

Sapota Market Access Plan

TA-6782 IND: Enhancing Market Linkages for Farmer Producer Organizations

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1 Crop Background

Sapota, also known as chikoo / sapodilla / zapota, are tropical fruits that are native to Central America and is cultivated across many tropical countries such as India, Mexico, and Thailand. The fruit has a brown, rough outer skin, and a sweet pulpy flesh. Due to its high sweetness and good texture, the fruit is a good dessert fruit. It is processed and consumed as shakes, smoothies, and ice creams.

1.1 Global Scenario

Sapota is traded only in limited quantities, hence its production and trade are not tracked by organizations such as FAO. Hence, no data on global production and trade is provided in this document.

1.2 Indian Scenario

1.2.1 Production

India's production of sapota is estimated to be 8.71 lakh MT across an acreage of 0.78 lakh hectares in 2021-22. The production is showing a year-on-year decreasing trend over the last 5 years, except for a slight increase in 2021-22. The production is decreasing at an annual rate of 4.5% from 2017-18 to 2021-22. The decrease in production is primarily due to the decrease in area under cultivation followed by a slight reduction in productivity.

Table 1: India – Sapota Production, Area under Cultivation & Productivity – 2017-18 to 2021-22

Year	Production (MT)	Area (ha)	Productivity (MT/ha)
2021-22 [#]	8,70,999	77,971	11.17
2020-21	8,22,004	78,624	10.45
2019-20	9,00,871	83,768	10.75
2018-19	10,59,009	88,884	11.91
2017-18	11,75,889	97,289	12.09

Source: Department of Agriculture and Farmers Welfare, Government of India; # 3rd estimate

Maharashtra is the 3rd largest producer of sapota in the country, lagging behind Gujarat and Andhra Pradesh. Gujarat is the largest producer, producing 2.70 lakh MT in 2021-22, 150% higher than Maharashtra. Other major producers of sapota are Tamil Nadu and Karnataka. Maharashtra's productivity (8.42 MT/ha) is nearly half of Andhra Pradesh's (15 MT/ha) and 25% less than the national productivity (11.17 MT/ha).

The top 10 producing states indicate that the production is concentrated in the southern and central states, while there is limited sapota production in Northern and Eastern states (with the exception of West Bengal).

Table 2: Top 10 States in Sapota Production in India – 2021-22[#]				
S. No.	States	Production (MT)	Area (ha)	Productivity (MT/ha)
1	Gujarat	2,70,994	26,644	10.17
2	Andhra Pradesh	1,98,765	13,251	15.00
3	Maharashtra	1,08,443	12,877	8.42
4	Tamil Nadu	86,993	5,763	15.10
5	Karnataka	86,330	7,759	11.13
6	West Bengal	47,372	4,493	10.54
7	Telangana	22,512	1,068	21.07
8	Haryana	21,828	1,810	12.06
9	Odisha	13,560	2,340	5.79
10	Madhya Pradesh	6,332	363	17.44
India		8,70,999	77,971	11.17

Source: Department of Agriculture and Farmers Welfare, Government of India; # 3rd estimate

The rank of top 10 producing states has largely remained the same during the last 5 years. Maharashtra moved from 4th to 3rd largest producer, replacing Tamil Nadu, in 2019-20, and since has remained the 3rd largest sapota producer in the country.

Table 3: Top 10 States in Sapota Production from 2017-18 to 2021-22				
2021-22[#]	2020-21	2019-20	2018-19	2017-18
Gujarat	Gujarat	Gujarat	Gujarat	Gujarat
Andhra Pradesh	Andhra Pradesh	Andhra Pradesh	Karnataka	Karnataka
Maharashtra	Maharashtra	Maharashtra	Tamil Nadu	Tamil Nadu
Tamil Nadu	Karnataka	Karnataka	Maharashtra	Maharashtra
Karnataka	West Bengal	West Bengal	Andhra Pradesh	Andhra Pradesh
West Bengal	Tamil Nadu	Tamil Nadu	West Bengal	West Bengal
Telangana	Haryana	Telangana	Haryana	Odisha
Haryana	Telangana	Haryana	Odisha	Haryana
Odisha	Odisha	Odisha	Telangana	Telangana
Madhya Pradesh	Madhya Pradesh	Chhattisgarh	Madhya Pradesh	Madhya Pradesh

Source: Department of Agriculture and Farmers Welfare, Government of India; # 3rd estimate

Maharashtra's share in India's sapota production has been in the range of 11-16% between 2017-18 to 2021-22, with no clear trend. The state's productivity is also not increasing or decreasing significantly, ranging between 8-9 MT/ha. Maharashtra production is in a decreasing trend for the last 3 years due to reduction in cultivation area.

Table 4: Maharashtra – Sapota Production, Area under Cultivation and Productivity – 2017-18 to 2021-22

Year	Production (MT)	Area (ha)	Productivity (MT/ha)	% of India's Production
2021-22 [#]	1,08,443	12,877	8.42	12.45%
2020-21	1,14,576	13,997	8.19	13.94%
2019-20	1,41,975	16,962	8.37	15.76%
2018-19	1,39,817	16,581	8.43	13.20%
2017-18	1,34,784	15,030	8.97	11.46%

Source: Department of Agriculture and Farmers Welfare, Government of India; # 3rd estimate

Dahanu-Gholvad-Bordi region in Palghar district is the major production region for sapotas in the State. Palghar district accounts for more than 40% of the state's sapota production. Ahmednagar and Pune are other top sapota producing districts in Maharashtra. The productivity in Palghar district is lower than state average.

Table 5: Top 10 Districts in Sapota Production in Maharashtra – 2021-22[#]

S. No.	States	Production (MT)	Area (ha)	Productivity (MT/ha)
1	Palghar	34,090	4,452	7.66
2	Ahmednagar	16,353	1,750	9.34
3	Pune	11,720	1,172	10.00
4	Osmanabad	8,100	795	10.19
5	Beed	5,179	432	11.99
6	Solapur	4,290	858	5.00
7	Aurangabad	4,120	385	10.70
8	Nashik	3,758	378	9.94
9	Sindhudurg	3,105	270	11.50
10	Sangli	2,710	339	7.99
Maharashtra		1,08,443	12,877	8.42

Source: Department of Agriculture, Government of Maharashtra; # 3rd estimate

1.2.2 Important Varieties

The table below provides a brief description on the major sapota varieties cultivated in India.

