailand, Pakistan and Mexico. In terms of exports, the top 4 exporters of Mango are Mexico, India, Thailand, Brazil and Peru. **India stands second in global exports of Mango (FAO Stat)**

The major importing destinations from India are UAE, UK, Saudi Arabia and Qatar. These destinations together constitute more than 80 percent of the total export from India. The distribution of exports of Mango from India is provided below:

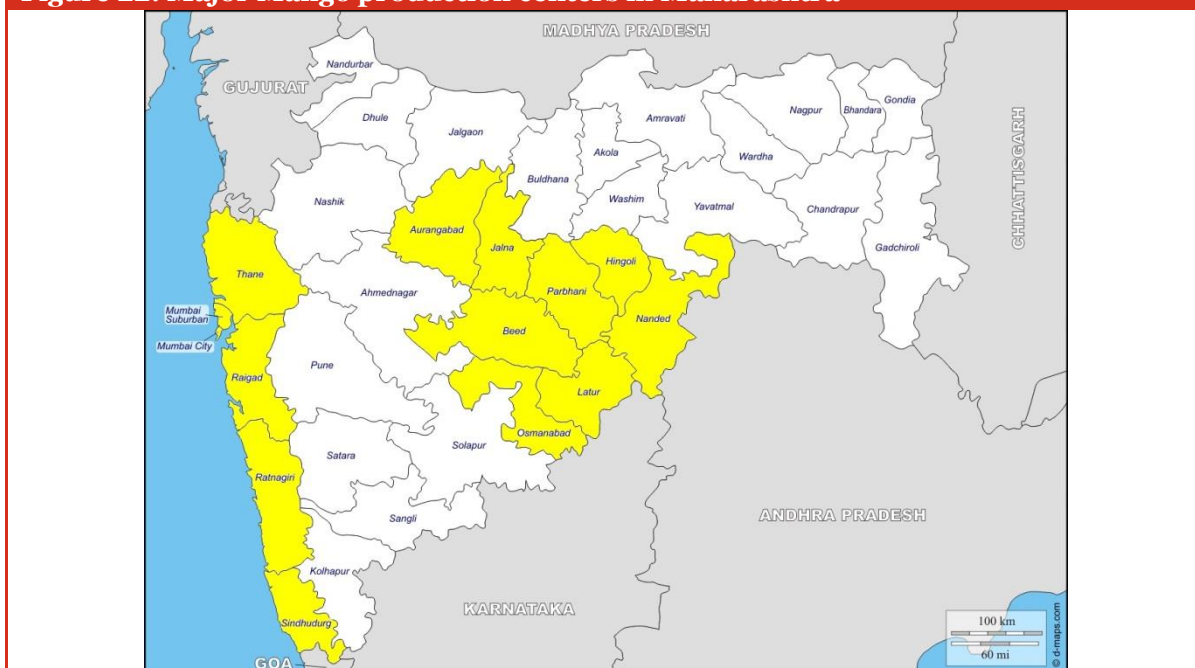
Figure 21: Major Mango export markets of India



3.2.6.1. Surplus available for export

In terms of production in India, the major mango producing states are Andhra Pradesh and Uttar Pradesh. They contribute almost 50% of total mango produced in India. Maharashtra contributes 5% to total annual production. The major mango producing districts in Maharashtra are illustrated below;

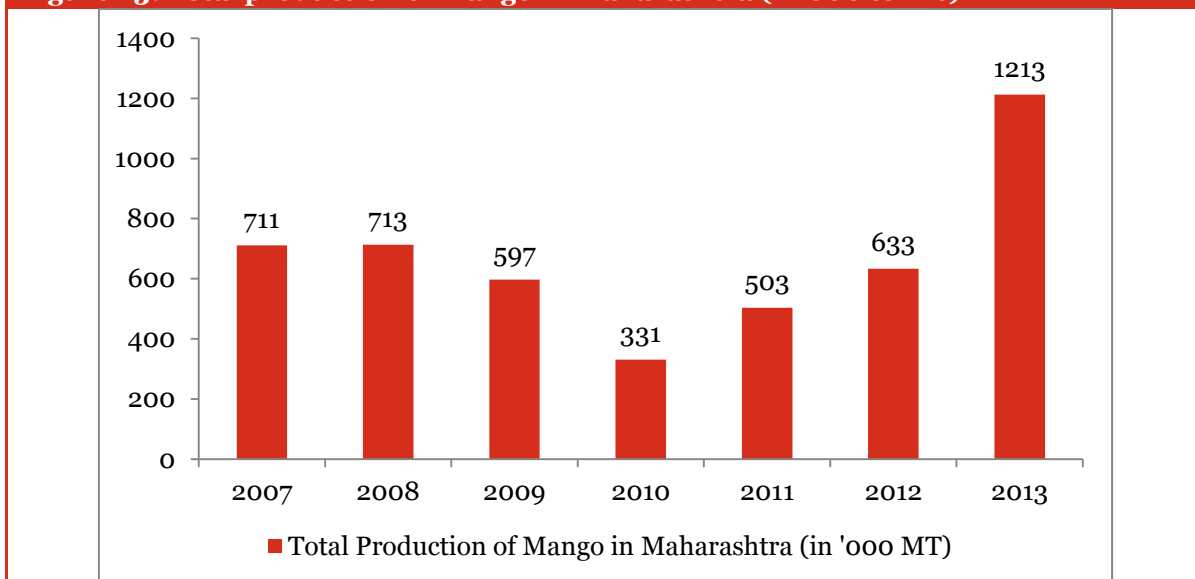
Figure 22: Major Mango production centers in Maharashtra



Source: National Horticulture Board Database, PwC Analysis

The general trend in the overall production of mangoes in Maharashtra is shown below:

Figure 23: Total production of Mango in Maharashtra (in 000 tonne)

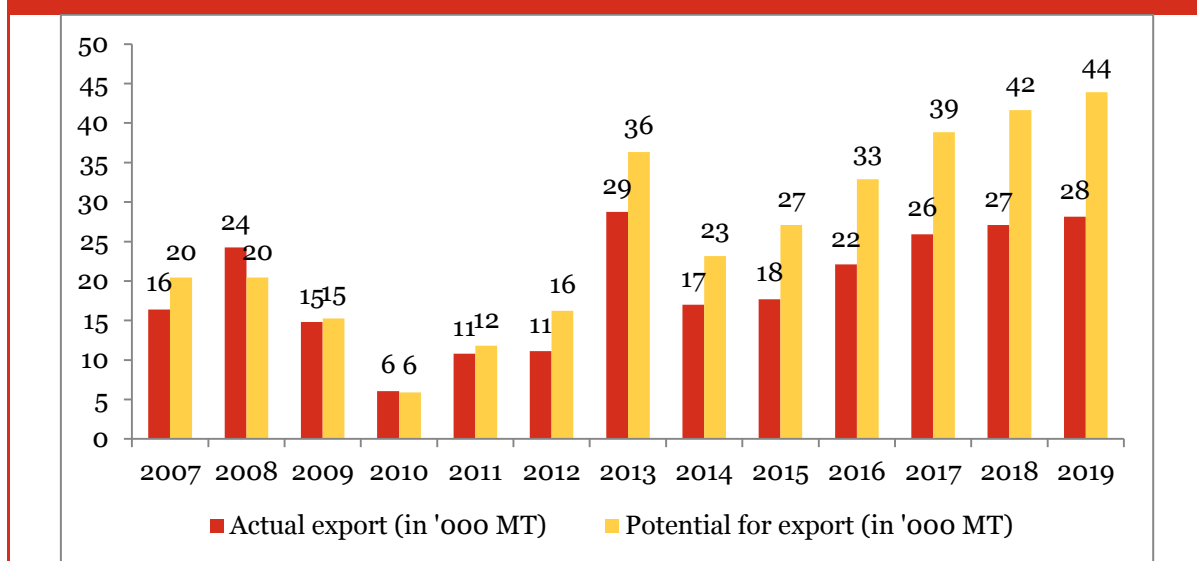


Source: PwC analysis, National Horticulture Database.

In terms of export, India exported 22% of its produce in the year 2013-14. Being the largest producer in the world, there is a potential for increasing the exports. Maharashtra exports only 3% of its total produce, which can be increased to enhance the overall export of mango from India.

The estimated current and potential export of Mangoes from Maharashtra (based on previous trends) is illustrated below:

Figure 24: Actual and Potential Export of Mango from Maharashtra



Source: PwC analysis

Based on the methodology discussed in section 3.1 we calculated the total potential for mango export in Maharashtra. The average available surplus with Maharashtra for export is 18 thousand MT – Annexure- 1.A (average taken from 2007-08 to 2013-14). This clearly indicates that there is a huge gap between the actual and potential exports in terms of Mango. The calculation for the surplus available in Maharashtra is illustrated below:

Table 7: Calculation of the surplus for Mango

Statement	Value (in '000 tonnes)
Total Production of Mangoes in Maharashtra in 2013-14	1213
Applying Pareto Principle we get total potential for exports in 2013-14	36
Total projected potential in 2019	44
Total current export from India	230
Total exports from Maharashtra	28

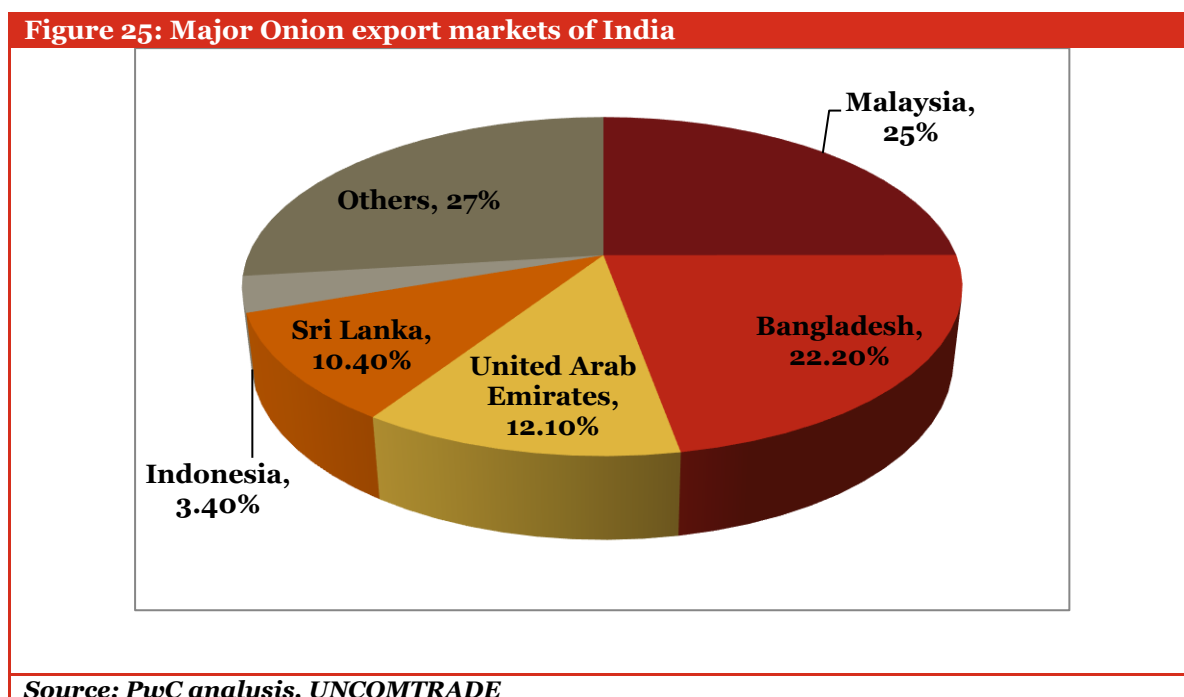
Exports can be increased from Maharashtra and India, as India cultivates a wide variety of mangoes which are desirable in the export market, especially Alphonso which is grown in Maharashtra. Pack houses have been set up in Rantagiri and Sindhudurg. Facilities such as a post-harvest management center can also be setup.

Competitive Scenario for mango: The top importers for mango are Saudi Arabia and UAE. For this region India has competition from Egypt and Yemen. India’s cost of shipping – 0.3\$/kg is the highest among the two top competitors; Egypt – 0.2\$/kg and Yemen 0.1\$/kg. This slightly higher cost is most probably due to longer distance Indian mangoes have to cover to reach the destination. However being the top producer of mangoes and despite producing the best quality mangoes, the Indian market is not competitive due to high amounts of post-harvest losses. These can be reduced by setting up better infrastructure facilities such as irradiation facility.

3.2.7. Onion

Onion is an extremely important vegetable crop not only for international consumption but also as the highest foreign exchange earner among fruits and vegetables. India is the second largest producer of Onion in the world, next to China. India produced 19402 thousand tons of Onion in the year 2013-14. In India Maharashtra leads the country with 30% share in production which means 4593 thousand tons of onion. This is based on an average production of seven years from 2007-08 to 2013-14. (NHB) Varieties such as Pusa white flat and Pusa white round can be grown throughout India.

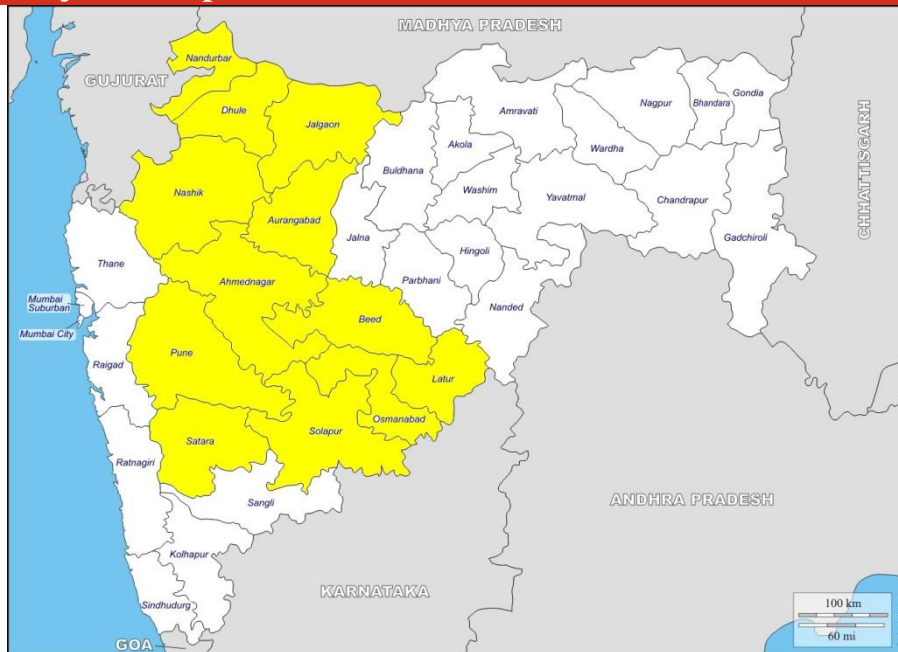
India’s share in the global Onion production stands at 20 percent (NHB.) In terms of exports, the top 4 exporters of Onion are Netherlands, India, Mexico and China. The overall global trade in Onion is expected to be of the order of 3505 Million USD (UNcomtrade). The major Onion importing destinations from India are Malaysia, Bangladesh, United Arab Emirates and Sri Lanka. These destinations together constitute 73 percent of the total export from India. The distribution of exports of Onion from India is provided below:



3.2.7.1. Surplus available for export

In terms of production in India, the major Onion producing states are Maharashtra, Madhya Pradesh, Karnataka, Andhra Pradesh and Bihar. Maharashtra is the largest onion producing state in the country with a total share of 30 percent of the total production in the country. The major onion producing districts in Maharashtra are illustrated below.

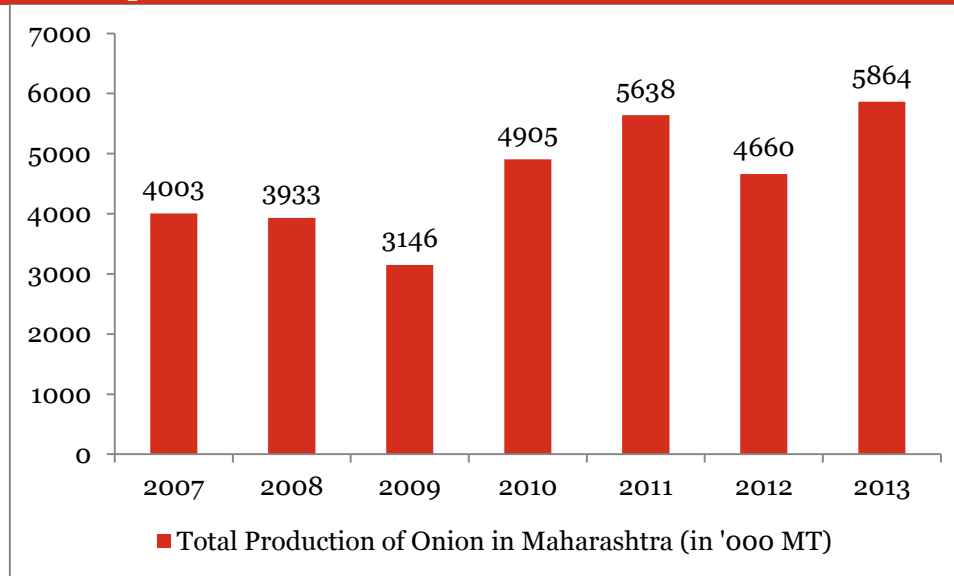
Figure 26: Major Onion production centers in Maharashtra



Source: National Horticulture Board Database, PwC Analysis

The general trend in the overall production of onion in Maharashtra is shown below:

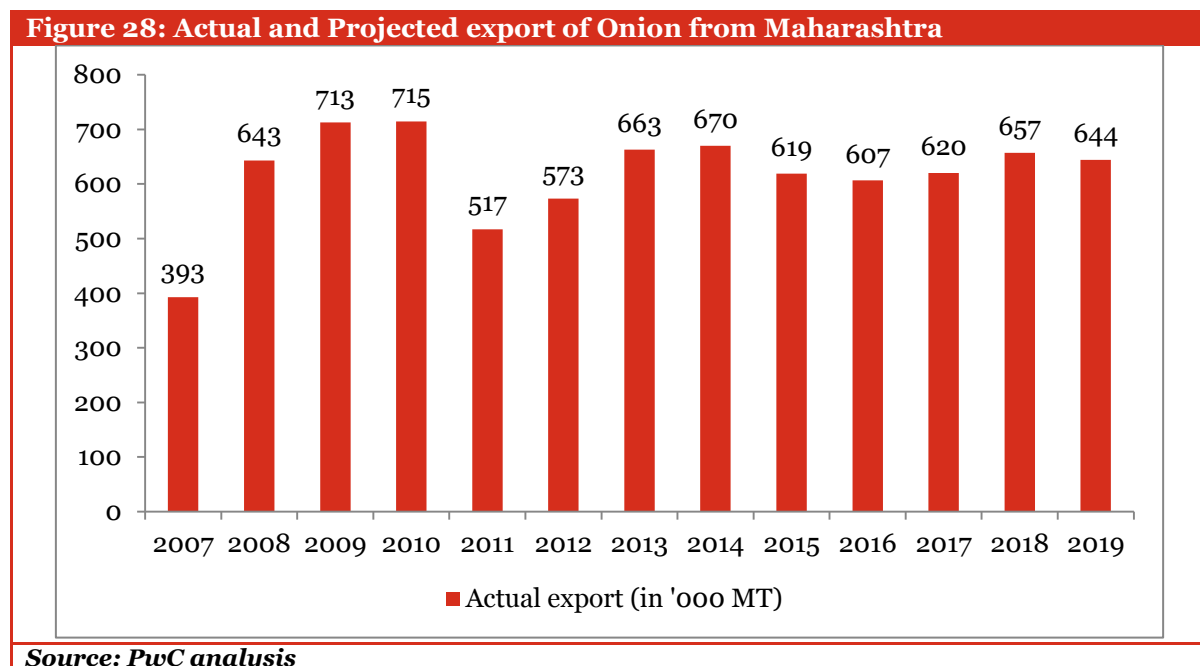
Figure 27: Total production of Onion in Maharashtra (in 000 tonne)



Source: PwC analysis, National Horticulture Database.

In terms of export, India exports aroundx 1373 thousand tons of Onions, of which Maharashtra contributes 602 thousand tons, which is 43% of its total produce.

The estimated current and potential export of Onion from Maharashtra (based on previous trends) is illustrated below:



Based on the methodology discussed in section 3.1, we calculated the total potential for onion export in Maharashtra. The average available surplus with Maharashtra for export is 135 thousand MT (average taken from 2007-08 to 2013-14). The calculation for the surplus available in Maharashtra is illustrated below:

Table 8: Calculation of projected production and export for Onion

Statement	Value (in '000 tonnes)
Total Production of Onion in Maharashtra in 2013-14	5864
Total projected potential for export from Maharashtra in 2019	644
Total current export from India	1477
Total current exports from Maharashtra	663

To maintain the current leadership in production and export, sustained efforts will be required. India has the advantage that onion is grown almost throughout the year. Agri-export zones, Modern pack-houses, irradiation units can be set up to maintain the top spot in export and production of Onion.

Competitive Scenario for onion: The top importers for onion are Bangladesh and Malaysia. For this region India has competition from China and Netherlands. Cost of shipping for the two top competitors; China – 0.1\$/kg and Netherlands 0.03\$/kg is very competitive. However India while shipping is incurring losses as it is incurring more expenses while importing the crop to Malaysia (0.48 USD per kg), while Malaysia imports it from India at 0.47 USD per kg. (UNCOMTRADE and PwC Analysis).

However with 20% share in global production, India could look to increase its exports from the current volumes.

3.2.8. Citrus

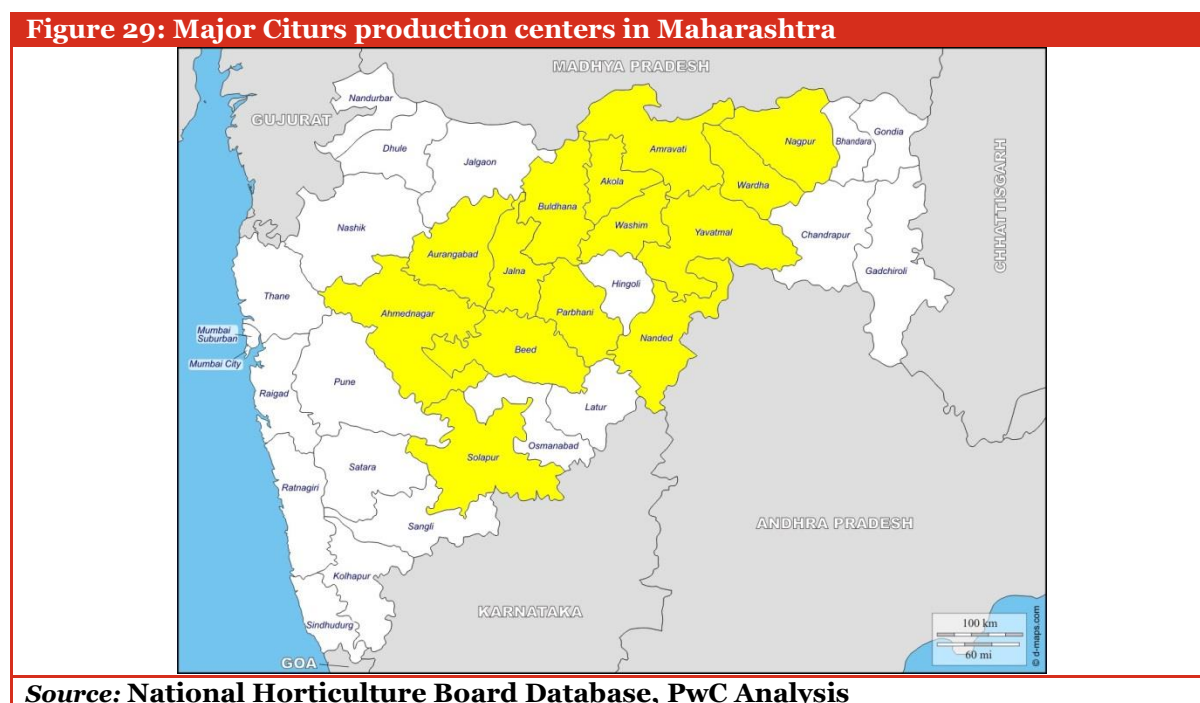
Citrus consists of three main fruits Lime/Lemon, Mosambi and Orange (Mandarin). It is native to a large area, which extends from Himalayan foothills in northeast India to north-central China, the Philippines in east and Burma, Thailand, Indonesia and New Caledonia in Southeast.

India produced 11147 thousand tons and Maharashtra produced 1761 thousand tons of citrus fruits in 2013-14 (NHB), which is 16% of the total produce of India. However exports for citrus are almost negligible from India.

3.2.8.1. Surplus available for export

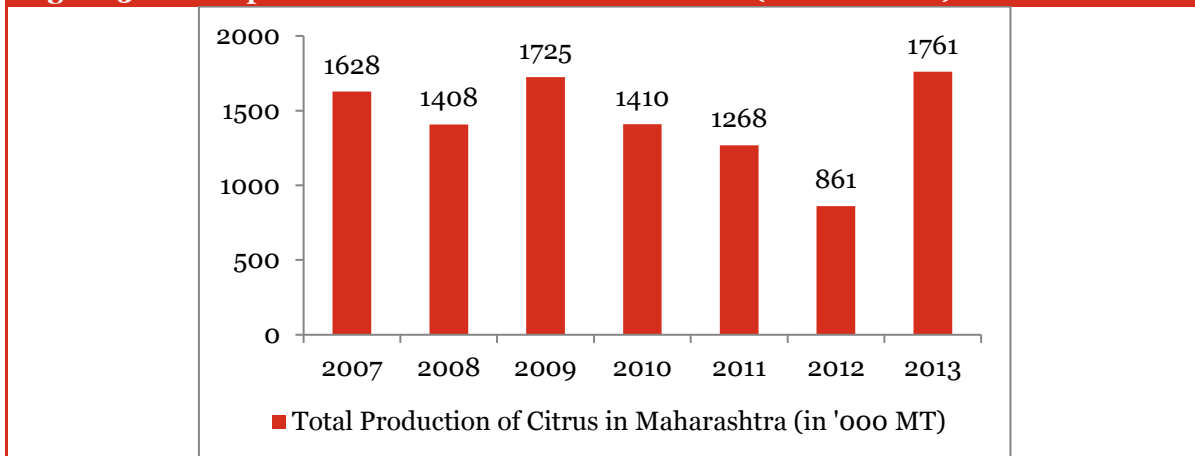
In terms of production in India, the citrus producing states are Andhra Pradesh, Madhya Pradesh, Punjab, Maharashtra and Rajasthan. Andhra Pradesh leads in citrus production on the country with 17% of total production in the country. Maharashtra ranks second with 16% production.

The major citrus producing districts in Maharashtra are illustrated below;



The general trend in the overall production of Citrus in Maharashtra is shown below:

Figure 30: Total production of Citrus in Maharashtra (in 000 tonne)

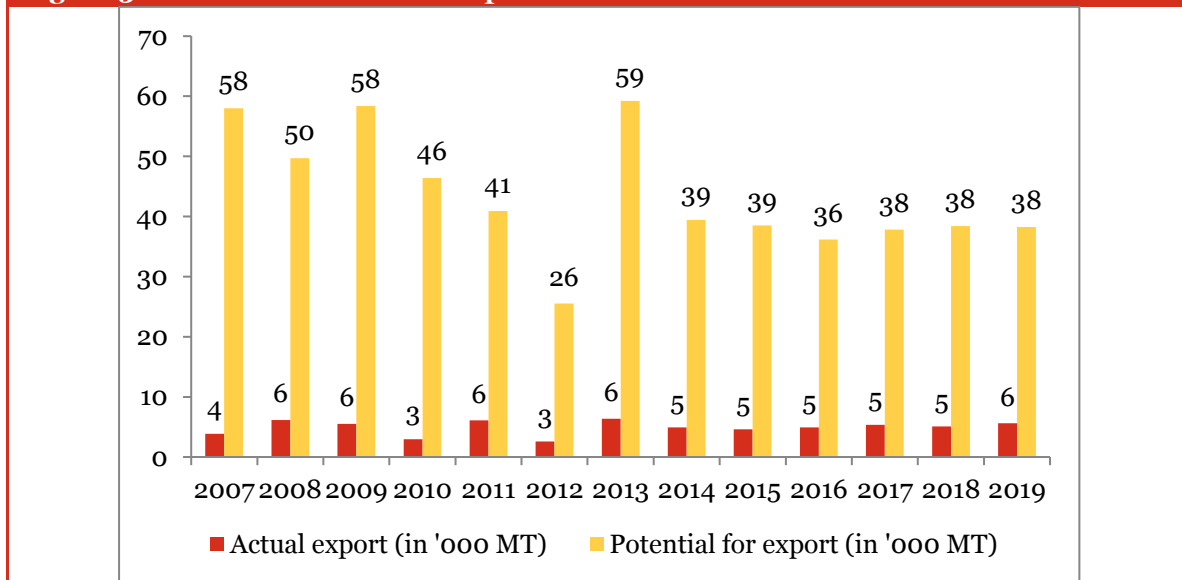


Source: PwC analysis, National Horticulture Database.

In terms of export, India is not exporting a major quantity to the international market. It exported only 23 thousand tons in the year 2013-14, against a total production of 11147 thousand tons, which is only 0.002%, which is next to negligible. This shows a lot of potential for increasing the export of citrus from India. In order to enhance the overall export of citrus from India, major focus should be on increasing exports from Maharashtra as it is the leading producer of citrus in India.

The estimated current and potential export of citrus from Maharashtra (based on previous trends) is illustrated below:

Figure 31: Actual and Potential Export of Total Citrus from Maharashtra



Source: PwC analysis

Based on the methodology discussed in section 3.1 we calculated the total potential for citrus export in Maharashtra. The average available surplus with Maharashtra for export is 48 thousand MT (average taken from 2007-08 to 2013-14). This clearly indicates that there is a huge gap between the actual and potential exports in terms of citrus. The calculation for the surplus available in Maharashtra is illustrated below:

Table 9: Calculation of the surplus for Citrus

Statement	Value (in '000 tonnes)
Total Production of Citrus in Maharashtra in 2013-14	1761
Applying Pareto Principle the surplus available for export in 2013-14	60
Total projected potential in 2019	38
Total current export from India	23
Total exports from Maharashtra	6

There is a huge gap in export and the potential for export as citrus cultivation in India is plagued with various problems due to limiting growing conditions, limiting water resources and high incidences of pests and diseases warranting great care from planting till the plants come to bearing in order to sustain a productive life of a minimum of 15-20 years. Maharashtra is famous for its Nagpur Mandarin. Citrus requires care throughout its lifecycle from soil preparation to pest management. However due to very low quantities of export from Maharashtra currently (for year 2013-14 only 6 thousand tonnes); export or export oriented infrastructure is not recommended.

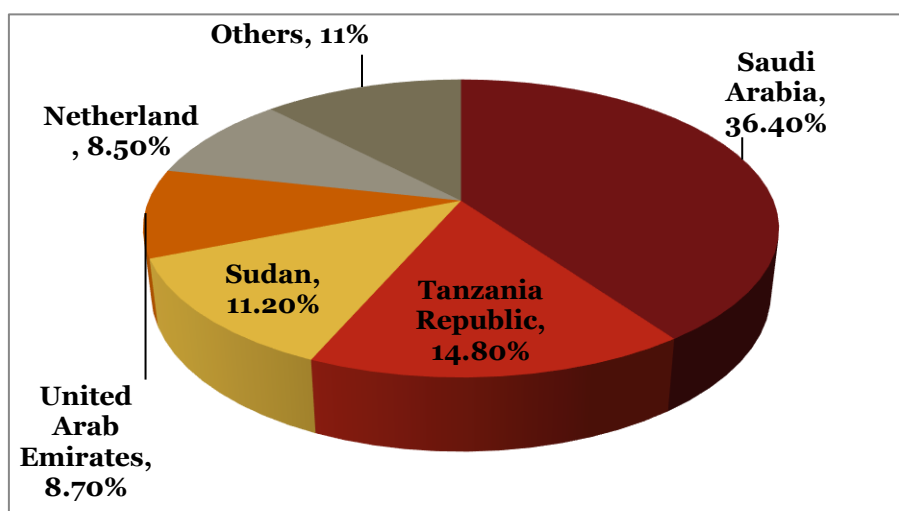
3.2.9. Guava

Guava is one of the important commercial fruit crop in India after mango, banana and citrus (APEDA). The fruit is a good source of vitamin C, pectin, calcium and phosphorus. The fruit is used for the preparation of processed products like jams, jellies and nectar. Guava jelly puree is very popular for its attractive purplish-red colour, pleasant taste and aroma. The puree can be used in juice, cakes, puddings, sauces, ice-cream, jam and jelly. Fruits can be preserved by canning as halves or quarters, with or without seed core (shells).

India produced 3668 thousand tons of Guava in 2013-14, and Maharashtra produced 324 thousand tons which is 9% of the total production. India exported 264 thousand tons of Guava in the year 2013-14. (UN comtrade, value also includes mangosteens), which is 7% of the total production in India.

The major importing destinations from India are Saudi Arabia, Tanzania Republic, Sudan, UAE and Netherland. These destinations together constitute 80 percent of the total export from India. The distribution of exports of Guava from India is provided below:

Figure 32: Major Guava export markets of India

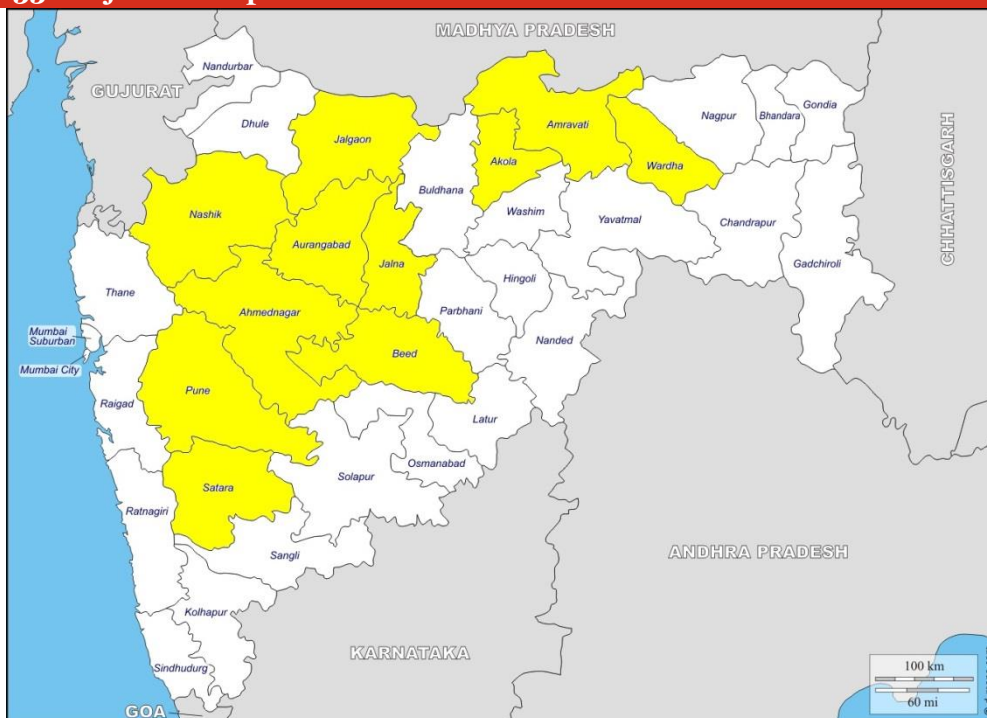


Source: PwC analysis, UNCOMTRADE

3.2.9.1. Surplus available for export

In terms of production in India, the major Guava producing states are Andhra Pradesh, Bihar, Madhya Pradesh, Maharashtra and Uttar Pradesh. Maharashtra is the fourth largest guava producing state in the country with a total share of 9 percent of the total production in the country. The major guava producing districts in Maharashtra are illustrated below.

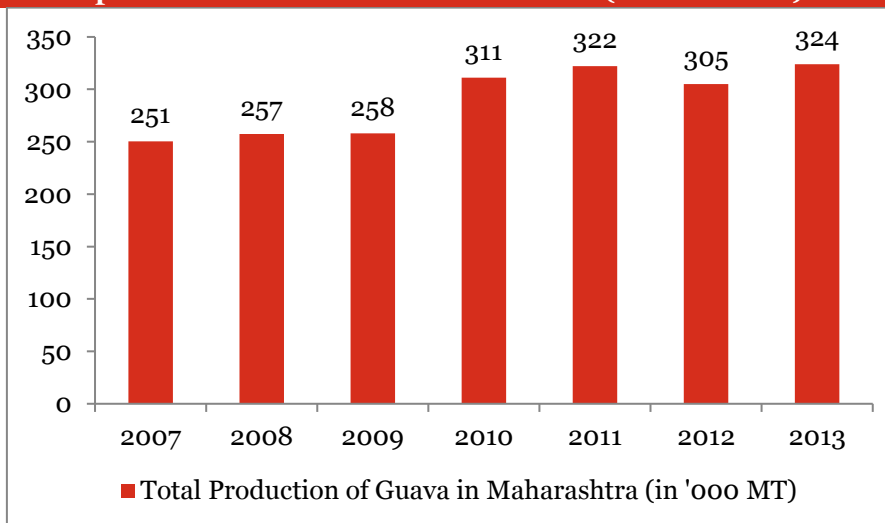
Figure 33: Major Guava production centers in Maharashtra



Source: National Horticulture Board Database, PwC Analysis

The general trend in the overall production of guava in Maharashtra is shown below:

Figure 34: Total production of Guava in Maharashtra (in 000 tonne)

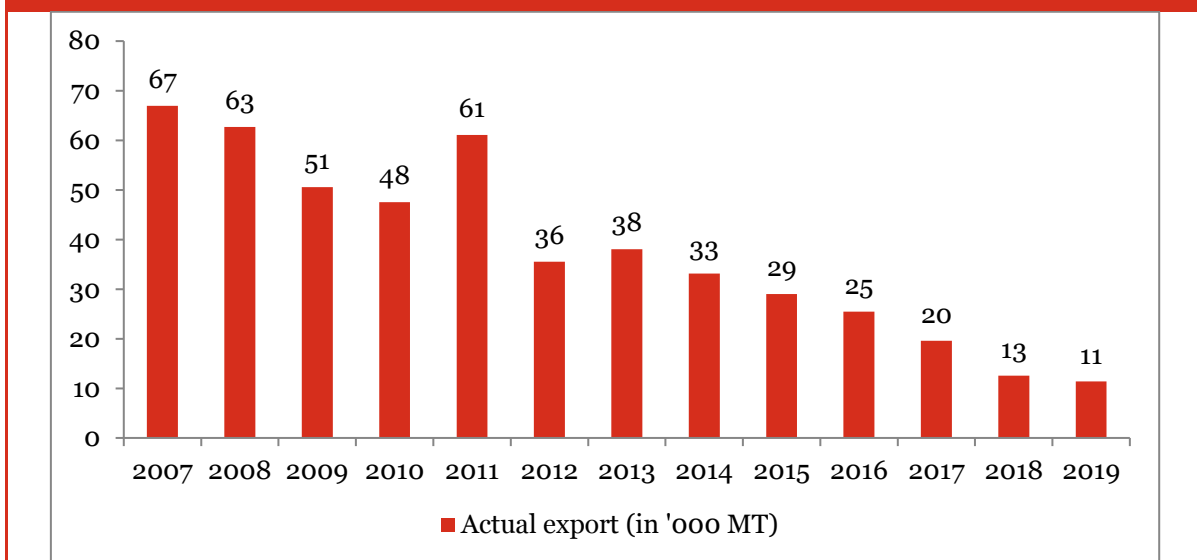


Source: PwC analysis, National Horticulture Database.

In terms of export, India is not exporting a major quantity to the international market. Only 7% (UN Comtrade) of the total production of guava was exported out of India in 2013-14.

The estimated current and potential export of guava from Maharashtra (based on previous trends) is illustrated below:

Figure 35: Actual and Projected Export of Guava from Maharashtra



Source: PwC analysis

The projected trend of export of guava shows a negative trend, this is because of highly perishable nature of the fruit. Export of fresh guava is not recommended for Maharashtra. A more significant category guava based product is Pectin based enzymes. These are high value added products but do not occur on the APEDA list of products.

3.2.10. Other fresh vegetables

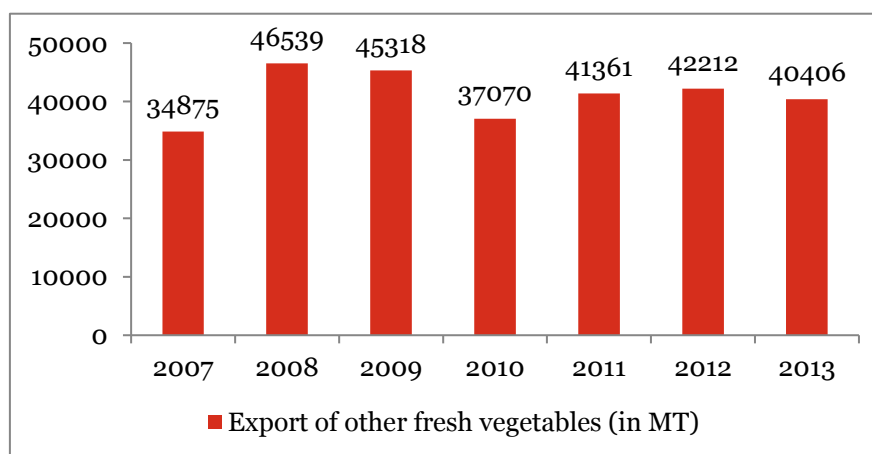
India is a major producer of variety of fruits and vegetables. The country has been endowed with a wide range of climatic and physio-geographical conditions which are suitable for growing various kinds of vegetable crops. The country is the second largest producer of fruits and vegetables in the world. Fruits and vegetables together form 92 percent of the total horticulture production in the country.

The country has witnessed a tremendous increase in the overall vegetable production, especially during the green revolution. Increasing per capita income, health consciousness, urbanization, increasing no. of working women, shifting of farmers to high value vegetables due to higher income, favourable income elasticity of demand and annual increase in growth rate for domestic demand for fruits & vegetables are important ingredients for fuelling vegetable growth in the country.