Kalipatti	It is a popular variety due to high sweetness and rich flavor. North Coastal region in Maharashtra and adjacent coastal region in Gujarat are known for cultivation of Kalipatti sapotas.
Cricket Ball	This variety, also called “Calcutta Large”, is a widely grown variety in Karnataka, Maharashtra, Gujarat, and West Bengal. The pulp is medium sweet and has a granular texture.
Pala	Pala is a popular variety grown in Tamil Nadu and Andhra Pradesh. This variety sapotas are oval in shape and small to medium in size.
Baramasi	The variety produces fruits that are partially round in shape and has good, sweet taste. It is grown in Uttar Pradesh, Bihar, and West Bengal.

1.2.3 Trade – International

The export of sapota from India is limited and has decreased over the last 5 years from 2017-18 to 2021-22. In 2021-22, only 1023 MT of sapota was exported from India. Though this is a 50% increase from 2020-21, the exports in 2020-21 nearly halved from its preceding year. The export quantity has decreased at an annual rate of 8.6% from 2017-18 to 2021-22. The limited international trade is because of lack of awareness of the fruit in high consuming markets like North America, Europe, and East Asia, leading to low demand for sapota.

Year	Quantity (MT)	Value (₹ Crs)
2021-22	1,023	7.75
2020-21	657	4.91
2019-20	1,134	7.21
2018-19	1,424	8.54
2017-18	1,603	8.9

Source: Agri Exchange – APEDA

UAE was the largest importer of sapotas from India in 2021-22, accounting for more than 50% of India's exports. The Middle East countries are the major importers of sapota from India, due to presence of high Indian diaspora. UK, Canada, Germany, and Singapore are other small market for Indian sapotas.

S. No.	Country	Quantity (MT)	Value (₹ Crs)
1	UAE	548	3.56
2	Bahrain	143	.93
3	UK	99	1.15
4	Qatar	78	.64
5	Kuwait	28	.24
6	Canada	26	.33
7	Germany	23	.21
8	Oman	20	.16
9	Saudi Arabia	14	.13
10	Singapore	10	.11
India		1,023	7.75

Source: Agri Exchange – APEDA

India's sapota exports to the Middle East market has been declining which is affecting India's overall sapota export figures. All the top 5 importing countries (except UK) have decreased their importing quantity between 2017-18 to 2021-22.

S. No	Country	2017-18	2018-19	2019-20	2020-21	2021-22
1	UAE	824	605	504	374	548
2	Bahrain	269	234	163	54	143
3	UK	58	140	124	66	99
4	Qatar	99	88	76	77	78
5	Oman	121	122	88	15	20
India		1,603	1,424	1,134	657	1,023

Source: Agri Exchange – APEDA

1.2.4 Trade – Domestic

Sapota is traded across the country, through private / unorganized channels and through the Government notified *Mandis*. The price in domestic trade is dependent on supply-demand dynamics.

Major markets for sapotas are the *Mandis* either in large urban centers or near high sapota producing regions. Below tables provide the total arrivals and average modal price in *Mandis* with highest sapota arrivals (across India and in Maharashtra) during 2022, as per AGMARKNET.

Table 10: Arrivals and Modal Price in Major Sapota Mandis in India – 2022

S. No.	<i>Mandis</i>	Arrival (MT)	Average Modal Price (₹/quintal)
1	Azadpur (Delhi)	30589	3075
2	Mumbai Fruit Market (Maharashtra)	8485	3966
3	Chikhali (Gujarat)	6650	1672
4	Ajmer (F&V) (Rajasthan)	5443	3112
5	Pune (Maharashtra)	3978	2292
6	Gaddiannaram (Telangana)	3947	1140
7	Jodhpur (F&V) (Rajasthan)	2924	2103
8	Deesa Veg Yard (Gujarat)	2830	4939
9	Bangalore Binny Mill (Karnataka)	2161	3904
10	Moshi Pune (Maharashtra)	2142	2432

Source: AGMARKNET

Table 11: Arrivals and Modal Price in Major Sapota Mandis in Maharashtra – 2022

S. No.	<i>Mandis</i>	Arrival (MT)	Average Modal Price (₹/quintal)
1	Mumbai Fruit Market	8485	3966
2	Pune	3978	2292
3	Moshi Pune	2142	2432
4	Nagpur	1471	2975
5	Solapur	1087	1705

Source: AGMARKNET

1.2.5 Value Chain Overview

The sapota value chain starts from nurseries / institutions supplying saplings to farmers. Trainings are provided through Government Departments and Krishi Vigyan Kendras. Sapota farmers sell their produce mainly through local traders / *mandis* and some quantities through pre-harvest contractors. Sapotas are supplied from local *mandis* to major consumption markets across the country. The structure of sapota value chain is provided in the figure below.