In terms of production, major vegetables producing states in India are West Bengal, Uttar Pradesh, Bihar, Madhya Pradesh, Gujarat, Maharashtra, Odisha, Tamil Nadu, Andhra Pradesh, Karnataka and Haryana. These states constitute more than 80 percent of the total vegetable production in the country. The Maharashtra state has 226.1 lakh hectares of land under cultivation. The major vegetables that come under the category of other fresh vegetables in Maharashtra are Cauliflower, Cabbage, Sapota, and Brinjal (NHM Report). Apart from these Lady fingers, Green Chilies, Drum stick and beans are also exported from Maharashtra State (According to export traders in Maharashtra – Gajananexpo)

The fresh vegetables mentioned above are mainly exported from Mumbai airport. They are not exported through ships as their shelf life is not long enough to be exported through ships. The general trend of export of these vegetables from Maharashtra is illustrated below:

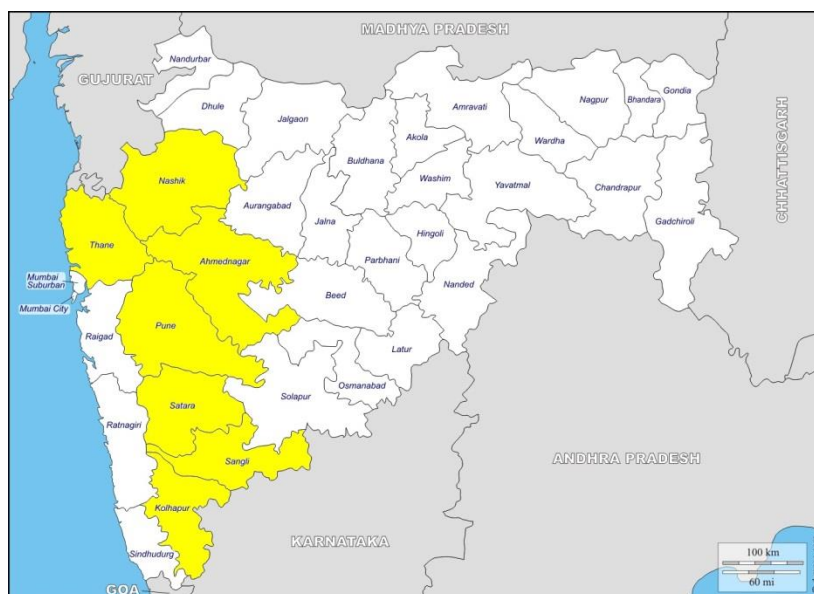
Figure 36: Total export of other fresh vegetables from Maharashtra (in MT)



Source: Agrixchange, PwC analysis

The production centers for these other fresh vegetables in the state are shown below:

Figure 37: Production zone for other fresh vegetables

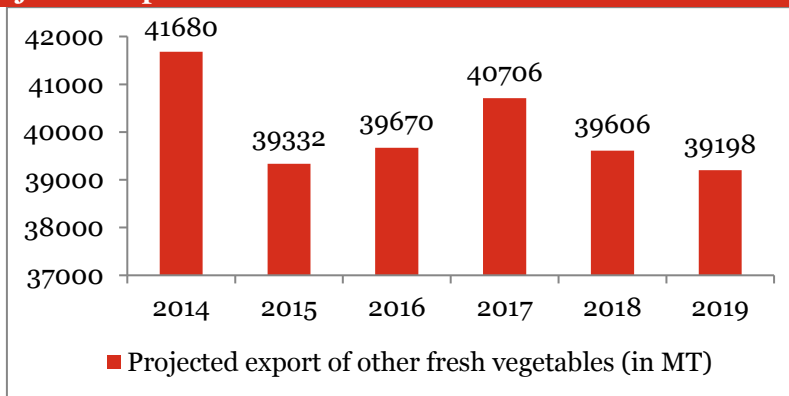


Source: APEDA and NHM report for Maharashtra, PwC Analysis

The export of these vegetable are projected over the years in order to assess the future requirement of the infrastructure. As these vegetable are highly perishable they are exported through air freight on priority basis. They are exported out of the country and reach their destination within one day of the procurement. The problem arises during summers when due to extreme weather conditions the moisture content present in the vegetables gets lost and therefore there is a loss in the overall quality and weight of the consignment.

Therefore in order to maintain the quality of the fresh produce in summer season, we need proper storage facilities and techniques such as Individual Quick Freezing (IQF) to increase their shelf life. The current and the projected exports of some of the fresh vegetables are illustrated below:

Figure 38: Projected Export from Maharashtra



Source: PwC analysis, Agrixchange

The above graphs indicate that the expected volume of exports will be approximately equal to the current volume of export. However the quality and storage requirements needs to be properly addressed through precooling and freezing facilities so that the losses are minimal. Therefore we need a IQF facility which could cater to 391985 Mt of fresh vegetables. The production is in Pune, Satara and Nashik districts; therefore we propose IQF facility in Pune district which could cater to the requirement of the exporters.

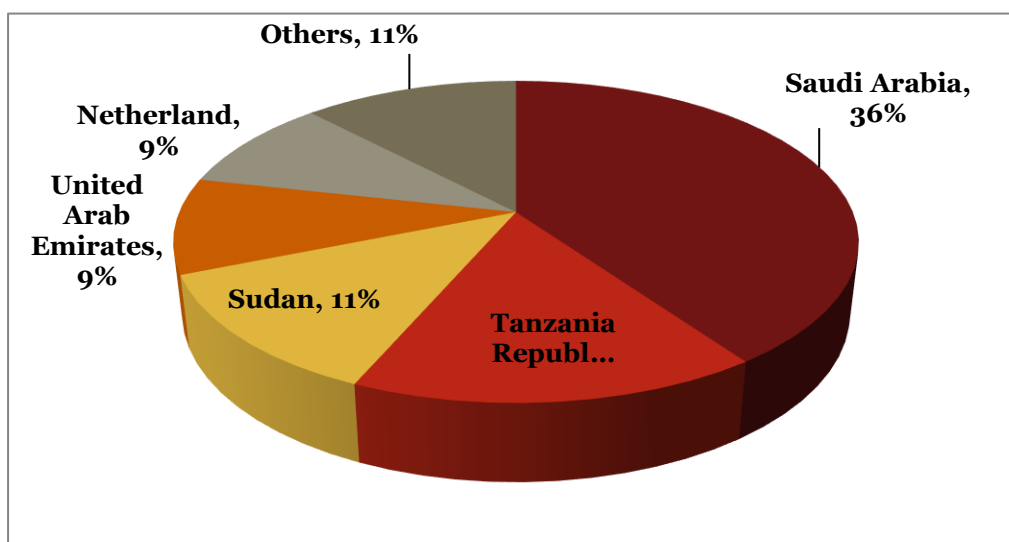
3.2.11. Meat & Poultry products

Buffalo Meat

India's livestock population includes, 88 million buffaloes, which is 58 per cent of the world's buffalo population. Besides about 3600 slaughter houses, there are live modern abattoirs and one integrated abattoir meat processing plant for slaughtering buffaloes for exports and domestic consumption. There are 24 meat processing plants including 13, hundred percent export oriented units which are mainly engaged in export of meat products. In the last one-year three new export oriented units of buffalo meat processing have been approved and are reportedly under implementation. In addition, there are few animal casing units engaged in collecting, cleaning, grading and exporting sheep and goat and cattle guts.

The major areas for Buffalo Meat production are Uttar Pradesh, Andhra Pradesh, Maharashtra and Punjab. The country has exported 1,449,759 MT of buffalo meat products to the world for the worth of Rs. 26,458 crores (Agrixchange).

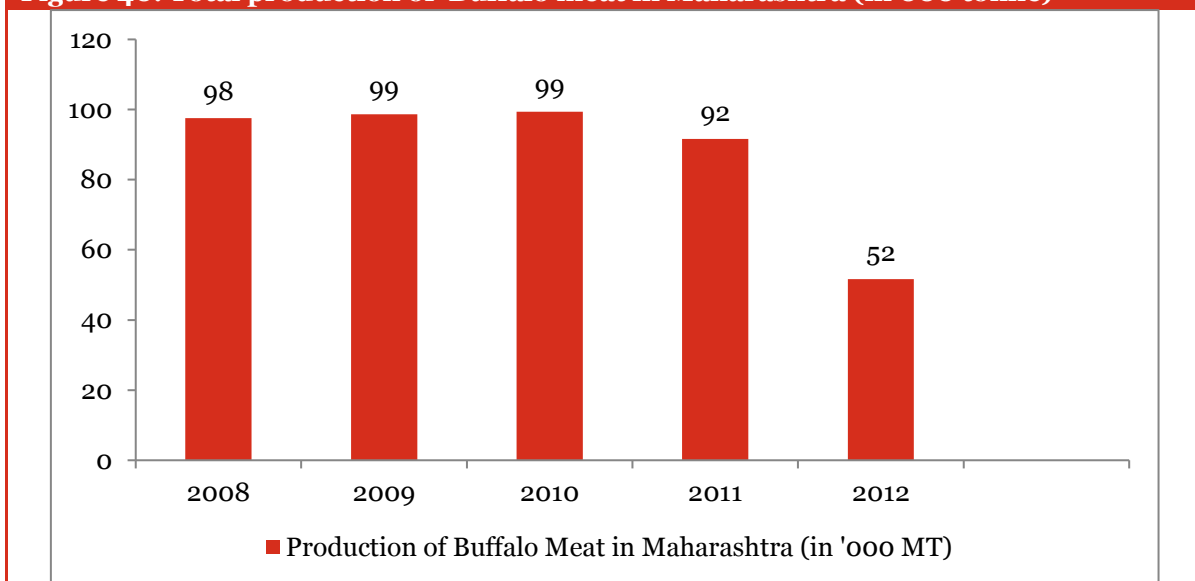
Figure 39: Major Buffalo meat export markets of India



Source: PwC analysis, UNCOMTRADE

Maharashtra state produced 52 thousand tonnes of Buffalo meat in the year 2012-13 (Animal Husbandry Statistics).

Figure 40: Total production of Buffalo meat in Maharashtra (in 000 tonne)



Source: PwC analysis, Animal Husbandry Statistics

Since Maharashtra is one of the major Buffalo meat production zones in India, and we can safely assume that it contributes to the Indian export market.

Eggs

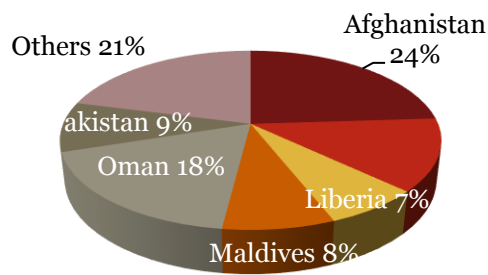
Egg is one of the most important poultry products in India. Currently India is the third largest producer of eggs in the world. In India, Maharashtra ranks fourth in egg production with 45661 lakh number eggs in 2012-13.

India’s share in the global egg production stands at 6 percent followed by countries like China, and United States. In terms of exports, the top 4 exporters of eggs are Netherland, Turkey, Poland and US. The overall global trade in egg is expected to be of the order of 3466 Million USD (UN Comtrade) and India’s share in the total exports of eggs stand at 9% of the total quantity exported around the world. So it can be concluded that although India produces a major share of the global egg production, its export in the international market is very low. This can be attributed to high domestic consumption.

The major importing destinations from India are Afghanistan, Angola, Pakistan, Oman, Liberia and Maldives. These destinations together constitute more than 80 percent of the total export from India⁵. The distribution of exports of eggs from India is provided below:

⁵ UN Comtrade

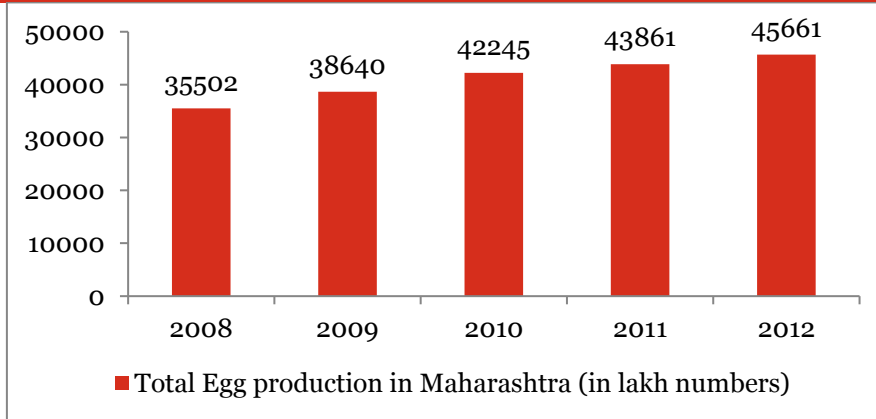
Figure 41: Major Egg importing nations from India.



Source: PwC analysis, UNCOMTRADE

Maharashtra state produced on an average 41182 lakh eggs over a period of 5 years from 2008 - 2012 (Animal Husbandry Statistics).

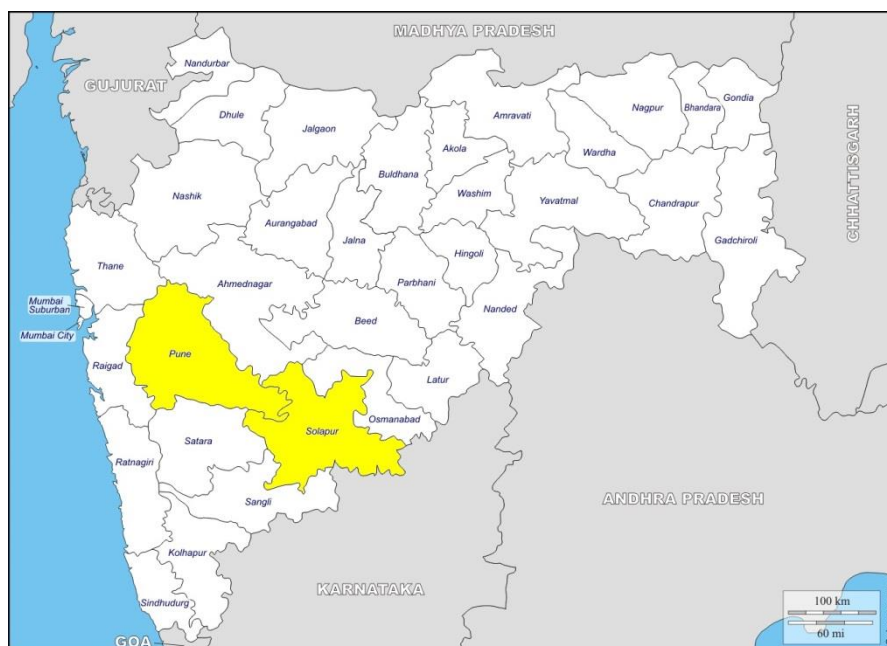
Figure 42: Total production of Eggs in Maharashtra (in lakh numbers)



Source: PwC analysis, Animal Husbandry Statistics

The production centers for poultry products, Solapur and Pune in the state are shown below:

Figure 43: Production zone for other Poultry Products



Since Maharashtra is one of the major egg producing zones in India, and 3455 MT of poultry products were exported from Mumbai Airport in 2013-14, we can safely assume it to be contributing significantly to the Indian export market. Irradiation facilities can be set up to increase the shelf life of the meat and maintaining the exportable quality. However, according to stakeholder interaction, the cost of setting up an Irradiation facility is high and it may not be financially viable to set up and operate an irradiation facility. Apart from this private players coming up with facilities such as the irradiation facility in the Mega Food Park programme aided by the central government, therefore at present for Maharashtra IF is not proposed as a part of recommendations of this study.

3.2.12. Summary of Infrastructure required in Maharashtra

The previous section discussed the potential of the state in terms of availability of the exportable commodities. The current status of the exports from the state and India as a whole is minimal when compared to the total potential available with the state to export. One of the critical factors is the unavailability of the supporting infrastructure to facilitate smooth logistics and preservation of food quality. Good infrastructure facilities ensure proper delivery and safety of the exported product along with savings in time and cost.

In Maharashtra the commodities with significant potential for export are grapes, pomegranates, papaya, banana, mango, onion, other fresh vegetables and poultry products. Tomato also has export potential but its contribution to total production is only 6%, therefore it is not very feasible to export tomato from Maharashtra per se, but it can be targeted from other states such as Andhra Pradesh, Karnataka and Madhya Pradesh as they are the major producers of Tomato. Guava and Citrus also do not have major export potential.

For the commodities with significant export potential, infrastructure gaps are present in the form of non-availability of post-harvest infrastructure and proper storage facilities such as Individual Quick Freezing (IQF) that can increase the shelf life of the produce and also maintain the quality. Plugging these gaps will assist the development of the export trade.

3.2.12.1. Exit Points for Maharashtra

The exit options for export products from Maharashtra are Mumbai – Sea and Airport and JNPT/Nhava Sheva Port. Marmagao sea port is also an option used by exporters.

Based on stakeholder feedback, there is need for a multi-commodity packhouse for storing perishable and semi-perishable commodities to decrease the transit time taken from entering the port to shipment.

Need for a parallel line for entry of perishable commodities into the port along with other commodities is also felt as entry to the port is identified as a major reason for loss of perishable crops.

3.2.12.2. Existing Infrastructure

Pack houses: In total Maharashtra has 132 pack houses which includes privately owned pack houses as well. There are 8 APEDA approved pack houses and 7 pack houses are currently being setup.

Cold stores: In total Maharashtra has 387 cold storages which includes privately owned pack houses as well. One APEDA approved cold storage & irradiation facility is being setup in Vashi, Maharashtra.

Food Parks: 5 already exist (3 Nagpur, 1 Satara, 1 Aurangabad), 2 more have been approved in Satara and Aurangabad respectively.

3rd Party Logistics: In India and specifically in Maharashtra, there are a lot of third party logistics providers. J.M. Baxi group of companies, Maerskline and K Line Pvt. Ltd. are the prominent private sector players which provide end to end solutions. Hanjin Shipping and Hamburg Sud India Pvt. Ltd. are other largest International players which also operate in India. In addition to these, Shipping Corporation of India and Container Corporation of India are the two prominent public sector shipping and logistics players.

3.2.12.3. Proposed Infrastructure

The details of the proposed infrastructure along with the proposed capacities and estimated investment in the identified districts have been provided in this chapter.

Table 10: Proposed Infrastructure in Maharashtra

Sno	Commodity	Districts covered	Proposed Location	Seasonality	Potential quantity that can be exported (MT)	Per day capacity of the infrastructure required	Infrastructure required	Capacity of each unit	Units required in future
1.	Grapes	Nashik, Ahmednagar, Pune, Satara, Solapur, Sangli	Pune	Jan - May and Nov - Dec (210 days)	10000	27	No additional infrastructure proposed	-	-
2.	Pomegranate	Nashik, Ahmednagar, Pune, Satara, Solapur, Sangli	Pune	All year	34000	93	IQF	2 MT/hour (~40MT/day)	-
3.	Papaya	Nashi, Pune, Satara, Kohlapur, Sangli, Solapur, Amravati	Pune	All year	15000	41	No additional infrastructure proposed	-	-
4.	Banana	Jalgaon, Nanded	Parbhani	All year	7987	22	No additional infrastructure proposed	-	-
5.	Mango	Thane, Raigad, Ratnagiri, Sindhudurg, Aurangabad, Jalna, Beed, Osmanabad, Latur, Parbhani, Hingoli, Nanded	Parbhani/Raigad	Mar - June (120 days)	4390	37	No additional infrastructure proposed	-	-
6.	Onion	Nandurbar, Dhule, Jalagaon, Nashik, Aurangabad, Ahmednagar, Pune, Satara, Solapur,	Ahmednagar and Amravati	Mar - May (90 days)	25028	278	No additional infrastructure proposed	-	-

Identification of crop clusters and surplus availability for exports from Maharashtra

Sno	Commodity	Districts covered	Proposed Location	Seasonality	Potential quantity that can be exported (MT)	Per day capacity of the infrastructure required	Infrastructure required	Capacity of each unit	Units required in future
		Osmanabad, Latur, Beed, Bhandara							
7.	Other fresh vegetables	Nashik, Pune, Satara	Pune	All year	3980	10	IQF	2 MT/hour (~40MT/day)	1
8.	Poultry Products	Solapur and Pune	Pune	All year	-	-	No additional infrastructure proposed	-	-
9.	Multi-commodity (such as Pomegrante, Onion, Other fresh vegetables etc.)	-	JNPT Port	All year	-	-	Multi-commodity Packhouse	60 MT*	1

*Installed capacity/day

Table 11 Cost of the proposed infrastructure

SNo.	Location	Proposed Infrastructure	Capacity of the proposed infrastructure	Estimated cost (in Lakhs)	No. of Units	Total cost in Lakh Rs
1.	Pune	IQF	40 TPD (2MT/hour)	1800	1*	1800
2.	JNPT Port	Multi-commodity Packhouse	60 MT**	700	1	700
Total						2500

* Since IQF for Pomegranate and Other fresh vegetables is being proposed in Pune, the total number of units for IQF to set up can be limited to one; as the exportable surplus for other fresh vegetables is 10MT/day which can be processed by 1 unit.

**Installed capacity/day

Pack House

Consists of –

1. Grading sorting facility – 60 MT / Day
2. Ripening Facility – 150 MT
3. Pre-cooling and Cold Store Facility – 300 MT

The clusters identified have been proposed based on stakeholder interaction, approximate distance, that the facility is placed at equal distance from all the producing districts of the particular commodity.

Infrastructure proposed according to initial analysis:

The initial analysis concluded with the recommending 2 IQF units at Pune, one IF facility at Parbhani/Raigad and another IF for Polutry products (Table 12); however based on stakeholder interaction and discussions with state government, the recommendations were revised to proposing one IQF unit at Pune and one multi-commodity packhouse at JNPT port (Table 11):

Table 12 Cost of the infrastructure proposed initially:

SNo.	Location	Proposed Infrastructure	Capacity of the proposed infrastructure	Estimated cost (in Lakhs)	Number of Units	Total cost in Lakh Rs
1.	Pune	IQF	40 MT/day (2MT/hour)	1800	2*	3600
2.	Pune	IQF	40 MT/day (2MT/hour)	1800		
3.	Parbhani/Raigad	Irradiation Facility (IF) for mango	240 MT/day (10MT/hour)	-	1	2000
4.	Solapur/Pune	IF for Poultry products	240 MT/day	-	1	To be evaluated
Total						5600

However, State Government officials were of the view that only one IQF would be sufficient considering the increasing no. of IQFs being set up by the private players. It was also discussed that few irradiation facilities are also coming up in the State and one of them is proposed as common facility in M/s Wardha Mega Food Park Private Ltd. near Nagpur. Based on these facts and State Government inputs, the irradiation facilities were dropped from the proposed infrastructure and IQFs were reduced from two to one.

Further, based on the State Government inputs, considering the need of exit point packing requirement for grapes, pomegranate, mango etc. a multi-commodity packhouse has been proposed at JNPT port.

3.2.12.4. Introduction of softer interventions

Apart from the identified infrastructure to be set up, softer interventions at farm level may be introduced, which may include all or some of the following:

- General awareness, counselling, motivation and trust building
- Skill development and capacity building
- Exposure visits to storage facilities and export terminals

This can be done through exposure to seminars, workshops and training programmes organized by the Government and the industry.

3.2.13. Initial Basic Feasibility of the Infrastructure proposed

No pack houses for a particular crop have been proposed as Maharashtra already has 132 pack houses (refer Annex 1B) with facilities such as Handling line, Pre cooling, cold store facilities, and ripening chambers, Vapor heat treatment, export facility center in locations across the state. However one Packhouse has been proposed at JNPT port for multi-commodity usage.

Also no separate cold storage units have been proposed as Maharashtra also has 387 units of cold storage across the state. It is safe to assume that 20% of the capacity of each storage unit would be unutilized and can be used for the additional surplus of crops that we will expect in future.

No new infrastructure has been proposed for Grapes, Border areas Karnataka: Belagum, Bagalkot, Bijaur, Maharashtra has Solapur and Sangli adjoining these districts.

3.2.13.1. Assessment of Individual Quick Freezing (IQF)

With India's food production likely to double in the next decade, there is an opportunity for large investments in food and food processing technologies, skills and equipment, especially in areas of Canning, Dairy and Food Processing, Specialty Processing, Packaging, Frozen Food/ Refrigeration and Thermo Processing.⁶

Individual Quick Freezing (I.Q.F.) is the latest technology available in freezing and with the advent of the same, it is now possible to preserve and store raw fruit and vegetables in the same farm-fresh condition for more than a year, with the color, flavor and texture of produce remaining as good as fresh from the farm. The market for frozen fruits and vegetables is growing both in the domestic and international market. Growth in the fast food sector offers outstanding opportunities for IQF operators to enter into supply agreements with restaurant chains, hotels and airlines, catering businesses etc. Frozen fruits and vegetables have a huge market potential not only in India, but there is an excellent export opportunity to Middle East and neighboring countries as well. In most of the western countries, the frozen food products dominate the local and export market. There is increasing consciousness towards health and nutrition in India and hence the acceptance and consumption of IQF fruits and vegetables is likely to increase in India and abroad. Particularly in India, a large source for fresh fruits and vegetables, there is a great potential for utilizing such techniques and technology to avoid deterioration of fresh commodities and convert them into value added products. At present about 50 IQF units are operating in India.⁷

⁶ Project Profile for Individual Quick Freezing, Kerala State Industrial Development Corporation, 2012

⁷ NABARD website: www.nabard.org; as accessed in June 2015

IQF has been proposed for Pomegranate and other fresh vegetables in Pune as their demand for export is high. We have assumed that 5% of the total current quantity being exported and the projected quantity will be exported as frozen commodities, therefore IQF has been proposed.

3.2.13.2. Assessment of Irradiation Facility (IF)

Irradiation technology has commercial potential for the conservation of cereals, pulses and their products, spices, onions, potatoes, garlic, some tropical fruits, sea foods, meat and poultry. Irradiation can ensure hygienic quality in foods including frozen foods by eliminating food borne pathogens and parasitic organisms. It offers a viable environment, friendly alternative to chemical fumigants for quarantine treatment against insect pests in agricultural and horticultural products entering international trade. The safety and nutritional adequacy of irradiated foods for human consumption is well established. About 41 countries including India have regulations permitting irradiation of foods and 28 countries are irradiating foods for processing industries and institutional catering.⁸

India has been exporting irradiated products to the United States; export of irradiated food is also done from Thailand, Vietnam and Mexico.⁹

From Maharashtra there is a potential for poultry products to be exported therefore Irradiation Facility (IF) has been proposed. However in the previous study for the states of Karnataka and Tamil Nadu IF has been debated on its utility. Therefore it is not recommended for the state of Maharashtra but has been highlighted and requires further due diligence and analysis.

⁸ Bongirwar D., Commercial Prospects of Food Irradiation in India, Bhabha Atomic Research Center

⁹ Eustice & Bruhn, Consumer acceptance & marketing of irradiated foods, Food Irradiation Research & Technology, Second Edition, 2013

4. Identification of crop clusters and surplus availability for exports from Gujarat

4.1. Methodology adopted for crop identification

There are varied type of fruits and vegetables produced in Gujarat. Therefore we need to identify focus crops which have potential for export. In the same regards, focus crops in Gujarat are identified on criteria like their contribution to the countries overall production, their current level of exports from India, the estimated contribution of the state in the overall production and exports from India, existing and potential market linkage of the crop and export potential of the crop from the state.

The crops which have international market for export and are exported from India are Banana, Onion, Citrus, Papaya, Brinjal and Potato. These crops also have strong market linkages and high potential for export. Apart from these crops, Okra, Cabbage, Ber and Custard Apple also have the potential to be exported from the state.

4.2. Methodology adopted to calculate surplus available for export¹⁰

The calculation of the surplus present in the state that can be exported is based on the total production of the commodity in the state, wastage and domestic consumption. After deducting domestic consumption and wastage from the total production we realize the total surplus available with the state that can either be exported or can be domestically consumed in other states of the country. After this we apply Pareto principle for calculating the overall exportable potential from the state. Out of the total production of the commodity only 20 percent of the produce is suitable for export in the international market. Out of this suitable exportable produce, again 80 percent of the quantity will be directed into the domestic market and thus only 20 percent of the exportable produce is actually the potential exportable surplus. This way with the application of Pareto Principle we calculated the total surplus available for exports. We also applied discounting factor for several crops in consultation with the exporters.

For projection of the future potential quantity available for export, we forecasted the future potential export quantity based on the trends of the last seven years exports and projected them for further coming years. Based on the current capacity and the future capacity required we identified the capacity of the proposed infrastructure.

4.2.1. Banana

Banana is one of the most important fruit crop in India. Currently nearly in respect of area it ranks second and first in production only after mango in this country. India leads the world in banana production with an annual output of about 29.72 Million tonnes¹¹. In India Gujarat comes third in production after Tamil Nadu and Maharashtra. Gujarat produces 4.25 Million tonnes (NHB, 2013) whereas Tamil Nadu leads with 5.65 Million tonnes (NHB, 2013). The banana culture in India is as old

¹⁰ Please refer Annex 1A- Gujarat for detailed calculations of crops

¹¹ National Horticulture data base 2013.

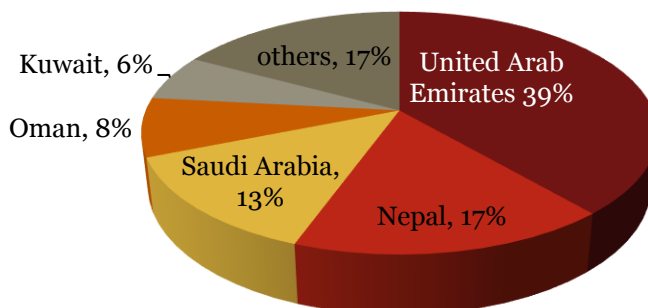
as Indian civilization. It seems that it is one of the earliest fruit crops grown by mankind at the dawn of civilization.

Considering the nutritive value and fruit value of bananas, it is the most widely available fruit among all other fruits in the country. Considering the year round availability of fruits, unlike the seasonal availability of other tree fruits, it has become an inevitable necessity in any household in India, for all functions. The bananas were grown in Southern Asia even before the prehistoric periods and the world's largest diversity in banana population is found in this area. Hence, it is generally agreed that all the edible bananas and plantains are indigenous to the warm, moist regions of tropical Asia comprising the regions of India, Burma, Thailand and Indo China.

India's share in the global banana production stands at 26 percent¹² followed by countries like China, Philippines, Ecuador, Brazil and Indonesia. In terms of exports, the top 4 exporters of banana are Ecuador, Philippines, Guatemala and Cost Rica. The overall global trade in banana is expected to be of the order of 9497 Million USD and **India's share in the total exports of bananas stand at 0.14% of the total quantity exported around the world¹³**. So it can be concluded that although India produces a major quantity of the global banana production, its export in the international market is very low. This can be attributed to high postharvest losses and high domestic consumption.

The major importing destinations from India are UAE, Nepal, Saudi Arabia, Oman and Kuwait. These destinations together constitute more than 80 percent of the total export from India. The distribution of exports of bananas from India is provided below:

Figure 44: Major banana export markets of India



Source: PwC analysis, UNCOMTRADE

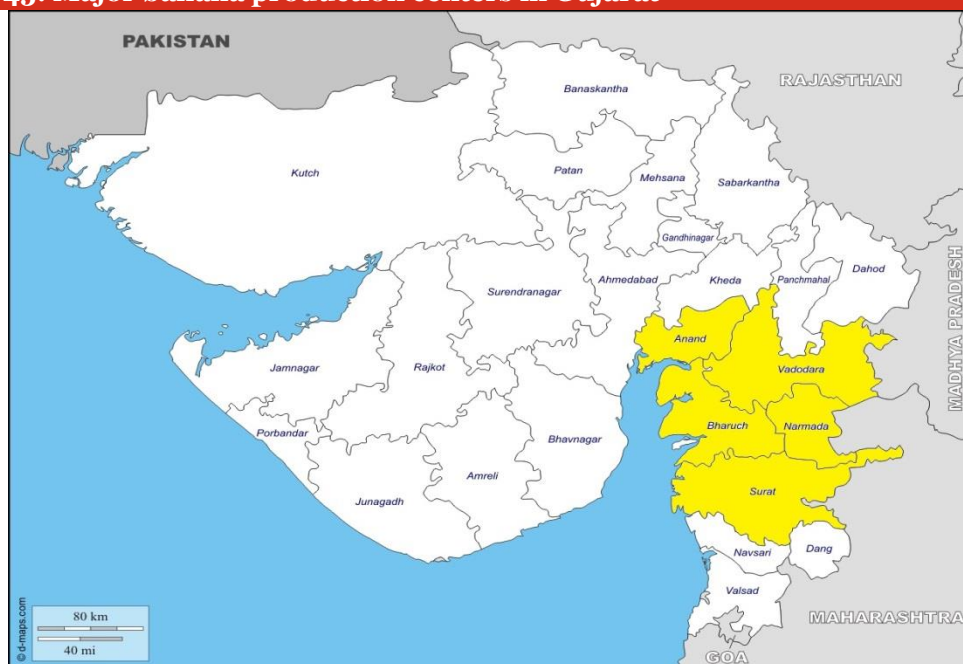
4.2.1.1. Surplus available for export

In terms of production in India, the major banana producing states are Maharashtra, Tamil Nadu Gujarat, Andhra Pradesh and Karnataka. Gujarat is the third largest banana producing state in the country with a total share of 14 percent of the total production in the country (NHB, 2013). The major banana producing districts in Gujarat are illustrated below. The varieties Dwarf Cavendish and Red Banana can be specifically targeted for Gujarat. However the variety Grand naine can be grown throughout India.

¹² FAOStat

¹³ UNComtrade

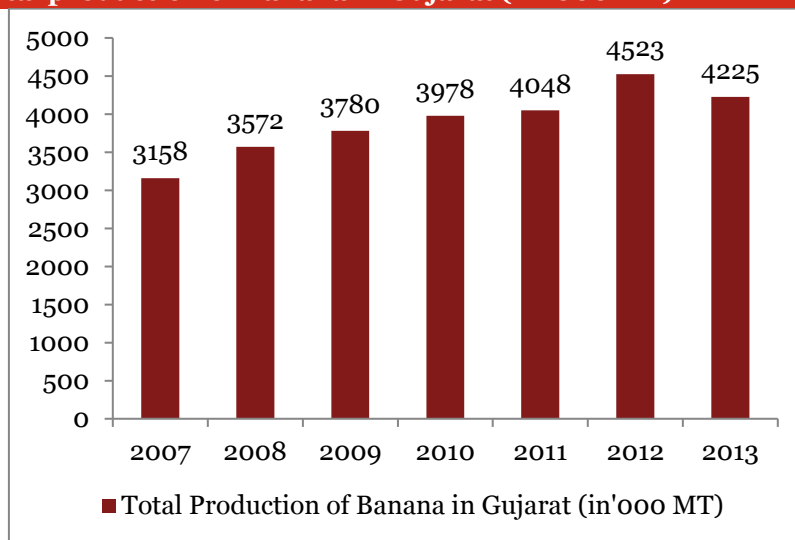
Figure 45: Major banana production centers in Gujarat



Source: National Horticulture Board Database, PwC Analysis

The general trend in the overall production of bananas in Gujarat is shown below:

Figure 46: Total production of Banana in Gujarat (in '000 MT)

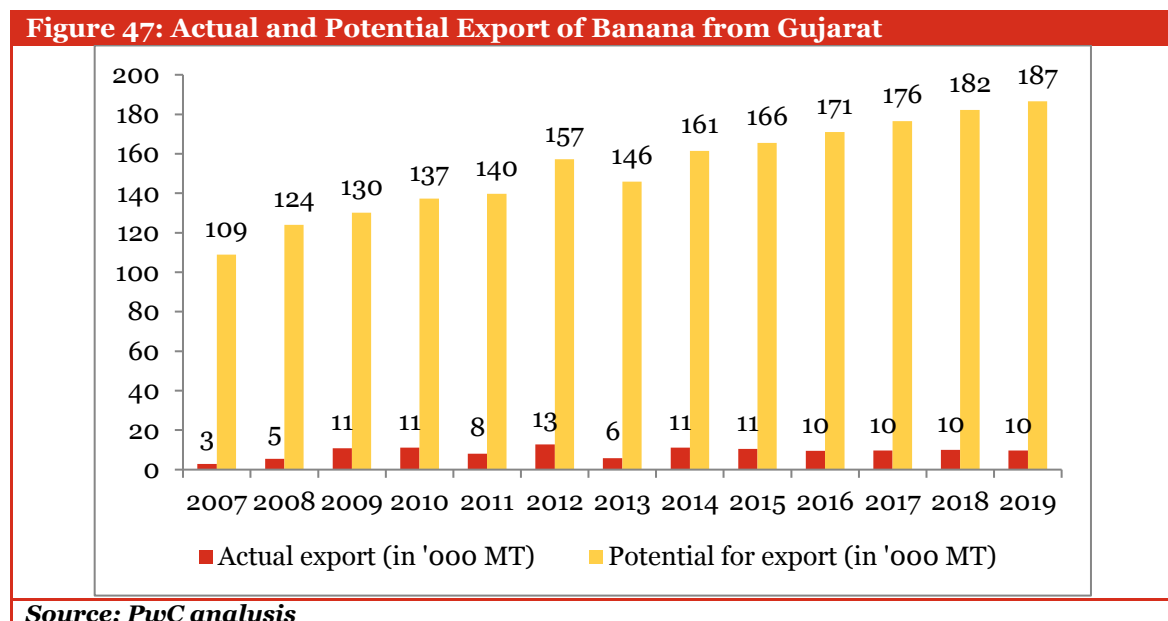


Source: PwC analysis, National Horticulture Database.

In terms of export, India is not exporting a major quantity to the international market. Only 0.2%¹⁴ of the total production of banana is export out of India in 2012-13. This shows a lot of potential for increasing the export of bananas from India. In order to enhance the overall export of bananas from India, major focus should be on increasing exports from Gujarat, as well as Maharashtra and Tamil and Nadu as they are the leading producer states of bananas in India.

¹⁴ UNcomtrade data

The estimated current and potential export of bananas from Gujarat (based on previous trends) is illustrated below:



Based on the methodology discussed in section 4.1 and 4.2 we calculated the total potential for banana export in Gujarat. The average available surplus with Gujarat for export is 135 thousand MT¹⁵ (average taken from 2007-08 to 2013-14). This clearly indicates that there is a huge gap between the actual and potential exports in terms of banana. The calculation for the surplus available in Gujarat is illustrated below:

Table 13: Calculation of the surplus for banana

Statement	Value (in '000 tonnes)
Total Production of Bananas in Gujarat in 2013-14	4225
Applying Pareto Principle we get total potential for exports in 2013-14	146
Total projected potential in 2019	187
Total current export from India	28
Total exports from Gujarat	6

More than 27% of the production takes place from Maharashtra and Gujarat states alone. Gujarat also has a natural advantage of increased and better produce as it lies in low rainfall belt, resulting in lesser pests and insects making the quality of Banana more desirable as an export product. Also the variety Grand Naine which is a superior quality is grown in sizeable area in Gujarat. Pack house facilities can be set up for enhancing its competitiveness for exports.

Competitive scenario for Banana: The top importers for Indian Bananas are Saudi Arabia and UAE. For this region India has competition from Ecuador and Philippines. Cost of shipping for the two top competitors; Ecuador – 0.2\$/kg and Philippines 0.4\$/kg is very competitive. For India this cost is even lower that it sometimes leads to losses in revenue. India should take advantage of being the second largest producer of Banana’s in the world and level out the cost for shipping while maintain its quality.

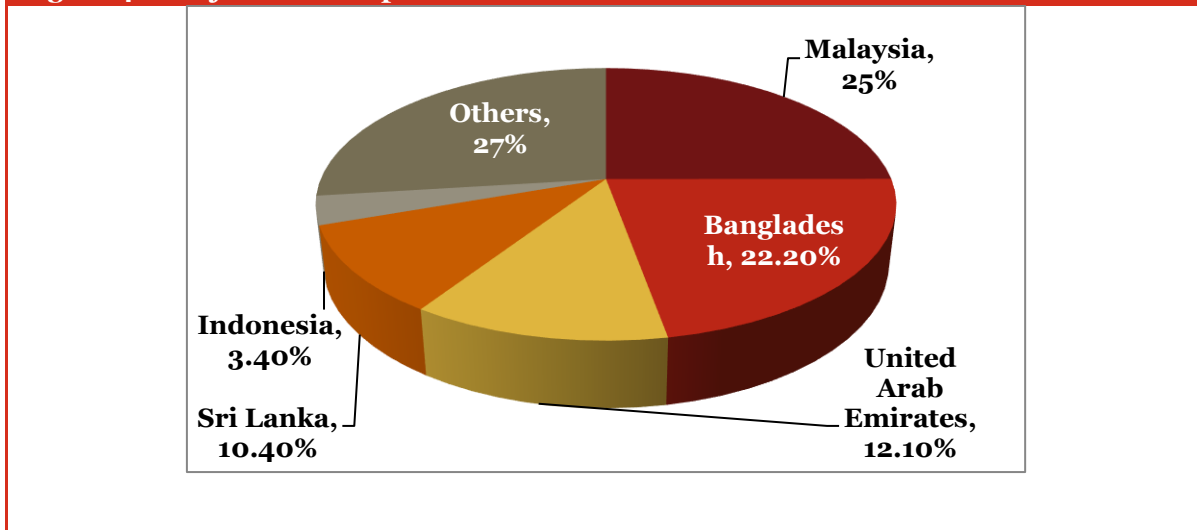
¹⁵ Calculation is shown in detail in **Annexure 1.A Gujarat**

4.2.2. Onion

Onion is an extremely important vegetable crop not only for international consumption but also as the highest foreign exchange earner among fruits and vegetables. India is the second largest producer of Onion in the world, next to China. India produced 19402 thousand tons of Onion in the year 2013-14. Gujarat contributes to 10% of the total onion produced in India, Maharashtra leads the country with 30% share in production. Gujarat produced nearly 1480 thousand MT of onion in the last seven years, (based on an average production of seven years from 2007-08 to 2013-14) (NHB). Varieties such as Pusa white flat and Pusa white round can be grown throughout India.