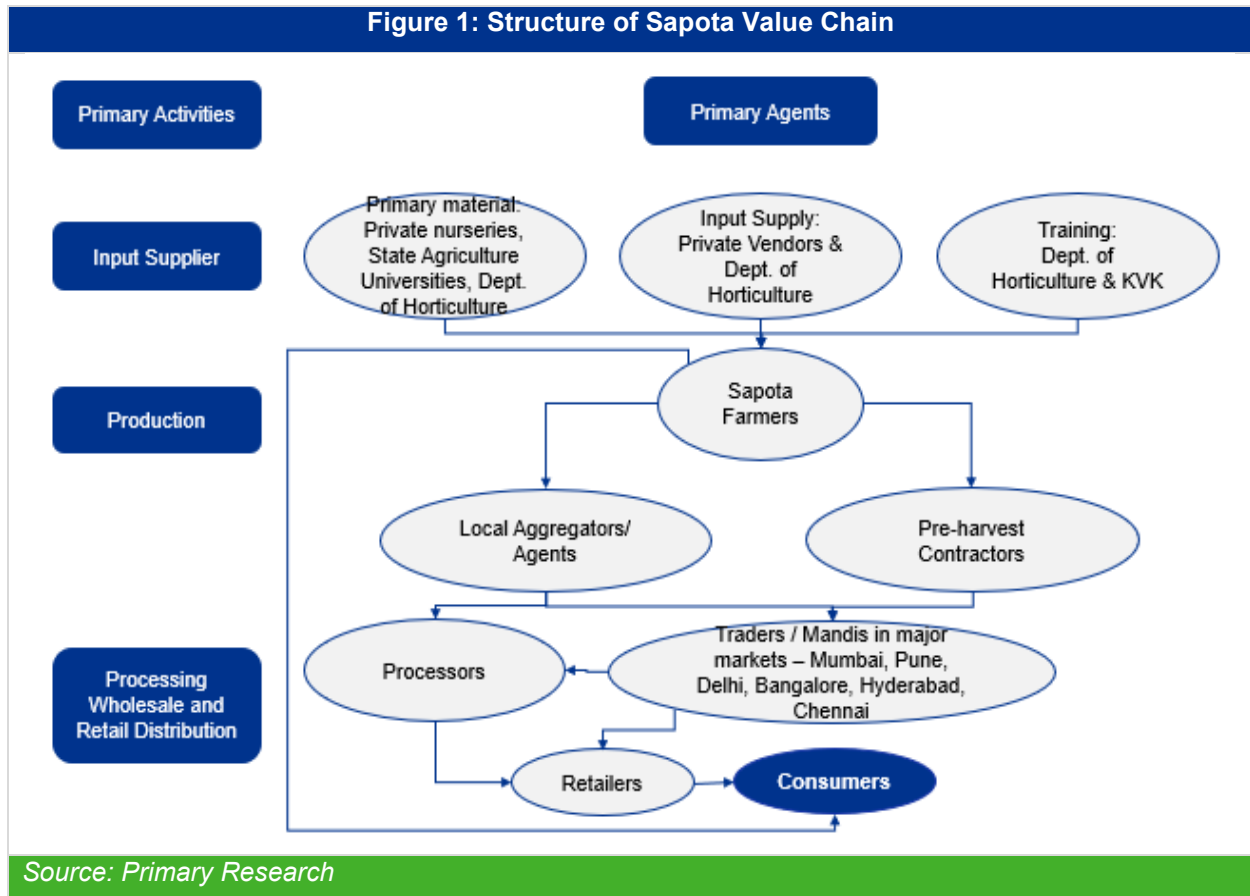
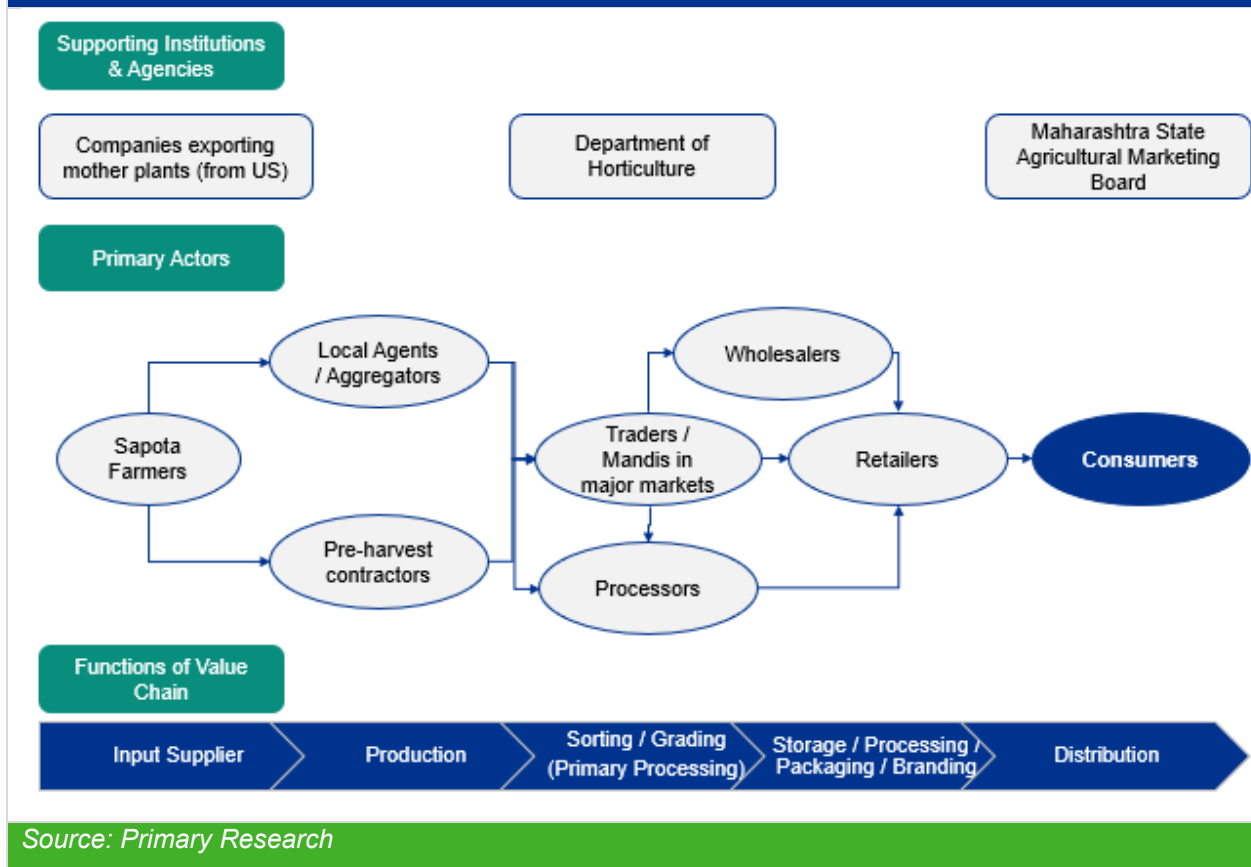


Figure 2: Commodity Flow and Trade Analysis of Sapota



2 Marketing Strategy

Individual farmers and FPOs face issues in accessing profitable markets for their produce. Key challenges for them are their remote locations, high transportation costs, limited market information / knowledge of requirements, and the lack of business skills. The following market strategy has been prepared with a focus on providing information that helps FPOs in accessing reliable and profitable markets, while ensuring their produce meets market standards. In addition, it is envisaged that the FPOs have better bargaining power, some of the value chain activities are shifted towards them and there is a win-win situation for both FPOs and associated value chain actors / market players. Also, while providing information on opportunities, associated risks have also been highlighted. Prior to a detailed market segment-wise strategy, some of the common and cross-cutting interventions that are required at the end of FPOs for better market access are given below:

Commodity resource mapping and Know Your Farmers (KYF): FPOs should keep information on acreage of cultivable land under different crops, approximate marketable crop available with the farmers in the season, etc. This will help FPOs to have an idea of the volumes to be handled in the season and plan to effectively market their produce eventually.

Aggregate large volumes of produce: FPOs can establish long-term business relationship only if they are able to consistently supply sufficient quantity of produce, as per the buyer requirements. FPOs can increase procurement catchment area to consistently meet minimum requirement quantities.