India’s share in the global Onion production stands at 20 percent (NHB.) In terms of exports, the top 4 exporters of Onion are Netherlands, India, Mexico and China. The overall global trade in Onion is expected to be of the order of 3505 Million USD (UNcomtrade). The major Onion importing destinations from India are Malaysia, Bangladesh, United Arab Emirates and Sri Lanka. These destinations together constitute 73 percent of the total export from India. The distribution of exports of Onion from India is provided below:

Figure 48: Major Onion export markets of India

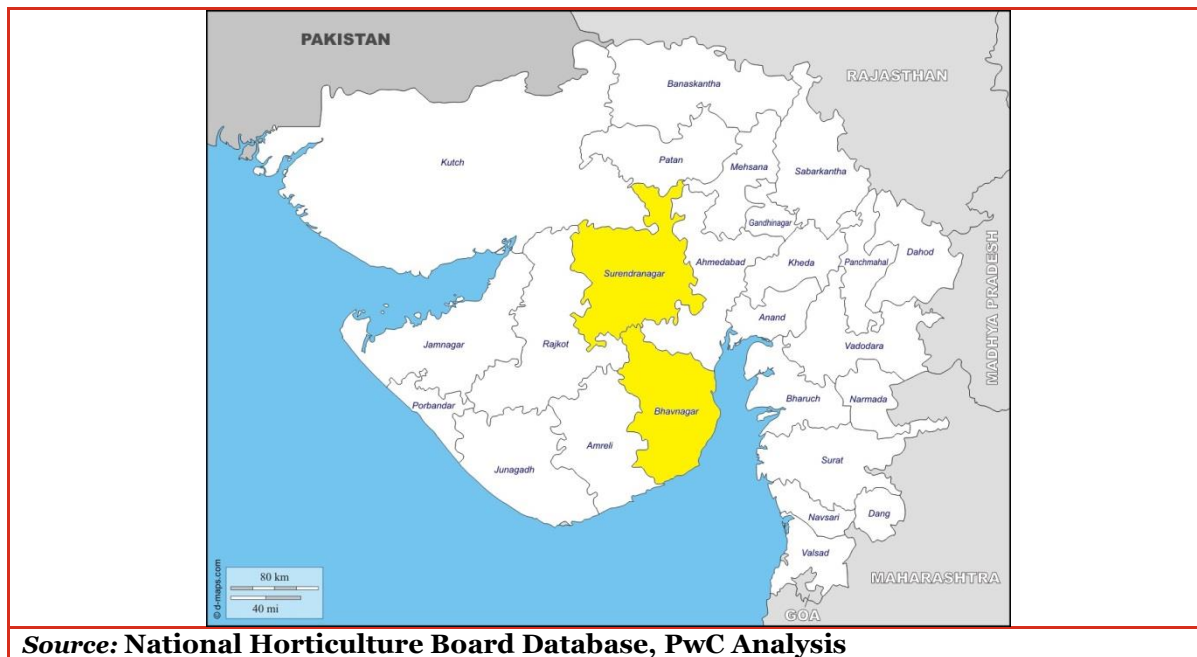


Source: PwC analysis, UNCOMTRADE

4.2.2.1. Surplus available for export

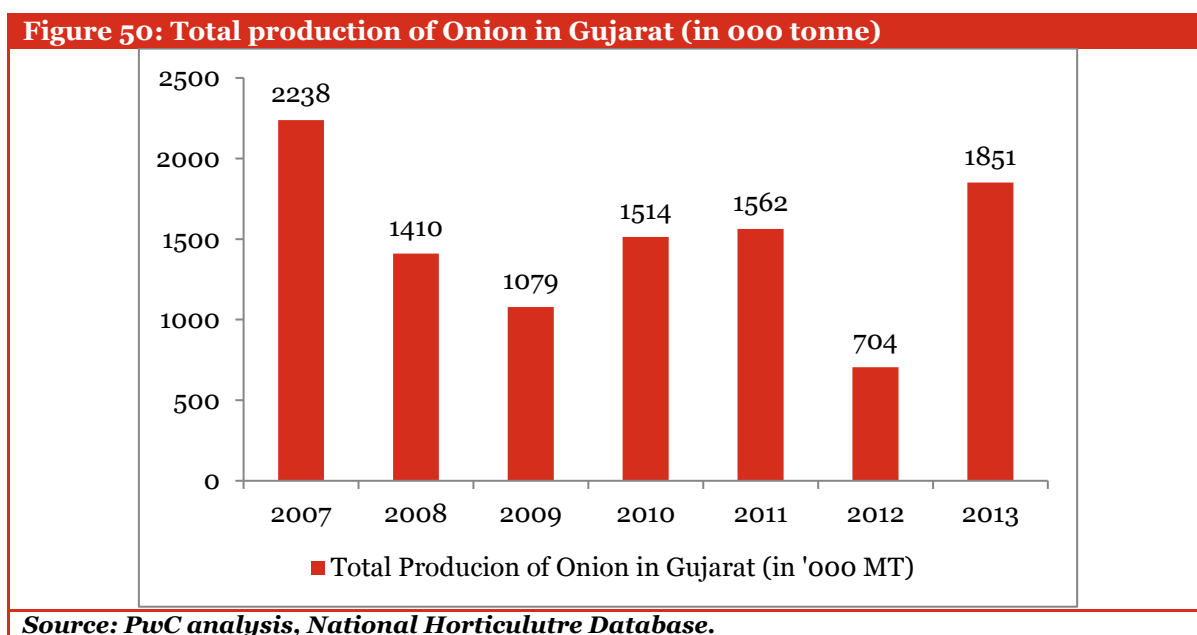
In terms of production in India, the major Onion producing states are Gujarat, Bihar, Karnataka, Madhya Pradesh and Maharashtra. Gujarat Ranks fourth in total onion production in the country with 1850 million tonnes, which is almost 10% of contribution to the entire country. Maharashtra is the largest onion producing state in the country with a total share of 30 percent of the total production in the country. The major onion producing districts in Gujarat are illustrated below.

Figure 49: Major Onion production centers in Gujarat



Source: National Horticulture Board Database, PwC Analysis

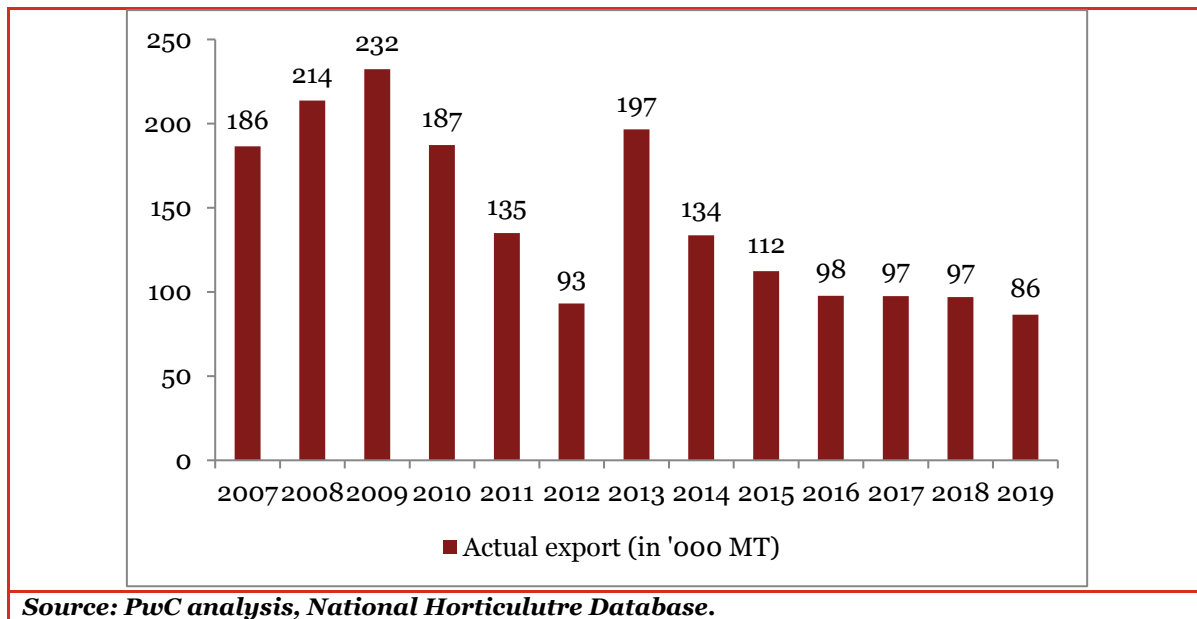
The general trend in the overall production of onion in Gujarat is shown below:



Source: PwC analysis, National Horticulture Database.

In terms of export, India is not exporting a sizeable quantity. Total onion export from India is about 1476 thousand tons, of which Gujarat contributes 196 thousand tons, which is 11% of its total produce.

Figure 51: Actual and Projected Export of Onion from Gujarat (in 000 tonne)



Based on the methodology discussed in section 4.1 and 1.4 we calculated the total potential for onion export in Gujarat. The calculation for the surplus available in Gujarat is illustrated below:

Table 14: Calculation Of projected production and export for Onion

Statement	Value (in '000 tonnes)
Total Production of Onion in Gujarat in 2013-14	1851
Total current export from India	1476
Total current exports from Gujarat	197

The potential of exports from Gujarat and India is very high as India ranks second in the world onion production and onion is produced throughout the year except for one or two months. Gujarat, Maharashtra and Madhya Pradesh alone account for 45% of total onion production. High yielding varieties of onion can be used to enhance production. Quality of onions can be increased by expansion of area under onion in early kharif, kharif and late kharif, to increase their export value. Modern pack-houses, irradiation units can be set up to maintain the top spot in export and production of Onion.

Competitive Scenario for onion: The top importers for onion are Bangladesh and Malaysia. For this region India has competition from China and Netherlands. . Cost of shipping for the two top competitors; China – 0.1\$/kg and Netherlands 0.03\$/kg is very competitive. For India this cost is even lower that it sometimes leads to losses in revenue. With 20% share in global production, India could look to increase its exports from the current volumes. With better and increased storage facilities like packhouses we can achieve both increased exports and better quality.

4.2.3. Citrus

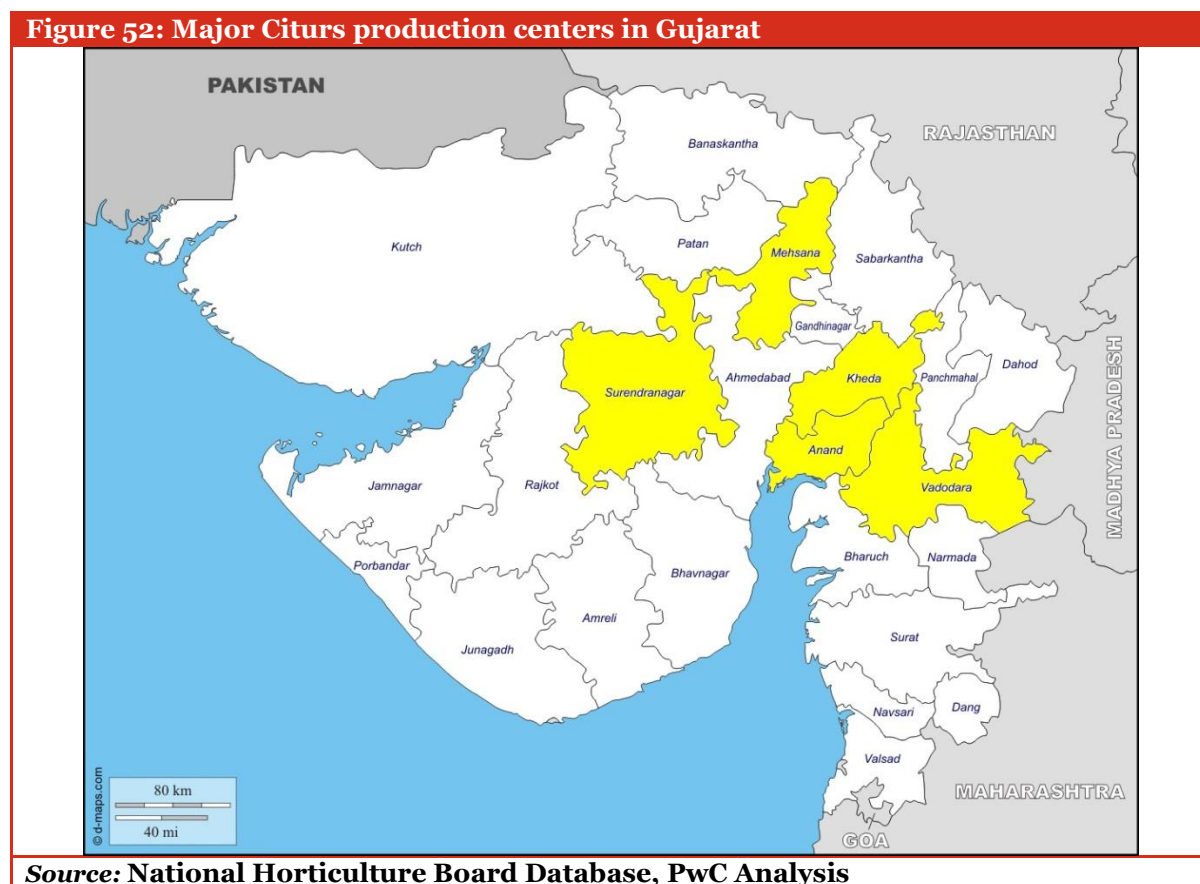
Citrus consists of three main fruits Lime/Lemon, Mosambi and Orange (Mandarin). It is native to a large area, which extends from Himalayan foothills in northeast India to north-central China, the Philippines in east and Burma, Thailand, Indonesia and New Caledonia in Southeast.

India produced 11147 thousand tons and Gujarat produced 449 thousand tons of citrus fruits in 2013-14 (NHB), which is only 4% of the total produce. However exports for citrus are almost negligible from India.

4.2.3.1. Surplus available for export

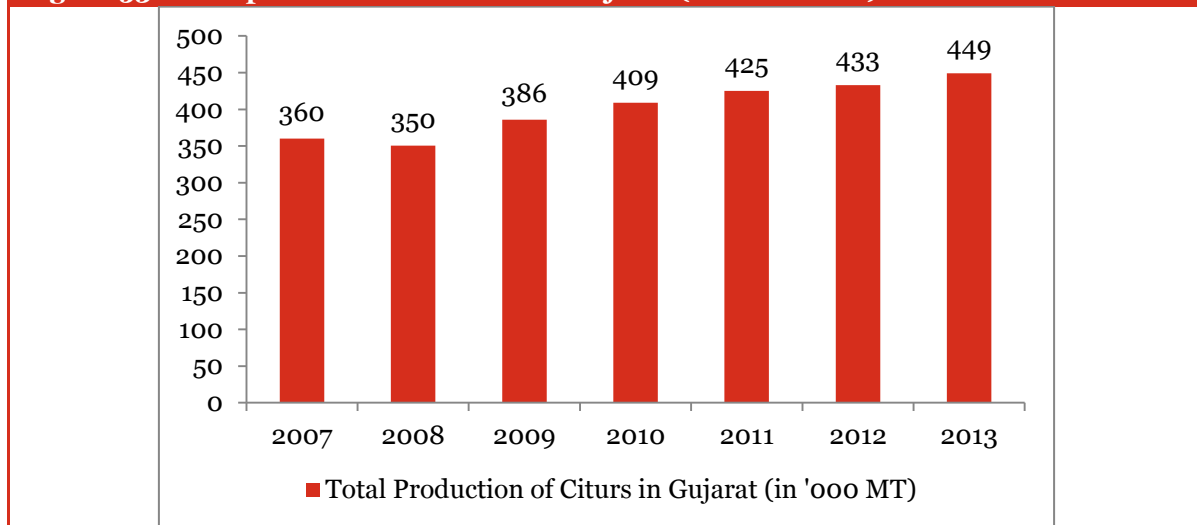
In terms of production in India, the citrus producing states are Gujarat, Andhra Pradesh, Madhya Pradesh, Punjab and Maharashtra. Rajasthan is also one of the leading states producing citrus. Andhra Pradesh leads in citrus production in the country with 17% of total production in the country. Gujarat contributes only 4% to the total production in India.

The major citrus producing districts in Gujarat are illustrated below;



The general trend in the overall production of Citrus in Gujarat is shown below:

Figure 53: Total production of Citrus in Gujarat (in 000 tonne)

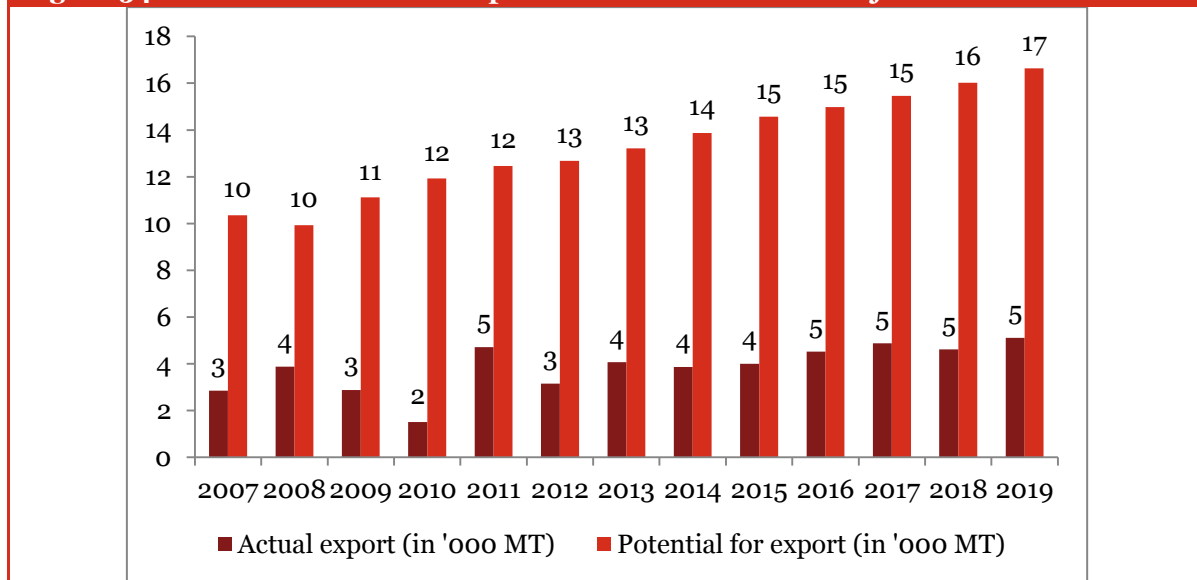


Source: PwC analysis, National Horticulture Database.

In terms of export, India is not exporting a major quantity to the international market. It exported only 23 thousand tons in the year 2013-14, against a total production of 11147 thousand tons, which is only 0.002%, which is next to negligible.

The estimated current and potential export of total citrus from Gujarat (based on previous trends) is illustrated below:

Figure 54: Actual and Potential Export of Total Citrus from Gujarat



Source: PwC analysis

Based on the methodology discussed in section 4.1 and 4.2 we calculated the total potential for citrus export in Gujarat. The average available surplus with Gujarat for export is 12 thousand MT (average taken from 2007-08 to 2013-14). This clearly indicates that there is a huge gap between the actual and potential exports in terms of citrus. The calculation for the surplus available in Gujarat is illustrated below:

Table 15: Calculation of the surplus for Citrus

Statement	Value (in '000 tonnes)
Total Production of Citrus in Gujarat in 2013-14	449
Applying Pareto Principle the surplus available for export in 2013-14	13
Total projected potential in 2019	17
Total current export from India	58
Total exports from Gujarat	4

The gap in export and the potential for export is due to the reason that citrus cultivation India is plagued with various problems such as limiting growing conditions, limiting water resources and high incidences of pests and diseases warranting great care from planting till the plants come to bearing in order to sustain a productive life of a minimum of 15-20 years. Citrus requires care throughout its lifecycle from soil preparation to pest management. However due to its very low quantities of export from Gujarat currently (for year 2013-14 only 4 thousand tonnes); export is not recommended.

4.2.4. Papaya

Papaya is a tropical fruit originating from Latin America but at present India is the largest producer of Papaya in the world with nearly 40% of the production of the world. However, India has only about 6% market share in volume terms and about 4% in value terms in export market. The problem with this fruit is its low shelf life and therefore difficulty in sending over long distances. The largest importer of this fruit is USA accounting for 50-60% of the import. Given the short shelf life, even the second largest producer, Brazil does not supply to the US market. This market is dominated by Mexico.

Table 16: Exporters for Papaya in the World

Rank	Area	Quantity (MMT)	Value (Mn USD)	Global Share (%)
1	Mexico	0.12	67	39%
2	Guatemala	0.03	12	11%
3	Brazil	0.03	42	10%
4	Belize	0.03	10	9%

Source: FAOSTAT (MMT= Million Metric Tons)

Nepal (60%), Saudi Arabia (33%), Kuwait(5%), France(1%)are the major international markets for exported Indian Papayas. Within these key export markets, India is ranked among the highest. In Nepal India has 100% market share of the import of Papaya, while in Middle-east, the share of Indian exports is close to 80%.

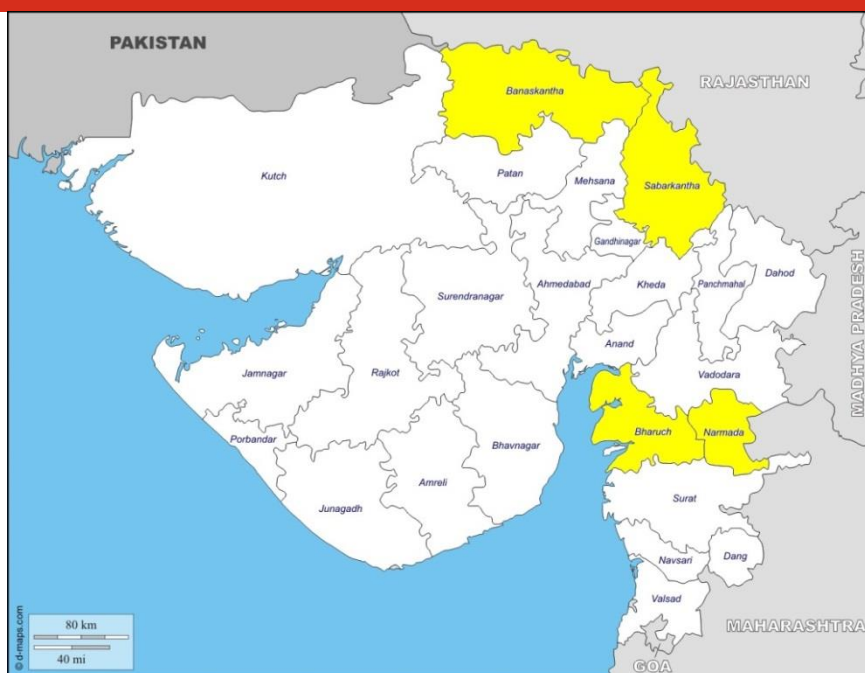
US, Singapore, Canada, El-Salvador & Netherlands are the major importers of papayas, India’s share of exports to these countries has been miniscule. Proximity to major exporters, variety preference and perishability of the produce might be major reasons for the same.

While US, Canada, El-Salvador are currently impossible to cater to, Singapore market could have been considered for development. That market imports about 20,000 tons per annum and India could have targeted a 20-25% market share in this region. However even the Singapore market is not available. This is due their close proximity to Malaysia which is the primary suppliers for Singapore.

4.2.4.1. Surplus available for export

In terms of production in India, the major Papaya producing states are Maharashtra, Tamil Nadu Gujarat, Andhra Pradesh and Karnataka. Gujarat is the second largest papaya producing state in the country with a total share of 21 percent of the total production in the country (NHB, 2013). The major papaya producing districts in Gujarat are illustrated below:

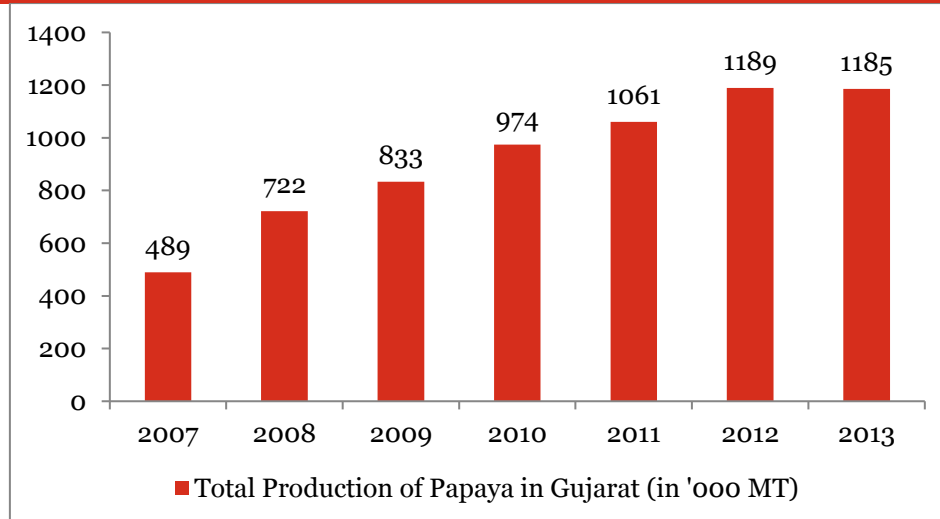
Figure 55: Major Papaya production centers in Gujarat



Source: National Horticulture Board Database, PwC Analysis

The general trend in the overall production of papaya in Gujarat is shown below:

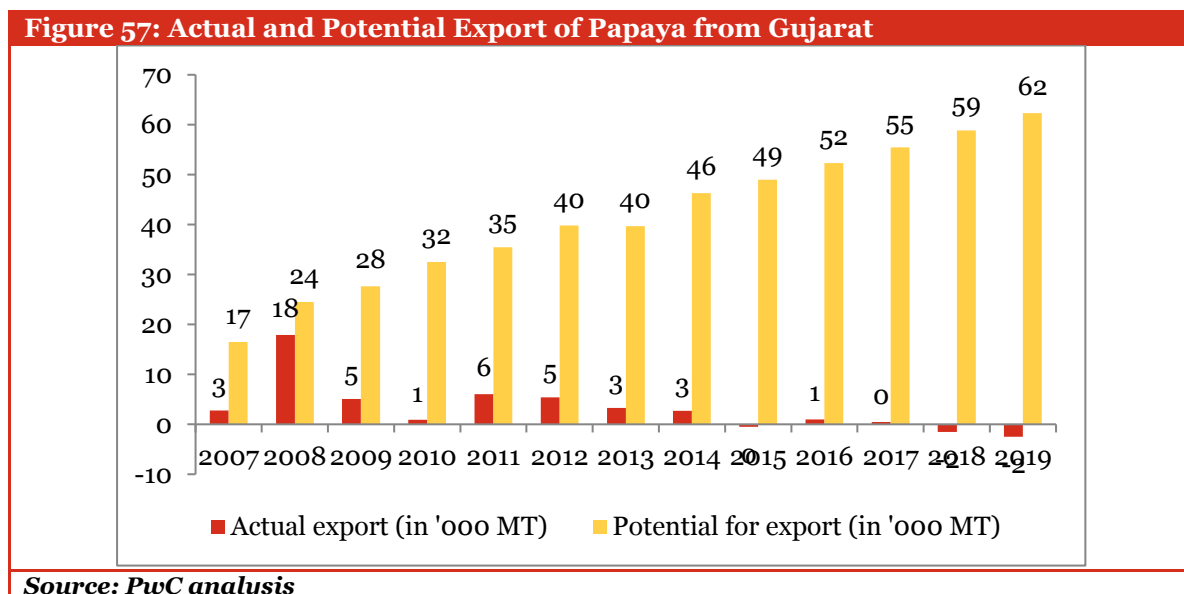
Figure 56: Total production of Papaya in Gujarat (in '000 MT)



Source: PwC analysis, National Horticulture Database.

In terms of export, India is not exporting a major quantity to the international market. Only 11 thousand tonnes of the total production of papaya was exported out of India in 2013-14, against a production of 5382 thousand tonnes of production (NHB, 2013). This shows a lot of potential for increasing the export of papaya from India.

The estimated current and potential export of papaya from Gujarat (based on previous trends) is illustrated below:



Based on the methodology discussed in section 4.1 and 4.2 we calculated the total potential for papaya export in Gujarat. The average available surplus with Gujarat for export is 40 thousand MT¹⁶ (average taken from 2007-08 to 2013-14). This clearly indicates that there is a huge gap between the actual and potential exports in terms of papaya. The calculation for the surplus available in Gujarat is illustrated below:

Table 17: Calculation of the surplus for papaya

Statement	Value (in '000 tonnes)
Total Production of Papayas in Gujarat in 2013-14	1185
Applying Pareto Principle we get total potential for exports in 2013-14	40
Total projected potential in 2019	62
Total current export from India	11
Total exports from Gujarat	3

Papaya production in India particularly is plagued with cultivation of low yielding varieties, plant diseases and limited knowledge on post-harvest handling and marketing.

Competitive scenario for Papaya: Top markets for Papaya are UAE and Saudi Arabia. For this region India has competition from South Africa. India’s cost of shipping – 0.6\$/kg is lower than South Africa which has a rate of 1.6\$/kg. The lower cost is also due to India’s proximity to these regions. Maintaining the quality of fresh papaya is also a concern as it is highly perishable commodity. In addition to fresh papaya exports, limited quantities of papaya pulp can also be exported. A more significant category papaya based product is Pepin based enzymes. These are high value added products but do not occur on the APEDA list of products.

However due to its very low quantities of export from Gujarat currently (for year 2013-14 only 3thousand tonnes); export is not recommended.

¹⁶ Calculation is shown in detail in **Annexure 1A Gujarat**

4.2.5. Brinjal

Brinjal is one of the most common vegetables grown in India. India leads at second place in the world for Brinjal production after China. India produced 13558 thousand tonnes of Brinjal in the year 2013 - 14. . Gujarat contributes 11% to the total production of this crop, after West Bengal and Odisha.

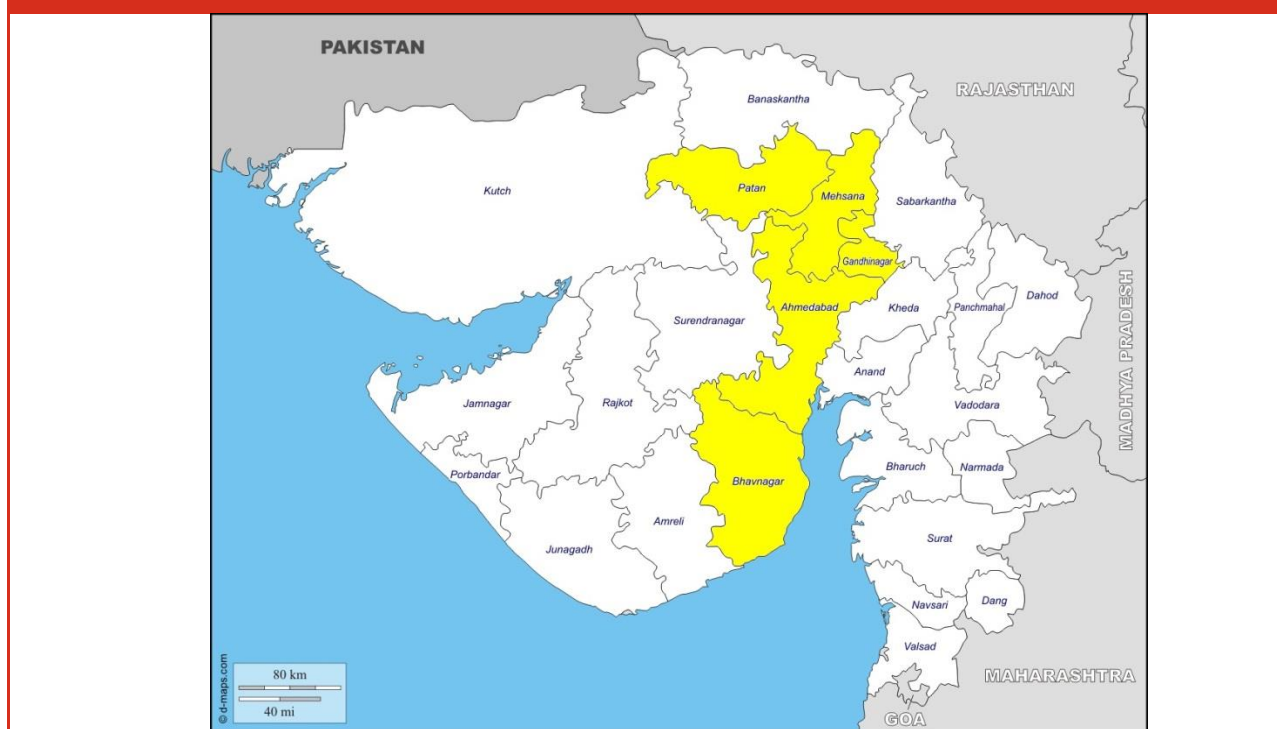
Brinjal is a native crop of India and Sri Lanka. It has a lot of nutritive contents in the form of proteins, Vitamin –C, potassium, calcium etc. It is also a source of dietary fibre. They are also a good source of vitamin B6, folate, magnesium and niacin.

India comes second in world production of Brinjal, after China. The major importing destinations from India are Canada, Netherlands and Bahrain. Canada alone accounts for 90% of the exported volume.

4.2.5.1. Surplus available for export

In terms of production in India, the major Brinjal producing states are Gujarat, West Bengal, Odisha, Andhra Pradesh and Bihar. Gujarat ranks third in India in production with a total share of 10%. (NHB, 2013).The major Brinjal producing districts in Gujarat are illustrated below:

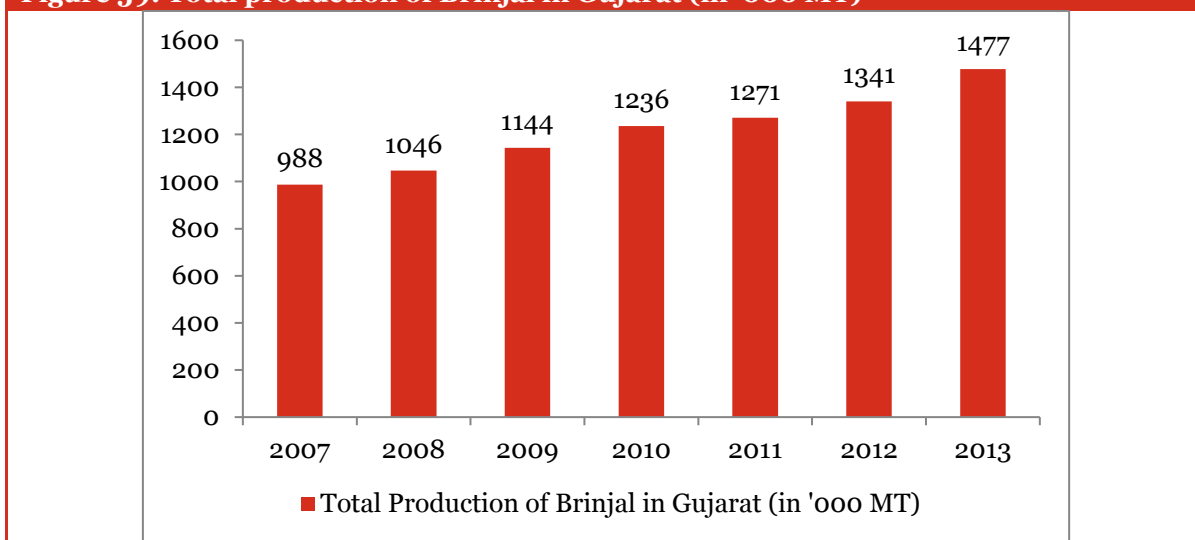
Figure 58: Major Brinjal production centers in Gujarat



Source: National Horticulture Board Database, PwC Analysis

The general trend in the overall production of Brinjal in Gujarat is shown below:

Figure 59: Total production of Brinjal in Gujarat (in '000 MT)

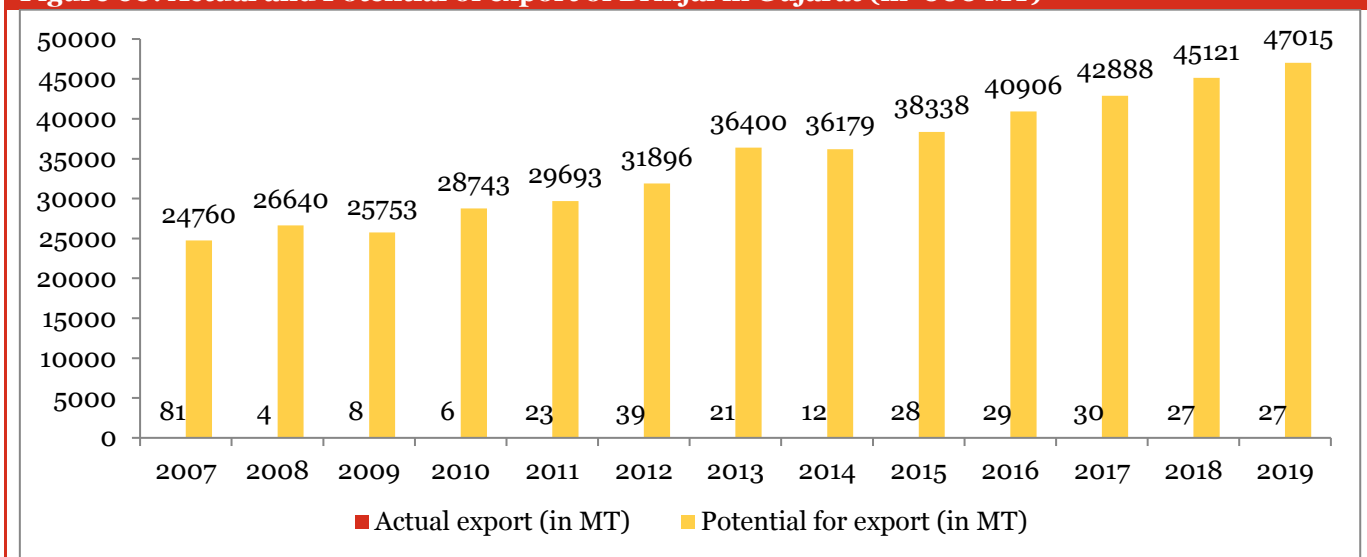


Source: PwC analysis, National Horticulture Database.

In terms of export, India is not exporting a major quantity to the international market. Only 12 metric tonne of the total production of Brinjal was exported from India in 2013-14. This shows a lot of potential for increasing the export of Brinjal from India.

The estimated current and potential export of Brinjal from Gujarat (based on previous trends) is illustrated below:

Figure 60: Actual and Potential of export of Brinjal in Gujarat (in '000 MT)



Source: PwC analysis

Based on the methodology discussed in section 4.1 and 4.2 we calculated the total potential for Brinjal export in Gujarat. The average available surplus with Gujarat for export is 29 thousand MT (average taken from 2007-08 to 2013-14). This clearly indicates that there is a huge gap between the actual and potential exports in terms of Brinjal. The calculation for the surplus available in Gujarat is illustrated below:

Table 18: Calculation of the surplus for Brinjal

Statement	Value (in '000 tonnes)
Total Production of Brinjal in Gujarat in 2013-14	1477
Applying Pareto Principle we get total potential for exports in 2013-14	36
Total projected potential in 2019	47
Total current export from India	0.125
Total exports from Gujarat	0.021

According to the calculations, the potential for export of Brinjal comes out to be very high at 36000 tonnes, whereas the current export is only 125 tonnes. Even if we target for 100% increase, we would be able to achieve only 250 tonnes of export.

The main reason for low export of Brinjal is high incidences of disease infestation, as a result of which very less quantity might be available which is of exportable quality. Cold storage facilities need to be set to prevent post-harvest losses. There is immense potential of increasing exports as India ranks second in the world production of Brinjal.

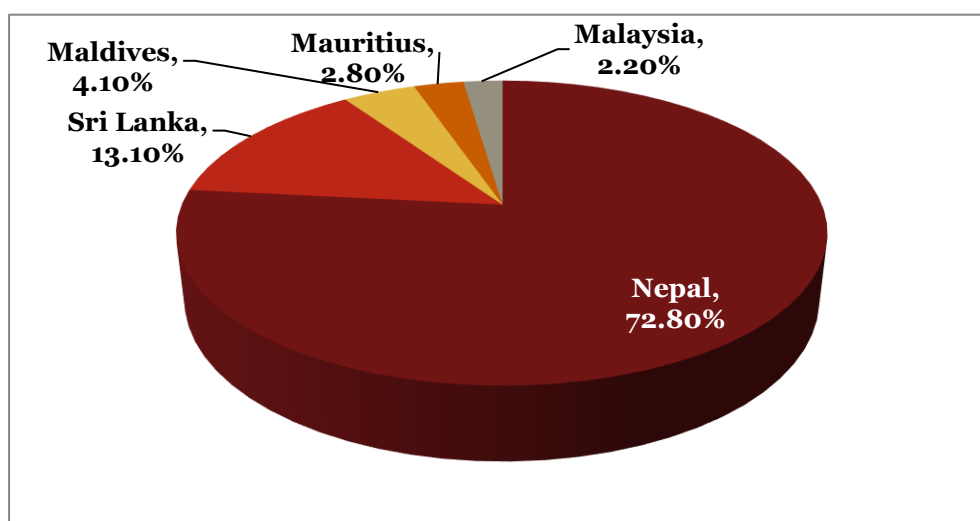
Competitive scenario for Brinjal: The top importers for Brinjal are Germany and United Kingdom. For this region, India has competition from Spain and Netherlands. Cost of shipping for the two top competitors; Spain – 0.25\$/kg and Netherlands 0.06\$/kg is very competitive. For India this cost is even lower that it sometimes leads to losses in revenue. India should take advantage of being the second largest producer of Brinjal in the world and level out the cost for shipping while maintain its quality.

4.2.6. Potato

Potato popularly known as the ‘King of Vegetables’, is one of the most important crops of India. The Indian vegetable basket is incomplete without potato. India is the second largest producer of potato in the world, next to China. India produced 4155 thousand tons of potato in the year 2013-14. In India Uttar Pradesh leads the country with 33% share in production which means 13808 thousand tons of potato (NHB, 2013). Gujarat ranks fifth in India in production, with 2267 thousand tonnes of potato in 2013-14.