Flexibility with payment terms: Many market segment function on credit cycle, which can vary from as low as 5-7 days to as high as 30-60 days. FPOs should have sufficient working capital to made credit cycle and farmer payments.

Have good market intelligence: FPOs should have good market intelligence to decide on store / sell decisions and to determine which market to send the produce to. Market intelligence can be collected through online sources such as Government data and news articles, and through on-ground network of contacts in different parts of the country. Keeping a tab on market situations in target export markets will help FPOs in market entry and expansion.

Appointment of manager: FPOs can appoint a manager for its market linkage business. This will help in better sales planning, coordination with buyers for purchase and payment timelines. It can also appoint a manager for procurement activities. For FPOs to expand its business and supply to more buyers, it is necessary to have strong procurement, and appointment of manager can help in establishing the same.

Diversify supply options: All types of markets and customers come with both opportunity and risks for FPOs. This document also details on potential risks that FPOs might face in each market. To mitigate risks, FPOs should ensure that it deals in multiple markets and with multiple customers in each market. In addition, to get quality commensurate pricing, FPOs need to supply each market with its required quality of produce.

This section details out the strategy that the FPOs can adopt to supply sapotas in the major market segments, namely, 1) Export Markets, 2) Domestic Markets, 3) Organized retail and eCommerce, and 4) Processors. Key components of this section are:



2.1 Exports

Export markets are regions / countries that sapota is exported or can be exported from India. Export markets for sapotas are classified as the Middle East and for sapotas in this document.

2.1.1 The Middle East

The Middle East market includes countries such as United Arab Emirates (UAE), Saudi Arabia, Iran, Oman, Egypt, Qatar, Iraq, Kuwait, Syria, Israel, Jordan, and Bahrain.

2.1.1.1 Characteristics of the Segment

The Middle East market has significant Indian diaspora and Indian origin population especially UAE, Saudi Arabia, Oman, Qatar, and Kuwait. Hence, this market has good demand for many Indian horticulture crops and is a top market for horticulture exports from India. The purchasing power of consumers in these markets is also high, and they demand high quality fruits and vegetables.

India currently exports sapota in considerable quantity to UAE and Bahrain (>100 MT per year), and in small quantities to Qatar, Kuwait, Oman, and Saudi Arabia (>10 MT per year). The consumption of the imported sapota is driven by the Indian (and Pakistan, Bangladesh) diaspora in these countries.

2.1.1.2 Competition

Other Countries:

India is the dominant exporter of sapotas to the major Middle East markets and does not face significant competition from other countries.

Other Indian States:

Maharashtra dominates the exports to the Middle East accounting for more than 80% of India's exports to the Middle East, in terms of value of exports. Other competing states are Telangana, Kerala, and Karnataka. The major producing region for sapota is the north coastal region of Maharashtra, bordering Gujarat. Sapota grown in Gujarat in the same region is also exported through Maharashtra. Thus, the major competition for Maharashtra FPOs (especially those in the north coastal region) looking to export Sapota is south-west region of Gujarat (Valsad, Navsari, Surat districts).

2.1.1.3 Maintaining Quality Standards and Pricing

Sapota of both Grade I & II (high and medium grades) are exported to the Middle East market. The quality specifications of sapota for export to the Middle East market is provided in the table below.

Preferred Varieties	Kalipatti; other similar sweet varieties can also be exported
Size	80 to 150 g per fruit
Physical Appearance	<ul style="list-style-type: none">• Firm fruits without cracks• No surface damage• Clear peel with minimal black / dark spots• Minimal presence of latex marks on peel

Sapota can either be exported by air or sea to the Middle East market, with air being the more preferred mode of transport. For export through air, sapota can be supplied at ambient temperature. For export through sea, sapota need to be sent through reefer truckers to ensure good shelf life. The transit time from Nava Sheva port to Dubai port is 7-9 days including loading and unloading. FPOs looking to supply to the Middle East can invest in packhouse facilities for sorting, grading, and packaging, pre-cooling chamber and reefer trucks.

Currently, sapota is not usually sent as full containers, but in small quantities, due to limited demand. In such cases, exporters combine different fruits and vegetables, pre-cool the material and send it in reefer containers to the Middle East. FPOs need to establish pre-cooling and reefer transportation facilities only

in case it is able to supply full truck load for exports. Sapota are packed in CFB boxes in varying quantities from 2.5 to 5 kg boxes as per importer demand.

The procurement model of sapota for export is from *Mandis*, as the export quantity is limited. Most exporters have not established backward linkages to procure from farmers / FPOs, since both requirement and supply ability are limited. FPOs should have good production and procurement capacities along with providing top quality produce when supplying to exporters.

Sapota is exported throughout the year, as it is a round-the-year crop, with months of high and low supply. FPOs should be able to supply throughout the year required quality (Grade I) for exports, and also establish domestic channels for supply of Grades II and III produce.

2.1.1.4 Pricing

The export pricing is determined by the prevailing domestic prices for top grade sapota. The price range during peak and lean season is provided in the table below.

Price range during high supply	Price range during low supply
₹40 to ₹60 per kg	₹60 to ₹100 per kg

Costs such as sorting and grading, packaging, port charges are also incurred during exports. The labour charges for sorting, grading, and packaging varies from place to place, based on local labour market. The sorting, grading, and packaging labour costs is approximately ₹1 per kg in the Dahanu-Gholvad-Bordi region (the major region for sapota production in Maharashtra). The packaging material cost is ₹10-15 for 2.5 to 5 kg CFB boxes, which are required for exports. The transportation cost from the Dahanu-Gholvad-Bordi region to Nava Sheva port is approximately ₹1-2 per kg (full truck load).

FPOs looking to directly export without an exporter intermediary would also incur additional costs, apart from the shipping charges. For export by sea, average port handling charges are ₹25,000 to ₹30,000 per container and custom agent charges ₹6000 to ₹8000 per container. For export by air, these charges are approximately ₹3-5 per kg.

2.1.2 Europe

Europe market includes member countries of the European Union and United Kingdom. Major member countries of European Union that trade agricultural commodities with India, are Netherlands, France, Spain, Germany, Italy, Denmark, and Belgium.

2.1.2.1 Characteristics of the Segment

Europe is one of the biggest markets, along with North America, for export of agriculture commodities from developing countries. Most of the countries in this market are developed economies and have high quality standards for marketing of fresh fruits and vegetables. The purchasing power of consumers of in this market is significantly higher than other markets such as the Middle East and Indian sub-continent.