The major potato importing destinations from India are Nepal, Sri Lanka, Maldives, Mauritius and Malaysia. These destinations together constitute more than 90 percent of the total export from India. The distribution of exports of potato from India is provided below:

Figure 61: Major Potato export markets of India

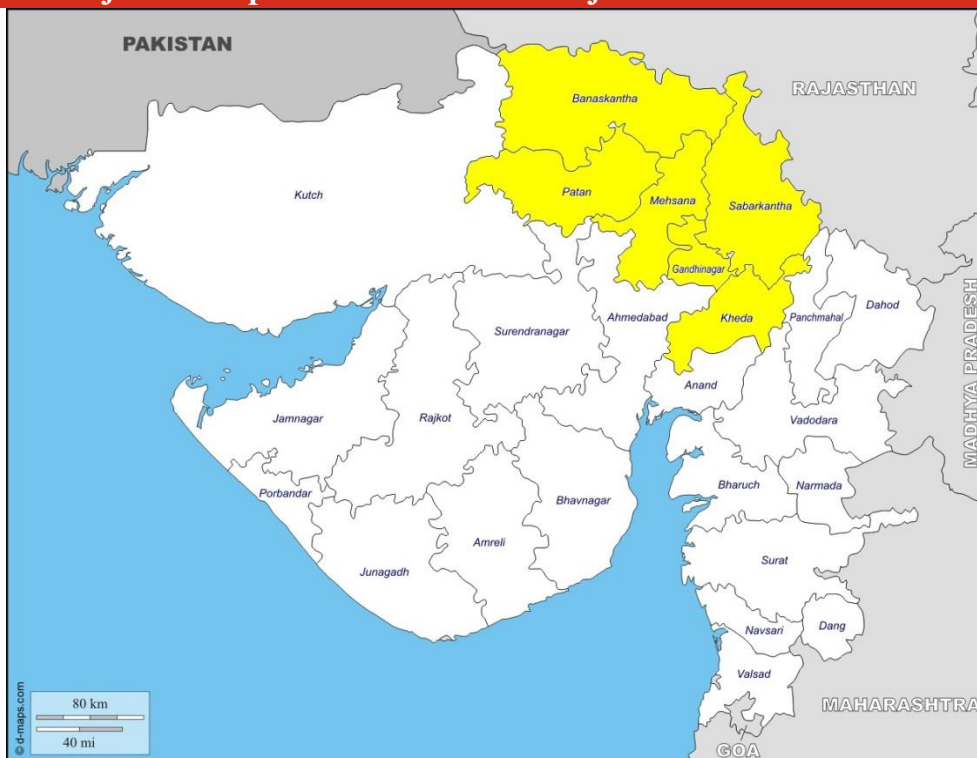


Source: PwC analysis, NHB 2013

4.2.6.1. Surplus available for export

In terms of production in India, the major potato producing states are Gujarat, Bihar, Madhya Pradesh, Uttar Pradesh and West Bengal. Gujarat is the fifth largest potato producing state in the country with a total share of 5 percent of the total production in the country. The major potato producing districts in Gujarat are illustrated below:

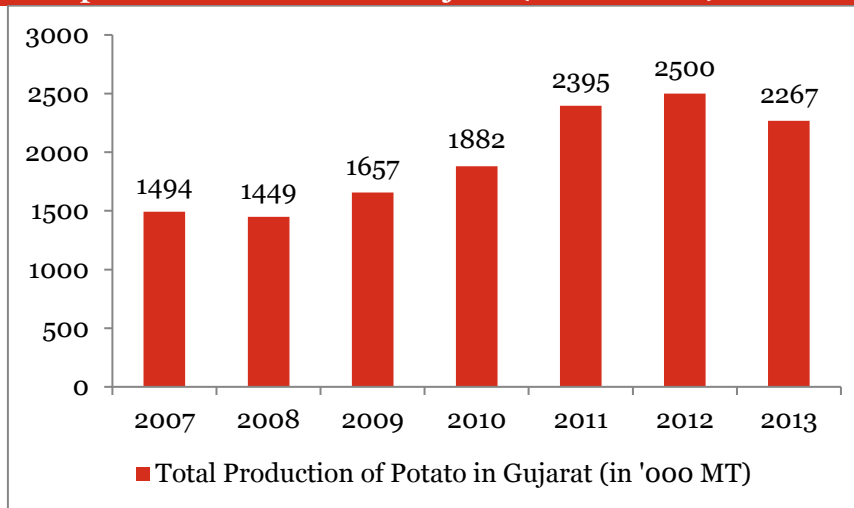
Figure 62: Major Potato production centers in Gujarat



Source: National Horticulture Board Database, PwC Analysis

The general trend in the overall production of Potatoes in Gujarat is shown below:

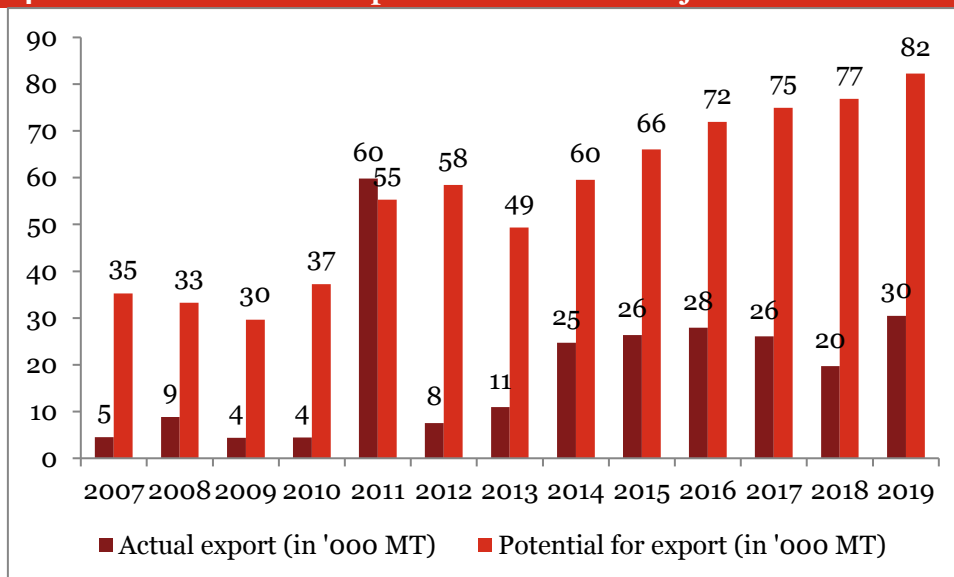
Figure 63: Total production of Potato in Gujarat (in 000 tonne)



Source: PwC analysis, National Horticulture Database.

In terms of export, India is not exporting a major quantity to the international market. Only 0.003% (Uncomtrade) of the total production of potato was exported out of India in 2013-14. This shows a lot of potential for increasing the export of potatoes from India. The estimated current and potential export of potato from Gujarat (based on previous trends) is illustrated below:

Figure 64: Actual and Potential Export of Potato from Gujarat



Source: PwC analysis

Based on the methodology discussed in section 4.1 and 4.2 we calculated the total potential for potato export in Gujarat. The average available surplus with Gujarat for export is 43 thousand MT (average taken from 2007-08 to 2013-14). This clearly indicates that there is a huge gap between the actual and potential exports in terms of potato. The calculation for the surplus available in Gujarat is illustrated below:

Table 19: Calculation of the surplus for potato

Statement	Value (in '000 tonnes)
Total Production of Potatoes in Gujarat in 2013-14	2267
Applying Pareto Principle we get total potential for exports in 2013-14	49
Total projected potential in 2019	82
Total current export from India	164
Total exports from Gujarat	11

A huge advantage that Indian varieties have is that they are free from major prohibitive diseases like wart, ring rot, black leg, and nematodes etc. There exists a very huge potential for developing export of potato from India, however there are post-harvest losses. To prevent these better post-harvest handling facilities such as pack houses are recommended.

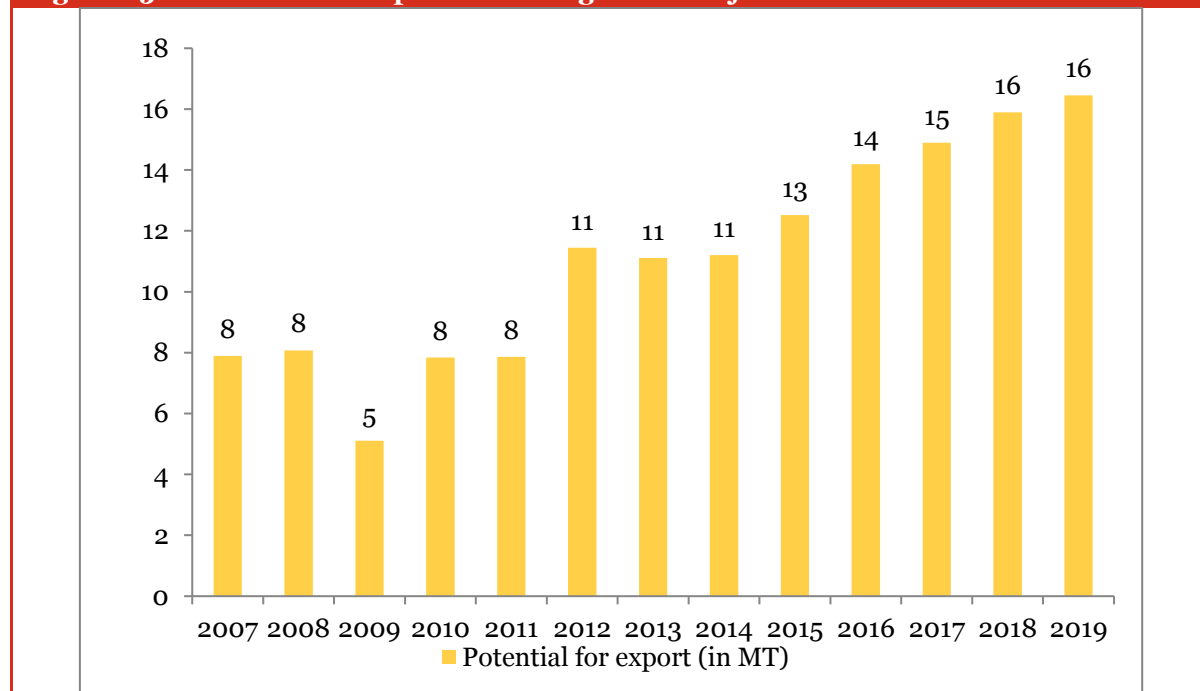
Competitive scenario for Potato: The top importers for Potato are Nepal and Sri Lanka. For this region, especially Nepal India does not face any competition, as Nepal imports more than 90% of the potato from India. However India should diversify its markets. For better post-harvest handling pack houses can be introduced. Frozen products such as French fries are high in demand and can provide a major market for export. Facilities such as IQF can be set up for such frozen products.

4.2.7. Other Fresh vegetables

Apart from the crops discussed in the previous section, there are crops such as Okra, Ber, Cabbage, Custard Apple where Gujarat is in the top five producers in the country, and export potential can be identified.

Okra and Cabbage have 12 and 7 per cent share of production respectively from Gujarat in India. Based on production, cabbage shows a potential for export of 11 thousand tonnes during the year 2013-14. However it actually exported only a dismal 0.008 thousand tonnes.

Figure 65: Potential for Export of Cabbage from Gujarat

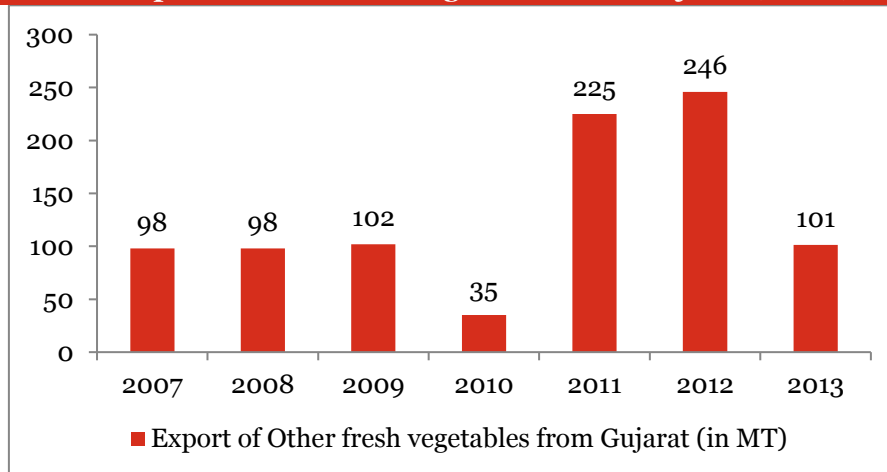


Source: PwC analysis

Potential for Okra, Ber and Custard Apple could not be ascertained due to limited data. However Gujarat produced 759 thousand tonnes of Okra, 123 thousand tonnes of Ber and 52 thousand tonnes of Custard Apple.

The fresh vegetables mentioned above are mainly exported from Ahmedabad Air Cargo Complex. They are not exported through ships as their shelf life is not long enough to be exported through ships. The general trend of export of these vegetables from Gujarat is illustrated below:

Figure 66: Total export of other fresh vegetables from Gujarat (in MT)

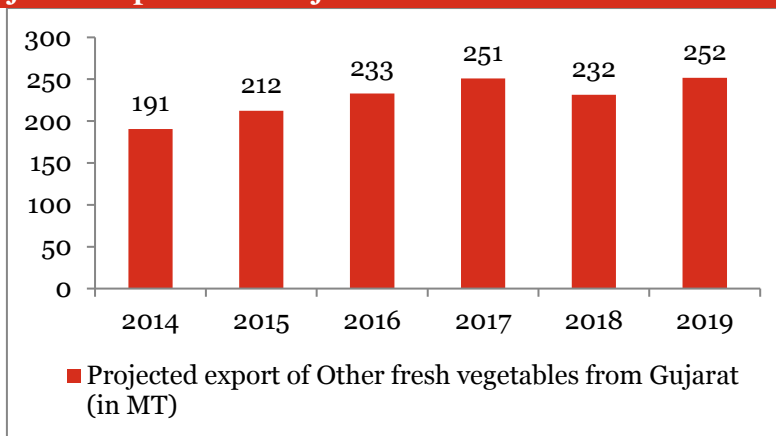


Source: Agrixchange, PwC analysis

The export of these vegetable are projected over the years in order to assess the future requirement of the infrastructure. As these vegetable are highly perishable they are exported through air freight on priority basis. They are exported out of the country and reach their destination within one day of the procurement. The problem arises during summers when due to extreme weather conditions the moisture content present in the vegetables gets lost and therefore there is a loss in the overall quality and weight of the consignment.

Therefore in order to maintain the quality of the fresh produce in summer season we need proper storage facilities and techniques such as Individual Quick Freezing (IQF) to increase their shelf life. The current and the project exports of some of the fresh vegetables are illustrated below:

Figure 67: Projected Export from Gujarat



Source: PwC analysis, Agrixchange

Although the potential for exports is 252 MT in future, however this volume is not very large. An existing IQF facility will be able to handle the volumes of other fresh vegetables.

4.2.8. Summary of Infrastructure required in Gujarat

In the previous section we have discussed the potential of the state in terms of availability of the exportable commodities. It has been observed that the current status of the exports from the state is minimal when compared to the total potential available with the state to export. The huge gap in exports is due to unavailability of the supporting infrastructure to promote exports of the commodities. Good infrastructure facilities ensure proper delivery and safety of the exported product along with savings in time and cost.

In Gujarat it has been observed that the major commodities having potential for export are banana, potato and other fresh vegetables (okra, cabbage, capsicum etc.). Other fresh vegetables are also exported through the Ahmedabad Air Cargo Complex. The Air cargo complex exported only 101 MT of other fresh vegetables in the year 2013-14. Although these commodities are already being exported from the state but due to lack of infrastructure their actual potential has yet to be achieved. The infrastructure gaps are present in the form of non-availability of pack houses, pre-cooling facilities, processing facilities etc. In order to enhance the overall export from the state and realize actual export potential of the state, these gaps has to be plugged.

In the same regards, we have identified various districts based on their respective production strength, proximity to the port, existing market and infrastructure availability for exports, connectivity and their potential for further development.

4.2.8.1. Exit Points for Gujarat

The exit options for export products from Gujarat are – Kandla, Mundra and Porbandar Sea Port and Ahmedabad Airport.

4.2.8.2. Existing Infrastructure

Pack houses: In total Gujarat has 4 pack houses which includes privately owned pack houses. There are 3 APEDA approved pack houses at Bharuch, Pavi Jetpur and Kamrej and 2 pack houses are currently being setup at Dahod and Kodinar.

Cold stores: In total, Gujarat has 342 cold storages, including privately owned cold storages

Food Parks: 3 Food Parks have been approved in Gujarat.¹⁷

3rd Party Logistics: In Gujarat also, majority of the large third party logistics providers operate for providing logistics and shipping services for export of agricultural produce. J.M. Baxi group of companies, Maerskline and K Line Pvt. Ltd. are the prominent private sector players which provide end to end solutions. Hanjin Shipping and Hamburg Sud India Pvt. Ltd. are other largest International players which also operate in Gujarat. In addition to these, Shipping Corporation of India and Container Corporation of India are the two prominent public sector shipping and logistics players.

¹⁷ Ministry of Food Processing Industries; Website: ww.mofpi.nic.in, as accessed in June 2015

Table 20: Proposed Infrastructure in Gujarat

Sno.	Commodity	Districts covered	Cluster	Seasonality	Potential quantity that can be exported (MT)	Per day capacity of the infrastructure required	Infrastructure required	Capacity of each unit	Units required in future
1.	Banana	Anand, Vadodra, Bharuch, Narmada, Surat	Bharuch	Jan - March and August to Dec (240 days)	18650	78	Packhouse	60 MT*	1
2.	Potato	Banaskantha, Sabarkantha, Patan, Mehsana, Gandhinagar, Kheda	Banaskantha	Jan – Feb (60 days)	466	8	Potato flaking unit	500 kgs/Hr (~ 12 MT/day)	1
3.	Other fresh vegetables	-	Gandhinagar	All year	-	-	Mutli-commodity Packhouse	60 MT*	1

*Installed capacity/day

Table 21 Cost of the proposed infrastructure

* Location based on stakeholder input

Sr. No	Location	Proposed Infrastructure	Capacity of the proposed infrastructure	Estimated cost (in lakh)	No. of Units	Total cost in Lakh Rs
1.	Bharuch	Packhouse	60 MT*	700	1	700
2.	Banaskantha*	Potato flaking unit	12 TPD	2000	1	2000
3.	Gandhinagar	Multi-commodity packhouse	60 MT*	700	1	700
Total					3	3400

*Installed capacity/day

The clusters identified have been proposed based on approximate distance, that the facility is placed at equal distance from all the producing districts of the particular commodity.

In an effort to identify clusters where export oriented facilities can be set up for vegetables, APEDA has already identified Surat, Navsari, Valsad and Narmada for the same, in a prior study.^{18 19} Therefore to avoid duplicacy and repetition, this study does not include these clusters as potential sites for setting up export oriented facilities.

Infrastructure proposed according to initial analysis:

The initial analysis concluded with the recommending a total of 4 packhouses at Bharuch (2), Surendranagar (1) and Ahmedbad (1), and one IQF unit Mehasana (Table 22); however based on stakeholder interaction and discussions with state government, the recommendations were revised to proposing one packhouse at Bharuch and Gandhinagar each and one potato falking unit at Banaskantha (Table 21):

Table 22 Cost of the infrastructure proposed initially:

Sr. No	Location	Proposed Infrastructure	Capacity of the proposed infrastructure	Estimated cost (in lakh)	Number of Units	Total cost in Lakh Rs
1	Bharuch	Packhouse	60 MT*	700	2	1400
2	Surendranagar	Packhouse	60 MT*	700	1	700
3	Ahmedabad	Packhouse	60 MT*	700	1	700
4	Mehsana	IQF	2 MT/hour (~40MT/day)	1800	1	1800
Total					5	4600

*Installed capacity/day

Earlier, it was suggested to have packhouses at Ahmedabad and Surendarmagar in addition to the packhouse proposed at Bharuch. However, based on the inputs received from the State Government (Horticulture Department), the proposed location has been modified to Gandhinagar and total no. of proposed packhouses has been reduced to two from earlier proposed three packhouses. This has been done on the basis of connectivity of Gandhinagar location with the production clusters as well as with the exit point infrastructure as per the inputs from Horticulture Department.

¹⁸ Study on identification of export oriented integrated infrastructure for Agri products, Retrieved online http://www.apeda.gov.in/apedawebsite/Announcements/Revised_TORs_DK.pdf

¹⁹ List of Clusters identified by APEDA, Retrieved online http://www.apeda.gov.in/apedawebsite/apeda_products/Potential_Clusters.pdf

Further, it was also suggested that an IQF may be potential export oriented infrastructure at Mehasaa. However, State Government was of the view that already a lot of IQFs by private investment are coming up in the State. Hence, an additional export oriented IQF by APEDA's fundig would not be viable in the long run. Based on these inputs, it was discussed that a potato flaking unit for the Banaskantha production cluster may be a good option. The State Government (Horticulture Department) were also of the same view and hence, a potato flake unit has been suggested.

4.2.9. Initial basic feasibility of the infrastructure proposed

For Gujarat, 2 Pack houses (1 for Banana and 1 Multi-commodity) and 1 Potato flaking unit has been proposed.

4.2.9.1. Bharuch

At Bharuch, one pack house has been proposed for Banana crop.

4.2.9.1.1. Surplus for export

The exportable surplus quantity is calculated to be 78 MT/day. The potential quantity that can be exported is 18650 MT. The seasonality Banana is 240 days, therefore per day surplus comes out to be 78 MT/day.

4.2.9.1.2. Capacity utilization and competition

The installed capacity per day of a pack house is 60 MT, therefore two pack houses will be required for the surplus, and its capacity utilization comes out to be 65%, if it is assumed that it will be fully utilized to its capacity. However there is one APEDA approved pack house being setup at Bharuch. Therefore only one new pack house is being proposed.

4.2.9.1.3. Location

Location should consider factors such as hinterland connectivity, road connectivity and connectivity to ports for export, and not solely based on availability of land at a particular location.

Banana for export from Bharuch can be transported through various ports depending on the export location. Approximate distance of Bharuch from: Kandla is 488 km, Mundra is 532 km away, Porbandar is 520 km and Ahmedabad is 191 km away.

4.2.9.2. Gandhinagar

At Gandhinagar, one pack house has been proposed for multi-commodity usage especially for other fresh vegetables (okra, cabbage, capsicum etc.). This recommendation is based on stakeholder interactions. There is a strong stakeholder recommendation for a multi-commodity packhouse as there is year round availability of fresh vegetables and require storage space before the produce is exported.

Location for a packhouse should consider factors such as hinterland connectivity, road connectivity and connectivity to ports for export, and not solely based on availability of land at a particular location.

4.2.9.3. Assessment of Potato Flaking Unit

Gujarat grows best quality processing varieties of potato due to suitable agro climatic conditions. The demand for Potato flakes within Gujarat is more than 3,000 tons and there is also an increased demand from exporters.²⁰ Target International Markets include: Gulf Countries: - Oman, UAE, Qatar, Kuwait,

²⁰ Project Report on Potato Flakes Processing, Prepared for Gujarat Agro Industries Corporation Limited, Available online at http://www.gujagro.org/portal/tender/177/4_1_project_report-potato_flakes_mfg.pdf

Saudi Arabia and Bahrain; SARC Countries:- Sri Lanka, Pakistan, Nepal, Bangladesh and South-East Asian Countries:- Malaysia, Indonesia, Thailand, Philippines, Singapore.

Potato flaking is an important alternative option for crop that is not utilized for table consumption or other processing such as French fries. There is global trade of 2.9 lakh tons of potato flakes annually and it is further growing, India being second largest producer of potato can seize this opportunity and exports from Gujarat will be very competitive in the target markets due to proximity to ports.

Banaskantha is proposed to be the location for setting up the Potato Flaking Unit, as it is the highest potato producing district in Gujarat and its proximity to ports for ease of export.

5. Assessment of Exit Point Infrastructure

5.1. Exit point Infrastructure

Infrastructure requirements at ports are defined by various structural and operational factors to ensure safe and timely transportation of quality products. Structural factors namely nature of the product (fragile, perishable, temperature sensitive, etc.), shelf life of the produce, packaging and quality requirements of the importing country and operational factors such as mode of transportation deployed, overhauls & lead times, transportation conditions (moisture percentage, humidity levels, temperature fluctuations in transit), etc. play a crucial role in determining the way in which the cargo will be transported i.e. either bulk or containerized and the mode of transportation (air freight or sea shipment).

Depending on the specialized nature of agricultural commodities, agricultural produce can be broadly categorized as bulk cargo or containerized cargo:

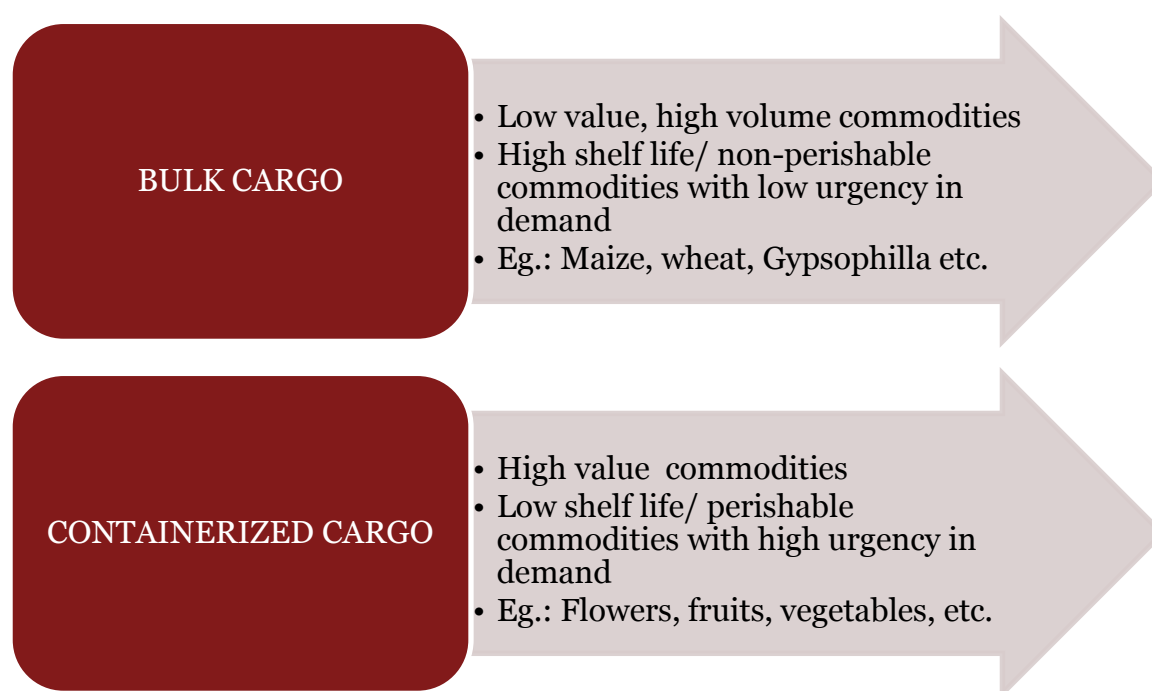


Figure 68: Methods of cargo handling of agricultural commodities for export purposes

5.1.1.1. BULK CARGO:

Bulk cargo is commodity cargo that is transported unpackaged in large quantities. Material in either liquid or granular/particulate form, as a mass of relatively small solids, such as petroleum/crude oil, grain, coal, or gravel, are transported as bulk cargo.

The cargo is usually carried loose in ship's hold, and loaded and discharged through hatchways. Usually, panamax or post-panamax vessels, with huge holding capacity are used for transporting bulk cargo.

Such vessels require a minimum draft of 39.5 ft (12.04 m) in Tropical Fresh Water (TFW)²¹. The salinity and temperature of water affect its density, and hence how deep a ship will float in the water. Specialized ships with tankers are used for transportation of liquid cargo.

Type of Cargo transported as Bulk:

Transport through sea freight attracts risks (such as risk of physical damage and quality deterioration through hostile weather and climatic conditions during transit, inappropriate storage conditions, etc.). Also, both the lead times and risks associated with sea freight are high and least controllable, therefore, predominantly low value and high volume commodities are transported through sea freight. High volume commodities bring in economies of scale counterbalancing the high freight costs involved in sea transportation.

Sea freight is also a preferred option for commodities with high shelf life and low urgency in demand such as grains, coal, POL, etc. High volume and high shelf life commodities such as Grains (maize, wheat and unpolished/non-branded rice), low value and low demand urgency products (such as flower fillers like gypsophilla are transported) are transported through sea freight.

5.1.1.1.1. Specialized Requirements at Ports to handle bulk cargo:

1. Cargo handling equipment:
 - a. For on-loading and off-loading of cargo: Front loaders, hoppers, elevators (US) or silos for grain - they may be operated by pneumatic suction which sucks the grain out of the ship's hold, quay cranes or floating cranes for general cargo, etc.
 - b. For facilitating movement of cargo to and from the ship's side and the transit shed: Four-wheeled trucks either manually or mechanically propelled, and mechanically or electrically propelled tractors for hauling four wheeled trailers, ro-ro trailers, conveyor belts, etc.
2. Open and covered warehouses for storage purposes to ensure in-transit storage and quality of the produce
3. Hinterland connectivity by road & rail for efficient, cost effective and timely delivery of the produce

5.1.1.2. CONTAINERIZED CARGO:

Cargo transported in large standardized, sealed containers whose contents do not have to be unloaded at each point of transfer.

Loose cargo is packed in standard 20 feet or 40 feet metal containers. Exporter may choose to opt a Full Container Load (exclusive 20 feet or 40 Feet container with consignments from one exporter/consignee) or Less than Container Load (container to be shared with other consignees/exporters) based on the volume of the goods transported, sensitivity and nature of cargo and urgency in demand (LCL shipment can depart only when the complete container is filled).

Shipment by container load continues to be the preferred method for export and import of goods because it is much more efficient, allowing ships to spend less time in port. The use of containers to unitize cargo ensures efficient transportation, supply and storage keeping the quality of the product untampered. Containers offer a more flexible option for smaller exporters as well as importers. Containers are available in various volumes and in a number of specialized constructions to

²¹ The name and definition of TFW is derived using the freshwater Lake Gatún as a reference, since this is the determination of the maximum draft.

accommodate various cargo types, including reefer containers for highly perishable or temperature sensitive products.

Type of Cargo preferred to be transported as Containerized cargo:

Containerized cargo safeguards the product from various physical risks faced by the cargo during sea freight. High value and medium to low shelf life products such as fruits viz. grapes, apple, bananas, fruit pulps, processed fruits & vegetables and low volume and/or highly sensitive (both in terms of quality requirements by importing country and nature of the product) food grade commodities are transported through container cargo. Reefer containers can be used for highly temperature sensitive products such as meat, eggs and frozen fruits and vegetables. Vented containers are used for moisture-sensitive goods like tobacco, spices and coffee to allow for appropriate ventilation and thus eliminate potential condensation, preventing damage. Typical process flow deployed while transporting cargo by sea freight is as follows:

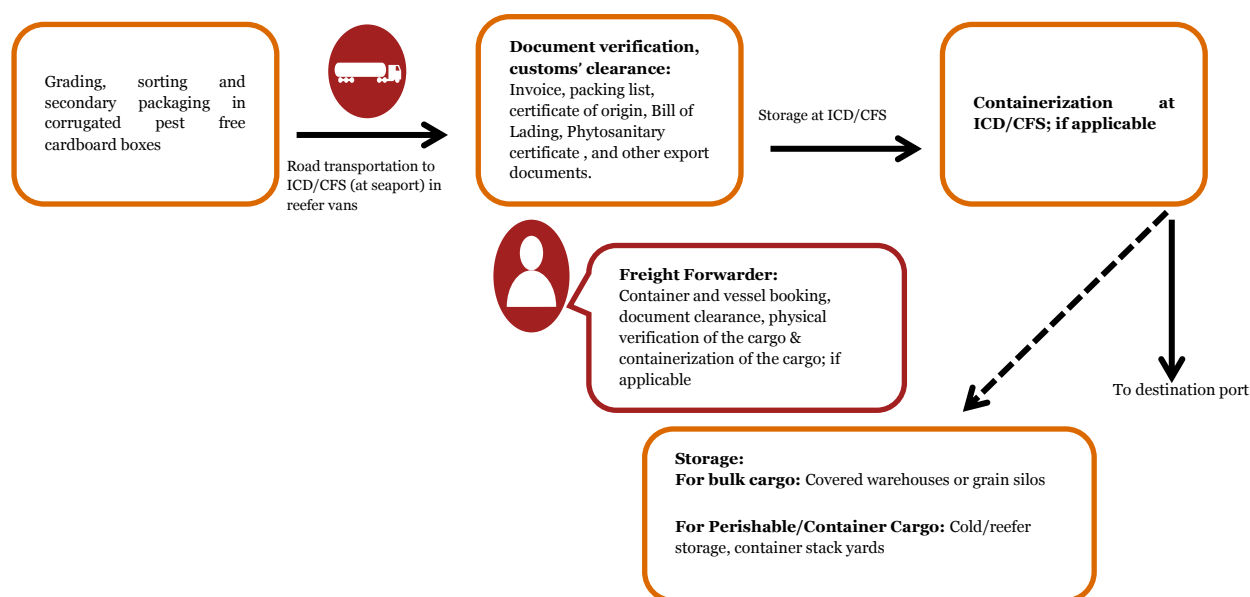


Figure 69 Typical process flow for transporting cargo (both bulk and containerized) by sea freight

High value products with high demand urgency and extremely low shelf life are transported via reefer containers through air freight. Containerization of cargo also provides better handling and allows for use of multi modal transportation modes to ensure timely delivery with uncompromised quality. Typical process flow deployed while transporting cargo by air freight is as follows:

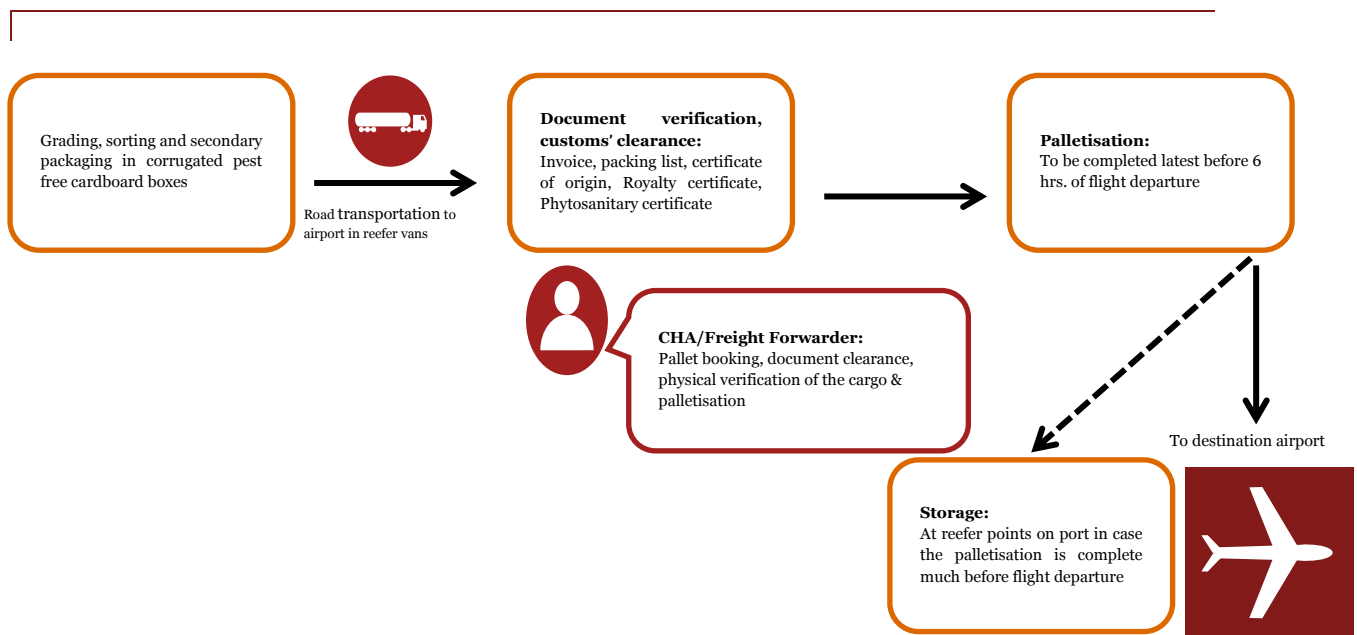


Figure 70: Typical process flow for transporting cargo by air freight

More than 80% of the cargo handled globally is containerized today, others are gradually moving towards containerized cargo. Around 12 percent of global trade in agricultural goods such as oilseeds and grains, traditionally shipped in bulk, was shipped via container in 2012, data from shipping consultancy Seabury Group showed. Ports are also renovating/upgrading, to respond to this shift in customer preferences, to better equip them to handle container cargo.

5.1.1.2.1. Specialized Requirements at Ports to handle Container Cargo:

1. Dedicated container terminals, with proper berthing facilities, to handle container ships and manage container cargo
2. Cargo handling equipment:
 - a. For on-loading and off-loading of cargo: quayside container cranes, i.e. container gantries also called shiptainers.
 - b. For facilitating movement of cargo to and from the ship's side and the transit shed: Transtainers or stacking cranes, straddle carriers, van carriers, front and side loading fork-lift trucks, etc. are used for moving and stacking containers within the terminal up to five-high, i.e. five containers one above the other. Mechanically powered straddle carriers are designed to distribute containers on the quay and on the terminal. Fork lift trucks (FLT) are mechanically or electrically operated and fitted in front with a platform in the shape of two prongs of a fork; lifting capacity varies from 1 to 45 tons.
3. Container stack yards with/without reefer points, refrigerated warehouses for storage purposes
4. Availability of Container Freight Stations (CFS) to handle high on-site container traffic and adequate connectivity with neighboring Inland Container Depots (ICDs) to consolidate cargo volumes from neighboring landlocked states.

ICDs/CFS offer services for handling and temporary storage of import/export laden and empty containers carried under customs control and with Customs and other agencies competent to clear goods for home use, warehousing, temporary admissions, re-export, temporary storage for onward transit and outright export. Transshipment of cargo can also take place from such stations.

5. Center for Perishable Cargo (CPCs):

These are dedicated terminals on airports specially designed to cater to agricultural products with extremely low shelf life such as cut flowers, ornamentals, frozen meat, frozen vegetables. These centers provide controlled storage conditions, documentation and customs' clearance with on-site Phyto-sanitary and quality inspection laboratories to ensure physical inspection of produce under a continuous, controlled temperature zone.

5.1.2. Comparative Assessment of Infrastructure available at Major Ports

In order to assess the existing infrastructural capabilities and to identify existing gaps in infrastructure, required to manage the expected influx of agricultural commodity exports to major international target markets, a comparative assessment of various sea ports and airports was done. Infrastructure requirements at exit points were assessed with focus on select commodities from the focus states of Gujarat and Maharashtra with high production base in these states, comparative regional advantage and huge prospective export potential. Nonetheless, it has also been ensured that capacities developed will be in line with national export trends and requirements. Only major airports and sea ports are evaluated under this study. This selection is considering the fact that proximity of the port is not the only criteria in port selection for transportation of a given commodity to a said destination. It depends upon the nature of commodity, type of cargo handled (containerized/bulk) and underlying capabilities, sectors/destination ports covered by the given port and shipping line operations. These all factors, in turn, depend upon various commercial preferences and operational priorities.

Table 23: At select Sea Ports

FOR BULK CARGO				
1. Storage Facilities				
JNPT/Nhava Sheva Port	Mumbai Sea Port	Kandla Sea Port	Mundra Sea Port	Porbandar Sea Port
Data not available	Dockyards, Freight Stations, Container yards and Warehouses with 7,82,759 sq meters of storage space	Warehouse and Dry Cargo storage space of 11 lakh square tonnes is available	Dry bulk cargo handling facility for 14.112 MMTPA is to be developed	Dry dock : 45.72m x 16.76m Godown : 34 nos. with total area of 2,41,73.53 Sq. m
2. Marine Infrastructure				
JNPT/Nhava Sheva Port	Mumbai Sea Port	Kandla Sea Port	Mundra Sea Port	Porbandar Sea Port
Shallow draught berth; Feeder Container Vessels, Cement , General cargo and liquid cargo vessels are being handled with a capacity of about 1.2 million tonnes per annum.	Liquid Storage of 487800 tonnes approximately is available	9,80,508 Kilo litre of storage space is provided by private players around Kandla Complex	Data not available	Landing and berthing : Total 2,128 meters in length for lighters. Fishing activities are being performed from these berths

MMTPA: Million Metric Tonnes per Annum

FOR CONTAINERIZED CARGO				
JNPT/Nhava Sheva Port	Mumbai Sea Port	Kandla Sea Port	Mundra Sea Port	Porbandar Sea Port
1. Container Handling Capabilities (Terminals & Cargo handled):				
<p>3 major terminals: JNPCT, NSICT, APM + 1 private terminal (run by DP World Pvt. Ltd.):</p> <p>1)Jawaharlal Nehru Port Container Terminal (JNPCT): Three berths (Linear quay length of 680 Metres), Can handle third generation container vessels, 36,000 TEUs capacity with additional paved area: 1,80,000 square metres 320 numbers.(with power backup facility)</p> <p>2)Nhava Sheva International Container Terminal (NSICT): 672 reefer points, Current capacity: 15.6 million tonnes per year</p> <p>3) Gateway Terminals India (GTI) No reefer cargo handling points, mainly deals in container cargo of non-perishable commodities</p>	<p>Construction of Offshore Container Terminal is one of the major initiatives in order to develop dedicated container port. The project is being executed on BOT basis. The project comprises of construction of two container berths in sea which can handle container vessel up to 14.5m draft (6000 TEUs).The total estimated cost of this project is Rs.2098.56 crore of which MbPT has invested Rs.396.85 crore. The project is likely to be commissioned by January 2016.</p>	<p>a) 545 mtrs. of quay length b) 4RMQCs c) 2 Harbour mobile crane d) 4 RTGC 4 reach stackers, 18 prime movers e) 40 hectare plot for Container yard</p>	<p>MICT, located at Mundra in Gujarat, is the largest container terminal on the West Coast of India. Currently the Terminal has a quay line of 632 metres with a depth of 13.5m CD alongside and a short channel of only 1.1 km. Depth in the channel is 13.5m CD. The Terminal operates 24 hours a day, seven days a week and 365 days a year and has no tidal restrictions.</p>	<p>Porbandar Port exports Salt, Cement/Clinker, Clay Bauxite, Onion, Raw cotton, Soda Ash, Marin product</p>

JNPT/Nhava Sheva Port	Mumbai Sea Port	Kandla Sea Port	Mundra Sea Port	Porbandar Sea Port
1. Container Cargo handled				
The Port handled 62.35 million tonnes of total cargo during 2013-14 as against 64.49 million tonnes during the previous year. Of the total share of containerised cargo: 55.24 million tonnes (88.59 per cent), liquid cargo was 6.29 million tonnes (10.10 per cent) and the remaining, 0.82 million tonnes (1.31 per cent) was miscellaneous types of dry bulk and break-bulk cargo	<p>a) The port handled 40744 TEUs with 0.45 million tonnes of cargo were handled during 2013-2014, as against 57614 TEUs with 0.72 million tonnes of cargo of the previous year.</p> <p>b) 62 vessels with 68506.75 GRT were dry docked in 2013-2014. This included 7 vessel of MbPT. In 2012-13, 74 vessels with 96853.26 GRT were dry docked.</p> <p>c) During the year 77919 wagons were received and dispatched contributing traffic of 2.96 million tonnes of cargo through Indian Railways, as against 72373 wagons with 2.75 million tonnes in the previous year.</p>	One berth each in export & import groups for vessels assuring 6000 MT throughput per day.	The Mundra sea port has a terminal capacity of 1100000 TEUS.	Data Not available
2. Number of Reefer Points				
JNPT/Shewa Port	Mumbai Sea Port	Kandla Sea Port	Mundra Sea Port	Porbandar Sea Port
992	Reefer Points facility available at Frere Basin	Data Not available	332 live plug points	Data Not available

3. CFS Space				
JNPT/Shewa Port	Mumbai Sea Port	Kandla Sea Port	Mundra Sea Port	Porbandar Sea Port
30 in operation, 6 in process	64 in operation	6 in operation	MICT provides an integrated container freight station (CFS) about three km outside the terminal. The CFS covers over 20ha of land and provides enclosed warehousing space of 1.9ha and a 9.95ha open container yard.	Data Not available
JNPT/Nhava Sheva Port	Mumbai Sea Port	Kandla Sea Port	Mundra Sea Port	Porbandar Sea Port
4. Cargo handling facilities				
Quay cranes, Gantry cranes, reach stackers, trailers available at each CT	Mobile cranes, Fork Lift trucks, Electric Level Luffing Cranes, Tractors, Electric shunting locomotives	Wharf cranes, Weighbridges, Forlifts, Tractors, Trailors, Pay Loaders, Mobile cranes	Quayside Cranes, Yardside Equipment, Reachstackers, Empty Handlers, Forklifts	Cranes, Godowns

Table 24: At select Air Ports

	Mumbai	Ahmedabad
Sector covered	China, US, UK, Japan, Malaysia, Iran, Kenya, Ethiopia, Qatar, France, Switzerland, Saudi Arabia, Turkey, Mauritius, UK, Thailand	Gujarat State Export Corporation Limited (GSEC) is trading fresh fruits, vegetable, and ready to eat snacks, in addition to FMC Groceries for UK, US, and Middle Eas.
Container terminal/Air cargo complex/Terminal	Dedicated Cargo terminal, MIAL Cargo	Dedicated Cargo Terminal, Ahmedabad Air cargo Complex
Container cargo handling capabilities	Details not available	Details not available
Storage capacity	Trans-shipment cargo storage facility	Expansion in Cold storage facility is proposed by Gujarat State Export Corporation.
	Cold Storage: Export state-of-the-art	a) Currently it can handle 5 tonnes, capacity to be increased up to 15 tonnes.
	b) Perishable Centre: Temp. range: +15 to +25 °C, +2 to +8 °C, 0 to -10 °C, One time holding capacity: 160 Tons, Annual Handling capacity: 50,000 Tons	
	c) Cold Storage: Temp. range: +15 to +25 °C, +2 to +8 °C, One time holding capacity: 120 Tons, Annual Handling capacity: 30,000 Tons	
Port Infrastructure	Regulators available on-port: Indian Customs, Animal Quarantine, Plant Quarantine, Drug Control, Airport Health Officer, Food Safety & Standards Authority of India, Wild Life Protection Authority and Bureau of Civil Aviation Security	Warehouse, Custom office, Bonded trucking facilities, Cold storage, Assistant Drug Controller's Office, X-ray screening facilities
CFS Space	Not available	Details not available
Cargo handling equipment/facilities	Owned by airline	Owned by Gujarat State Export Corporation Limited, a public limited company
CPC's	Yes, increase in capacity required	Details not available

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

5.1.3. Key Inferences

1. In order to promote agri exports from Gujarat and Maharashtra, it is necessary to focus on major export destinations/sectors where agricultural products from these states are in demand or have future demand potential since:
 - a. Choice of port for a given commodity depends on destination market, nature of commodity, type of cargo and preference of the buyer in terms of demand urgency, lead times, packaging preferences and quality of the product.
 - b. Type of cargo traffic (bulk or container cargo) is defined by ports' cargo handling capabilities in terms of port infrastructure availability and capacity to handle container traffic and not by proximity to production centers or export hubs.
2. Assessment of port infrastructure was done for select ports - JNPT/Nhava Shewa, Mumbai Sea port, Kandla Sea port, Mundra sea port and Porbandar sea port. These ports were selected on the following basis:
 - a. Volume of agri export cargo handled by each port on annual basis
 - b. Availability of suitable infrastructure at ports and hinterland connectivity to undertake agri –commodity exports
 - c. Export destinations catered by these ports
3. On the basis of our analysis, the major sea ports handling agri commodities are JNPT and Mundra. Commodities being exported from JNPT are Fresh and Processed fruits and vegetables, fresh mangoes, onions and grapes. Mundra sea port is also exporting fresh vegetables and fruits, especially mango, fresh onion and grapes.
 - i. Mundra sea port exported 12thousand MT of fresh fruits and vegetables, 2 thousand MT of onions and 200 MT of mangoes were exported in 2013-14.
 - ii. JNPT exported 27 thousand MT of fresh mangoes, 790 thousand MT of fresh onion and 152 thousand tonnes of fresh grapes in 2013-14.
4. Kanlda, Mumbai and Porbandar can be developed to support in exporting agri commodities, however currently; Kandla port is mainly exporting cereals, Mumbai sea port is exporting alcoholic beverages, and confectionary, while Porbandar is mainly exporting onion in agri commodities.
5. On a similar basis, Ahmedabad and Mumbai airport were selected for further assessment of existing infrastructure capabilities and potential for further development of the port to cater to the requirements of agri-commodity exports.
6. Air freight predominantly carries containerized cargo. Ahmedabad and Mumnai airport are the preferred airports for containerized cargo for agri commodities from Gujarat and Maharashtra and other neighboring states. Ahmedabad and Mumbai airport mainly export fresh fruits and vegetables, especially fresh mangoes. Mumbai airport also exports fresh grapes.
7. Mundra sea port, JNPT sea port, Ahmedabad and Mumbai airport are mainly exporting agri-commodities. Assessment of existing potential and analysis of available avenues to further strengthen the port infrastructure for agri-commodity exports are enumerated below:
 - a. Mundra sea port
 - i. Mundra sea port is the largest private port of India, and is situated in the West Coast of India in the Gulf of Kutch. It handled 29.22 thousand MT of agri-commodity in 2013-14. Dry bulk cargo handling facility for 14.112 MMTPA is to be developed.
 - b. JNPT sea port
 - i. JNPT, on the West coast, has the highest container handling capacity among all major sea ports in India (for details, refer Appendix 1.C.C Sea Port). It handled 59.48 Mn Tons of

container cargo in 2013-14, which is 42% of the total container cargo handling capacity of the country. It can handle nearly 45.50 lakh TEUs of container traffic every year, almost 11630 TEUs/day. JNPT port is the preferred port for transport of agricultural commodities to MENA, UK, Japan and France. Both reefer and non-reefer containerized cargo are handled at port.