Except UK, the presence of Indian diaspora is insignificant in other countries (only Italy and Germany have more than 1 lakh Non-Resident Indians (NRIs), while UK has more than 3.5 lakh NRIs and 14 lakh Persons of Indian Origin). Hence, unlike Middle East market, where the consumption of produce from Indian can be primarily dependent on immigrants from India and neighboring countries, the consumption in Europe should be driven by local population. India currently exports sapotas to UK, Germany, France, Netherlands, and Norway, with UK being the largest importer in Europe. Sapota exports to Europe do not show any clear increasing or decreasing trend over the last five years from 2017-18 to 2021-22.

The consumption of sapota in Europe is very limited, and the current exports from India cater primarily to the Indian diaspora in those markets. Sapota can be considered to be part of the exotic range of tropical fruits with rambutan, passion fruit, pitahaya (dragon fruit), and lychees being the most consumed exotic tropical fruits. The import of tropical exotic fruits in Europe is witnessing a good growth over the last few years. Though sapota is still not a preferred fruit for consumption due to limited knowledge on the fruit and low availability, it has good potential for growth in the Europe market.

2.1.2.2 Competition

Other Countries:

Since consumption of sapota is limited to Indian diaspora population in Europe, there is no perceptible competition for supply of sapotas from other countries.

Other Indian States:

Maharashtra dominates the exports to the Middle East accounting for more than 80% of India's exports to the Middle East, in terms of value of exports. Other competing states are Telangana, Kerala, and Karnataka. The major producing region for sapota is the north coastal region of Maharashtra, bordering Gujarat. Sapota grown in Gujarat in the same region is also exported through Maharashtra. Thus, the major competition for Maharashtra FPOs (especially those in the north coastal region) looking to export Sapota is south-west region of Gujarat (Valsad, Navsari, Surat districts).

2.1.2.3 Maintaining Quality Standards and Pricing

Sapota is considered to be an exotic tropical fruit in many European markets. This requires the quality of sapota supplied to the European market to be of top grade. The quality specifications of sapota for export to the European market is provided in the table below.

Preferred Varieties	Kalipatti; other similar sweet varieties can also be exported
Size	80 to 150 g per fruit
Physical Appearance	<ul style="list-style-type: none">• Firm fruits without cracks• No surface damage• Clear peel without black / dark spots• No presence of latex marks on peel

Europe has strict requirements on pesticide residue levels (MRLs) for import of all fruits and vegetables. Sapota is generally grown with minimal usage of pesticides, and hence comply with the MRL limits of Europe Union. Nonetheless, FPOs looking to supply sapotas for export to Europe should ensure that MRLs are within specified limits. The updated database of MRLs for Europe Union can be found in this link - <https://ec.europa.eu/food/plant/pesticides/eu-pesticides-database/start/screen/mrls>. The MRLs indicate the “maximum” allowable levels for different chemicals, but it depends on the importers for more stricter requirements. Many large retailers in Europe can have more stricter standards on MRLs, which the exporter should clarify through the importers. Sapotas are not usually listed by large retailers as the market is small, and only the retail channels of Indian products sell sapotas in Europe.

Sapota should be exported by air to the European market, due to high transit time by sea. Export through air is done at ambient temperature. Currently, sapota is not usually sent as full containers, but in small quantities, due to limited demand. In such cases, exporters combine different fruits and vegetables, along with Sapota. Sapota are packed in CFB boxed in varying quantities from 2.5 to 5 kg boxes as per importer demand.

The procurement model of sapota for export is from *Mandis*, as the export quantity is limited. Most exporters have not established backward linkages to procure from farmers / FPOs, since both requirement and supply ability are limited. FPOs should have good production and procurement capacities along with providing top quality produce when supplying to exporters.

Sapota is exported throughout the year, as it is a round-the-year crop, with months of high and low supply. FPOs should be able to supply throughout the year required quality (Grade I) for exports, and also establish domestic channels for supply of Grades II and III produce.

Sapota being an exotic tropical fruit in Europe has potential for significant growth in the coming years through good marketing. Since the competition for sapota is limited, Europe presents a good opportunity for creating a sapota brand from India. Consistently top quality sapota, under a brand name, can increase customer trust, and drive consumption among the native European population. This can also enable Indian suppliers to sell sapotas at a premium pricing in the Europe market.

Large retailers in Europe provide importance to sustainable and good production practices, and demand global certifications such as Global GAP and Fair Trade. FPOs can target obtaining these certifications to make their sapotas more attractive to importers. This step can also provide an entry for Indian sapotas into large retailers in Europe.

2.1.2.4 Pricing

The export pricing is determined by the prevailing domestic prices for top grade sapota. The price range during peak and lean season is provided in the table below.

Price range during peak supply	Price range during lean supply
60 to 80 per kg	100 to 120 per kg

Costs such as sorting and grading, packaging, port charges are also incurred during exports. The labour charges for sorting, grading, and packaging varies from place to place, based on local labour market. The sorting, grading, and packaging labour costs is approximately ₹1 per kg in the Dahanu-Gholvad-Bordi region (the major region for sapota production in Maharashtra). The packaging material cost is ₹10-15 for 2.5 to 5 kg CFB boxes, that is required for exports. The transportation cost from the Dahanu-Gholvad-Bordi region to Nava Sheva port is approximately ₹1-2 per kg (full truck load).

FPOs looking to directly export without an exporter intermediary would also incur additional costs, apart from the shipping charges. For export by air, handling and customs charges are approximately ₹3-5 per kg. The air freight to London and Amsterdam is in the range of ₹120-160 per kg.

2.1.3 Establishing Connects

To export produce it is necessary to understand the major export routes and to establish connects with relevant companies / personnel. The selection of export route for an FPO should be done as per the quality of produce available for export, human capital to handle export related compliances, financial capabilities, and risk-taking ability.