- ii. However, with changing consumer preferences towards containerized cargo over bulk cargo, there is a need to redevelop the bulk terminal into a container terminal to cater to increased export volumes and container traffic at the port. Additionally, deployment of additional machineries, equipment and port crafts, installation of additional reefer points, upscaling and capacity expansion of existing storage areas (both temperature controlled and ambient) in line with the expected increase in reefer container traffic at the port and development of back up facilities needs to be undertaken to cater this expected increase in container traffic at the port. This capacity up gradation of port infrastructure can be taken in a PPP mode to overcome project management, time and investment limitations and simultaneously, meeting industry requirements.
- c. Ahmedabad Air Cargo Complex
 - i. Located in the western region of the country its major markets include UK, US and Middle East. In 2013-14 Ahmedabad air cargo complex exported 112 MT of agri-commodities.
 - ii. Indian logistics industry is accepted to grow at the rate of 15 to 20% per annum for next 5 years. On the other hand, market share of organized logistics players in India is also expected to double. With the above growth forecast, by 2015, the Indian Logistics' Industry revenue is expected to reach in the region of US\$ 385bn.
 - iii. Capacity availability at Ahmedabad Air Cargo Terminal needs to be evaluated in line with the growth pattern and the expected rush in export cargo from the port.
- d. Mumbai airport
 - i. Air Cargo Complex, Mumbai is the largest Air Cargo Complex in India in terms of volume of cargo handled, value of cargo, documents filed and revenue collected. In terms of agri commodities, the air cargo complex exported 55 thousand MT .
8. No additional CFS units have been proposed as there are 30 at JNPT/Nhava Sheva sea port, 6 at Mumbai sea port, 6 at Kandla sea port and Mundra has CFS facility which spreads over 20 heactares of land (Refer Table 21); already providing containerization at the port and will be able to handle the increased volumes of export.
9. Support from respective State governments, in conjunction with guidance and support from the Export Promotion agency, is required to bridge the indicated infrastructure gap, especially to ensure good hinterland connectivity through rail and road transport network and to provide viability gap funding, wherever required to instill investor confidence and attract cargo traffic to the renovated/upgraded ports.

6. Summary

In order to improve exports of agri commodities there are interventions needed across the value chain. These interventions, though not all of them come in the purview of APEDA, are as important as infrastructure. We have discussed some of them in the following section

1. **Stage 1 of agriculture** – good planting material – It is understood that planting material is not under the purview of APEDA, however good agricultural produce starts with good planting material and at least APEDA should sensitize the concerned departments of the following –
 - a. Firstly the need to develop crop variations that have internationally acceptable characters such as taste, appearance, size etc. Most of these crops could be exotic crops where Indian research agencies are not focused e.g. planting material is the biggest concerns for the floriculture industry, gherkin exporters, pomegranate sector etc. So if better and international market focused seed research is done, that will help in the long term
 - b. Secondly introduction of new varieties – APEDA can in consultation with exporters identify new seed variants for each major export commodity for development
2. **Farmer Development and Capacity building** – Farmer certification is a major bottle neck which often prevents development of new markets, there is need for organizing GAP certifications of farmers for long term sustainability of exports
3. **Traceability** – Traceability of produce has multiple benefits –
 - a. Increasingly this is becoming a requirement in the international market even for processed goods
 - b. In case of a contagion it is easier to trace the source and control the spread
 - c. Even when it is not essential there exists premium for traceable products in some markets
4. **Product development** – processed food products like breakfast mixes / cake mixes etc need developmental push i.e. APEDA needs to push for the development and creation of new products – one of the most successful methods for promoting innovation is through the development of Incubation centers for new product development.
5. **Phyto – Sanitary** – Certifications are critical requirements for exporters and often become bottle – neck. Having a large number of testing facilities may not be feasible due to the high cost (INR 250 million) for such a facility; however sample collection and certificate issuance process may be simplified.

Existing Infrastructure and proposed infrastructure

The summary of the infrastructure required for each state is given as the summary of the state specific chapter.

Maharashtra – Investment required in Maharashtra is INR 2500 Lakhs for 1 IQF and 1 Multi-commodity Packhouse.

Gujarat – The investment required in Gujarat is INR 3400 Lakhs for 2 pack houses and 1 Potato flaking unit.

The facilities have been distributed across suitable clusters of the given state. It is not possible to determine the exact location at this stage. The capacities given are for growth in exports and not for covering the existing level of exports. The list of existing cold stores and pack houses has been appended in Appendix 1B, while infrastructure assessment of all ports and airports has been captured in Appendix 1-C.

Utilization of existing resources is not tracked, however it is known that large standalone cold stores rarely achieve hundred percent utilization, while small cold stores at pack houses have better utilization.

Project	Partnership	Remarks	Funding
IQF in Pune (1 unit)	PPP	This should be planned as a common infrastructure facility and therefore should not be given to a single entity	While it is premature to define the funding structure for the projects at this stage, however it can be assumed that APEDA can provide funds to the extent allowed under its schemes and rest will be arranged by the project promoters.
Multi-commodity Packhouses at JNPT port and at Gandhinagar and 01 unit for Banana at Bharuch.	Private /State government or any other registered body	These are not difficult to operate and can be managed well all types of partners	
Potato flaking unit (In Banaskantha)	PPP	Being one of the first few units, it should be set up with inputs from both govt. and the private sector.	

Appendix 1 A - Crop Data

Appendix 1 A.A - *Maharashtra*

Appendix 1 A.A.A - *Grapes, Papaya, Pomegranate, Tomato*

	Grape Exports from India ('000 Tons)	Y-o-Y Growth Rate	Papaya Exports from India ('000 Tons)	Y-o-Y Growth Rate	Pomegranate Exports from India ('000 Tons)	Y-o-Y Growth Rate	Tomato Exports from India ('000 Tons)	Y-o-Y Growth Rate
2004	23	0%	3.5	0%				
2005	52	130%	6.4	85%				
2006	65	23%	10.3	61%				
2007	76	18%	10.9	5%	21.67			
2008	117	55%	13.8	27%	35.18	62%		
2009	109	-8%	17.6	27%	34.81	-1%		
2010	64	-41%	15.4	-12%	33.42	-4%	0.16	
2011	75	17%	18.7	21%	18.21	-45%	0.02	
2012	114	52%	21.5	15%	30.16	66%	0.23	
2013	149	30%	23.1	8%	36.03	19%	0.17	-25%

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

2014	137	-8%	24.7	7%	31.33	-13%	0.23	33%
2015	142	3%	26.7	8%	32.39	3%	0.25	8%
2016	148	5%	28.3	6%	30.52	-6%	0.31	27%
2017	155	4%	30.1	6%	31.40	3%	0.31	-1%
2018	162	4%	32.6	8%	33.08	5%	0.37	17%
2019	177	9%	34.2	5%	35.47	7%	0.40	8%
							0.43	9%

Source: UN Comtrade, PwC analysis

Appendix 1 A.A.A - Banana

Commodity	Year	Production (in '000 MT)		Exports (in '000 MT)		
		India	Maharashtra	India	Maharashtra	Potential for export
Banana	2007	23823	4963	16.662	4	165
	2008	26217	4960	30.402	8	164
	2009	26470	5200	54.273	15	158
	2010	29780	4303	60.813	12	124
	2011	28455	4315	40.921	9	124
	2012	26509	3600	53.793	10	97
	2013	29725	4831	28.1	7	142
	2014	30179	4024	50	10	105
	2015	30352	3855	46	8	97
	2016	30741	3721	39	6	92
	2017	30869	3773	37	6	91
	2018	31880	3680	39	6	85
	2019	32746	3615	36	6	

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Appendix 1 A.A.A - Mango

Commodity	Year	Production (in '000 MT)		Exports (in '000 MT)		Potential for export
		India	Maharashtra	India	Maharashtra	
Mango	2007	13997	711	240	16	20
	2008	12750	713	282	24	20
	2009	15027	597	268	15	15
	2010	15188	331	183	6	6
	2011	16196	503	229	11	12
	2012	18002	633	215	11	16
	2013	18431	1213	264	29	36
	2014	19224	850	226	17	23
	2015	20552	969	217	18	27
	2016	21358	1137	224	22	33
	2017	22485	1315	239	26	39
	2018	23421	1403	231	27	42
	2019	24281	1475	230	28	44

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Appendix 1 A.A.A - Onion

Commodity	Year	Production (in '000 MT)		Exports (in '000 MT)		
		India	Maharashtra	India	Maharashtra	Potential for export
Onion	2007	13900	4003	899	393	121
	2008	13565	3933	1547	643	118
	2009	12159	3146	1812	713	80
	2010	15118	4905	1241	715	145
	2011	17511	5638	1110	517	172
	2012	16813	4660	1528	573	135
	2013	19402	5864	1477	663	179
	2014	19546	5954	1515	670	178
	2015	21177	6479	1393	619	196
	2016	22789	6996	1390	607	215
	2017	23633	7106	1522	620	218
	2018	24709	7484	1544	657	230
	2019	26209	8078	1484	644	250

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Appendix 1 A.A.A - Citrus

Commodity	Year	Production (in '000 MT)		Exports (in '000 MT)		
		India	Maharashtra	India	Maharashtra	Potential for export
Citrus	2007	8015	1628	51	4	58
	2008	8608	1408	67	6	50
	2009	9638	1725	57	6	58
	2010	7464	1410	20	3	46
	2011	7922	1268	59	6	41
	2012	10090	861	53	3	26
	2013	11147	1761	58	6	59
	2014	10504	1273	52	5	39
	2015	10958	1260	51	5	39
	2016	11569	1198	56	5	36
	2017	12637	1256	63	5	38
	2018	13106	1287	58	5	38
	2019	13300	1299	60	6	38

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Appendix 1 A.A.A - Guava

Commodity	Year	Production (in '000 MT)		Exports (in '000 MT)		
		India	Maharashtra	India	Maharashtra	Potential for export
Guava	2007	1981	251	240	67	7
	2008	2270	257	282	63	7
	2009	2572	258	268	51	6
	2010	2462	311	183	48	8
	2011	2510	322	229	61	8
	2012	3198	305	215	36	8
	2013	3668	324	264	38	8
	2014	3645	344	226	33	8
	2015	3912	358	217	29	9
	2016	4216	370	224	25	9
	2017	4589	375	239	20	9
	2018	4893	389	231	13	9
	2019	5088	406	230	11	10

Appendix 1 A.A.A - Other fresh vegetables

Quantity exported (in MT)		
Commodity	Year	
Other fresh vegetables	2007	34875
	2008	46539
	2009	45318
	2010	37070
	2011	41361
	2012	42212
	2013	40406
	2014	41680
	2015	39332
	2016	39670
	2017	40706
	2018	39606
	2019	39198

Appendix 1 A.A.A - Poultry Products

		Production
Commodity	Year	
Buffalo meat		
	2008	98
	2009	99
	2010	99
	2011	92
	2012	52
Eggs (in lakh numbers)		
	2008	35502
	2009	38640
	2010	42245
	2011	43861
	2012	45661
		35502

Appendix 1 A.A - *Gujarat*

Appendix 1 A.A.B - Banana

Commodity	Year	Production (in '000 MT)		Exports (in '000 MT)		
		India	Gujarat	India	Gujarat	Potential for export
Banana	2007	23823	3158	17	3	109
	2008	26217	3572	30	5	124
	2009	26470	3780	54	11	130
	2010	29780	3978	61	11	137
	2011	28455	4048	41	8	140
	2012	26509	4523	54	13	157
	2013	29725	4225	28	6	146
	2014	30179	4666	50	11	161
	2015	30352	4787	46	11	166
	2016	30741	4940	39	10	171
	2017	30869	5097	37	10	176
	2018	31880	5261	39	10	182
	2019	32746	5390	36	10	187

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Appendix 1 A.A.B - Onion

Commodity	Year	Production (in '000 MT)		Exports (in '000 MT)		Potential for export
		India	Gujarat	India	Gujarat	
Onion	2007	13900	2238	899	186	70
	2008	13565	1410	1547	214	39
	2009	12158.8	1079	1812	232	21
	2010	15118	1514	1241	187	37
	2011	17511.1	1562	1110	135	38
	2012	16813	704	1528	93	6
	2013	19402	1851	1477	197	48
	2014	19546	1181	1515	134	21
	2015	21177	1336	1393	112	26
	2016	22789	1375	1390	98	27
	2017	23633	1305	1522	97	23
	2018	24709	1338	1544	97	23
	2019	26209	1442	1484	86	26

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Appendix 1 A.A.B - Citrus

Commodity	Year	Production (in '000 MT)		Exports (in '000 MT)		Potential for export
		India	Gujarat	India	Gujarat	
Citrus	2007	8015	360	51	3	10
	2008	8608	350	67	4	10
	2009	9638	386	57	3	11
	2010	7464	409	20	2	12
	2011	7922	425	59	5	12
	2012	10090	433	53	3	13
	2013	11147	449	58	4	13
	2014	10504	469	51	4	14
	2015	10958	490	51	4	15
	2016	11569	503	56	5	15
	2017	12637	518	63	5	15
	2018	13106	535	57	5	16
	2019	13300	553	59	5	17

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Appendix 1 A.A.B - Papaya

Commodity	Year	Production (in '000 MT)		Exports (in '000 MT)		Potential for export
		India	Gujarat	India	Gujarat	
Papaya	2007	2909	489	12	3	17
	2008	3629	722	14	18	24
	2009	3914	833	18	5	28
	2010	4196	974	3	1	32
	2011	4457	1061	19	6	35
	2012	5382	1189	19	5	40
	2013	5639	1185	11	3	40
	2014	6052	1387	15	3	46
	2015	6453	1467	15	0	49
	2016	6944	1564	15	1	52
	2017	7433	1658	17	0	55
	2018	7889	1762	15	-2	59
	2019	8256	1864	16	-2	62

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Appendix 1 A.A.B - Brinjal

Commodity	Year	Production (in '000 MT)		Exports (in '000 MT)		
		India	Gujarat	India	Gujarat	Potential for export
Brinjal	2007	9678	988	0.604324	81	24760
	2008	10378	1046	0.031791	4	26640
	2009	10563	1144	0.056268	8	25753
	2010	11896	1236	0.028717	6	28743
	2011	12634	1271	0.165604	23	29693
	2012	13444	1341	0.27492	39	31896
	2013	13558	1477	0.125569	21	36400
	2014	14570	1527	0.063789	12	36179
	2015	15308	1608	0.175351	28	38338
	2016	16069	1683	0.182511	29	40906
	2017	16639	1763	0.183743	30	42888
	2018	17320	1852	0.155838	27	45121
	2019	18028	1930	0.148507	27	47015

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Appendix 1 A.A.B - Potato

Commodity	Year	Production (in '000 MT)		Exports (in '000 MT)		Potential for export
		India	Gujarat	India	Gujarat	
Potato	2007	34658	1494	88	5	35
	2008	34391	1449	171	9	33
	2009	36577	1657	80	4	30
	2010	42339	1882	70	4	37
	2011	41483	2395	211	60	55
	2012	45344	2500	113	8	58
	2013	41555	2267	164	11	49
	2014	46264	2686	163	25	60
	2015	48076	2912	165	26	66
	2016	49151	3078	195	28	72
	2017	49822	3219	202	26	75
	2018	51550	3333	193	20	77
	2019	52829	3541	220	30	82

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Appendix 1 A.A.B - Other fresh vegetables

Commodity	Year	Production (in '000 MT)		Exports (in '000 MT)		Potential for export
		India	Gujarat	India	Gujarat	
Cabbage	2007	5910	396	0.259285	38	8
	2008	6870	405	1.228016	106	8
	2009	7281.4	474	1.498924	147	5
	2010	7949	554	0.069429	10	8
	2011	8412	561	0.438954	47	8
	2012	8534	664	0.770629	94	11
	2013	9039	661	0.067769	8	11
	2014	9692	731	0.254816	34	11
	2015	10049	787	-0.10745	5	13
	2016	10482	832	-0.26092	-10	14
	2017	10884	878	-0.19521	-2	15
	2018	11345	933	-0.45318	-26	16
	2019	11848	976	-0.66238	-46	16

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Quantity exported (in MT)		
Commodity	Year	
Other fresh vegetables - Gujarat	2007	98
	2008	98
	2009	102
	2010	35
	2011	225
	2012	246
	2013	101
	2014	191
	2015	212
	2016	233
	2017	251
	2018	232
	2019	252

Appendix 1 B - List of Warehouses

Appendix 1 B.B - List of Pack houses

Appendix 1 B.B.A - List of Pack houses in Maharashtra

Sno.	District	Name of the Pack house	Contact details	
			Phone number	E-mail
1	Pune	M/s. Abhinav Draksha Utpadak Sahakari Sanstha Maryadit Agar, Tal : Junnar, Dist. Pune 410502, Maharashtra	02132 - 222585	abhinavgrapes@vsnl.net
2	Pune	M/s. Poona Grape Growers Co-op Society Ltd. At Post Bhandgaon Urli kanchan Tal Dound Dist Pune Maharashtra	02119-274541	freshpro@vsnl.com
3	Pune	M/s. IFC Overseas Gat No. 26/2 At Bhorwadi Tal. Junnar, Dist. Pune		
4	Pune	M/s. Bafna Exports Plot no. 32, Market Yard, Gultekdi, Pune 411 037		

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name of the Pack house	Contact details	
			Phone number	E-mail
5	Pune	M/s. Maharashtra State Agricultural (Baramati) Marketing Board, Plot No. R-7, Market Yard, Gultekadi, Pune 411 037 Maharashtra		
6	Pune	M/s. Maharashtra State Agricultural (Ratnagiri) Marketing Board, Plot No. R-7, Market Yard, Gultekadi, Pune 411 037 Maharashtra		
7	Pune	M/s. Maharashtra State Agricultural (Sindhudurg) Marketing Board, Plot No. R-7, Market Yard, Gultekadi, Pune 411 037 Maharashtra		
8	Pune	M/s. Maharashtra State Agricultural Marketing Board, (Vashi) Plot No. R-7, Market Yard, Gultekadi, Pune 411 037 Maharashtra		

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name of the Pack house	Contact details	
			Phone number	E-mail
9	Pune	M/s. Maharashtra State Agricultural (Latur) Marketing Board, Plot No. R-7, Market Yard, Gultekadi, Pune 411 037 Maharashtra		
10	Nashik	M/s. Lusi's Grapes Pvt. Ltd. At. Post Kothure Tal. Niphad, Dist. Nashik Maharashtra	02550-565536	lusisgrapes@rediffmail.com
11	Nashik	M/s. Trimbakbahu Boraste Cold Storage Gat No. 87/1B/2/2, At Post Sakore (MIG), Tal. Niphad, Dist. Nashik 422 209		
12	Nashik	M/s. Arvind Ranganth Kadam Gat. No. 247, At Post Korate, Tal. Dindori, Dist. Nashik 422 202		
13	Nashik	M/s. Balasaheb Sampatrao Kadam, Gat No. 162, At Post Korate, Tal. Dindori, Dist. Nashik 422 202 Maharashtra		

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name of the Pack house	Contact details	
			Phone number	E-mail
14	Nashik	M/s. Seven Star Fruits Pvt. Ltd. Gat No. 454, Pimpalgaon Vani Road Pimpalgaon Baswant Nashik Maharashtra	02550-251254	7starfruits@satyam.net.in
15	Nashik	M/s. Parik Grapes Gat No. 107 At Post Dahegaon(Vahegaon) Tal Niphad Dist. Nashik 422 305 Maharashtra	02550-261260	parikgrapes@yahoo.co.in
16	Nashik	M/s. Kalya Exports Gat. No. 156 At Jaulke Dindori, Mumbai Agra Road, Tal. Dindori, Dist. Nashik Maharashtra	02557-279254	kalyaexports@yahoo.co.in
17	Nashik	M/s. Mogal Agro Co. Pvt. Ltd. Gat No. 642 At Post Kasbe Sukene Tal. Niphad, Dist. Nashik 422 302 Maharashtra	02550-279370	mogalagro@sancharnet.in
18	Nashik	M/s. Sushil Grapes Exports Co. Gat No. 298 Kothure, Tal. Niphad Dist: Nashik Maharashtra	02550-241476	bhaleraoagro@rediffmail.com

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name of the Pack house	Contact details	
			Phone number	E-mail
19	Nashik	M/s. Saraswati Farms Gat No.35, At Post Sakore (MIG) Tal: Niphad Dist: Nashik 422 209 Maharashtra	02550 - 258536	dattuboraste@hotmail.com
20	Nashik	M/s. Saco Fruits Gat No. 358 At Post Sakore (MIG) Tal: Niphad, Dist: Nashik 422 209 Maharashtra	02550 - 258521	Sacof_nsk@sancharnet.in
21	Nashik	M/s. Krishirath Farm Gat No. 2403 At Post Ojhar (MIG) Tal: Niphad, Dist: Nashik 422 206 Maharashtra	02550-275500	magprakash@rediffmail.com
22	Nashik	M/s. Vegetable & Fruit Co-op. Marketing Society Ltd. Gat No. 90, Vinchur Road At Post: Lasalgaon Tal: Niphad, Dist: Nashik 422 306 Maharashtra	02550-266466	vefco@vsnl.net
23	Nashik	M/s. Canal Bagaitdar Sahakari Sangh Ltd. Gat No. 2404 At Post: Ozar(MIG) Tal: Niphad, Dist: Nashik 422 206 Maharashtra	02550-250953	canalbssld@rediffmail.com

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name of the Pack house	Contact details	
			Phone number	E-mail
24	Nashik	M/s. Gulabrao Gangadhar Patil Gat No. 737 At Post Khedgaon Tal. Dindori, Dist. Nashik 422 205 Maharashtra	02557-235679	info@ndwine.com
25	Nashik	M/s. Leading Agro Exports S. No. : 821, Near Nashik Sugar Factory At Post Vadgaon (P), Tal. Sinnar, Dist. Nashik, Maharashtra	0253-5664326	vilasdhurjad@yahoo.co.in
26	Nashik	M/s. Euro Fruits Pvt. Ltd. Gat No. 1031, Vadner Bhairav Road, Shirwade Pahta, 10 KM from Pimpalgaon Baswant, Taluka Chandwad NH 3 District Nashik 423 111 Maharashtra		
27	Nashik	M/s.Kshirsagar Agro Exports At. Shivadi Post Ugaon Tal. Niphad Nashik - 422 304 Maharashtra		kshirsagaragro@yahoo.com
28	Nashik	M/s. Gangotri Agro Exports At Post Dawachwadi Tal. Niphad Dist. Nashik Maharashtra		

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name of the Pack house	Contact details	
			Phone number	E-mail
29	Nashik	M/s. Shriram Grape Growers Co-op Society Ltd. Pimpalgaon (Baswant) Tal : Niphad Dist: Nashik Maharashtra	02550-251083	freshpro@vsnl.com
30	Nashik	Mr. Madhukar Kondaji Gaikwad M/s. B. K. Exports At Post Palkhed Tal Dindori Dist Nashik Maharashtra	9823411450/9326936567	bkexports@rediffmail.com
31	Nashik	M/s. Freshtrop Fruits Ltd. Gat No. 171 Village Jaulke Bombay Agra Road Post Box No. 1, Post Ozar Dist: Nashik 422 207, Maharashtra	02557-279172	info@freshtrop.com
32	Nashik	M/s. Kakrale Shriram Namdeo Gat No. 481, AT Post Palkhed Bandhara, Tal. Dindori, Dist. Nashik 422 202 Maharashtra		
33	Nashik	M/s.Holly Agro Chem Pvt. Ltd. Gat No 70 At Post Sakore(Mig) Tal Niphad, Dist Nashik Maharashtra		hollyagrochem@rediffmail.com

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name of the Pack house	Contact details	
			Phone number	E-mail
34	Nashik	M/s.Bhosale Agro Exports Lakshatara At Saroala Post Vansgaon Tal Niphad, Dist Nashik Maharashtra		bhosaleagroexports28@rediffmail.com
35	Nashik	M/s. Saheb Rao Vishnu Gaikwad Gat No. 294, At Post Khadak Sukene, Tal. Dindori Dist. Nashik Maharashtra	02557-270900	
36	Nashik	M/s. Nandadeep Exports Gat No. 128 At Post Pimpalgaon Ketki Tal. Dindori, Dist. Nashik 422 202 Maharashtra	02557-221008	
37	Nashik	M/s. Vilas Vishnu Shinde Gat No. 1102/8 At Post Adgaon Tal. & Dist. Nashik 422 003 Maharashtra		shinde1@rediffmail.com
38	Nashik	M/s Mahesh Export At Post Golegaon Tal. Niphad, Dist. Nashik		
39	Nashik	M/s. Vijayshree Exports Gat No 87, Railway Station Road, Ugaon at Shivdi Post Ugaon Pin 422034	02550 244207	vijayshreeexports@rediffmail.com

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name of the Pack house	Contact details	
			Phone number	E-mail
40	Nashik	M/s. Bhalerao Cold Store Kokangaon, Tal. Niphad Dist. Nashik Maharashtra	02550-241476	bhaleraoagro@rediffmail.com
41	Nashik	M/s. Shiv Prasad Agro Exports A/P Kakasaheb Nagar Tal. Niphad Nashik, Maharashtra	02550-257827	shivprasadagroexports@yahoo.com
42	Nashik	M/s. Yogdhara Agro Exports Matori Nashik Maharashtra	0253-2212569	yogdhara@indiatimes.com
43	Nashik	M/s. Rajhans Agro Exports Pvt. Ltd Sakore (MIG) Niphad, Nashik Maharashtra.		
44	Nashik	M/s. Indo Global Fresh Fruit Services A/P Mungsare Tal. & Dist. Nashik Maharashtra		
45	Nashik	M/s. Trimurti Grapes Exports Gat No.2451/A Near Mumbai Agra Highway Ozar (MIG), Tal. Niphad Nashik Maharashtra	2550329299	trikailas@rediffmail.com
46	Nashik	M/as. Hill Green Agro Exports Gat No. 264/A, Post Awankhed, Tal. Dindori, Dist. Nashik 422 202		

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name of the Pack house	Contact details	
			Phone number	E-mail
47	Nashik	M/s. Boraste Agro Industries Pvt. Ltd. Gat No. 87/1 B/2/2 At Post Sakore (MIG), Tal. Niphad Dist. Nashik, Maharashtra	02550 250340	borastee@sancharnet.in
48	Nashik	M/s. Lt. Ashokrao Bankar Nagri Sah. Pathsanstha Maryadit Gat No. 164/165 Behed Village, Tal. Niphad Dist. Nashik 422 209	02550-251932	
49	Nashik	M/s. Fresh Express Logistics Pvt. Ltd Village Jaulke Tal. Dindori Dist. Nashik Maharashtra	9370625246	ranjeet.patil@freshexpressindia.com
50	Nashik	M/s. P. P. F. Export Gat No. 62/2, At Vishnunagar Post Vinchur, Tal. Niphad Dist. Nashik Maharashtra	02550-248474	ppfexports_2005@rediffmail.com
51	Nashik	M/s. Atharva International Gat No. 599/1/1, Janori Road 10th Mill, At Post Dindori Nashik, Maharashtra		
52	Nashik	M/s. Amaya Food Pvt. Ltd. Gat No. 77, 78 & 86 Village Shiras Gaon Tal. Niphad, Dist. Nashik Maharashtra		

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name of the Pack house	Contact details	
			Phone number	E-mail
53	Nashik	M/s. Indyglobal Ventures Gat No. 470/2/1 Palkhed Bandhara Tal. Dindori, Dist. Nashik 422 202 Maharashtra		
54	Nashik	M/s. Satyabhama Exports Gat No. 81/1B/2/2 At Post Sakore (MIG) Tal. Niphad Dist. Nashik 422 209 Maharashtra		
55	Nashik	M/s. Samarth Agro Exports Gat No. 492/1, A Post Tisgaon Tal. Dindori Dist. Nasik 422 202 Maharashtra		
56	Nashik	M/s. Samarth Agro Exports Gat No. 492/1, A Post Tisgaon Tal. Dindori Dist. Nasik 422 202 Maharashtra		
57	Nashik	M/s. Vaarad Cold Storage Gat No. 81/1B/1/1A/2/3 Konkangaon Sakora Road. At Post Sakore (Mig) Tal. Niphad, Dist. Nashik 422 209		

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name of the Pack house	Contact details	
			Phone number	E-mail
58	Nashik	M/s. K.S. Exports Gat No. 638 At P O Khedgaon Tal. Dindori, Dist. Nashik 422 205 Maharashtra		
59	Nashik	M/s. Eknath Agro Exports At Post Mohadi, Taluka Dindori, Dist. Nashik 422 206		
60	Nashik	M/s. Kshirsagar Cold Storage Gat No. 434-A, At Post Kokangaon, Tal. Niphad, Dist. Nashik		
61	Nashik	M/s. Sarveshwari Village Industries 192/10, Pachora Vani, Taluka Niphad, Dist Nashik		
62	Nashik	M/s. Kanchan Cold Storage Gat No. 81/1B/1/1A/2/3 Konkangaon Sakora Road. At Post Sakore (Mig) Tal. Niphad, Dist. Nashik 422 209		
63	Nashik	M/s. Yash Agro Exports Krupa Prasad, At. Post Sakore (MIG), Tal. Niphad, Dist. Nashik 422 209		

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name of the Pack house	Contact details	
			Phone number	E-mail
64	Nashik	M/s. Om Agro Exports Krupa Prasad, At. Post Sakora Tal. Niphad Dist. Nashik 422 209		
65	Nashik	M/s. N D Exports Gat No. 99, At Gondegaon, Post Jaulke Vani, Tal. Dindori, Dist. Nashik 422 209		
66	Nashik	M/s. Namdhari Farm Fresh Pvt. Ltd. Gat No. 1398, At Post Sayyed Pimpri, Near Bafna Warehouse, 9th Mile, Opp. Ambehill, Mumbai-Agra Highway, Tal and Dist. Nashik 422 003 Maharashtra	8888837014	nilesh@namdharifresh.com
67	Nashik	M/s. Sharmik Fruits Gat No. 681/A, A/P Pimpalgaon (B) Tal. Niphad, Dist. Nashik 422 209		
68	Nashik	M/s. Farm Fresh Exports 5, Charudatta Chambers, Kanherewadi, Nashik 422 001		
69	Nashik	M/s. Pragati Irrigation Systems Pvt. Ltd. Pimpalgaon (B) Nashik 422 209		

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name of the Pack house	Contact details	
			Phone number	E-mail
70	Nashik	M/s. Saptashrunji Exports India Pvt. Ltd. Gate No. 223, A/P Pachore Vani, Tal. Niphad, Dist. Nashik 422 209 Maharashtra		
71	Nashik	M/s. Ramsons Exports 1045, Shivaji Nagar, Pimpalgaon Baswant Tal. Niphad, Dist. Nashik 422 209		
72	Nashik	M/s. Shree Ganesh Cold Storage At. Shivadi, Post Udgaon, Tal. Niphad, Dist. Nashik 422 304 Maharashtra		
73	Nashik	M/s. Anirudha Marketing Services Gat No. 87/1B/2/2 Sakore, Tal. Niphad Dist. Nashik Maharashtra		
74	Nashik	M/s. Ajinkya Agro Exports Gat No. 54, At Post Tisgaon, Tal. Dindori, Dist. Nashik 422 205		

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name of the Pack house	Contact details	
			Phone number	E-mail
75	Nashik	M/s. Swanand Agro Processing Industries S.No. 2/3 At Post Khadak Malegaon Tal. Niphad Dist. Nasik 422 304 Maharashtra		
76	Nashik	M/s. Chaitanya Agro Processing Industries S.No. 2/3 At Post Khadak Malegaon Tal. Niphad Dist. Nasik 422 301 Maharashtra		
77	Nashik	M/s. Sunrise Agro Exports Gat No. 181, At Post Umbrale (BK), Tal. Dindori, Dist. Nashik 422 202		
78	Nashik	M/s. Jijamata Agro Exports Gat No. 108-A, Jawulke Dindori, Tal. Dindori, Dist. Nashik 422 202		
79	Nashik	M/s. Bhalerao Agro Porcessing Industries Gat No. 298/2B, At Post Kothure, Tal. Niphad, Dist. Nashik Maharashtra		
80	Nashik	M/s. Prince Agro Exports Gat No. 29, Sakore (MIG) Tal. Niphad, Dist. Nashik 422 209		

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name of the Pack house	Contact details	
			Phone number	E-mail
81	Nashik	M/s. Panacea Exim Gat No. 392/1, Palkhed Bhandara, Tal. Dindori, Dist Nashik 400 202		
82	Nashik	M/s. Varad Vinayak Export Pvt. Ltd. Gat No. 1272/1273, Mohadi-Janori Road, Near Mahadev Mandir, A.P. Mohad. Tal. Dindori, Dist. Nashik 422 206		
83	Nashik	M/s. Arya Farm Exports Gat No. 545, Khedgaon Tal. Dindori, Dist. Nashik 422 405		
84	Nashik	M/s. Shree Vardhaman Cold Storage Survey No. 676, Pimpalgaon Vani Road, Pimpalgaon MIDC, Pimpalgaon Baswant, Tal. Niphad, Dist. Nashik 422 209		
85	Nashik	M/s. Empire Exports 5, Omkar Appt., Adwait Colony, Vise Mala, Canada Corner, Nashik 422 005	09921810604, 09552786277	svkamod@gmail.com
86	Nashik	M/s. Halcon Air & Sea Cargo Complex, Janori Village, Dindori Taluka, Dist Nashik 422 206	02557-275296	ceo.halcon.nasik@gmail.com

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name of the Pack house	Contact details	
			Phone number	E-mail
87	Nashik	M/s. Roshni Agro Exports Gat No. 114/2, AP Makhamalabad, Tal. Niphad, Dist. Nashik 422 003		
88	Nashik	M/s. Al Sana Agro Gat No. 807, A/P Ozar(Mig), Tal. Niphad, Dist Nashik 422 206		
89	Nashik	M/s. M/s. Sadguru Agro Processing Industries Pvt. Ltd. At & Post Khadakmalegaon, Taluka Niphad Dist Nashik 422 303		
90	Nashik	M/s. Kalyani Impex Gat No. 214, Pimpalgaon-Niphad Road, At Post Lonwade, Tal. Niphad, Dist. Nashik 422 209	9881190529	Kailas_patel@rediffmail.com
91	Nashik	M/s. Sahyadri Farmers Producer Company Ltd. Gat No. 314/2/1, At Post Mohadi, Tal. Dindori, Dist. Nashik 422 205	9850507937	shinde1@hotmail.com
92	Nashik	M/s. S.K. Exports Gat No. 481, A/P Palkhed Bandhara, Tal. Dindori, Dist. Nashik 422 202	9850946425	skxprts@rediffmail.com

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name of the Pack house	Contact details	
			Phone number	E-mail
93	Nashik	M/s. Fresh Agro Exports Gat No. 526/27, Near Water Supply, Sakore Mig Tal. Nihad, Dist. Nashik 422 203		freshagro.5@gmail.com
94	Sangali	M/s. Santosh Exports Yogewadi Tal. Tasgaon Dist. Sangali Maharashtra	02346-265095/265209	santexpo80@hotmail.com
95	Sangali	M/s. Fresh Express Logistics Pvt. Lt. Plot No. B-III MIDC, Miraj. Dist. Sangli 416410		
96	Sangali	M/s. Bhilawadi Grapes Grower Co-op Society Ltd. At Post Bhilawadi Tal Palus Dist Sangli Maharashtra Mr. Chitale Kaka	02346 237444	
97	Sangali	M/s. Chaitanya Grape Growers Co-op Society Ltd. MIDC, Palus 416 310 Dist: Sangali Maharashtra	02346-226197	freshpro@vsnl.com

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name of the Pack house	Contact details	
			Phone number	E-mail
98	Sangali	M/s. Shrinath Grape Growers Co-op Society Ltd. At. Post Gardi Near Vita, Tal. Khanpur Dist Sangli Maharashtra	02347 258333	
99	Sangali	M/s. Farmsons Farming Pvt. Ltd. Gat No 1724-B At post Kavate Ekhand Tal. Tasgaon, Dist. Sangli Maharashtra	02346-264444	farmsons@vsnl.net
100	Sangali	M/s. Freshtrop Fruits Ltd. Survey No 1366 Savlaj Wayfale Road Sidhewadi, Post Savlej Tal. Tasgaon Sangli 416 311, Maharashtra	02346-254871/2/3	info@freshtrop.com
101	Sangali	M/s. Kamadhenu Grape Growers Co-op Society Ltd. Manjerajuri Tal Tasgaon Dist Sangli Maharashtra	02346-265105	freshpro@vsnl.com
102	Sangali	M/s. Shri Chaman Grape Growers Co-op Society Ltd. At Post Nimani Tal. Tasgaon Dist. Sangli Maharashtra	02346 239091	

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name of the Pack house	Contact details	
			Phone number	E-mail
103	Sangali	M/s. Shri Khanderaya Grape Growers Co-op Society Ltd. Manjrde Road At Post Walyphali 416 312 Tal. Tasgaon Dist. Sangli Maharashtra		
104	Sangali	M/s. Yelavi Grape Growers Co-op Society Ltd. At Post Yelavi Tal Tasgaon(Palus) Dist Sangli Maharashtra	02326-239664	
105	Sangali	M/s. Shri Siddheshwar Grape Growers Coop Society Savlaj, Tal Tasgaon Dist. Sangli Maharashtra	02346-254068	freshpro@vsnl.com
106	Sangali	M/s. Vasant Dada Patil Grape Growers Coop. At Post Anjani Tal. Tasgaon Dist. Sangli Maharashtra		
107	Sangali	M/s. Euro Grapes Pvt. Ltd. Gat No. 176, Village Karve, Taluka Khanapur Dist. Sangli 415 311	098 200 33751	eurograpes@gmail.com

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name of the Pack house	Contact details	
			Phone number	E-mail
108	Sangali	Shri Shivshakti Grape Growers Co-op Society Gat No. 420/1 Savlaj Tal. Tasgaon Dist. Sangli 416 311	02346-254055	
109	Sangali	M/s. C. B. Agro Exports MIDC, Jeth Dist. Sangli Maharashtra		
110	Sangali	M/s. APA Cold Storage & Exports Pvt. Ltd. B-13, MIDC, Jath, Dist. Sangli Maharashtra		
111	Sangali	M/s. Chand Fruit Company Pvt. Ltd. Bagwan Agriculture Farm, Takli Road, Miraj 416 410 Dist. Sangli Maharashtra		
112	Sangali	M/s. Srushti Agro Exports Plot No. C-8, Additional Kadegaon-Shivajinagar, Industrial Area, Kodegaon , Dist Sangli 415 304 Maharashtra	02347-242677	srushtiagroexports@yahoo.com
113	Latur	M/s. Earthmade Agro Exports Survey No. 192 Ausa, Umarga Road, Ausa Latur Maharashtra	02383-222355	earthmade@rediffmail.com