Exports can be done through two routes:

Export Route	Description
Through an exporter from India	Companies / individuals specialize in exporting of agriculture and horticulture commodities to specific export markets. FPOs can supply produce as per required quality specifications to the exporters. The exporters buys the products from FPOs and then exports the products.
Through an importer at the importing country	FPOs can identify importers in the importing country. Importers are companies / individuals that obtained the necessary permissions in the importing country to import specific agriculture and horticulture commodities

Export Route	Establishing Connects
Through an exporter from India	<ul style="list-style-type: none"> ● Trade fairs (physical and virtual) conduct by APEDA. Details are published on https://apeda.gov.in/apedawebsite/trade_promotion/International_trade_event ● Other National Trade Fairs conducted by various Organizations / Association. These events are published on various platforms such as: <ul style="list-style-type: none"> ○ https://krishijagran.com/events ○ https://www.kisaanhelpline.com/agriculture-events ○ https://www.2exhibitions.com/agriculture-and-forestry/ ● Online trade websites such as www.indiamart.com and www.exportersindia.com ● Buyer-Seller meets organized under the MAGNET project
Through an importer at the importing country	<ul style="list-style-type: none"> ● Trade fairs (physical and virtual) conduct by APEDA. Details are published on https://apeda.gov.in/apedawebsite/trade_promotion/International_trade_event ● Other National Trade Fairs conducted by various Organizations / Association. These events are published on various platforms such as: <ul style="list-style-type: none"> ○ https://krishijagran.com/events ○ https://www.kisaanhelpline.com/agriculture-events ○ https://www.2exhibitions.com/agriculture-and-forestry/ ● International Trade Fairs such as: <ul style="list-style-type: none"> ○ Fruit Logistica: yearly event at Berlin, Germany is one of the most important events for fruit trade across the world ○ Asia Fruit Logistica: yearly event conducted in Asia – at Hong Kong / Bangkok ○ Fruit Attraction: yearly event at Madrid, Spain

Export Route	Establishing Connects
	<ul style="list-style-type: none"> ● International events on horticulture trade are regularly published on the website of CBI – a centre for promotion of imports from developing countries to Europe. www.cbi.eu/events ● www.freshplaza.com, and https://www.hcisingapore.gov.in/events also provides an event calendar on important global fairs for horticulture crops

2.1.4 Advantages and Risks Associated

Each export route mentioned in the above sub-section comes with its risks. Not each export route is suitable for all FPOs, and it is necessary for FPOs to understand the risks before pursuing exports through any of these routes.

Export Route	Risks / Disadvantages	Advantages
Through an exporter from India	<ul style="list-style-type: none"> ● Significant margin from the final export price is taken by the exporter ● FPOs cannot make significant export-oriented investments as export orders may not be assured. Exporters can procure equivalent quality from any other seller at lower prices, if available ● Countries can ban import of sapota from India due to reasons such as repeated non-compliance to MRLs or pest infestations. These are outside the control of the FPO, and can significantly affect FPO's business in case it has high exposure to that export market 	<ul style="list-style-type: none"> ● Exporting through this route is suitable for all FPOs, especially for FPOs that handle small quantities ● Payment terms from exporters to FPOs can be for shorter credit time ● Export compliance is handled by the exporter – only quality adherence is taken care by FPOs
Through an importer at the importing country	<ul style="list-style-type: none"> ● FPO should be able to send the minimum required quantity per consignment consistently. This is possible only through strong procurement (from its member farmers, and other growing regions) ● Payment default by importers in case the FPO does not take precautionary measures like Letter of Credit 	<ul style="list-style-type: none"> ● Higher margins ● Long-term business opportunity. FPO can become an exporter for other FPOs / market players ● Increased exports through volume and by adding other

Export Route	Risks / Disadvantages	Advantages
	<ul style="list-style-type: none"> ● Credit timelines for payment from the importer can be as high 30 to 60 days ● FPO requires proper and complete knowledge on export compliance requirements of the importing country ● Rejection of consignment by importing country – shortfall in compliances. Especially for European markets ● Countries can ban import of sapotas from India due to reasons such as repeated non-compliance to MRLs or pest infestations. These are outside the control of the FPO, and can significantly affect FPO's business in case it has high exposure to that export market 	<p>crops in which the FPO is dealing</p>

2.2 Domestic Markets

Domestic markets here are the Government notified *Mandis* and private traders in large cities across the country.

2.2.1 Characteristics of the Segment

Domestic markets consume all grades of sapota, as it has a wide range of customer segment from exporters to retailers to processors. The demand from domestic market is constant throughout the year, while the pricing is based on day-to-day supply demand dynamics.

Access to different domestic markets across the country can be beneficial to FPOs as they can act as good hedge against price risk. Lower prices in one region do not translate to low prices in another region. Hence, FPOs can sell their produce across different domestic markets.

2.2.2 Competition

Competitors for FPOs of Maharashtra in domestic markets are States that produce significant quantities of sapota. States that have sapota production more than Maharashtra are Gujarat and Andhra Pradesh. Other major sapota producing States are Tamil Nadu and Karnataka.

Sapota from Gujarat and Karnataka are supplied to Maharashtra. Northern Karnataka region (Belagavi and surrounding regions) supplies the “cricket ball” variety of sapota to Maharashtra markets. Though this variety is considered inferior in taste in comparison to those grown in Western Maharashtra, the “cricket ball” is suitable for processing due to its higher pulp content. The supply from Gujarat is from the districts adjacent to Maharashtra in the coastal region, where a contiguous belt, both in Maharashtra and in Gujarat, is known for sapota cultivation, mainly the “Kalipatti” variety.

Sapota is a year-round crop, with supply from the Dahanu-Gholvad-Bordi region in Maharashtra throughout the year. Supply from Karnataka is largely in small quantities, and supply increases only during shortage in supply from the above production regions.

Gujarat competes with Maharashtra in supply to NCR, Uttar Pradesh, and Bihar. The production in these markets are less, and hence the consumption is driven by supply from Gujarat and Maharashtra.

2.2.3 Maintaining Quality Standards and Supply

Domestic markets accept all grades of sapota as there is demand for all grades at respective price points. Grading pattern would differ from market to market and from season to season.

Grade	Size
Grade A	7 to 10 pieces per kg
Grade B	11 to 14 pieces per kg
Grade C	Higher than 15 pieces per kg

Apart from size, the sweetness and firmness of the fruit are important factors for grading in the domestic market. Low sweet varieties are considered to be of low grades since they are preferred for table consumption. Too soft and too hard, both reduces the grade of sapotas.

Currently, sorting and packaging of sapotas are done by traders near the production regions. These sorted and packed sapotas are then sent to major domestic markets for consumption. Traders / commission agents in consumption markets sometimes re-sort the fruit since multiple grades are packed in a single box. Grade-wise sales (sorted) of sapotas may not be practiced across all *Mandis* or commission agents / traders. Hence, FPOs intending to sort and supply their produce to domestic markets should ensure that suitable buyers are available to pay a premium on their produce.