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name of the Pack house	Contact details	
			Phone number	E-mail
114	Latur	M/s. Panacea Energizers Pvt. Ltd. Unit No. G- 49/52MIDC Opp. Tina Oil Mill Latur 413534 Maharashtra	02382-223133	panacea@bom3.vsnl.net.in paresh@panaceaexim.com
115	Latur	M/s. Nature Wealth Agro Exports Pvt. Ltd. S.No. 90, At Post Budhoda, Tq. Ausa, Dist. Latur 413 532		
116	Latur	M/s. Krishi Vikas Exports Gat No. 241, At Post Talani (Moh.) Ral. Renapur Dist. Latur Maharashtra	9422469106	kvexports2004@yahoo.co.in
117	Latur	M/s. Omauli Agro Exports Gat No. 289, At Ashta Tal. Chakur, Dist. Latur Maharashtra	02381-256525	hariomagroexports@rediffmail.com
118	Latur	M/s. R P Agro Exports Gat No. 289, At Post Astha, Tal Chakur, Dist. Latur 413 531 Maharashtra		
119	Ahmednagar	M/s. Saibaba Grape Growers Co-op Society Sakuri Tal Rahata Kopargaon Ahmednagar	02423-245083	freshpro@vsnl.com

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name of the Pack house	Contact details	
			Phone number	E-mail
120	Osmanabad	M/s. Shri Khandoba Panan Sahakari Sanstha Ltd Tal Tujiapur Dist Osmanabad Maharashtra	02471-246168	freshpro@vsnl.com
121	Osmanabad	M/s. Bhagwati Agro Exports At Amrutwadi, Tal Tuljapur 413501 Dist. Osmanabad On Barshi Road, Maharashtra		
122	Solapur	M/s. Navjivan Pre Cooling & Export Pvt. Ltd. Gat NO. 671, Satara Road At Post Vakhari Tal. Pandharpur - 413 304 Dist. Solapur		
123	Satara	M/s. Sahyadari Agro Exports At Post Nimsod Tal. Khatav District Satara Maharashtra		
124	Satara	M/s. Kay Bee Exports At Post Saste Wadi Taluka Phaltan, District Satara Maharashtra		

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name of the Pack house	Contact details	
			Phone number	E-mail
125	Satara	M/s. Vaish Vik Foods Pvt. Ltd. Gat Nos. 340/341, At Post Wing, Taluka Khandala, Dist. Satara 412 801	020-24390700	info@eatwell.co.in
126	Mumbai	M/s. Sachi Exports (India) 25, Hindustan Kohinoor Industrial Complex, Opp. Vikhroli Telephone Exchange, L.B.S. Marg, Vikhroli (W), Mumbai 400 083		
127	Mumbai	M/s. Kay Bee Exports (ahmednagar) 606, Dev Corpora, Opp. Cadbury Co. Eastern Express Highway, Khopat, Thane (W) Mumbai 400 602		
128	Navi Mumbai	M/s. Savla Foods & Cold Storage Pvt. Ltd. D-39, TTC Ind Area, MIDC, Turbhe, Navi Mumbai 400 703		
129	Navi Mumbai	M/s. Ruchi Exports 11/20, Krishi Ind. Estate, Plot No. D1/D2, TC Ind Area, Turbhe Navi Mumbai - 400 705	022-27840220	ruche_expo@yahoo.com
130	Navi Mumbai	Kay Bee Exports Gala No. 41, Auxilary Building,	022-25376610, 41259800	ashvina1@ashvinatrading.com

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name of the Pack house	Contact details	
			Phone number	E-mail
		APMC Fruit Market, Turbhe, Vashi, Navi Mumbai 400 705		
131	Navi Mumbai	M/s. Ashvina Trading Co. Godown No. 5, Exporters Bulding APMC Vegetables Market, Turbhe, Navi Mumbai 400 705	022-28876658	
132	Jalana	M/s. Maharashtra State Agricultural Marketing Board, (vashi) Agriculture Produce Market Committee Premisses Jalana Ta. & Dist. Jalana Maharashtra		

Appendix 1 B.B.A - List of Pack houses in Gujarat

Sno.	District	Name of the Packhouse	Contact details	
			Phone number	E-mail
1	Navsari	M/s. Desai Cold Storage Pvt. Ltd Block No. 49 At Post Amadpore, NH-8 Tal. & Dist. Navsari Gujarat	02637-281547, 281548	info@desaifv.com
2	Ahmedabad	M/s. Gujarat Agro Industries Corporation Plot No. 351-352 P, Behind Hitendra Nagar Vashahat Diamond Park, Nana Chilloda,	079-27544741-42, 27543743	abhayjain21@hotmail.com

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name of the Packhouse	Contact details Phone number	E-mail
		Naroda, Ahmedabad – 382340		
3	Sabarkhantha	M/s Asian Granito India Ltd., Block No. 533, Dalpur, Tal Prantij, Dist. Sabarkhantha 383120 Gujarat	02770-240683/84/97	salesagro@aglasiangranito.com
4	Sabarkantha	Trinity Herbo Tech Varovav (Mudeti) TAL. Idar Dist Sabarkantha 383450	02778-260900	trinityherbotech@gmail.com

Appendix 1 B.B - *List of Cold storages*

Appendix 1 B.B.B - *List of cold storages in Maharashtra*

Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
1	Ahmednagar	GOVERNMENT MILK SCHEME, Display memory No. 10-B/2, PO MIDC, Dist. Ahmednagar	32	Public	Dairy Products
2	Ahmednagar	PUSPHA MOTI COLD STORAGE, 2988, Ganj Bazar, Ahmednagar – 414 001	678	Private	Multipurpose
3	Ahmednagar	SAIBABA GRAPES GROWERS CO-OP SOCIETY LTD., Sakari, Ta. Kopargaon, Ahmednagar	203	Cooperative	Fruits and Vegetables
4	Ahmednagar	AGRI TECH. HATCHENIES Ahmednagar.	1241	Private	Meat

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
5	Ahmednagar	PRAVA SAHAKARI OODHSANGH LTD,Tal. SrinampurAhmednagar – 413737.	18	Cooperative	Dairy Products
6	Ahmednagar	SANGMA TALUKA DUDH CO-OP. SOCIETY LTD.Ahmednagar	20	Cooperative	Dairy Products
7	Ahmednagar	MEGHNAND COLD STORAGE (P) LTDMIDC. Ahmednagar	1680	Private	Multipurpose
8	Ahmednagar	DHYAANSHWAR PHULE BHYPAK SAHAKARI KHARADI KIKRISANSHTHA LTD,Post Bhande, Dakhar, Karkhana,Ta. Newasa Dist. Ahmednagar	187	Cooperative	Fruits and Vegetables
9	Ahmednagar	WESTERN FRUITS.B –2, MIDC, Ahmednagar	253	Cooperative	Fruits and Vegetables
10	Ahmednagar	SAHIB ENTERPRISES, A/14/1, MLI.D.C., Nimbalk,Ahmednagar	6250	Private	Multipurpose
11	Ahmednagar	MAULI COLD STORAGE (M.I.D.C.), Ahmednagar	1381	Private	Multipurpose
12	Ahmednagar	GUGLE COLD STORAGEShendi, Ahmednagar	1263	Private	Multipurpose
13	Akola	AKOLA COLD STORAGE & ICE FACTORY,Jatharpal, Akola	592	Private	Potatoes
14	Akola	DAIRY MANAGER,Government Milk SchemeMurtijapu Road,N.H. 6, Akola –440 001	69	Public	Dairy Products
15	Akola	CITRUS KING MANDARIAN ORANGES PVT. LTDTal. Wared, Akola	197	Private	Fruits and Vegetables

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
16	Amravati	LADDA KRISHI PVT. LTD,College Road, Amravati	391	Private	Potatoes
17	Amravati	SHIV COLD STORAGE & ICE FACTORY,Industrial Estate, Amarvati. (MS)	298	Private	Multipurpose
18	Amravati	NARENDRA COLD STORAGE Dhabha, Amravati	5100		Multipurpose
19	Aurangabad	FRIGERIFICO ALLANA LTD.,Allana Marg, Allana House,Colaba, Bombay (CS at 12 K.MPaithan Road, Aurangabad	3503	Private	Meat
20	Aurangabad	GAYATRI COLD STORAGE & FROZEN FOODS,Plot No. 4/25, M.I.D.C. Walung,Aurangabad	40	Private	Dairy Products
21	Aurangabad	NARANG MOTELS P. LTD.,Prop. Ajanta Ambassador Hotel,R-4, R – 4A, MIDC Area,Chikalthana, Aurangabad	15	Private	Others
22	Aurangabad	THE MANAGER,Government Milk Supply Scheme, Aurangabad	79	Public	Dairy Products
23	Aurangabad	HORIZON COLD STORAGE,B –20, MIDC, Chikalthana,Aurangabad –431210	468	Private	Multipurpose
24	Aurangabad	SURICHI MAHILA GRIH,Udyog H5/36, MIDC,Aurangabad (M.S)	828	Private	Multipurpose
25	Aurangabad	TAJ CATERERS,Aurangabad	13	Private	Others

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
26	Aurangabad	MARATHWADA COLD STORAGE P LTD.Shivarai Village, Aurangabad	6300	Private	Multipurpose
27	Aurangabad	MULTILIZS.S. COLD STORAGE,G/No. 203, 204, P.O. Bitlkim,Aurangabad	3000	Private	Multipurpose
28	Beed	GOVERNMENT MILK SCHEME ,Beed	30	Public	Dairy Products
29	Bhandara	SHRI SANT RAM COLD STORAGE,Gondia, Bhandara	1005	Private	Potatoes
30	Bhandara	TUMSAR COLD STORAGE CORPON,Tumsar	453	Private	Potatoes
31	Bhandara	RATAN COLD STORAGE,17-18 Bhandara Ind. Co-op EstateN. H. Bhandara -441904.	877	Private	Multipurpose
32	Dhulia	DAIRY MANAGER,Govt. Milk Supply Scheme,Dhulia.	396	Public	Dairy Products
33	Dhulia	PRIYADARSHNI COLD STORAGE,Dt. Dhulia.	3232	Private	Multipurpose
34	Dhulia	ARMVEER GRAPE GOWESCO-op. KSociety Ltd,Sakari, Dhulia.	203	Cooperative	Grapes
35	Dhulia	K.S. WAREHOUSING,Corpon, Dondiache, Dhulia, (M.S)	5384	Private	Multipurpose
36	Dhulia	K.S. COLD STORAGE,Nandurbar, Dhulia Dist.	4032	Private	Multipurpose
37	Dhulia	DEESAN COLD STORAGE,M.I.D.C., Awadhav,Dhule.	5740	Private	Multipurpose
38	Dhulia	DHANALAXMI COLD STORAGE7/3,Hole Turbhe Haveli, Nandurbar	4000	Private	Multipurpose

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
39	Gondia	R.R. COLD STORAGE,Gram Ambore, Saori,Gondia Dist.	4000	Private	Multipurpose
40	Jalgaon	EVEREST COLD STORAGE P. LTD.,Bhavani Path, M.G. Road,,Jalgaon.	555	Private	Multipurpose
41	Jalgaon	SUDARSAN DAIRYChalisgon Jalgaon.	28	Private	Dairy Products
42	Jalgaon	SHREE BALAJI DAIRY FARMHirapur Road,Chalisgaon, Dist. Jalgaon	13	Private	Dairy Products
43	Jalgaon	HIM COLD STORAGE,MIDC, Jalagaon.	1243	Private	Multipurpose
44	Jalgaon	APNA BAZAR DAIRY & COLD STORAGE,Chalisgaon, Jalagaon	76	Cooperative	Dairy Products
45	Jalgaon	JAIN CHIQUITA FOOD (P) LTD.,Jalagaon	1776	Private	Fruits and Vegetables
46	Jalgaon	K.S. COLD STORAGE,M.I.D.C., Jalgaon	5100	Private	Multipurpose
47	Jalgaon	SHARMA COLD STORAGEShadana bhavan, Sharma Jeen,Raver,Jalagaon	73	Private	Dairy Products
48	Jalna	JALNA SEED PROCESSING & REFG.CO.,C-11, Industrial Area, Jalna	2565	Private	Multipurpose
49	Kolhapur	KOLHAPUR ZILLA SAHKARI DUDHUdpadok Sandh Ltd., 2104 – E,Poona Bangtlore Road,Kohlapur, - 416 03.	1323	Private	Dairy Products
50	Kolhapur	MEHTA DAIRIES,G-69, MIDC, Gokulshirgaon,Kolhapur	152	Private	Dairy Products

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
51	Kolhapur	SHREE WARANA SAHAKARI DUGDH UTPADAK PRAKRAYA SANGH LTD.,Amrutnagar, Waananagar, Kolapur	417	Cooperative	Dairy Products
52	Kolhapur	KOLHAPUR ICE & COLD STORAGE,Kolhapur	34	Private	Dairy Products
53	Kolhapur	DAIRY RICH FOODS,Gokul ShirgaonKochapur	16	Private	Dairy Products
54	Kolhapur	DINSHAW'S FOODS,Gokul Shirgaon, Kolhapur	41	Private	Dairy Products
55	Kolhapur	JAI MADA DI COLD STORAGEKolhapur.	2782	Private	Multipurpose
56	Kolhapur	MAYUR COLD STORAGE,Kolhapur	69	Private	Dairy Products
57	Latur	LATUR ZILLA DRAKSHAUpadak Sahakari,Sangh UrLatur	203	Cooperative	Grapes
58	Mumbai	ADARSH ICE & COLD STORAGE,Off. Marve Road, Malad (W),Bombay -400 064.	311	Private	Multipurpose
59	Mumbai	AHMED A. FAZALBHOY P. LTD.,(Cold Storage) "Sun Vila" No. 9 Dr. Annibesant Road,Worli, Bombay	1000	Private	Multipurpose
60	Mumbai	AHMED A. FAZALBHOY P. LTD.,Liberty Bldg., 41 -Marine Line,Bombay	20	Private	Meat
61	Mumbai	AIR INDIA CIVIL WORKS & PROPERTIES, Medicon Bhawan,Opp. Indian Oil, Sahar Airport,Andheri Bombay -99.	57	Public	Multipurpose
62	Mumbai	AIR INDIA INTERNATIONAL,Cargo Complex, Sagar,Bombay.	121	Public	Multipurpose

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
63	Mumbai	AMBASSADAR "SKY CHEF INTERNATIONAL AIRPORTS, Apprach Road, Sagar,Bombay	708	Private	Others
64	Mumbai	AMBICA ICE WORKS,35, C Jairajbhoy St.,Near Municipal Workshop,Bombay	90	Private	Multipurpose
65	Mumbai	AMERICAN DRY FRUIT STORAGE,44 -A, Cawasiji Patel St.,Fort, Bombay	129	Private	Multipurpose
66	Mumbai	AMRITLAL NAROTAMDAS MITHAIWALA,206 -208, Khetwadi Back Road,Bombay.	103	Private	Dairy Products
67	Mumbai	BOMBAY HOSPITAL TRUST,12 -New Marine Lines,Bombay	700	Private	Multipurpose
68	Mumbai	BYCULLA COLD STORAGE,Prem Estate Sant Savia Peth I,Sant Savata Marg,Majagaon, Bombay -10.	2604	Private	Multipurpose
69	Mumbai	CENTUR HOTEL,Bombay Airport, Bombay	92	Public	Others
70	Mumbai	CITY ICE SUPPLYING & COLD STORAGE,298 -Bazar Gate St.Fort, Bombay.	221	Private	Multipurpose
71	Mumbai	CREAM CENTRE ICE CREAM,Manufacturing Co., Udyog Bhawan 97 / B,Old Prabhadevi Road,Bombay -25.	18	Private	Dairy Products
72	Mumbai	DHANJIBHOY ICE FACTORY P. LTDMazagaon, 4 -Docyyard Road,Bombay.	501	Private	Meat

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
73	Mumbai	EAST INDIA HOTELS LTD.,Oberoi Flight Kitchen,Sagar Airport Road,Sahar, Bombay	270	Private	Others
74	Mumbai	ELEL HOTELS & INVESTMENT LTD., (Welcome Group Searock),Bandra, Bombay	29	Private	Others
75	Mumbai	FIROZ& CO.169 –170, BPT Building, Sasson Dock,Colaba, Bombay	216	Private	Marine Products
76	Mumbai	FOODS & INNS LTD,Sion –Trombay Road,Devnar, Chembur, Bombay	246	Private	Dairy Products
77	Mumbai	GREATER BOMBAY MILK SCHEME ,Central Dairy Arrey Milk Colony, Arrey Bombay.	467	Private	Dairy Products
78	Mumbai	GREATER BOMBAY MILK SCHEMECold Storage at Worli Dairy , Bombay	2252	Private	Dairy Products
79	Mumbai	GREATER BOMBAY MILK SCHEME Mother Dairy Kurla,Bombay	923	Private	Dairy Products
80	Mumbai	GREENFIELDS,2nd floor, Flat No. 32 Prem Milan BombayCS Army & Navy Bldg., Opp City civil Court HopeStreet Bombay	16	Private	Dairy Products
81	Mumbai	HARUMAL GANGARAM & CO.171 Samuel Street,Masjid Bunder,Bombay	68	Private	Multipurpose
82	Mumbai	HOLIDAY INN,Juhu Beach,Bombay	34	Private	Others

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
83	Mumbai	HOMILA ICE WORKS,35-C Jairajabhoy St.,Near Municipal Workshop,Bombay	37	Private	Meat
84	Mumbai	HOTEL CORP. OF INDIA LTD.,Near Sahar Airport,Bombay	338	Public	Others
85	Mumbai	HOTEL CORP. OF INDIA LTD.,Centaur Hotel, Juhu Beach,Juhu Tara Koau,Bombay –400 049.	111	Private	Others
86	Mumbai	HOTEL HORIZON PVT. LTD.,37, Juhu Beach,Bombay	13	Private	Others
87	Mumbai	HOTEL LEELA PENTALeela Lace complex Sir M.V. RoadAndheri (E), Bombay.	90	Private	Others
88	Mumbai	HOTEL PRESEDENT,Prop. Piem Hotel Pvt.ltd,90 Cuffe Parade Colaba,Bombay.	13	Private	Others
89	Mumbai	HOTEL PRESIDENT,Prop. –Piem Hotels Pvt. Ltd.,90 Cuffe Parade,Colaba, Bombay.	44	Private	Others
90	Mumbai	HOTEL SEA PRINCESS,969, Juhu Beach,Bombay	15	Private	Others
91	Mumbai	INDIAN DAIRY CORP.6th Floor, Rajmahal NDDDB,84 –Veer Nariman Point,Bombay	1283	Cooperative	Dairy Products
92	Mumbai	INDIAN HOTELS CO. LTD.,Tajmahal Hotel, Apollo bunder,Bombay	120	Private	Others
93	Mumbai	INDIAN HOTELS CO. LTD.,Taj Mahal Hotel Taj,Flight Kitchen, Ville Parleye,Bombay.	120	Private	Others

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
94	Mumbai	INDIAN HOTELS CO. LTD.,Taj Mahal Hotel, Apoolo Bunder,Rangoli Restaurant (NCPA)Nariman Point, Bombay	13	Private	Others
95	Mumbai	INTERNATIONAL AIRPORT AUTHORITY OF INDIA,Bombay Airport, Bombay.	36	Public	Multipurpose
96	Mumbai	ITTEFAQ ICE & COLD STORAGEECO. P. LTD.,30 -31 Maral Co-op Ind. Estate, Andheri (E), Bombay -400 059.	206	Private	Marine Products
97	Mumbai	JAI BHARAT ICE FACORY,New Prabhadevi Road,Bombay -400 013.	278	Private	Multipurpose
98	Mumbai	MAFCO LTD.,JJ School of Arts Compound, Dr. D.N. Road, Bombay.	145	Public	Multipurpose
99	Mumbai	MAH. RAJYA SHAKARI DUDH MAHASANGH MARYADIT NKM INTER NATIONAL HOUSE,3rd Floor, 178 Backbay Reclamation B.M.C. Marg.	977	Cooperative	Dairy Products
100	Mumbai	MILAN COLD STORAGE,83, Jail Road, (South),Bombay -400 009.	469	Private	Multipurpose
101	Mumbai	MODERN COLD STORAGE,220, Atlas Mills Compound, Reay Road, New Bombay	602	Private	Multipurpose
102	Mumbai	NARANG HOTELS PVT. LTD.,Prop. Ambassador Hotel,Church Gatee Exension,Bombay	24	Private	Others

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
103	Mumbai	NARANG HOTELS PVT. LTD, Prop. Skychef 75-F Nehru Road, Ville Parlet (East), Bombay.	304	Private	Others
104	Mumbai	NATIONAL ICE & COLD STORAGE, 19 – Arab Lane, Bombay	319	Private	Multipurpose
105	Mumbai	OBEROI TOWER HOTEL, Nariman Point, Bombay –21	150	Private	Others
106	Mumbai	PALM GROVE HOTELS, Juhu Tara Road, Juhu, Bombay –49.	14	Private	Others
107	Mumbai	PATEL ICE FACTORY & COLD STORAGE, Safed Pool, Zari Mari, Kurla, Bombay.	410	Private	Multipurpose
108	Mumbai	PIEM HOTELS LTD., Unit No. 3, Cuffe Parade, Bombay	10	Private	Others
109	Mumbai	PLAZA HOTEL LTD., 70-C, Nehru Road, Ville Parle (East)	39	Private	Others
110	Mumbai	RITZ PVT. LTD., 199 – Church Gate, Bombay Reclamation, Bombay	11	Private	Others
111	Mumbai	RUSTOM ICE & COLD STORAGE, Sugder Baug, Chembur, Bombay	472	Private	Multipurpose
112	Mumbai	SAMANT BROS. Vasant Niwas, S.B. Marg, Dadar, Bombay.	14	Private	Dairy Products
113	Mumbai	SHIV COLD STORAGE, Lal Bahadur Shastri Marg, Bhandup, Bombay	2675	Private	Multipurpose

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
114	Mumbai	SHRI VINAYAKA ICE CREAMS P. LTD.,Govt. of India Estates,Charkop, Kandivili (W), Bombay – 400 067	94	Private	Dairy Products
115	Mumbai	SOOD ENTERPRISES,Plant No. 5, Chakla,Andheri (East),Bombay	363	Private	Multipurpose
116	Mumbai	STERLING FISHERIES ICE & CS SERVICES PVT. LTD.,Sagar Press Godown, G - Block,Colaba, Bombay.	302	Private	Marine Products
117	Mumbai	SUN-N-SAND HOTEL (P) LTD39 –Juhu Beach, Bombay	20	Private	Others
118	Mumbai	SUNWALLA ICE FACTORY,188, Lamington Road,Bombay	16	Private	Multipurpose
119	Mumbai	SURAJ DISTRIBUTORS UNIT NO.2, 3 & 4,109 –C, Nirmai Coop Industrial Estate Road No. 29,Scheme No. 6, Bomba	17	Private	Dairy Products
120	Mumbai	THE EAST INDIA HOTELS LTD.,The oberoi – BombayNariman Point, Bombay –400 002	106	Private	Others
121	Mumbai	THE MOTHER DAIRYUnit No. 2, Kurla, Bombay	597	Public	Dairy Products
122	Mumbai	VACCUM FISHERIES & REFG. CO.,166, Jaloon Dock, BPT Com.Pl. No. 3, S. Bhagat Singh Road,Colba, Bombay.	116	Private	Marine Products

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
123	Mumbai	VASANT ICE CREAM CO., Krishna Udyog Bhavan 15-Nariman Road, Prabhadevi, Bombay	13	Private	Dairy Products
124	Mumbai	VESAWA MACHIMAR VIVIDH, Karyakari Sahakari Society Ltd, Vesawa Greater, Bombay.	229	Cooperative	Marine Products
125	Mumbai	VESVA KOLI SAHAKAI VAHTAK SANGH LTD., Pandurang Marg., Vesawa, Bombay	313	Cooperative	Marine Products
126	Mumbai	TRANSPORTING AIR-CONDITIONING INDUSTRIES LTD., 27 A Laxmi Ind., Estate, Andheri (W), Bombay -58	35	Private	Multipurpose
127	Mumbai	K.C. ENGINEERING CORPORATION, Charkap, Kandivali, Bombay.	50	Private	Multipurpose
128	Mumbai	MAFCO, Borivali (E), Bombay	232	Public	Meat
129	Nagpur	BHAGWAGAR ICE FACTORY & COLD STORAGE, Factory Road, Nagpur.	789	Private	Multipurpose
130	Nagpur	DINSHAW FROZEN FOODS (P) LTD. Gitti Khaidon, Burgaon, Nagpur.	163	Private	Dairy Products
131	Nagpur	NAGPUR FROZEN FOODS PVT. LTD. House No. 50, Sunshila Balral Marg, Dhantoli, Nagpur.	66	Private	Dairy Products
132	Nagpur	NAGPUR MILK SCHEME, SEMINARY HILLS, Nagpur.	480	Public	Dairy Products

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
133	Nagpur	RAJ LAXMI COLD STORAGE & ICE FACTORY, Ghat Road, Nagpur	895	Private	Multipurpose
134	Nagpur	VIBHU DRINKS (P) LTD., Wardha Road, Nagpur	13	Private	Multipurpose
135	Nagpur	WADHWANI COLD STORAGE, Nagpur	9194	Private	Multipurpose
136	Nagpur	SHREE GANESH COLD STORAGE, Near Umiya Ind. Estate, Nagpur	8611	Private	Multipurpose
137	Nagpur	AFZAL COLD STORAGE & ICE FACTORY Market Yard, Nagpur	10342	Private	Multipurpose
138	Nagpur	DINSHAW'S FROZEN FOODS, Nagpur	524	Private	Dairy Products
139	Nagpur	HELIWAL SHEET GRIH PVT. LTD., Vill. Kapsi, Buing, NAGPUR.	11000	Private	Multipurpose
140	Nagpur	VIDHARBHA COLD STORAGE 'A.P.M.C. Kalamana, Nagpur	4000	Private	Multipurpose
141	Nanded	GENERAL MANAGER, GOVT. MILK SCHEME, Plot No. 25 / 26, MIDC Area, Nanded.	77	Public	Dairy Products
142	Nanded	MAFCO LIMITED Itrara, P.B. No. 55, Nanded.	1087	Public	Multipurpose
143	Nashik	GOVERNMENT MILK SUPPLY SCHEME CENTRAL DAIRY, Trimbak Road, Nasik	92	Public	Dairy Products
144	Nashik	INDRAYANI AGRO INDUSTRIES (P) LTD., D-56 MIDC Ambad, Nasik	16	Private	Multipurpose
145	Nashik	KAILASH MILK PRODUCTS, Vill. Anjorin, Nasik	88	Private	Dairy Products

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
146	Nashik	NARANG COLD STORAGE (P) LTD.,B-53 Nasik Indl. Coop Estate Ltd.,Satpur (nasik).	805	Private	Multipurpose
147	Nashik	NASIK DISTT. POTATOES & ONION GROWERS COOP. ASSN LTD.,2954 –E, New Agra Road,Nasik	941	Cooperative	Multipurpose
148	Nashik	MOGI GRAPE GOWERS CO-OP SOCIETY LTD,Malagaon, Nasik	203	Cooperative	Grapes
149	Nashik	MALTA GRAPE GROWERS CO-OP. SOCIETY LTD.Market Committee Shopping Centre,Malagaon, Nasik.	203	Cooperative	Grapes
150	Nashik	BAGLAM TALUKA CO-OP. GROWERS SOCIETY LTD.Tal, Baglam Dist. Nasik.	203	Cooperative	Grapes
151	Nashik	GODREJ AGROVETGut No. 349/1, 351 (K2) VillageMangasara Taluka Dist. Nasik.	296	Private	Fruits and Vegetables
152	Nashik	SHRI RAM GRAPE GORWERS CO-OP. SOCIETY LTD.Pimpalgaon (Baswant),Tal Niphad Dist. Nasik.	203	Cooperative	Grapes
153	Nashik	FRESH AGRO PRODUCTS CO.,B-244, PimpalgaonTal Niphad Dist. Nasik.	158	Cooperative	Grapes
154	Nashik	M.I.G. GRAPE GROWERS CO-OP. SOCIETY LTD.At Post Sakore Tal Niphad,Dist Nasik	43	Cooperative	Grapes

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
155	Nashik	M.S. EXPORTSSurvey No. 528/1, Umerkhed Tal Niphad Dist Nasik	103	Private	Grapes
156	Nashik	ANAND GRAPE GROWERS CO-OP. SOCIETY LTD.Post Dani, Dist. Nasik.	236	Cooperative	Grapes
157	Nashik	BLUE FOXPACKING PRODUCTS (P) LTD.F 130, MIDS Ambad, Dist Nasik.	111	Private	Grapes
158	Nashik	SUSHILGRAPE EXPORT CO.,Post Kundewadi, Tal Niphad,Dist. Nasik	139	Private	Grapes
159	Nashik	SHRI ASHOK RAO VISHNUPATH GAIKWAD,Gab 681, Pimpalgaon (Baswant),Tal Niphad, Nasik Dist	85	Private	Grapes
160	Nashik	RANJIT PATIL, Gate No. 16, Geetakunj Tal, Niphad, Dist. Nasik	100	Private	Grapes
161	Nashik	SHRI NISARGA AGRO COOL (P) LTD.,At Shivali, Post Ugaon,Tal Niphad, Dist. Nasik – 422 304	131	Private	Grapes
162	Nashik	M.V. BRAHMECHAC/o. Nasik Grape and Fruit Processing Pvt. Ltd., Brahmecha Farm,Odha Nasik Dist	12	Private	Grapes
163	Nashik	HAJI AGRO INDUSTRIES,Ramgang At Post ,Dist. Nasik.	93	Private	Grapes
164	Nashik	KALYANI AGRO INDUSTRIES,At Post	170	Private	Grapes

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
165	Nashik	P.J. GAIKWAD,Nandadeep, P.O. Ojhar (Mig),Tal Niphad, Dist. Nasik	12	Private	Grapes
166	Nashik	VIJAY RAJ F BRAMECHAAAt Post Odha, Dist. Nasik	131	Private	Grapes
167	Nashik	J.L. KHAPRE, At Post Ugaon, Tal Niphad,Dist. Nasik	154	Private	Grapes
168	Nashik	KALYAN EXPORTS Gat No. 156, Agra Road P.O.,Jaulka Tal Dindoni,Nasik Dist.	88	Private	Grapes
169	Nashik	KAILASH LAXMANRAO BHOSHAb Sarola (Kurd), Post Vanasgaon, Tal Niphad, Dist. Nasik.	91	Private	Grapes
170	Nashik	K.D. KSHIRSAGARAt Shivadi, Tal Niphad,Dist. Nasik	154	Private	Grapes
171	Nashik	B.R. KSHIRSAGARAt Shivadi, Post Ugaon,Tal Niphad –422304,Dist. Nasik.	135	Private	Grapes
172	Nashik	EURO FRUITS (P) LTD.Gat 1031, Shirwada, Vadner Bhairav Road,Tal chandwadi, Nasik – 423111	1078	Private	Grapes
173	Nashik	STERLING BLOOM GRAPESGat 193 At PostGondagaon Dindoni Nasik Dist	176	Private	Grapes

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
174	Nashik	FRESH TOP FRUITS,Gat 171, Vill. Jaulka,Bombay Agra Road, P.B.No.1Post Ozaro -422207, Nasik.	529	Private	Grapes and Fruits
175	Nashik	VADILAL DAIRY INTERNATIONAL LTD.E-10, MIDC Sinner,Nasik - 422103	611	Private	Dairy Products
176	Nashik	BORASTE AGRO INDUSTRIES (P) LTD.Gat No. 87-1-B-2-2,Sakore MIG, Pimpalgaon,Tal Niphad -422209,Dist. Nasik.	119	Private	Grapes
177	Nashik	TRIMBAKARAJ AGRO EXPORT At POST Sakore MIGTal Niphad, Dist. Nasik.	66	Private	Grapes
178	Nashik	INDO FRENCH BIOTECH ENTERPRISES LTD.Vill. Nalwadpada, Tal Dindori,Dist. Nasik.	1050	Private	Grapes and Strawberry
179	Nashik	SEVEN STAR FRUITS (P) LTD.Pimpalgaon (B) Tal NiphadDist. Nasik	315	Private	Grapes
180	Nashik	FINNS FROZEN FOOD (INDIA) LTD.Plot No. A/1, MIDC Sinner,Dist. Nasik.	1480	Private	Fruits and Vegetables
181	Nashik	KADWA FARMP.O. Sakore (MIG), Tal Niphad,P.O. Sakore (MIG), Tal Niphad,Dist. Nasik.	77	Private	Grapes
182	Nashik	KSHIRSAGAR FARMGat 2403, MIG,Tal Niphad -422206.	73	Private	Grapes

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
183	Nashik	SAI FARM Gat No. 197, Ravalgaon Tal Dindani Dist. Nasik	53	Private	Grapes
184	Nashik	P. D. GRAPES Palkhad (Bandhera) Tal Dindori, Dist. Nasik	116	Private	Grapes
185	Nashik	K.K.R. AGRO EXPORTS, At Post Kadak Malagaon, Tal Niphad, Dist. Nasik.	71	Private	Grapes
186	Nashik	P.B. AGRO EXPORTS, Gat No. 390, Palkhad Bandora, Tal Dindori, Dist. Nasik.	97	Private	Grapes
187	Nashik	PRIME FRUITS INTERNATIONAL, At Jaulka, Tal Dindori, Dist. Nasik.	162	Private	Grapes
188	Nashik	MALODE AGRO EXPORTS (P) LTD. At Post Sakore, Tal Niphad, Dist. Nasik	90	Private	Grapes
189	Nashik	LEADING AGRO EXPORTS, 144, Lane Road, Deolohi Camp, Dist. Nasik - 422401	103	Private	Grapes
190	Nashik	GREEN GOLD EXPORTS (P) LTD. Gat No. 124/7, Sonjaunts, Pimpalgaon, Tal Dindori, Dist. Nasik.	66	Private	Grapes
191	Nashik	AKKAR EXPORTS At Ozhar, Tal Niphad, Dist. Nasik.	131	Private	Grapes
192	Nashik	WANKHEDE COLD STORAGE B-168, Sh-Sananth Sah. Audyogik Vashahet, Pimpalgaon (B), Nasik Dist.	51	Private	Grapes

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
193	Nashik	MANLI FRUIT INTERNATIONAL Road,Nasik Dist.	76	Private	Grapes
194	Nashik	B.K. EXPORTS,Palked, Dist. Nasik,Tal Dindori	124	Private	Grapes
195	Nashik	BALASAHEB SAMPATRAO KADAM COLD STORAGE,Gat No. 162 at Korate, Tal Dindori.	30	Private	Grapes
196	Nashik	SHRI DAULATRAO LAXMAN SALUNKE,Gat No. 99, at Gunde Gaon,Tal. Dindori.	50	Private	Grapes
197	Nashik	TASTY GRAPES, Khadak, Malegaon, Tal. Niphad	54	Private	Grapes
198	Nashik	BHALERAO AGRO PROCESSING INDUSTRIES,At Kothare, Tal.Niphad, Aurangabad Road, Dist. Nasik.	1100	Private	Multipurpose
199	Nashik	CANAL BAGAI DAR SAHKARI SANGH LTD.,Ojhar, Tal. Niphad.	50	Cooperative	Grapes
200	Nashik	BORASTE AGRO LINKS (P) LTD.	30	Private	Grapes
201	Nashik	K.B. GRAPES,Gut No. 443/1, At Shirdi, Post Ugaon, Tal Niphad, Nasik.	60	Private	Grapes
202	Nashik	PURKAR AGRO FARMSGut No. 95, At Bhandarpada,Post Kashimbe, Tal. Dindori, Nasik.	90	Private	Grapes
203	Nashik	ARAVIND RANGANATH KADAMGut No. 247, At Korate,Tal. Dindori, Nasik.	45	Private	Grapes

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
204	Nashik	SANGARI AGRO PROCESSING COMPANY PVT. LTD., Savejavi, Post. Soonathane, Tal. Sinner, Nasik.	600	Private	Fruits and Vegetables
205	Nashik	GULAB GANDHAR PATIL, Gut No. 737, At. Khedgaon, Tal. Dindori, Nasik.	60	Private	Grapes
206	Osmanabad	GOVERNMENT MILK SCHEME, Udgir Dist., Osmanabad	305	Private	Milk and Milk Products
207	Pune	AHURA ICE AND COLD STORAGE 112, Bhasani MIDC Pune.	542	Private	Multipurpose
208	Pune	DAIRY TOPS (DIV. OF KWALITY FROZEN FOODS PVT. LTD.), J-177, MIDC Industrial Area, Bhosari Pune-26.	214	Private	Dairy Products
209	Pune	GOVERNMENT MILK SUPPLY SCHEME Poona.	305	Public	Dairy Products
210	Pune	MAFCO COLD STORAGE New Market Year Gultekdi Poona	2674	Public	Multipurpose
211	Pune	MAFCO FACTORY Mafco Gokhale Nagar, Poona -16.	426	Public	Meat
212	Pune	MAHARASHTRA KRISHI SHEET Grihs Manchar, Pune Dist.	2220	Private	Multipurpose
213	Pune	POONA DISTT. COOP. MILK PRODUCERS FEDERATION LTD., Kat Raj, Poona.	350	Cooperative	Dairy Products

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
214	Pune	POONA INDL. HOTEL LTD.,Hotel Blue Diamond,11-Koregaon Road, Poona.	29	Private	Others
215	Pune	SHIV SANTHOSH DUGDHAYA714-Sada Shiv PethPoona.	40	Private	Dairy Products
216	Pune	SUNRISE COLD STORAGE CO.13-14, Bhawani Co.,Poona.	2991	Private	Multipurpose
217	Pune	WESTERN HATCHERIES LTD.Venky's Fast Foods DivisionVill Baur Jal Mawal,Distt. Pine – 410 405.	1244	Private	Meat
218	Pune	SHAHMAR DISTRIBUTIONGut No. 296, Prop No. 150,Kadam Vatika, Lohikalhor,Dist. Pune.	38	Private	Dairy Products
219	Pune	POONA GRAPE GROWERS CO-OP. SOCEITY LTD.Poona.	203	Cooperative	Grapes
220	Pune	KAWRE ICE CREAM Poona.	16	Private	Dairy Products
221	Pune	TEMPTATION FOODS LTD.C-2, MIDC, Jejuri,Ta Purandhan, Dist. Pune.	1353	Private	Multipurpose
222	Pune	HANDE FARM PRODUCT PVT. LTD.Wadgaon –Anand,Tal Junnar, Dist. Pune.	192	Private	Grapes
223	Pune	KWALITY ICE CREAMS (POONA)T/2, J.J. Chambers,Yeswada, Pune –6.	12	Private	Dairy Products

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
224	Pune	RIVERDATE FOODS LTD.Vill. Ozarde, Tal. Malval,Talegaon Dabhade,Dist. Pune –410 506.	322	Private	Meat
225	Pune	SH. DNYANESHWAR GRAPEMaryarwadi, Poona.	245	Cooperative	Grapes
226	Pune	ABHINAV GRAPE GROWER CO-OP. SOCIETY Narayangaon, Dist. Pune	85	Cooperative	Grapes
227	Pune	SHARAD GRAPES GROWER CO-OP. SOCIETY LTD.Baramata, Pune Dist.	85	Cooperative	Grapes
228	Pune	VIGNAR GRAPES GROWER CO-OP. SOCIETYMaryadil Vill at Narayangaon,Dist. Pune	42	Cooperative	Grapes
229	Pune	JAYASREE COLD STORAGEOff Pune Nasik Road,Pune.	1480	Private	Multipurpose
230	Pune	TASTY BITESLonavala Road, Pune.	1842	Private	Meat
231	Pune	FARIYAS HOTEL Lonavala, Pune	20	Private	Others
232	Pune	TULJA BHAVANI COLD STORAGE, Awachool Nagar, Tandelwadi Road, Baramani, Pune.	750	Private	Multipurpose
233	Pune	JAI JITENDRA COLD STORAGE, Vadid Haveli, Pune.	2000	Private	Multipurpose
234	Raigad	GOVERNMENT MILK SCHEME Bby Poona Road Survey No.Hal-Br. 20 & 21, Khopoli,Raigad.	72	Public	Dairy Products

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
235	Raigad	Amrut Industries	218	Private	Dairy Products
236	Raigad	ARABIAN SEA EXPORTSG3 & G4 MIDC,Taloja, Raigad.	1073	Private	Marine Products
237	Raigad	INNOVATIVE MARINE PRODUCTSTaloja, Raigad.	1163	Private	Marine Products
238	Raigad	FORSTAR FROZEN FOODS,Taloja, Raigad Dist	644	Private	Marine Products
239	Raigad	GAUSIA COLD STORAGE (P)LTD.,M-7,MIDC Indl.Area,Taloja,Dist. Raigad.	480	Private	Meat
240	Raigad	MIKI EXPORS INTERNATIONALM-43,MIDC,Indl.Area,Taloja,Dist. Raigad.	997	Private	Meat
241	Raigad	VISTA PROCESSED FOODS (P)LTD.M-75,MIDC,Taloja,Dist. Raigad.	501	Private	Meat
242	Raigad	CHAM EXPORTS LTD.,M 3, MIDC,Taloja,Dist.Raigad.	1067	Private	Marine Products
243	Raigad	ALLANA INVESTMENT &TRADING CO.M-42,MIDC,Taloja,Raigad.	9264	Private	Marine Products
244	Raigad	SUDESH SEAFOODSTaloja.	78	Private	Marine Products
245	Raigad	LIBRAN SEA FOODS M-50,MIDC,Taloja.	192	Private	Marine Products
246	Raigad	SANIA FISHERIESTaloja.	490	Private	Marine Products
247	Raigad	CASTLEROCKFISHERIES,MIDC,Taloja.	691	Private	Marine Products
248	Raigad	SNOWMAN FROZEN FOODS LTD.,M-55,M.I.D.C.,Taloja,Raigad Dit.	1815	Private	Frozen veg., meat & sea foods

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
249	Raigad	SHRI BALLALESHWAR COLD STORAGE PVT.LTD.,Rudravali,Tal. Mangaon,Raigadh.	600	Private	Marine Products
250	Ratnagiri	GADRE MARINE EXPORTSMir Karwade,Ratnagiri.	113	Private	Marine Products
251	Ratnagiri	GOVERNMENT MILKSHEME,M.I.D.C.Plot No.C-2,Khardi,Chiplun.	13	Private	Dairy Products
252	Ratnagiri	GOVERNMENT MILKSHEMEEPlot No.21,MIDC Area,Ratnagiri.	33	Private	Dairy Products
253	Ratnagiri	M.D.NAIKINDUSTRIES,Peth Killa,Ratnagiri.	243	Private	Marine Products
254	Ratnagiri	NAIKICE &COLD STORAGE Peth Killa M.G.Road,Ratnagiri	200	Private	Marine Products
255	Ratnagiri	NAIKSEA FOODS PVT.LTD.Peth Killa,M.G.Road,Ratnagiri.	486	Private	Marine Products
256	Ratnagiri	RATNAGIRI JILLA MACHIMAR SAHAKARI SANGH LTD.Peth Killa, Ratnagiri.	221	Cooperative	Marine Products
257	Ratnagiri	GOVT.MILKSHEMEMahad,Ratnagiri Dist.	10	Public	Dairy Products
258	Sangli	SIDDESWAR COLD STORAGE CO-OP.SOCIETYSavlaj-416311, Taogaon,	203	Cooperative	Grapes
259	Sangli	B.G.CHITALE,BHILWADI STN.416-303Distt.SangliMaharashtra.	1042	Private	Dairy Products

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
260	Sangli	SHRI DATTA COLD STORAGE J-52,MIDC,Kupwail,Sangli –416425	1333	Private	Multipurpose
261	Sangli	OM COLD STORAGE (P)LTD.,Plot No.J-19Kupwad,Block MIDC,Sangli –416416.	1545	Private	Multipurpose
262	Sangli	SHREE DIAMOND COLD STORAGE (SANGLI)PVT.LTD.L 59,MIDI, Kupwad,Sangli.	1033	Private	Multipurpose
263	Sangli	BAFNA COLD STORAGE PVT.LTD.11,Market Yard,Tasgaon,Dist. Sangli.	1025	Private	Multipurpose
264	Sangli	KAMDHENU GRAPE GROWERS CO-OP.Society Mandirayun,Tasgaon –Dist -Sangh.	203	Cooperative	Grapes
265	Sangli	CHAITNYA GRAPE GROWERS CO-OP SOCIETYLTD.,Palus.Tal. Tasgaoh.	203	Cooperative	Grapes
266	Sangli	TRITON AGRO FOODS PVT.LTD,Sangli.	183	Private	Grapes
267	Sangli	SANTOSH PRE COOL COLD STORAGE Sangli	533	Private	Grapes
268	Sangli	VARDAMAN COLD STORAGE ,J.57,58, MIDC,Kupwad,Sangl.	1121	Private	Multipurpose
269	Sangli	TEHE COLD STORAGE,Chinchani,Tasaon.	972	Private	Multipurpose
270	Sangli	GURUKRIPA COLD STORAGE (P)LTD.,Tasgaon Sangli Road, Tasgaon – 416312.Sangli.	1031	Private	Multipurpose
271	Sangli	PANCHARATNA COLD STORAGE Mirag.	1069	Private	Multipurpose
272	Sangli	GOVT.MILKSCHEME MIRAGSangli.	646	Public	Dairy Products

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
273	Sangli	SHREENATH GRAPES GROWERS SOCIETY GANDI,Sangli.	94	Cooperative	Grapes
274	Sangli	KANDRAYA GRAPES GROWERS CO OP. SOCIETY WAYPHALE	82	Cooperative	Grapes
275	Sangli	CHAMAN GRAPES GROWERS CO-OP.Nimani,Sangli.	94	Cooperative	Grapes
276	Sangli	DONGARAI PHELLHYE CO-OP.SOCIETYKedapan.	207	Cooperative	Grapes
277	Sangli	BHILWADI GRAPE GROWERS CO-OP.SOCIETYBhilwadi.	82	Cooperative	Grapes
278	Sangli	KUERDAL GRAPE GROWERS CO-OP.SOCIETY,Kandal,Sangli.	82	Cooperative	Grapes
279	Sangli	VERABHADRA SHIDDEWADI,Sangli.	82	Cooperative	Grapes
280	Sangli	SHIVA SAKTI,Savalaj,Sangli.	82	Cooperative	Grapes
281	Sangli	VASANTADADA PATIL,Amjan,Sangli.	82	Cooperative	Grapes
282	Sangli	MAHALAXMI KAVETHA MAHAKALSangli	82	Cooperative	Grapes
283	Sangli	KRANTI SINGH,Walva,Sangli.	203	Cooperative	Grapes
284	Sangli	YELAVI CO-OP.COLD STORAGE Yelavi,Sangli Dist.	82	Cooperative	Grapes
285	Sangli	SAI SAMRATH COLD STORAGE KAVETHA EKNADNAGASangli Dist.	1736	Private	Multipurpose

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
286	Sangli	SIDDH NATH COLD STORAGE,Sangli.	1018	Private	Multipurpose
287	Sangli	MADHURI COLD STORAGE,Tasgaon Manerajuri Road,Chinchani Talgaon,Sangli Dist.	2000	Private	Raisins
288	Sangli	VAIBHAV LAKSHMI COLD STORAGE PVT.LTD.,Tasgaon, Manerajuri Road,Vasunde,Tasgaon,Sangli Dist.	2000	Private	Raisins
289	Sangli	PRANAV COLD STORAGE,363,Tasgaon Sangli Road, Vasunde,Tasgaon,Sangli Dist.	1300	Private	Raisins
290	Sangli	GAJANAND COLD STORAGE (P)LTD.,Tasgaon Sangli Road,Kavate EkandTasgaon,Sangli Dist.	1500	Private	Raisins
291	Sangli	JAI SHITALA COLD STORAGE,Tasgaon Sangli Road,Kavate Ekand,Tasgaon,Sangli Dist	2000	Private	Raisins
292	Sangli	VARAD COLD STORAGE (P)LTD.,1852Gat No.,Tasgaon,Sangli Road,Kavate Ekand,Tasgaon,Sangli Dist.	2600	Private	Raisins

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
293	Sangli	TEKE COLD STORAGE,Tasgaon Pundi Road,Pundi,Tasgaon,Sangli Dist.	2000	Private	Raisins
294	Sangli	GURUKRIPA COLD STORAGE,1841,Tasgaon,Sangli Road,Tasgaon,Sangli Dist.	2000	Private	Raisins
295	Satara	MAFCO FACTORY,Koregaon,Satara Dist.	1418	Private	Multipurpose
296	Satara	ASIA PLATEAU,Moral Rearmament Training Centre,Panchgani, Satara Dist.	38	Private	Multipurpose
297	Satara	RADHAKRISHAN CARRIER (P)LTD.,MIDC,Satara (M.S.).	2225	Private	Multipurpose
298	Satara	OTARI COLD STORAGE,M.I.D.C.,Satara.	1400	Private	Multipurpose
299	Sindhudurg	GOVT.MILKSCHEME,Kankavoli,SindhudurgDist.	59	Public	Dairy Products
300	Solapur	GOVERNMENT MILKSCHEMESolapur.	84	Public	Dairy Products
301	Solapur	SOMANI COLD STORAGE,1153/23,Somani Estate,Near Ind.Estate, No.1,Barish -413401.	1430	Private	Multipurpose
302	Solapur	SOLAPUR GRAPE GROWERS ASSON DEVSISolapur Dist.	203	Cooperative	Grapes
303	Solapur	SOLAPUR GRAPE GROWERS ASSON NANAJSolapur Dist.	127	Cooperative	Grapes

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
304	Solapur	GODAVARI COLD STORAGE PVT.LTD.Gat No.44,Barsi Solapur Road,Solapur.	782	Private	Multipurpose
305	Solapur	SON-ANKUR EXPORTS PVT.LTD.Gat 67,Mulegaon,NH 9,Hyd.Rd., Dist.Solpaur.	148	Private	Grapes
306	Solapur	HIMRAJICE AND COLD STORAGEPandharpur,Solapur	745	Private	Multipurpose
307	Solapur	SHRI KANDHOBA PANAN SAHAKARI SANSTHA LTD.Anadoor,Tal Tuljapur,Dist.Solapur.	203	Cooperative	Grapes
308	Solapur	KAPADIA COLD STORAGEBarsi,Solapur.	929	Private	Multipurpose
309	Solapur	PADMINI COLD STORAGE,Kasegaon,Solapur.	1000	Private	Multipurpose
310	Solapur	BALIRAJA COLD STORAGE Tirupati Traders,Station Road,Pandrapur	1800	Private	Multipurpose
311	Thane	JAINEXFOODS PVT.LTD.Plot No.14-15,MAFCO Amp.Yard Vashi,Turbe.	423	Private	Marine Products
312	Thane	ARNALA MACHIMAR VIVIDHAKaryakari Sahakari Maldali Ltd.Arnala	202	Cooperative	Marine Products
313	Thane	ARNATA FISHERIES SARVODYA SAHAKARI SOCIETYLTD.,Taluk Bossain.	80	Cooperative	Marine Products

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
314	Thane	BALLARD OIL FIELDS (P)LTD.,M-12,MIDC Area,Tarapore.	357	Private	Dairy Products
315	Thane	BOMBAYCOLD STORAGEE-36Wagle Industrial EstateThana.	3191	Private	Multipurpose
316	Thane	CASTLEROCKFISHERIESRoad No.27,Plot No.32,Wagle Industrial Estate,Thana	1038	Private	Marine Products
317	Thane	CENTURYCOLD STORAGE PVT.LTD.C-47,T.T.C.Thana Belapur Road,Turbhe New Bombay	743	Private	Marine Products
318	Thane	DIPTI AGENCIES TULSI VIHARBuildingNear Ganesh Cold Drinks Ram Nagar,Dombiwali East,Distt.Thane.	17	Private	Dairy Products
319	Thane	HIMACHAL COLD STORAGEEMAFCO Mkt.Yard,VashiThana-Belapur RoadNew Bombay.	3688	Cooperative	Multipurpose
320	Thane	INCHARGE Govt.Milk Distribution DepotGove Bhivandi MIDC SaravaliDistt.Thane.	85	Public	Dairy Products

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
321	Thane	KALWA COLD STORAGE Allana Blg.4-Borrow Road, Colaba Loc. Near Alla Oil Milo Old Thane-Belapur Rd. Kalwa	4257	Public	Multipurpose
322	Thane	KHANDELWAL BROS./MAVAVALACS No.312- A Parayape Udog Bhawan, Ghokale Road, Thane.	14	Private	Dairy Products
323	Thane	KHANELWAL BORS.MAVAWALAKhandelwal Bhavan CTS No. 3349, Oak Bank Near Sai Park, Shivaji Chowk Kalyan.	13	Private	Dairy Products
324	Thane	CASTLE ROCK FISHERIES PVT.LTD. Warden House 5th Floor Siir Puim Road New Bombay Cs At Satpade Distt. Thane.	313	Private	Marine Products
325	Thane	LOKSONS PVT.LTD., Unit Chanderlatta Ice & Cold Storage A-83 Wagle Indl. Estate MIDC.	1391	Private	Multipurpose
326	Thane	MAH.AGRIL DEV & FERT Promotion Corp.Ltd., MAFCO Mkt. Yard turbe New Bombay	2216	Cooperative	Multipurpose

Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
327	Thane	MEHTA ICE AND COLD STORAGE,D-36/4,M.I.D.C.,Turbe,New Bombay,Thane.	3369	Private	Multipurpose
328	Thane	NANAKFOOD INDUSTRIES A-113,Road 21Wadle Industria Estate,Thane.	1735	Private	Multipurpose
329	Thane	NEELAM ICE & COLD STORAGE,D-256,TTC Ind.Area,Turbe,New Bombay.	154	Private	Marine Products
330	Thane	NEW BOMBAY ICE & COLD STORAGE,D-138,TTC Ind.Area, MIDC,New Bombay -400705.	167	Private	Multipurpose
331	Thane	POLAR COLD STORAGE LTD.,MAFCO Mkt.Yard,Vill.Turbhe Vashi,New Bombay.	3841	Private	Marine Products
332	Thane	R.W.SAWANT & CO.,S.No.96&98Vill.Majiwada Talika,New Bombay.	1483	Private	Marine Products
333	Thane	RAJESH ICE & COLD STORAGE PVT.LTD.Plot No.10-11,MAFCOAPM, Turbhe,New Bombay.	2344	Private	Multipurpose

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
334	Thane	RAVI FROZEN FOODS (P)LTD.,A-162-164Wagle Indl.Estate,Thane.	848	Private	Marine Products
335	Thane	RAVI FROZEN FOODS (P)LTD.Kartar Mansion Lamington Road,Bombay.	1421	Private	Marine Products
336	Thane	RICHIE RICH DISTT.PVT.LTD.,Ajmera Estate Western Express Highway,Thane -401104.	131	Private	Dairy Products
337	Thane	SAMANT DAIRYPatkar Bldg.Patkar Road,Domvivil (East).	15	Private	Dairy Products
338	Thane	SHREE WARNA SAHAKARI DUDH UTPADAKPRAKRIYA SANGH LTD.,Plot No.8&21,A.P.M.Yard,Turbhye New Bombay,Thane.	278	Private	Dairy Products
339	Thane	SHRI RAM ICE AND COLD STORAGEPlot No.16-17,MAFCO APM Vashi,New Bombay.	897	Private	Multipurpose
340	Thane	SHROFFPROCESSED FOOD &C.S.PVT.LTD.Madina Mansion Musa Firkhana Rd.,Crawford Market,Bombay.	278	Private	Marine Products

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
341	Thane	SIEMEN INDIA LTD.MIDC Industrial Estate,Thane Bombay.	12	Private	F&V
342	Thane	SIXSTEEL (P)LTD.,4/25Tardeo Aircondition Mkt.Tardeo Bombay Loca Thane (Wagle Estate).	193	Private	Marine Products
343	Thane	SOCIETYICE PLANT &C.S.Plot no.D-261,MIDC Indl.AreaTurbhe Naka,New Bombay.	216	Private	Multipurpose
344	Thane	VADILAL DAIRYINTERNATIONALM-13MIDC Indl.AreaTarapur Boiser Navapur Road,Distt.Thane M.S.	252	Private	Dairy Products
345	Thane	THE NAV BHARAT REGF.&INDL.LTD.Plot No.B-62,Road No.21-Y,Wagle Estate.	2559	Private	Multipurpose
346	Thane	AMRATLAL ASHOKKUMAR COLD STORAGE &ICE FACTORYD-398,TTC Indl.Area,MIDC Vill.Kukshet,Thane.	2110	Private	Multipurpose
347	Thane	VICEROYFOODS PVT.LTD.(International Creative Foods)Plot No.R-26,TTC Indl.Area,Rahale,Dist.Thane -400071.	199	Private	Marine Products

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
348	Thane	AVA COLD STORAGE & ICE FACTORY 6-146, TTC Industrial Area, Thane.	316	Private	Marine Products
349	Thane	IMPERIAL COLD STORAGE MAFCO APM Yard, Turbhe N.B.	1084	Private	Dairy Products
350	Thane	ALLANA COLD STORAGE D-38, TTC Indl. Area, Thane.	1996	Private	Marine Products
351	Thane	GOOD VALUE MARKETING CO. LTD. Vill Ambiste, Tal Wada, Distt. Thane.	32	Private	Dairy Products
352	Thane	SAVLA FOODS & COLD STORAGE PVT. LTD. MIDC, TTC Area, Turbhe, New Bombay.	6993	Private	Multipurpose
353	Thane	H.M.G. INDUSTRIES LTD. D/21/6, TTC, Thane Belapur Road, New Bombay.	1038	Private	Marine Products
354	Thane	SEAGEM DOLPHIN (P) LTD. MIDC Yard, Area, New Bombay.	947	Private	Marine Products
355	Thane	JAYABHARAT ICE CO. PVT. LTD. D/25/11, MIDC TTC Area, New Bombay	707	Private	Multipurpose

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
356	Thane	BALAJI SPICE STUFF(P)LTD.,D-201,TTC Area Turbhe,New Bombay.	312	Private	Multipurpose
357	Thane	VISHAL ICE FACTORY&COLD STORAGE/25/10,TTC MIDC, Turbhe New Bombay.	4587	Private	Multipurpose
358	Thane	ESKIMO ICE MANUFACTURING CO.(P)LTD.C371,MIDC,TTCNew Bombay.	2698	Private	Multipurpose
359	Thane	ALLANA COLD STORAGE TTC Area,New Mumbai	6060	Private	Multipurpose
360	Thane	ASHOKKUMAR FOODS Plot No.22,APMC Yard,New Bombay.	533	Private	Meat
361	Thane	HIRAVATI ICE &COLD STORAGE APMC Yard,New Mumbai.	700	Private	Marine Products
362	Thane	CASTLEROCK FISHERIES, Wagle Estate, Thane.	424	Private	Marine Products
363	Thane	D.D.MARINE EXPORTS (P)LTD.APMC Yard,New Mumbai	494	Private	Meat
364	Thane	EXCEL ICE FACTORY Plot No.27,APMC Yard,New Mumbai.	108	Private	Dairy Products
365	Thane	H.A.R.ENTERPRISES,TTC D181Area,New Mumbai.	1421	Private	Marine Products

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
366	Thane	I AHMED & CO. COLD STORAGE APMC Yard, New Mumbai.	1314	Private	Meat
367	Thane	PREMRAJ COLD STORAGE, TTC Area, Thane Dist.	214	Private	Meat
368	Thane	IGLOO COLD STORAGE, APMC Yard, New Mumbai.	2513	Private	Multipurpose
369	Thane	RAJICE AND COLD STORAGE A2 TTC Area, New Mumbai.	288	Private	Multipurpose
370	Thane	RIYAZICE & COLD STORAGE APMC Yard, New Mumbai	923	Private	Meat
371	Thane	DINYAR ICE & COLD STORAGE 19/20 APMC Yard, New Mumbai.	197	Private	Meat
372	Thane	U.P. COLD STORAGE Plot No.4-8, APMC Yard, New Mumbai.	4113	Cooperative	Multipurpose
373	Thane	ZAMZAM ENTERPRISE APMC Yard, New Mumbai.	980	Private	F&V
374	Thane	CRESCENT COLD STORAGE A47/1, TTC Indl. Area, Mahagre, New Mumbai -701.	2872	Private	Multipurpose
375	Thane	NISHANT FOODS TTC Area, New Mumbai.	364	Private	Dairy Products

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
376	Thane	C.J.JAIN FOODS PROCEESING & COLD STORAGE Plot No.B-7, MIDC Dighe, New Mumbai -400708.	1315	Private	Multipurpose
377	Thane	TEDCO COLD STORAGER-54, MIDC Rabale, New Mumbai -400701.	3290	Private	Multipurpose
378	Thane	BAJARANG COLD STORAGE EPMC Yard, New Mumbai.	448	Private	Multipurpose
379	Thane	D.M.K.AGRO CARE COLD STORAGE, A-733, M.I.D.C., Khaime, T.T.C., New Mumbai, Thane.	3918	Private	Multipurpose
380	Thane	OASIS COLD STORAGE, Gut No.78, (Calderapur Wada), Thane.	1784	Private	Multipurpose
381	Thane	SANA FOODS AND COLD STORAGE, Vashi, New Mumbai, Thane.	4075	Private	Multipurpose
382	Thane	AMIDEV AGROCARE, M.I.D.C., Thana Turbhe, Thana	5009	Private	Multipurpose
383	Thane	DEO COLD STORAGE, M.I.D.C. Turbhe, Thana	890	Private	Multipurpose
384	Thane	G.H.K.COLD STORAGE, Plot No.40/1&40/2, Sector 18, New Mumbai, Thana	3500	Private	Multipurpose

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
385	Thane	MAHADEV INDUSTRIES,A-8o8,MahapeM.I.D.C.TTC Thana Belapur Rd.Thana	1055	Private	Multipurpose
386	Wardha	PARAS ICE FACTORYAND COLD STORAGEBachelor Road,Wardhe.	460	Private	Multipurpose
387	Yavatmal	HIMALAYA ICE FACTORY&COLD STORAGEVaidya Nagar,Arni Road.	468	Private	Multipurpose

Appendix 1 B.B.B - List of cold storages in Gujarat

Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
1	Ahmedabad	HAPA COLD STORAGE,Plot No. 10, GIDC,Naroda.	6876	Private	Multipurpose
2	Ahmedabad	SHREE SHIV SHAKTI ICE PLANT AND COLD STORAGE,Vatva.	787	Private	Multipurpose
3	Ahmedabad	JAIRAM & CO. PVT. LTD.,Near Ekta Hotel, Bavla Road,Sarkhej, Ahmedabad.	5000	Private	Multipurpose

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
4	Ahmedabad	ABAD DAIRY (A GDDC Ltd. Undertaking)Kankaria Road, Ahmedabad –380022.	811	Public	Dairy products
5	Ahmedabad	ALKA COLD STORAGE & ICE FACTORY,11 –A, Indl. Estate,Naroda, Ahmedabad –382330.	2000	Private	Potatoes
6	Ahmedabad	CREATA FOODS (P) LTD.,296, GIDC Estate Odhav,Ahmedabad – 382415	89	Private	Dairy products
7	Ahmedabad	CREATA STORAGE & ICE FACTORY,13 – GIDC, Odhav Indl. Estate,Ahmedabad –382415.	3000	Private	Potatoes
8	Ahmedabad	GAMDIWALA DAIRY,Opp. Old Pilot Dairy,Kankaria, Ahmedabad – 380022.	87	Private	Dairy products
9	Ahmedabad	GUJARAT COLD STORAGE,296 –GIDC, Indl. Estate,Odhav Road, Ahmedabad –382415.	2084	Private	Multipurpose
10	Ahmedabad	GURU COLD STORAGE (P) LTD., Sabarmati, Ahmedabad –380005.	3530	Private	Multipurpose
11	Ahmedabad	HIMALAYA ICE & COLD STORAGE,380 –381, Naroda Road,Ahmedabad.	556	Private	Multipurpose
12	Ahmedabad	KALOL TALUKA POTATOES FRUITS & VEG. GROWERS COOP. SOCIETY LTD.,Sahakari Shit Grih, Opp. AMISW	791	Cooperative	Potatoes

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
13	Ahmedabad	KRISHNA COLD STORAGE,Near ONGC, Koba Road,Sabarmati – 380005.	3069	Private	Multipurpose
14	Ahmedabad	KRISHNA COLD STORAGE,Gulmarg, Shahibag Road,Ahmedabad – 380004.	1294	Private	Multipurpose
15	Ahmedabad	MATABHAI COLD STORAGE,Mandal Road, P.O. Bajwa,Dist. Ahmedabad.	803	Private	Multipurpose
16	Ahmedabad	NAIGARA ICE & COLD STORAGE,Danilimda New Dor Bazar,Near Masjid, Ahmedabad –380022	108	Private	Dairy products
17	Ahmedabad	PIC (GUJ) PVT. LTD.,19 / 20, Steel Mould Sahakari,Udyogic Vasant, Nagarwal,Hanuman Road, Rakhial –380	49	Private	Dairy products
18	Ahmedabad	PADMAVATI ICE & COLD STORAGE (P) LTD.P.O. Kubernagar,Naroda Road, Ahmedabad – 382340.	1896	Private	Multipurpose
19	Ahmedabad	PURE BEVERAGE LTD.71-74, GIDC Ind. Estate,Township, Naroda – 382330.	16	Private	Others
20	Ahmedabad	RAVI COLD STORAGE,196, Naroda, Ind. Estate,Township, Ahmedabad –382330.	1144	Private	Potatoes
21	Ahmedabad	S.C. CHONA & CO.,Opp. Krishna Cinema,Relief Road,Ahmedabad.	13	Private	Dairy products

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
22	Ahmedabad	VADILAL ICE CREAM PVT. LTD.,Dudheswar Road,Ahmedabad.	404	Private	Dairy products
23	Ahmedabad	VADILAL ICE FACTORY.Near Ram Krishna Mills,Gomtipur,Ahmedabad	1566	Private	Multipurpose
24	Ahmedabad	M/S. HIRA COLD STORAGE PVT. LTD.,G.I.D.C. Naroda,Ahmedabad -382330.	7273	Private	Multipurpose
25	Ahmedabad	JAMNAGER COLD STORAGEPVT. LTD.,Aslali (Bareja) Ahmedabad.	3188	Private	Multipurpose
26	Ahmedabad	ZARIF DAIRY PVT. LTDSarkhed road,Ahmedabad -380005.	29	Private	Dairy products
27	Ahmedabad	SAMRUDHI DAIRY PRODUCTSSarkhej, Ahmedabad.	150	Private	Dairy products
28	Ahmedabad	NARAIN COLD STORAGE AND ICE FACTORY 613 / 614, GIDC, Naroda,Ahmedabad.	2805	Private	Potatoes
29	Ahmedabad	GUJARAT AQUA INDUSTRIES LTD.Sanand Ta, Ambedabad	85	Private	Marine products
30	Ahmedabad	DAYAL COLD STORAGE PVT. LTD.Changodar, Ahmedabad.	4598	Private	Potatoes
31	Ahmedabad	LAXMI COLD STORAGE,Naroda, Ahmedabad.	2000	Private	Potatoes
32	Ahmedabad	H.C. COLD STORAGE,Ahmedabad	4800	Private	Potatoes
33	Ahmedabad	NASEEM COLD STORAGE PVT. LTD.,Shahpur, Ahmedabad.	6400	Private	Multipurpose

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
34	Ahmedabad	ARMEC ICE AND COLD STORAGE PVT. LTD., Changodar, Ahmedabad.	3200	Private	Multipurpose
35	Amreli	SHREEJI COLD STORAGE, Paiki, Savarkundala – Dhari Bypass, Amreli.	3000	Private	Multipurpose
36	Banaskantha	BANASKANTHA DIST. COOP. MILK PRODUCER UNION LTD. P.B.No. 20, Palanpur, Banaskantha.	565	Cooperative	Dairy products
37	Banaskantha	GUJARAT AGRO FOODS LTD., Highway No. 53, Dessa, Banaskantha	3847	Public	Potatoes
38	Banaskantha	GUJARAT AGRO FOODS LTD., Unit 2, Dessa.	1967	Public	Potatoes
39	Banaskantha	JAI JAGDISH COLD STORAGE, Shah Market, Dessa, Banaskantha.	3360	Private	Potatoes
40	Banaskantha	KISAN COLD STORAGE, Beh. GEB Sub station, Highway Crossing, Palanpur, Banaskantha – 385002.	2400	Private	Multipurpose
41	Banaskantha	SONESHWAR COLD STORAGE, 13, Shopping Centre, Dessa, Banaskantha – 385535.	5760	Private	Potatoes
42	Banaskantha	SHREE BHAIKAV COLD STORAGE Unit 1 Dessa – 385535.	4000	Private	Potatoes
43	Banaskantha	RAJESHREE COLD STORAGE Dessa – 385535.	9600	Private	Potatoes
44	Banaskantha	SHAKTI COLD STORAGE, Palanpur – 385002.	3496	Private	Potatoes
45	Banaskantha	BHAVANI COLD STORAGE PVT. LTD. Dessa – 385535.	7200	Private	Potatoes

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
46	Banaskantha	SHREE SOMNATH COLD STORAGE R.S. No. 134/2, Paiki Vill.Rajpur,Ta, Deesa –385535.	8000	Private	Potatoes
47	Banaskantha	KRISHNA COLD STORAGE Kant Road, Ajapura,Deesa.	6618	Private	Potatoes
48	Banaskantha	NUTAN COLD STORAGE At Bhoyan, Dessa – Palanpur Highway.	4559	Private	Potatoes
49	Banaskantha	RAVI COLD STORAGE Kant Road, Dessa – 385535	4400	Private	Potatoes
50	Banaskantha	SHREE LAXMI COLD STORAGE Dessa – Palanpur Highway,At Bhoyan.	4412	Private	Potatoes
51	Banaskantha	SATYAM COLD STORAGE Dessa.	4800	Private	Potatoes
52	Banaskantha	SUBHAM COLD STORAGE Dessa.	4400	Private	Potatoes
53	Banaskantha	SOMNATH COLD STORAGE,Deesa.	2215	Private	Potatoes
54	Banaskantha	SHIVAM COLD STORAGE PVT. LTD.,Ranpur Road, Deesa.	5600	Private	Potatoes
55	Banaskantha	KIRAN COLD STORAGE,Deesa.	6400	Private	Potatoes
56	Banaskantha	GAYATRI COLD STORAGE,Deesa.	5200	Private	Potatoes
57	Banaskantha	AJANTA COLD STORAGE,Deesa.	8000	Private	Potatoes
58	Banaskantha	SHRIJI COLD STORAGE,Deesa	4800	Private	Potatoes
59	Banaskantha	VISHWAKARMA COLD STORAGE,Deesa	7200	Private	Potatoes
60	Banaskantha	DHARATI COLD STORAGE,Deesa.	4800	Private	Potatoes
61	Banaskantha	BHAGWATI COLD STORAGE,Deesa.	5200	Private	Potatoes
62	Banaskantha	SHIV COLD STORAGE, Deesa	5081	Private	Potatoes

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
63	Banaskantha	SHREE BHAIKAV COLD STORAGE,Unit No. 2, Deesa.	9600	Private	Potatoes
64	Banaskantha	NATRAJ COLD STORAGE,Nr. S.S Market Yard, Deesa-PalanpurNational highwayDeesa.	6455	Private	Potatoes
65	Banaskantha	SHREE GANESH COLD STORAGE,Nr. S.S Market Yard, Deesa-PalanpurNational highwayDeesa.	7211	Private	Potatoes
66	Banaskantha	MAALAXMI COLD STORAGE,At & Post-BHOYAN Ta- DeesaDeesa	8600	Private	Potatoes
67	Banaskantha	JAI MATAJI COLD STORAGE,Deesa.	3600	Private	Potatoes
68	Banaskantha	GOKUL COLD STORAGE,GIDC, Chandisar Palanpur	4000	Private	Potatoes
69	Banaskantha	SHIV SHAKTI COLD STORAGE,RTO Highway, Palanpur.	4000	Private	Potatoes
70	Banaskantha	JAY PRESERVATION PVT. LTD.,GIDC Estate, Chandisar,Banashkantha.	2292	Private	Multipurpose
71	Banaskantha	MARUTI COLD STORAGE,Jorapura, Deesa – Tharad Highway,	3500	Private	Potatoes
72	Banaskantha	BANAS COLD STORAGE,Nani Akhol, Near RTO Check Post,Deesa –Radhanpur Highway.	3819	Private	Potatoes
73	Banaskantha	NAVBHARAT COLD STORAGE,Moujepura, Tharad Highway,Deeda,Banashkantha.	6259	Private	Potatoes
74	Banaskantha	RAVIRAJ COLD STORAGE,Mauje Akhol, Bhadath Road,Near RTO Checkpost, Akhol.	4208	Private	Potatoes

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
75	Banaskantha	KESAR COLD STORAGE, Shivshakti Veg. Market, Deesa	783	Private	Vegetable and Fruits
76	Bharuch	BHARUCH DIST. COOP. MILK PRODUCT UNION LTD. Dudh Dhara Dairy, P.B. No. 29, Bharuch - 392002.	214	Cooperative	Dairy products
77	Bhavnagar	BHARAT COLD STORAGE & ICE FACTORY Opp. Power House, Bhavnagar - 364001	795	Private	Multipurpose
78	Bhavnagar	BHAVNAGAR COLD STORAGE & INDUSTRIES Opp. Nagar Palika, Mangalsingh Ji Mahal, Bhavnagar - 364001	960	Private	Multipurpose
79	Bhavnagar	BHAVNAGAR DAIRY, Gowri Shankar Lake Road, Bhavnagar - 364001	120	Public	Dairy products
80	Bhavnagar	THAKKAR COLD STORAGE & ICE MANUFACTURERS, Panwadi Road, Bhavnagar - 364001.	2056	Private	Potatoes
81	Bhavnagar	MAHALAXMI PNEUMATIC ROLLER FLOOR MILLS PVT. LTD. (Cold Storage Division) Bhavnagar - 364001.	834	Private	Multipurpose
82	Gandhinagar	MAHAVIR COLD STORAGE PVT. LTD. Motera, Vill. Dist. Gandhinagar	1936	Private	Potatoes
83	Gandhinagar	DHARMENDRA ICE CREAM LTD. 108, GIDC, Sector No. 28, Gandhinagar.	434	Private	Multipurpose

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
84	Gandhinagar	GANDHINAGAR DIST. CO-OP. MILK PRODU. UNION LTD.Gandhinagar Dairy, Sector -25, Gandhinagar -382	69	Cooperative	Dairy products
85	Gandhinagar	KALP COLD STORAGE PVT. LTD.,Sampa, Dehgam.	4320	Private	Potatoes
86	Gandhinagar	SAHAKARI SHITAGAR,Pethapur, Gandhinagar.	3200	Cooperative	Potatoes
87	Gandhinagar	SHEET SAGAR COLD STORAGE &ICE FACTORY,Vihar, Gandhinagar	4800	Private	Potatoes
88	Gandhinagar	VINOD COOL STORES PVT. LTD.,Vill.Limbadia, Gandhinagar	4000	Private	Multipurpose
89	Gandhinagar	ANMOL COLD STORAGE,Ghanij Vill., Dehgam.	3767	Private	Potatoes
90	Gandhinagar	SHRI. KRISHNA COLD STORAGE,Sampa, Dehgam.	2180	Private	Potatoes
91	Gandhinagar	SOLANUN AGROJaliyamath, Dehgam.	2456	Private	Potatoes
92	Gandhinagar	SHIV KRIPA COLD STORAGE,Adalaj	3153	Private	Potatoes
93	Gandhinagar	THE POTATO FRUIT AND VEGETABLE GROWERS CO-OP. SOC.LTD., Pethapur - 382610.	2550	Cooperative	Multipurpose
94	Gandhinagar	KALINDI COLD STORAGE,Adalaj, Gandhinagar.	2123	Private	Multipurpose
95	Gandhinagar	RAMJYOTI SHITALAYA PVT. LTD.Sampa, Dehgam, Ta -382315.	4400	Private	Potatoes

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
96	Gandhinagar	JAY AMBE HIMGHAR PVT. LTD.Sampa, Dehgam Ta -382315.	8000	Private	Potatoes
97	Gandhinagar	VINAYAK COLD STORAGEAhmedpura,Dehgam,Ta -382305	16000	Private	Potatoes
98	Gandhinagar	YOGESHWAR COLD STORAGE PVT. LTD.Ahmedpura Ta Dehgam.	4400	Private	Potatoes
99	Gandhinagar	HARSHIL COLD STORAGE (P) LTD.Vill. Palaiya, Nandol,Ta, Dehgam	4129	Private	Potatoes
100	Gandhinagar	RADHESHYAM AGRO COLD STORAGE PVT. LTD.Khanpur Ta Dholka.	4000	Private	Potatoes
101	Gandhinagar	PARMESHWAR COLD STORAGE,D.R. road, Dehgam.	12800	Private	Potatoes
102	Gandhinagar	PRABHUKISHAN COLD STORAGE,D.R. road, Dehgam.	8000	Private	Potatoes
103	Gandhinagar	ABHIMANYU COLD STORAGE,D.R. Road, Dehgam	7200	Private	Potatoes
104	Gandhinagar	AMARDEEP COLD STORAGE,D.R. Road, Dehgam.	7461	Private	Potatoes
105	Gandhinagar	JALARAM COLD STORAGE,Rakhial, Dehgam.	4400	Private	Potatoes
106	Gandhinagar	SHRIJI COLD STORAGE,D.R. Road, Dehgam	2400	Private	Potatoes
107	Jamnagar	BHARAT COLD STORAGE,Gandhi Nagar Road,Jamnagar -361002.	2000	Private	Potatoes

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
108	Jamnagar	BHARAT ICE FACTORY,PB No. 2014, Gandhinagar Road,Jamnagar – 361002.	971	Private	Potatoes
109	Jamnagar	GANESH COLD STORAGE & CO.,Near Mental Hospital,Gulab Nagar Road,Jamnagar –361002.	2000	Private	Potatoes
110	Jamnagar	HAPA COLD STORAGE,Dhanvav Bypass, Plot No. 14,Hapa, Jamnagar – 361002.	748	Private	Multipurpose
111	Jamnagar	VIJAY COLD STORAGE,Hapivadi Gram Panchayat,Taluk-Khambhalia, Jamnagar – 361002	2805	Private	Multipurpose
112	Jamnagar	J.K. COLD STORAGE,Chandra Industrial Estate, Plot No. 21, Jamgarh,Dwarka Highway	983	Private	Multipurpose
113	Jamnagar	JAMNAGAR COLD STORAGE,Jamnagar – 361002	2453	Private	Multipurpose
114	Jamnagar	KHAMBALIA COLD STORAGE,GIDC Estate, Khambhalia	847	Private	Potatoes
115	Jamnagar	KISHAN COLD STORAGE,Near Dhuvav, Jamnagar	2000	Private	Multipurpose
116	Jamnagar	NAKUM COLD STORAGE,Plot No. 17, Dhanvav Bypass,Happa, Jamnagar	3027	Private	Multipurpose
117	Jamnagar	PRAKASH ICE & COLD STORAGEEC-8, M.P. Shah Udyog,Bara Section Road, Jamnagar – 361002	494	Private	Multipurpose
118	Jamnagar	SHREE VINAYAK COLD STORAGE CO.,Behin Bhanu Kerosene Depot,PO Shankar Tekri, Udyognagar, Jamnaga	3600	Private	Multipurpose

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
119	Jamnagar	GUJARAT DAIRY DEVELOPMENT CORP. LTD.Jamnagar Dairy, Jamnagar.	15	Public	Dairy products
120	Jamnagar	SAGAR COLD STORAGE Vill. Nagoda, P.O. Khodiyarnagar,Jamnagar.	836	Private	Multipurpose
121	Junagadh	ALLANA FROZEN FOODS PVT. LTD,Plot No. 51 to 54, (Unit- 2),Industrial Area, Veraval,Junagar –362267.	191	Private	Marine products
122	Junagadh	ALLANA FROZEN FOODS,Plot No. 51 to 56 (Unit-1),GIDC Estate, Veraval, Junagar	1020	Private	Marine products
123	Junagadh	AMAR COLD STORAGE,Jawar Nakka, Porbander, Junagar	1293	Private	Marine products
124	Junagadh	AMAR FOOD PRODUCTS,Jawar Naka, Porbandar	486	Private	Marine products
125	Junagadh	B.M.G. FISHERIES,Plot No. 17-21, Harbour Area,Veraval, Junagar	706	Private	Marine products
126	Junagadh	CASTLEROCK SEA FOODS PVT. LTD.,Fisheries Harbour, Bhidia, Junagar	337	Private	Marine products
127	Junagadh	CASTLEROCK SEAFOODS PVT. LTD.,Fisheries Harbour, Bhidia	658	Private	Marine products
128	Junagadh	CHAM ICE & COLD STORAGE,Bokhira, Porbander, Junagar	1626	Private	Marine products
129	Junagadh	CHAM TRADIN ORGANISATION,105/1, GIDC Estate, Veraval –Patna Road,Veraval –362269	500	Private	Marine products

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
130	Junagadh	CHAM TRADING ORGANISATION,105 / 2, GIDC Estate, Veraval – 362269.	635	Private	Marine products
131	Junagadh	GUJARAT DAIRY DEVELOPMENT CORPN. JUNAGARH DAIRY,Jaffar Maidan, Junagarh – 362001	442	Public	Dairy products
132	Junagadh	GUJARAT EXPORTS,Post Box No. 48, Porbander,Junagar	148	Private	Marine products
133	Junagadh	HIRAVATI ICE & COLD STORAGE,605, GIDC, Veraval, Junagarh	387	Private	Marine products
134	Junagadh	HMG INDUSTRIES LTD.,GIDC Estate, Somnath Road,Veraval – 362269.	1067	Private	Marine products
135	Junagadh	JRK SEAFOODS PVT. LTD.,Cold Storage at GIDC-612,Veraval – 362269.	381	Private	Marine products
136	Junagadh	KONKAN FISHERIES PVT. LTD.,New Fisheries Harbour,Bhidia, Veravel –362267	270	Private	Marine products
137	Junagadh	MINAXI ICE & COLD STORAGE,Village Bokhira, Subash Nagar Road,Porbander, Junagar.	498	Private	Marine products
138	Junagadh	MONARCH FOODS PVT. LTD.,Bhidia Plot, Somnath Road, Veraval	386	Private	Marine products
139	Junagadh	MUKLAI ICE & COLD STORAGE,Veraval Patan Road, Veraval – 362269.	148	Private	Marine products

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
140	Junagadh	PITHADIYA FREEZING & COLD STORAGE CO.,Bhidia Plot, Junagarh – 362267	139	Private	Marine products
141	Junagadh	PRONTO FOODS (P) LTD.,101, GIDC Road, Veraval	1033	Private	Marine products
142	Junagadh	PURAVANKARA EXPORTS,227, SV Road, Bandra, Bombay(Cold Storage at Junagarh Gujarat).	72	Private	Marine products
143	Junagadh	R.K. ICE & COLD STORAGE,Bara Road, Mangrol, Junagarh	864	Private	Marine products
144	Junagadh	RAVI PATNA EXPORTS PVT. LTD.,Bhidia Plot, GIDC Area, Veraval	456	Private	Marine products
145	Junagadh	GOVIND COLD STORAGE,17-18 GIDC Estate, Junagarh	854	Private	Potatoes
146	Junagadh	RAMESHWAR COLD STORAGE,Somnath Road, Veraval	313	Private	Marine products
147	Junagadh	VERAVAL MARINES &CHEMICAL PVT. LTD,38 / 43 Bhidia Plot, Veraval –362267	342	Private	Marine products
148	Junagadh	HINDUSTAN LEVER LTD,Plot 130/1, Chorwad –362250	948	Private	Marine products
149	Junagadh	KARTIK COLD STORAGE,Plot No. 1308, GIDC Veraval –362269	233	Private	Marine products
150	Junagadh	ASIAN MARINE PRODUCTS,Plot 130/1, GIDC Veraval –362269	638	Private	Marine products

Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
151	Junagadh	AMRUT COLD STORAGE PVT. LTD,Plot 1111/2, GIDC Veraval – 362269.	329	Private	Marine products
152	Junagadh	MAMTA COLD STORAGE,Plot 806, GIDC Estate, Veraval –362269	355	Private	Marine products
153	Junagadh	SAGAR PUTRA MARINE PRODUCTS EXPORTS PVT.26 N.B. Area Maritime Board, Veraval. LTD.	140	Private	Marine products
154	Junagadh	VANITA COLD STORAGE,Lati Plot No. 2, Plot Area, Veraval –362267.	275	Private	Marine products
155	Junagadh	ELITE SHIP YARD (FROZEN FOOD DIVISION)2-4 GIDC Ind. Area, Veraval – 362269.	314	Private	Marine products
156	Junagadh	HIRAVATI EXPORTS PVT. LTD,407 / 410, GIDC, Veraval –362269.	964	Private	Marine products
157	Junagadh	ANJANI MARINE TRADERS,402 / 414, GIDC, Veraval –362269.	276	Private	Marine products
158	Junagadh	SAGAR FOODS,GIDC Estate, Veraval –362269	439	Private	Marine products
159	Junagadh	TULSI SEA FOODS,Plot 1316 / 1-2, GIDC, Veraval –362267	280	Private	Marine products
160	Junagadh	RAM ICE & COLD STORAGE,Opp. Bhidbhanjan temple, Veraval – 362267.	116	Private	Marine products
161	Junagadh	DEEPMALA MARINE EXPORTS,Near Fisheries Terminal Gate,Bhidiya Plot, Veraval – 362267	168	Private	Marine products