FPOs can invest in packhouse facility for sorting, grading, and packaging of sapotas. Sorting and grading of sapotas can be done manually or through optical sorters. Washing, pre-cooling, and cold storing of sapotas is not required for supply to domestic markets. Sapotas can be supplied in gunny bags or plastic crates or mesh bags or CFB boxes. For long distant markets, CFB boxes containing 10 kg per box are preferred.

Sapotas from the Dahanu-Gholvad-Bordi region are sent to many markets in Northern India such as Karnataka, NCR, Uttar Pradesh, and Bihar. Preferred mode of transport to Karnataka is by road, while to other distant markets sapotas are sent both by rail and road.

2.2.4 Pricing

Pricing in domestic markets depends on the day-to-day supply-demand dynamics. Hence, FPOs can command good price only by supplying good quality produce to the market. FPOs can sort and grade their produce and get premium pricing for top grade produce. But practice of buying graded sapotas may not be prevalent in all markets, as the activity is done by the commission agents or traders, and further supplied to different channels.

The table below provides the average range of sapotas across the major production regions in Maharashtra (Pune, Palghar).

Grade	Price during high supply	Price during low supply
Grade A	₹40-60 per kg	₹80-100 per kg

Grade	Price during high supply	Price during low supply
Grade B	₹25-40 per kg	₹50-60 per kg
Grade C	₹10-25 per kg	₹20-40 per kg

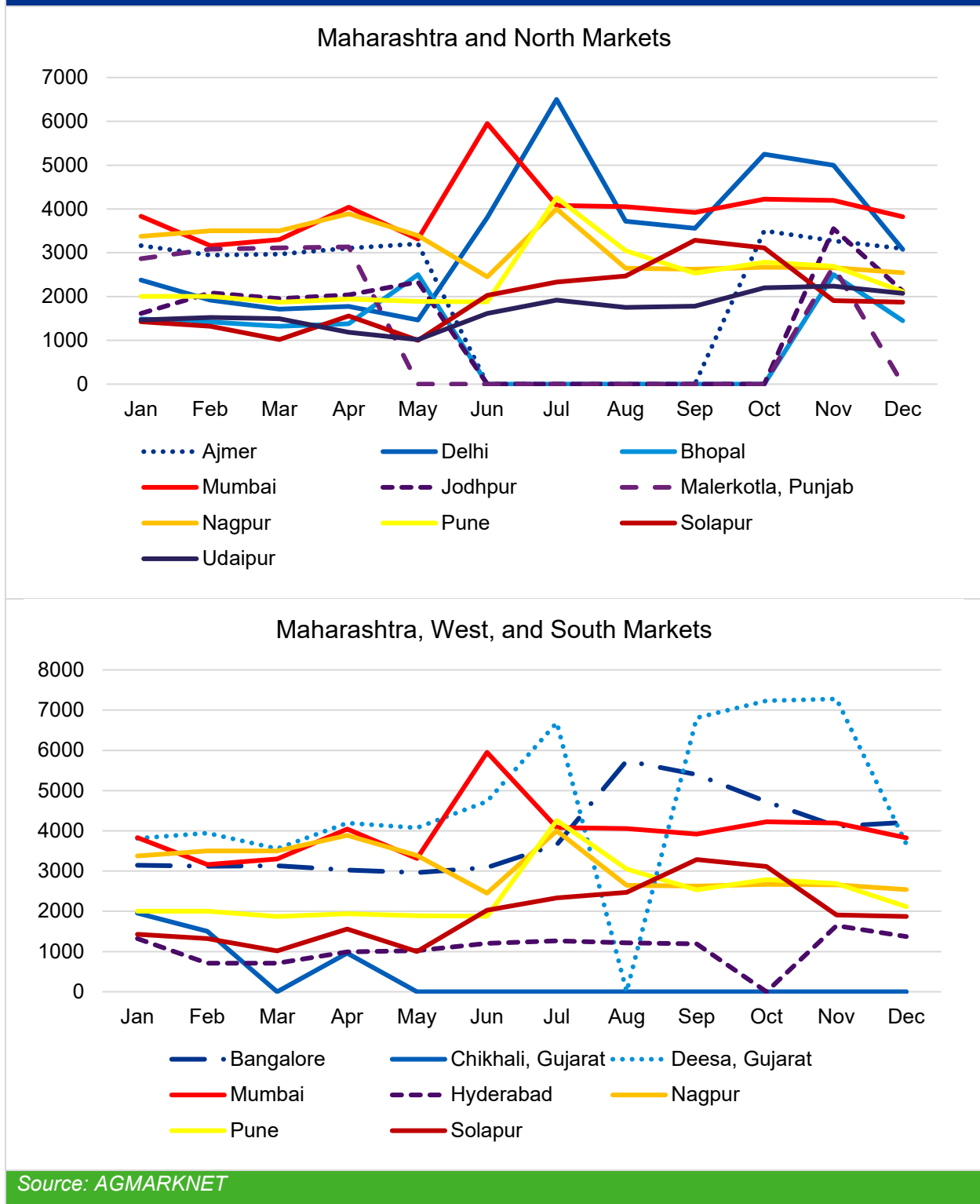
Transportation cost is ₹4-6 per kg for Delhi and Uttar Pradesh markets, and additional ₹2-4 per kg for markets further Northern and Eastern markets. Transportation can be done at ambient temperature trucks to these markets.

For supplying to other domestic markets in the country, it is necessary to understand the pricing trends during the concerned week in those markets. Supplying to markets outside the State might not always fetch better prices for the FPOs. Costs related to transportation and loss of quality / weight during transportation should also be accounted.

www.agmarket.gov.in is the Government portal that provides information on the maximum price, minimum price, and modal price of sapota at all markets in a particular day / week / month where sapota is being traded. FPOs can use the portal to understand the pricing trend before sending their produce to distant *Mandis*.

The below chart provides modal price comparison between major sapota markets in Maharashtra, and markets of major cities in India. Distant markets or markets in major cities doesn't necessarily provide higher prices than the regional *Mandis*.

Table 12: Sapota Modal Price in major sapota markets across India – 2022



Domestic markets tend to be quality agnostic, hence do not usually pay premium for good quality produce. It also prefers all quality produce so that it can supply to its wide customer base. Selling in domestic markets

(through *Mandis*, traders) may not be the most profitable channels for the FPOs. FPOs that can sort and grade their produce, should have sell through other channels that require specific quality of sapota. Nonetheless, domestic markets are an important channel as they have consistent demand.