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
162	Junagadh	DEV SEA FOODS PVT. LTD,Plot 1006, GIDC Veraval 362269	318	Private	Marine products
163	Junagadh	TIRTH SEA FOODS,48-A, GIDC, Veraval	244	Private	Marine products
164	Junagadh	KIRTI ICE & COLD STORAGE,Plot 10, Fisheries Harbour,Bhidia Veraval.	105	Private	Marine products
165	Junagadh	ALLANA FROZEN FOODS Dwarka	770	Private	Marine products
166	Junagadh	BHAWANI COLD STORAGE,Plot 12, 13, Fisheries Harbour,Bhidia Veraval –362267.	213	Private	Marine products
167	Junagadh	CASTTEROCK COLD STORAGE P. LTD,Plot 102, GIDC, Veraval – 362269	401	Private	Marine products
168	Junagadh	M/S. BALIHARI COLD STORAGE,Plot No. 1315, GIDC Estate, Veraval	333	Private	Marine products
169	Junagadh	M/S. RITU MARINE PRODUCTS, Plot No. 1008, GIDC Estate, Veraval.	210	Private	Marine products
170	Junagadh	M/S. AMISON FOODS LTD.,305, GIDC Estate, Veraval –362269.	422	Private	Marine products
171	Junagadh	M/S. KING FISH INDUSTRIES,1201, 1202, GIDC Estate	439	Private	Marine products
172	Junagadh	M/S. DIVYA MARINE FOODS PVT. LTD,305, GIDC Estate, Somnath Road,Veraval –362269.	408	Private	Marine products
173	Junagadh	M/S. POONAM ICE & COLD STORAGE,Port Area, Near Fish Market,Porbander –360575.	364	Private	Marine products

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
174	Junagadh	M/S. AMAR COLD STORAGE, Jawar Naka, Porbander –360575	1149	Private	Marine products
175	Junagadh	SATYAM MARINE EXPORTS,Plot No. 14, Bhidia Plot,Veraval – 362269.	321	Private	Marine products
176	Junagadh	KAPISHWAR ICE & COLD STORAGE,KAPISHWAR ICE & COLD STORAGE,Veraval –362269	106	Private	Marine products
177	Junagadh	GOLDEN STAR COLD STORAGE CO.,Plot 1109 , 1110, GIDC Estate,Veraval –362269.	529	Private	Marine products
178	Junagadh	JIMMY MARINE TRADERS,1306 / 1311, GIDC Estate, Veraval	358	Private	Marine products
179	Junagadh	PANBROS IMPEXPVT LTD,Vill. Semarvav, Ta. Talala.	156	Private	Marine products
180	Junagadh	SILVER SEA FOOD,Jawarnaka, Porbander	374	Private	Marine products
181	Junagadh	CHAM TRADING ORGANISATION,802 / 2, GIDC Estate, Veraval.	1328	Private	Marine products
182	Junagadh	MINAXI FORZEN FOODS PVT. LTD,Plot 904, GIDC Area, Veraval.	378	Private	Marine products
183	Junagadh	SH. KODINAR TA. FRUITS & VEGETABLE PRODUCT CO. SOC.,Kodinar	2550	Private	Marine products
184	Kheda	ANUGRAHA COLD STORAGE,Shrinivas Vallabhji Street,Chakalasi – 387315.	3746	Private	Potatoes

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
185	Kheda	BHAGAWATI COLD STORAGE,Sardar Chowk, Chaklashi.	2400	Private	Potatoes
186	Kheda	CHAROTAR COLD STORAGE & ICE FACTORY,ICE FACTORY	3197	Private	Potatoes
187	Kheda	ENKEY COLD STORAGE,NH-8, Gutkal Road, Nadiad	2032	Private	Potatoes
188	Kheda	GHANSHYAM TRADING CO.,GHANSHYAM TRADING CO.,	454	Private	Multipurpose
189	Kheda	GUJARAT COLD STORAGE & ICE FACTORY,Outside Ahmedabadi Gate, Nadiad – 387001	630	Private	Potatoes
190	Kheda	GUJARAT COLD STORAGE & ICE FACTORY,Kanipura, Outside Ahmedabadi Gate,Nadiad –387001.	668	Private	Multipurpose
191	Kheda	JALARAM COLD STORAGE,Vadtal Bhalej Road, PO Chaklasi – 387315	3372	Private	Potatoes
192	Kheda	JAYLAXMI COLD STORAGE,NH-8, Kanjari	3918	Private	Potatoes
193	Kheda	KAIRA DIST COOP. MILK PROD. UNION LTD.Anand –388001	2192	Cooperative	Dairy products
194	Kheda	KAIRA DIST COOP MILK PROD. UNION LTD. Mogar.	216	Cooperative	Dairy products
195	Kheda	KAMALA COLD STORAGE & ICE FACTORY,Gutal, Nadiad	3636	Private	Potatoes

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
196	Kheda	MAHESH COLD STORAGE,Chaklasi Road, At & PO Uttarsanda,Taluk Nadiad.	1566	Private	Multipurpose
197	Kheda	MANIBHAI ZAVERBHAI PATEL & CO. COLD STORAGE,PO Boriavi, Anand –387310	5126	Private	Potatoes
198	Kheda	NEW COLD STORAGE & ICE PLANT,Near Kanjari Bus Stand,Kanjari – 387325	2287	Private	Potatoes
199	Kheda	SANTRAM COLD STORAGE,Uttarsanda	1463	Private	Potatoes
200	Kheda	SARVODYA COLD STORAGE,Behind Bus Station, Petrol PumpBalasinor	735	Private	Multipurpose
201	Kheda	SATHI COLD STORAGE PVT. LTD.,Cold Storage at Chaklashi,Khoda, Nadiad.	1812	Private	Potatoes
202	Kheda	SHITAL COLD STORAGE & ICE PLANT,Post Box No. 2, Vidyanagar Via Anand,CS at NH No. 8, Boriavi	4869	Private	Potatoes
203	Kheda	SHREE YOGESHWAR ICE & COLD STORAGE,Marida Bhagol, Nadiad –387001.	940	Private	Multipurpose
204	Kheda	SHRI UMIYA COLD STORAGE & ICE FACTORY,Boriavi –387310.	1727	Private	Potatoes
205	Kheda	SUBASH COLD STORAGE,Near Railway Station,Uttarsanda	1464	Private	Potatoes
206	Kheda	GOPAL(V B) COLD STORAGE & ICE PLANT,Boriavi Road, Boriavi – 387310	2707	Private	Potatoes

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
207	Kheda	V.J. COLD STORAGE,GIDC Plot No. 190-193,Vithal Udyog Nagar, Anand –388120	1352	Private	Potatoes
208	Kheda	VIMAL COLD STORAGE,NH-8, Boriavi – 387510.	1985	Private	Multipurpose
209	Kheda	VIPIN COLD STORAGE,NH-No. 8, Survey No. 438,NH-No. 8, Survey No. 438,	2935	Private	Potatoes
210	Kheda	AMAR COLD STORAGE,Lambhavel, Tal, Anand.	10104	Private	Potatoes
211	Kheda	ANNAPURNA COLD STORAGE,C3/17, GIDC Estate,Nadiad –387001.	1326	Private	Potatoes
212	Kheda	CHAKLASI SEVA SAHKARI MANDI LTD.,Chaklasi	3065	Cooperative	Potatoes
213	Kheda	SHRIJI COLD STORAGE & ICE FACTORY, Factory, Vill. Salun, Nadia- Dakor Road	836	Private	Potatoes
214	Kheda	CHINTAL COLD STORAGE PVT. LTD.,Chaklashi –387315.	4912	Private	Potatoes
215	Kheda	GOKOOL COLD STORAGE,NH-8, PO Boriavi	1419	Private	Potatoes
216	Kheda	KRISHNA COLD STORAGE,NH No. 8, Kanjari –387325	4381	Private	Potatoes
217	Kheda	MAHALAXMI COLD STORAGE,NH-8, Boriavi –387310.	3802	Private	Potatoes
218	Kheda	OM COLD STORAGE & ICE PLANT,NH-No. 8, Near Piplag Crossing,Piplag, Nadiad	2281	Private	Potatoes

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
219	Kheda	SHREE VISHNU COLD STORAGE,Near Post Office, Kanjari -387325	2714	Private	Potatoes
220	Kheda	SHREENATH COLD STORAGE,Near Old Post Office,PO Chaklasi, Tal, Nadiad.	4199	Private	Potatoes
221	Kheda	SHRI AMBICA COLD STORAGE,Opp. Malra Pura, Post Box No. 59,Nadiad -387001	1023	Private	Potatoes
222	Kheda	SHRI GANESH ICE & COLD STORAGE262/2, Kanjari Gram,262/2, Kanjari Gram,	3028	Private	Potatoes
223	Kheda	SIDHARTH COLD STORAGEBakrol Tal, Anand	1476	Private	Potatoes
224	Kheda	VEEKAY COLD STORAGEAt Gutal, Ta Nadiad	2032	Private	Potatoes
225	Kheda	SUDARSHAN COLD STORAGEBoriavi - 387310	2828	Private	Potatoes
226	Kheda	RAVI COLD STORAGERavalpura, Ta Anand	2684	Private	Potatoes
227	Kheda	VRUNDAVAN COLD STORAGEKanjari, Ta Nadiad.	3236	Private	Potatoes
228	Kheda	KAIVALKRUPA COLD STORAGEEjanpura, Ta Anand.	1714	Private	Potatoes
229	Kheda	UNIQUE COLD STORAGE PVT. LTD.Uttarsanda -387370	3598	Private	Potatoes
230	Kheda	NATRAJ COLD STORAGE,Tandel -387001	6099	Private	Potatoes
231	Kheda	SHREE RAM COLD STORAGEVagashi, Ta Anand -388001	1312	Private	Potatoes
232	Kheda	SHIVSHAKTI COLD STORAGENH-8, Gutal	2645	Private	Potatoes

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
233	Kheda	H.I. PATEL COLD STORAGE,Asodar, Ta-Borsad	2254	Private	Potatoes
234	Kheda	KISHAN COLD STORAGE,Piplag	1838	Private	Potatoes
235	Kheda	SHREE YAMUNAJI COLD STORAGE,Boriavi – Alindra Road, Chaklashi	2941	Private	Potatoes
236	Kheda	VAIKUNTH COLD STORAGE,Boriavi Bus Stand, Boriavi.	556	Private	Potatoes
237	Kheda	RAGHUKUL COLD STORAGE,Opp. Shital Cold Storage,N.H.No. 8, Kanjari, Ta, Nadiad.	2040	Private	Potatoes
238	Kheda	RADHAKISHAN COLD STORAGE,Kanjari.	5735	Private	Potatoes
239	Kheda	GURUKRIPA COLD STORAGE,Chaklashi	5147	Private	Potatoes
240	Kheda	MAHARANA PRATAP COLD STORAGE,Chaklashi	3529	Private	Potatoes
241	Kheda	NILKANTH COLD STORAGE,Chaklashi	2876	Private	Potatoes
242	Kheda	HARI OHM COLD STORAGE, Kheda	1418	Private	Potatoes
243	Kheda	YOGIRAJ COLD STORAGE,Nadiad	1084	Private	Potatoes
244	Kheda	SANDIP COLD STORAGE,Ajarpura	2204	Private	Potatoes
245	Kheda	KRISHNA COLD STORAGE,Kapadvanj	2123	Private	Potatoes
246	Kheda	SHRIJI KRUPA COLD STORAGE,Char Rasta, At & PO Chaklashi,Nadiad –387315	3113	Private	Potatoes
247	Kheda	CHANDRALOK COLD STORAGE,Samarkha, Sadanapura	8058	Private	Potatoes
248	Kheda	SHRI MANASDEVI COLD STORAGE,Sadanapura	3600	Private	Potatoes

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
249	Kheda	NILAM COLD STORAGE Vadi at Kasor	2162	Private	Potatoes
250	Kheda	SHREE KRISHNA COLD STORAGE, Ta. Kapadvanj-387620 Navagam	6300	Private	Potatoes
251	Kheda	GOPAL COLD STORAGE, Boriavi	4800	Private	Potatoes
252	Kheda	JANAKI COLD STORAGE, Ravalpura	3360	Private	Potatoes
253	Kheda	UNIQUE INDUSTRIES, Piplag, Via. Nadiad, Gujarat. 387355	2640	Private	Potatoes
254	Kheda	MAHENDRA COLD STORAGE, Anand Bhalej Road, Samarkha. 388360 Unit of Kirit Agro Foods Storage Pvt. Ltd	2800	Private	Potatoes
255	Kheda	MIRALI AGRO PRODUCTS, Chikhodra, Anand.	595	Private	Multipurpose
256	Kheda	KAMAL COLD STORAGE, Mogar, Anand	1970	Private	Potatoes
257	Kutch	KAILASH COLD STORAGE, KAILASH COLD STORAGE, Kutch -370 205.	400	Private	Potatoes
258	Kutch	KUTCH DAIRY, Guj-Dairy Dev - Coop. Ltd., Madhapur -370020.	476	Public	Milk and Milk Products
259	Kutch	JAI AMBE COLD STORAGE & FOOD PROCESSING, Gandhidham	3200	Private	Multipurpose
260	Kutch	KUTCH COLD STORAGE, Mandavi, Near Sitla Octroi, Gadshisha Road, Mandavi, Kutch. 370465.	700	Private	Multipurpose
261	Mehsana	JATIN COLD STORAGE & ICE FACTORY, GIDC Ind., Estate, 14- B, Kalol, Mehsana.	2000	Private	Potatoes

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
262	Mehsana	MEHSANA DIST.COOP MILKPROD.UNION LTD.,Mehsana	1781	Cooperative	Dairy products
263	Mehsana	MEHSANA ICE & COLD STORAGE PVT.LTD.,Highway Road, Mehsana.	4000	Private	Multipurpose
264	Mehsana	SARDAR DAIRYPVT.LTD.,Near Rajesh Automobiles,State Highway, Mehsana – 384002.	262	Private	Dairy products
265	Mehsana	SURAJCOLD STORAGE.,Plot No.1/1&2/A1. GIDC,Kalol –382721	3309	Private	Multipurpose
266	Mehsana	SHIV COLD STORAGE SHIV COLD STORAGE	3680	Private	Potatoes
267	Mehsana	SEET SAGAR COLD STORAGE & ICE FACTORYPVT.LTD.,Vijapur Tal.–382831	3930	Private	Potatoes
268	Mehsana	VIMAL DAIRY,Mehsana –384002.	237	Private	Dairy products
269	Mehsana	SURAJCOLD STORAGE,1/1+2/A-1,GIDC,Kalol	3200	Private	Multipurpose
270	Mehsana	SARVODAYA COLD STORAGE,Vijapur	3840	Private	Multipurpose
271	Mehsana	JAYSHRI MAHAKALI COLD STORAGE,Vijapur	3200	Private	Multipurpose
272	Mehsana	NILKANTH COLD STORAGE,Vijapur	3600	Private	Multipurpose
273	Mehsana	UMIYA COLD STORAGE PVT.LTD.,Khanusha,Mehsana	8000	Private	Multipurpose
274	Mehsana	JAYSHIL COLD STORAGE PVT.LTD.,Kansa Road,Vishnagar – 384315,Opp.Gurukul – Dist.Mehsana	3000	Private	Multipurpose

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
275	Mehsana	VIMAL COLD STORAGE(VIMAL DAIRYLTD.)Near Palavasana Rly. Crossing,High way road,Mehsana.-38400	4800	Private	Multipurpose
276	Mehsana	KEDARNATH COLD STORAGEPVT.LTD.,Boru,Vijapur	3415	Private	Multipurpose
277	Navsari	PURNA FROZEN FOODS PVT.LTD. ,Amadpore,Navsari- 396445	5000	Private	Multipurpose
278	Panchmahal	PANCHMAHAL DIST.CO.OP.MILKPRODUCERS UNION LTD.,Godhra Dairy,Godhra.	199	Cooperative	Dairy products
279	Rajkot	KISHAN COLD STORAGE,Gondal Road,Rajkot -360004	1631	Private	Potatoes
280	Rajkot	RAJKOT DIST.GOPALAKCOOP.MILKPROD.UNION LTD.,Rajkot - 360003.	227	Cooperative	Dairy products
281	Rajkot	RAVI COLD STORAGE,Gondal Road,Rajkot - 360004	1922	Private	Potatoes
282	Rajkot	SAURASHTRA CANNING &COLD STORAGE CO.,Opp.Observation House,Gondal Road,Rajkot -360002	4000	Private	Potatoes
283	Rajkot	NATH (STAR)COLD STORAGE,Canning&Ice Factory,Nath Mahal, Race Course,Rajkot - 360002	311	Private	Multipurpose
284	Rajkot	VARUN ICE &COLD STORAGE.,Opp.Premier Textile,Rajkot - 360003.	1254	Private	Potatoes

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
285	Rajkot	M.V.SHAH COLD STORAGE PVT.LTD.,Haripur,Ta.Lodhika	3200	Private	Multipurpose
286	Rajkot	GANDHI SPICES PVT.LTD.,(Cold Storage), Khandheri	1900	Private	Multipurpose
287	Rajkot	D.P.COLD STORAGE,Mathoda Ind.Estate,Rajkot.	2400	Private	Multipurpose
288	Rajkot	VEDMATA COLD STORAGE,Mathoda Ind.Estate	1400	Private	Multipurpose
289	Rajkot	GIRIRAJCOLD STORAGE,Mathoda Ind.Estate.	6076	Private	Multipurpose
290	Rajkot	RAJA COLD STORAGE,Mathoda Ind.Estate.	4000	Private	Multipurpose
291	Rajkot	ANAND FRUITS &VEGETABLE PRODUCER CO-OP. SOCIETY,Ghuntu Ta,Morbi.	2936	Cooperative	Multipurpose
292	Rajkot	PA COLD STORAGE,Upleta,Rajkot	600	Cooperative	Multipurpose
293	Rajkot	HASNAIN COLD STORAGE PVT.LTD.,GIDC,Plot No.1032,Rajkot	1078	Private	Potatoes
294	Sabarkantha	MAHESH COLD STORAGEBehind G.I.D.C.Patan -384265.	2000	Private	Potatoes
295	Sabarkantha	FREEZEWELL STORAGE NH -8,Majara - Talod JunctionTajpur (ORAN)Ta.Prantij	2306	Private	Potatoes
296	Sabarkantha	KISHAN COLD STORAGENear Bus Stand,Vadagam	848	Private	Potatoes
297	Sabarkantha	SABAR COLD STORAGE PVT.LTD.Near Sabar Dairy,Talod Road,Himatnagar -383001.	1734	Private	Potatoes

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
298	Sabarkantha	SABARKANTHA DIST.CO-OP.MILKPRODUCER'S UNION LTD.Sabar Dairy,Himatnagar.	1441	Cooperative	Dairy products
299	Sabarkantha	TORAN COLD STORAGE,Ranasan.	2800	Private	Multipurpose
300	Sabarkantha	SABAR COLD STORAGE PVT.LTD.,Gadhoda	2400	Private	Multipurpose
301	Sabarkantha	PATEL COLD STORAGE,Gadhoda	2400	Private	Multipurpose
302	Sabarkantha	KHYATI COLD STORAGE PVT.LTD.,Bibipura	4000	Private	Multipurpose
303	Sabarkantha	KISHAN COLD STORAGE,Sabalpur	3200	Private	Multipurpose
304	Sabarkantha	UMA COLD STORAGE,Bayad.	4000	Private	Multipurpose
305	Sabarkantha	UMA COLD STORAGE PVT.LTD.,Ranasan	2640	Private	Multipurpose
306	Sabarkantha	ADITYA ENTERTAINMENT PVT.LTD.,Vill.Tenpur,Ta Bayad	2467	Private	Multipurpose
307	Sidhpur	SIDHPUR ICE FACTORY&COLD STORAGE PVT.LTDKhali Char Rasta,,Sidhpur.	4480	Private	Potatoes
308	Sidhpur	PADHIAR COLD STORAGE PVT.LTD.,Sidhpur (Patan).	7200	Private	Potatoes
309	Sidhpur	MAHESH COLD STORAGE,Patan	2000	Private	Multipurpose
310	Sidhpur	HIMALAYA COLD STORAGE,Near Khali Char Rasta Highway,Vill. Brahmanwada,Sidhpur – 384151	4000	Private	Potatoes
311	Sidhpur	PALADIYA COLD STORAGE PVT.LTD.,Brahmanwada,PATAN	5148	Private	Multipurpose
312	Surat	AMRIT ICE &COLD STORAGE,Beigumpura Road,Surat	260	Private	Multipurpose

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Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
313	Surat	MEGHDOOT ICE & COLD STORAGE, Post.Saroli ,Surat.	771	Private	Multipurpose
314	Surat	SURAT DIST.COOP.MILKPRODS.UNION LTD.,Sumul Dairy,Surat – 395008.	579	Cooperative	Dairy products
315	Surat	POOJA COLD STORAGE,Near Sayan sugar factory,Sanjan	1800	Private	Multipurpose
316	Surendranagar	JANTA ICE FACTORY&COLD STORAGE.,Near Jawahar society,Surendranagar	7112	Private	Potatoes
317	Surendranagar	SURENDRANAGAR DAIRY,Gujarat Dairy Dev Corporation ltd.,Wadhwan Road,Wadhwan.	61	Public	Dairy products
318	Surendranagar	HARI OHM COLD STORAGE,Shekhpur	1360	Private	Multipurpose
319	Vadodra	AMAR ICE & COLD STORAGE,Channi Road,Opp.Mona Tiles Factory, Baroda –390002	50	Private	Multipurpose
320	Vadodra	BARODA DIST.COOP.MILKPRODU.UNION LTD.,Baroda Dairy	589	Cooperative	Dairy products
321	Vadodra	ENJOYDISTRIBUTORS,Jogidas Vithal's Pole,Raopura,Vadodara	76	Private	Dairy products
322	Vadodra	GURU OM COLD STORAGE,At Manjusar,Savli,Baroda	1881	Private	Potatoes
323	Vadodra	JANARDAN COLD STORAGE CO.PVT.LTD. Opp.Alembic Overbridge, Channi Road,Baroda –390002	5600	Private	Potatoes

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
324	Vadodra	KAMALA COLD STORAGE,Sawli Vadodra Road,Vill.Gothda,Tal. Sawli, Baroda.	2960	Private	Multipurpose
325	Vadodra	PRAKASH ICE &COLD STORAGE Bajwa Road,Chhani,Baroda – 390002	1845	Private	Potatoes
326	Vadodra	SHAKTIRAJCOLD STORAGE &ICE FACTORYNH No.8 Post Sakarda Distt.,Baroda	1088	Private	Multipurpose
327	Vadodra	SHREE JAYANARAYAN COLD STORAGE Cold Storage at MokshiShop No.1, ShoppingCentre,Channi (Baroda).	4401	Private	Potatoes
328	Vadodra	SHRI ARBUDA ICE &COLD STORAGE 823- Power Cable Road,Baroda – 390002	1130	Private	Potatoes
329	Vadodra	SUGAM DAIRY,C/o.Baroda Dist.Co.Op.Milk Producers Union Ltd.,Baroda.	297	Cooperative	Dairy products
330	Vadodra	KISHAN COLD STORAGE Moksi Ta,Savli	3285	Private	Potatoes
331	Vadodra	HIMGIRI FOODS PVT.LTD.Vadva Ta Karjun	280	Private	Frozen vegetables
332	Vadodra	SAJAN COLD STORAGE Sama Dist.Vadodara	1144	Private	Potatoes
333	Vadodra	MARUTI ICE AND COLD STORAGE Dasrath,Vadodara	2160	Private	Potatoes
334	Vadodra	GANRAJICE AND COLD STORAGE, Sankarda,Baroda	4800	Private	Potatoes
335	Vadodra	AMBICA COLD STORAGE,Mogar	2880	Private	Potatoes
336	Vadodra	SHAKUN COLD STORAGE PVT.LTD.,Mogar	3600	Private	Potatoes

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Sno.	District	Name and Address of cold storage	Capacity (in MT)	Sector	Products stored
337	Vadodra	KISHAN AGRO FOODS STORAGE PVT.LTD., N.H.No.8-AT P.OSankarda, Via Nandesari	4000	Private	Potatoes
338	Vadodra	KISHAN COLD STORAGE Sankarda-Badarva Road AT P.O-Mokshi Ta. Savli	4800	Private	Potatoes
339	Valsad	THE NAVSARI ICE FACTORY LTD.Navhari – 396445	58	Private	Multipurpose
340	Valsad	VADILAL INDUSTRIES LTD.Dharampur Vill.	1264	Private	Dairy products
341	Valsad	KWALITY FROZEN FOOD PVT.LTD.Vapi	20	Private	Dairy products
342	Valsad	VALSAD DIST.CO-OP.MILK PRODUCERS UNION LTD.Alipur, Dist. Valsad.	32	Cooperative	Dairy products

Appendix 1 C - Exit Point Infrastructure

Appendix 1 C.C - *Sea Ports*

Port: KANDLA SEA							Value in Rs Lacs Qty in MT	
Product	2011-12		2012-13		2013-14		%age growth on previous year	%age share in 2013-14
	Qty	Value	Qty	Value	Qty	Value		
Basmati Rice	737450.41	376964.46	784846.29	456954.92	483046	368975.39	-19.25	46.88
Wheat	272193.1	38437.8	2094222.7	336403.86	1770944.4	302858.53	-9.97	38.48
Other Cereals	13250.18	1768.39	214106.36	35344.2	357608	56850.78	60.85	7.22
Non Basmati Rice	465963.24	99297.01	951762.64	204543.76	206752.2	52025.77	-74.56	6.61
Maize	77007	9656.26	74475	10826.72	23818	4321.59	-60.08	0.55
Milled Products	1680.12	272.28	14327.76	2469.24	8950	1883.32	-23.73	0.24
Alcoholic Beverages	50	160.69	116.4	231.63	3.65	115.41	-50.17	0.01
Cereal Preparations	6765.75	3163.26	25.59	15.81	0	0	-100	0
Dairy Products	1.06	3.47	0.1	0.31	0	0	-100	0
Dried & Preserved Vegetables	0	0	1.1	1.96	0	0	-100	0
Floriculture	0	0	0.1	0.04	0	0	-100	0
Groundnuts	1446	759.06	21.02	4.87	0	0	-100	0
Guargum	21461.86	52583.43	5.5	20.33	0	0	-100	0
Jaggery & Confectionery	5745.64	2419.61	2203.7	642.61	0	0	-100	0
Mango Pulp	0	0	0.24	0.2	0	0	-100	0

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Port: KANDLA SEA						Value in Rs Lacs Qty in MT			
Miscellaneous Preparations	5961.06	1447.19	1417.15	326.73	0	0	-100	0	
Natural Honey	0	0	0.15	0.22	0	0	-100	0	
Other Fresh Fruits	20	1.54	1.22	0.85	0	0	-100	0	
Other Fresh Vegetables	5.18	0.86	0	0	0	0	0	0	
Other Processed Fruits & Vegetables	60.03	21.82	25.46	9.4	0	0	-100	0	
Pulses	1306.73	747.57	216	134.91	0	0	-100	0	
Total	16,10,367.36	5,87,704.70	41,37,774.48	10,47,932.57	28,51,122.25	7,87,030.79	-24.9	100	

Port: MUNDRA							Value in Rs Lacs Qty in MT	
Product	2011-12		2012-13		2013-14		%age growth on	%age share
	Qty	Value	Qty	Value	Qty	Value	previous year	in 2013-14
Basmati Rice	1061301.61	493610.62	1041430.78	574772.71	1573360.77	1226195.25	113.34	55.25
Non Basmati Rice	398411.36	88831.04	555176.94	134819.6	965497.8	281452.04	108.76	12.68
Guargum	169423.69	217563.67	120743.51	321165.62	210699.95	268741.55	-16.32	12.11
Wheat	264762.88	35699.67	1555694.06	249508.73	977751.13	167621.37	-32.82	7.55
Groundnuts	237161.75	147619.98	106747.79	83751.32	107405.64	67556.45	-19.34	3.04
Milled Products	26741.65	4653.7	69069.58	13468.44	143546.16	31505.8	133.92	1.42
Jaggery & Confectionery	52354.37	14243.9	77770.13	22876.8	77715.76	25429.62	11.16	1.15

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Port: MUNDRA	Value in Rs Lacs Qty in MT							
Pulses	25473.13	15829.59	17694.63	11328.01	46558.26	24522.1	116.47	1.1
Other Cereals	78598.78	10870.25	171574.45	27008.35	133266.21	23822.23	-11.8	1.07
Miscellaneous Preparations	41850.88	11650.83	59094.12	18097.9	65924.55	20608.68	13.87	0.93
Dried & Preserved Vegetables	6093.79	5873.65	18487.15	16467.02	15292.61	18415.55	11.83	0.83
Cereal Preparations	18594.05	8785.63	24047.03	11617.81	24403.78	15209.78	30.92	0.69
Alcoholic Beverages	0	0	21913.08	9131.1	32195.33	14468.85	58.46	0.65
Other Processed Fruits & Vegetables	9254.98	6336.67	12017.59	9206.35	13773.24	13966.25	51.7	0.63
Maize	31456.81	4634.8	47035.86	7422.38	30863.46	5473.56	-26.26	0.25
Other Fresh Vegetables	5441.69	1522.28	8233.79	3264.62	8383.25	5179.87	58.67	0.23
Other Fresh Fruits	2461.96	1441.07	4918.36	2705.87	4159.73	2760.23	2.01	0.12
Buffalo Meat	0	0	0	0	734	1528.22	100	0.07
Fruits & Vegetables Seeds	605.86	336.36	1083.45	1054.44	912.49	1388.29	31.66	0.06
Mango Pulp	807.78	460.26	737.92	509.49	1771.38	1298.61	154.88	0.06
Fresh Onions	797.68	76.83	1741.91	522.32	2055.63	573.48	9.79	0.03
Fresh Grapes	48	29.55	487.16	413.83	656.48	533.46	28.91	0.02
Dairy Products	97.59	191.93	126.74	185.86	191.17	529.65	184.97	0.02
Natural Honey	1.02	1.12	62.38	73.83	191.36	279.23	278.21	0.01
Walnuts	32	124.05	70.3	33.66	211.3	207.67	516.96	0.01
Fresh Mangoes	31.02	16.68	38.21	39.19	200.82	87.48	123.22	0
Cocoa Products	66.64	51.95	33.52	18.85	49.96	70.42	273.58	0

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Port: MUNDRA		Value in Rs Lacs Qty in MT						
Floriculture	14.94	26.82	119.1	25.07	62.3	21.52	-14.16	0
Cucumber and Gherkins(Prepd. & Presvd)	0.5	0.44	0.1	0.04	7.39	2.69	6,625.00	0
Other Meat	0	0	0	0	0.01	0.01	100	0
Poultry Products	0	0	0.75	2.79	0	0	-100	0
Total	24,31,886.41	10,70,483.34	39,16,150.39	15,19,492.00	44,37,841.92	22,19,449.91	46.07	100

Port: NHAVA SHEVA SEA		Value in Rs Lacs Qty in MT						
Product	2011-12		2012-13		2013-14		%age growth on	%age share
	Qty	Value	Qty	Value	Qty	Value	previous year	in 2013-14
Buffalo Meat	633458.89	867987.46	618734.1	932126.46	687270.25	1318989.23	41.5	48.54
Fresh Onions	776246.34	92993.63	959880.62	112381.19	790332.69	155337.08	38.22	5.72
Fresh Grapes	61893.85	45267.96	126929.6	111132.88	151160.95	151012.47	35.88	5.56
Pulses	141887.08	86939.85	176260.46	111935.57	284379.09	141747.6	26.63	5.22
Alcoholic Beverages	129338.03	83128.88	134640.02	90916.91	148044.35	113579.68	24.93	4.18
Non Basmati Rice	163919.06	36917.78	294670.11	73631.32	381520.02	107005.42	45.33	3.94
Maize	653408.95	89734.07	760334.2	120387.49	663048.27	99616.76	-17.25	3.67
Other Processed Fruits & Vegetables	102742.46	62318.31	113311.05	75523.93	107874.3	87222.31	15.49	3.21
Dairy Products	4046.52	7452.25	19066.54	32286.48	33050.61	71481.63	121.4	2.63

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Cereal Preparations	80388.91	48204.49	84561.82	59457.04	83616.96	66544.48	11.92	2.45
Miscellaneous Preparations	72898.76	36403.07	91762.03	44496.87	102890.15	55444.25	24.6	2.04
Cocoa Products	12005.25	11378.37	15183.84	22184.4	9525.68	42698.14	92.47	1.57
Jaggery & Confectionery	60472.94	28601.32	61157.42	30728.35	70608.62	41188.51	34.04	1.52
Other Fresh Vegetables	175928.42	33362.15	165836.5	36675.13	160432.95	40442.07	10.27	1.49
Other Fresh Fruits	80033.16	22224.41	80669.28	32695.59	63303.44	37333.41	14.18	1.37
Milled Products	66269.69	15747.05	80716.95	19561.19	121438.72	32514.25	66.22	1.2
Groundnuts	56571.91	34961.98	42543.32	30702.1	49138.73	31549.61	2.76	1.16
Fresh Mangoes	22840.25	11070.79	37533.29	16231.94	27732.6	17522.8	7.95	0.64
Other Cereals	36896.3	6392.5	82011.57	14630.3	84492.1	16429.33	12.3	0.6
Mango Pulp	25621.46	15793.34	17389	12291.52	24067.71	14908.19	21.29	0.55
Guargum	5977.97	10988.41	6140.09	22963.59	5483.05	12601.12	-45.13	0.46
Sheep/Goat Meat	5053.39	10988.44	4201.25	9559.82	5776	12391.56	29.62	0.46
Dried & Preserved Vegetables	9122.45	8920.07	11299	10142.65	9380.71	11492.45	13.31	0.42
Poultry Products	39475.2	5855.63	14430.44	6538.08	6414.36	6831.41	4.49	0.25
Cucumber and Gherkins(Prepd. & Presvd)	16472.66	4927.33	16893.47	6040.93	16223.06	6545.51	8.35	0.24
Wheat	31038.36	4206.13	33808.21	5828.57	35788.68	6497.47	11.48	0.24
Fruits & Vegetables Seeds	3063.84	2954.52	2751.59	3279.3	3547.66	4595.66	40.14	0.17
Basmati Rice	34723.37	14775.3	8025.43	4376.38	5641.85	4391.24	0.34	0.16
Walnuts	1432.67	5610.64	1097.9	4329.81	868.81	4367.38	0.87	0.16
Casein	65.74	282.33	629.78	2563.88	355.27	2093.85	-18.33	0.08
Animal Casings	347.12	642.69	362.58	533.17	156.12	1262.72	136.83	0.05

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Floriculture	705.36	885.58	1053.91	1256.19	738.26	1012.19	-19.42	0.04
Processed Meat	537.96	847.97	777.2	895.02	485.22	680.02	-24.02	0.03
Natural Honey	69.41	130.18	183.92	239.47	136.88	232.04	-3.1	0.01
Albumin(Eggs & Milk)	0.08	0.14	1.21	0.89	0.41	0.66	-25.84	0
Other Meat	150.45	167.02	113.03	119	0	0	-100	0
Total	35,05,104.26	17,09,062.04	40,64,960.73	20,58,643.41	41,34,924.53	27,17,562.50	32.01	100

Port: Porbandar Sea Port							Value in Rs Lacs Qty in MT		
Product	2011-12		2012-13		2013-14		%age growth on	%age share	
	Qty	Value	Qty	Value	Qty	Value	previous year	in 2013-14	
Groundnuts	714	376.91	1240	1010.62	1151	1297.94	-	-	
Fresh onions	0	0	2874.5	412.77	801.73	208.85	-	-	
Other fresh vegetables	0	0	0	0	0.6	98.5	-	-	
Groundnuts	714	376.91	1240	1010.62	1151	1297.94	-	-	
Fresh onions	0	0	2874.5	412.77	801.73	208.85	-	-	
Other fresh vegetables	0	0	0	0	0.6	98.5	-	-	
Groundnuts	714	376.91	1240	1010.62	1151	1297.94	-	-	
Total	714	376.91	4,114.50	1,423.39	1,953.33	1,605.29	-	-	

Port: Mumbai Sea Port							Value in Rs Lacs Qty in MT		
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Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Product	2011-12		2012-13		2013-14		%age growth on	%age share
	Qty	Value	Qty	Value	Qty	Value	previous year	in 2013-14
Alcoholic beverages	4690	2003.62	0	0	11154.75	5613.54	-	-
Miscellaneous preparations	1.48	4.49	0	0	7.33	17.44	-	-
Jaggery & confectionery	550	157.71	0	0	3.5	6.61	-	-
Milled products	10029	1634.34	5378.86	874.5	0	0	-	-
Non basmati rice	57822.94	12190.6	12055	2540.17	0	0	-	-
Other cereals	0	0	9000	1403.6	0	0	-	-
Fresh onions	3891	313.12	575.34	55.12	0	0	-	-
Poultry products	0	0	80	17.73	0	0	-	-
Total	76,984.42	16,303.88	27,089.20	4,891.12	11,165.58	5,637.59	-	-

Appendix 1 C.C - *Air ports*

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Port: MUMBAI AIR PORT							Value in Rs Lacs Qty in MT	
Product	2011-12		2012-13		2013-14		%age growth on	%age share
	Qty	Value	Qty	Value	Qty	Value	previous year	in 2013-14
Other Fresh Vegetables	41360.6	16920.24	42211.57	20804.44	40405.9	22552.13	8.4	32.05
Sheep/Goat Meat	3782.21	10311.66	3779.04	11690.13	3204.07	11112.85	-4.94	15.79
Floriculture	1446.83	4808.34	1109.97	4591.29	1202.76	7175.64	56.29	10.2
Fruits & Vegetables Seeds	187.85	3718.52	226.06	6143.42	269.91	6950.81	13.14	9.88
Fresh Mangoes	5545.62	3189	6633.37	5950.02	5435.25	6943.48	16.7	9.87
Other Fresh Fruits	14532.24	2657.82	15323.51	4016.67	8502.08	5335.18	32.83	7.58
Miscellaneous Preparations	809.66	1713.67	841.49	2785.03	524.04	3513.01	26.14	4.99
Poultry Products	15764.55	1697.79	13604.58	1034.62	13625	3455.41	233.98	4.91
Cocoa Products	359.91	328.77	68.54	262	124.35	663.76	153.34	0.94
Animal Casings	164.75	443.58	128.02	254.67	136.98	503.11	97.55	0.72
Jaggery & Confectionery	115.42	89.01	120.4	196.56	110.09	429.87	118.7	0.61
Fresh Grapes	208.05	204.76	326.43	325.2	204.06	260.64	-19.85	0.37
Dried & Preserved Vegetables	11.69	15.53	509.18	437.28	76.51	223.85	-48.81	0.32
Maize	75.5	61.83	2.01	3.09	96.08	220.01	7020.06	0.31
Fresh Onions	1025.12	84.86	1208.16	115.13	496.45	209.7	82.14	0.3
Guargum	106.88	207.94	40.47	181.9	42.65	168.48	-7.38	0.24
Other Processed Fruits & Vegetables	96.16	147.75	100.31	149.9	114.46	153.63	2.49	0.22
Albumin(Eggs & Milk)	251.35	654.14	14.31	435.51	3.35	147.86	-66.05	0.21

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Port: MUMBAI AIR PORT						Value in Rs Lacs Qty in MT		
Cereal Preparations	197.54	260.31	118.48	158.27	70.43	125.26	-20.86	0.18
Alcoholic Beverages	75.21	781.55	25.1	169.25	51.83	90.05	-46.79	0.13
Casein	4.88	51.82	9.06	135.91	3.26	40.31	-70.34	0.06
Dairy Products	64.09	115.59	42.78	88.51	7.3	28.85	-67.4	0.04
Natural Honey	14.32	43.96	2.22	17.16	1.69	20.01	16.61	0.03
Mango Pulp	22.71	24.22	4.92	4.58	9.37	17.24	276.42	0.02
Groundnuts	0.22	0.09	0	0	5.49	12.5	100	0.02
Milled Products	31.72	6.41	20.02	5.6	8.25	2.61	-53.39	0
Other Cereals	1.3	0.09	0.25	0.07	0.25	1.18	1585.71	0
Non Basmati Rice	1.04	1.11	0.05	0.02	1.34	0.87	4250	0
Cucumber and Gherkins(Prepd. & Presvd)	0.12	0.43	0.14	1.1	0.49	0.36	-67.27	0
Basmati Rice	0	0	0.1	0.05	0.18	0.14	180	0
Buffalo Meat	1412.81	3323.9	34.29	164.34	0.05	0.05	-99.97	0
Processed Meat	0	0	0.02	0.05	0	0.02	-60	0
Other Meat	5	5.71	9.4	19.6	0	0	-100	0
Pulses	2.18	3.57	2.66	1.27	0	0	-100	0
Walnuts	0	0	0.03	0.09	0	0	-100	0
Wheat	0.06	0.11	0	0	0	0	0	0
Total	87677.59	51874.08	86516.94	60142.73	74733.92	70358.87	16.99	100

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Port: AHMEDABAD AIR CARGO COMPLEX							Value in Rs Lacs Qty in MT	
	2011-12		2012-13		2013-14		%age growth on	%age share
Product	Qty	Value	Qty	Value	Qty	Value	previous year	in 2013-14
Fresh Mangoes	176.77	136.46	284.42	292.91	364.69	481.38	64.34	34.85
Other Fresh Vegetables	225.25	203.67	246.25	282.72	101.29	251.11	-11.18	18.18
Other Processed Fruits & Vegetables	137.45	312.97	68.19	151.47	37.09	145.28	-4.09	10.52
Guargum	18.25	50.75	90.47	507.77	61.35	124.38	-75.5	9.01
Miscellaneous Preparations	52.24	549.06	18.15	39.93	42.89	118.47	196.69	8.58
Other Fresh Fruits	40.54	13.43	45.3	45.41	57.36	65.97	45.28	4.78
Floriculture	14.54	34.7	10.35	38.15	16.57	56.68	48.57	4.1
Cereal Preparations	37.63	40.48	35.46	63.53	37.27	48.15	-24.21	3.49
Dairy Products	8.11	15.18	14.09	28.65	17.7	38.14	33.12	2.76
Dried & Preserved Vegetables	5.46	9.47	18.4	48.42	4.39	14.96	-69.1	1.08
Jaggery & Confectionery	15.21	10.95	9.78	20.99	12.33	12.18	-41.97	0.88
Fruits & Vegetables Seeds	1.46	8.65	0.96	10.73	0.72	7.32	-31.78	0.53
Other Cereals	0	0	0	0	6.6	5.48	100	0.4
Poultry Products	0	0	0.02	0.21	1.09	5.32	2433.33	0.39
Groundnuts	0.1	0.03	0	0	2.11	2.2	100	0.16
Basmati Rice	0	0	0.7	0.48	2	1.38	187.5	0.1
Casein	0	0	0.08	0.1	0.56	1.17	1070	0.08

Study on identification of export oriented integrated infrastructure for agri products from Maharashtra & Gujarat - APEDA (Agriculture Produce Export Development Authority)

Cocoa Products	0.19	0.21	0.11	0.31	0.15	0.96	209.68	0.07
Milled Products	0	0	3.9	2.07	1.3	0.47	-77.29	0.03
Fresh Onions	0	0	4.57	0.32	0.2	0.12	-62.5	0.01
Non Basmati Rice	0	0	0	0	0.02	0.07	100	0.01
Albumin(Eggs & Milk)	0.01	0	0	0	0.03	0.03	100	0
Cucumber and Gherkins(Prepd. & Presvd)	1	0.56	0	0	0	0	0	0
Fresh Grapes	0	0	0.08	0.1	0	0	-100	0
Pulses	0	0	1.88	1.34	0	0	-100	0
Walnuts	0	0	0.4	0.32	0	0	-100	0
Total	734.21	1386.57	853.56	1535.93	767.71	1381.22	-10.07	100

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