2.2.5 Establishing Connects

FPOs can supply to domestic markets either by taking their produce for auction at *Mandis* or by directly supplying to traders in different markets. Connects can be established through visits to *Mandis* in different cities to meet Commission Agents. It can also be done by seeking help from other FPOs or traders dealing in sapota in surrounding geography.

Agriculture / horticulture commodities focused marketplace platforms are effective tool for FPOs to find buyers across the country. Trading option for sapota is available on **Bijak** mobile application. Online B2B platforms / trade websites such as www.enam.gov.in, www.farmerconnect.apeda.gov.in, www.kisanmandi.com, www.farmersmandi.in, www.indiamart.com and www.tradeindia.com can also be used for listing of sapota.

2.2.6 Advantages and Risks Associated

Selling to major domestic markets decreases the price risk significantly. When prices are low in nearby markets, FPOs can sell their produce to other domestic markets wherever feasible. Consistent supply to major domestic markets is necessary for FPOs to build long-term relationship with buyers. This acts as a significant hedge against price variations in the nearby markets.

Risk of delayed payments or payment defaults is higher when selling to distant domestic markets in comparison to selling in nearby markets. FPOs should also be able to send a complete truck load for optimal logistics cost, thereby should have strong procurement and consistent supply.

2.3 Organized Retail and eCommerce

Organized retail and eCommerce are the fastest growing marketing channel for horticulture crops. Organized retail includes large national retail players like Reliance, More, and DMart, and other regional retail companies. Major eCommerce companies dealing in horticulture crops are BigBasket, Swiggy, Amazon, and Flipkart. Agri supply chain startups that procure from farmers and supply to various channels such as WayCool and Ninjacart are also categorized as eCommerce.

2.3.1 Characteristics of the Segment

The organized retail and eCommerce market targets the mid-premium to premium consumer categories. Hence, there is significant focus on quality of the produce. The companies in this market usually procure from *Mandis* and from traders / village-level aggregators. Over the recent years, there is significant focus from these companies to procure directly from farmers / FPOs to reduce costs and have more control over quality.

2.3.2 Competition

FPOs looking to supply to market players in this segment are competing with *Mandis* and traders across the country. These market players procure across the country, where required quality at the right price is available. Hence, farmers / FPOs in other major sapota producing States such as Gujarat, Karnataka, Andhra Pradesh, and Tamil Nadu are also competitors to Maharashtra FPOs looking to supply to Organized Retail and eCommerce market players.

2.3.3 Maintaining Quality Standards and Supply

Organized retail and eCommerce companies generally require high quality (Grade A and B) produce.

Varietal Preferences	Kalipatti is the preferred variety to be procured from Maharashtra
Colour	Brown
Size	<ul style="list-style-type: none">• 7 to 11 pieces per kg• 4.5 to 5.5 cm in diameter
Criteria for rejection	Latex marks, hard fruit, cracks, and cuts on peel, over mature or immature fruit, soft spots, physical damage

FPOs should ensure that it delivers on the quality requirements of these market players consistently to build long-term business relationship. To deliver good quality produce, FPOs can invest in packhouse facility for sorting, grading, and packaging. All process can be done manually, while sorting and grading can also be done through optical sorters. Sapotas can be supplied either in crates (for short distances) or in CFB boxes

(for long distances) to organized retail and eCommerce segment. To provide additional protection from damage during transit, the crates and CFB boxes can be lined with paper / shredded paper.

Demand for sapota is constant throughout the year, while sapota is also a year-round crop. FPOs should ensure that is able to supply to its buyers throughout the season. Consistently supplying throughout the year, benefits the market players as they do not need to establish procurement centers at multiple places. This also benefits the FPOs as there is an assured market for its good quality sapotas at reasonable prices.

Since sapota's trade quantity is limited and is seasonal, the market players do not establish collection centers focusing on procurement of sapota. Their existing collection centers for other crops are used for procurement of sapota during season, or they procure through aggregators in major production clusters like the Dahanu-Gholvad-Bordi region. FPOs would be required to either supply to these collection centers or deliver to nearby distribution centers or the market players can collect the produce, if sufficient quantity is consistently available, directly from FPO's packhouse.

2.3.4 Pricing

The pricing for this category is dependent on the prevalent domestic market prices. Since these companies procure from different States to meet their demand, they can easily offset price increase in one market from procuring from another market.

Entering into seasonal contracts (yearly / half-yearly contracts for sapotas since it is year-round crop) with these companies in this segment is a win-win situation for both the parties. FPOs can supply at a reasonable and assured price, while the companies are guaranteed of required quality and quantity throughout the contract duration. Pricing is decided on mutual agreement based on last season(s) markets' price trends. Prices obtained by supplying to these companies may not necessarily be higher than the market prices but FPOs can safeguard themselves against subdued low market prices. Organized retail and eCommerce companies can also pay a small premium (5%) above the prevailing market prices for consistent supply of required quality and quantity to FPOs.

FPOs will incur labour costs for sorting, grading, and packaging in the range of ₹1-3 per kg depending on local labour market rates. 20 kg capacity plastic crates cost ₹100-150 per crate and can be reused since the supply from FPO to the market player's is regular. The cost of CFB box is ₹10-12 for a medium quality 10 kg box and ₹15-20 for a high quality box of similar size.

2.3.5 Establishing Connects

Many market players in the Organized retail and eCommerce segment are actively working towards procuring from farmers and FPOs.

FPOs can try to establish connects with this market segment by:

- Through procurement centers of companies in surrounding region
- Through mutual connects who supply to such companies
- Listing on online trade websites such as www.indiamart.com and www.tradeindia.com
- Listing on agriculture / horticulture specific eCommerce platforms such as Bijak
- Various Government Departments / schemes conduct Buyer-Seller meets. FPOs can meet representatives from companies in this segment
- MAGNET project's Buyer-Seller meets. These Buyer-Seller meets offer platform for FPOs to interact with various market players including Organized retailers and eCommerce players
- Following websites give details on different events including Buyer-Seller meets that happen across the country:
 - <https://krishijagran.com/events>
 - <https://www.kisaanhelpline.com/agriculture-events>
 - <https://ficci-web.com/events>
 - <https://www.2exhibitions.com/agriculture-and-forestry/>

2.3.6 Advantages and Risks Associated

FPOs that have / can invest in building good post-harvest infrastructure can fetch better returns for their Grade A and B sapotas. This segment is growing rapidly, hence making good business relationship with customers of the segment can lead to long term benefits for FPOs. Some companies in these segments also invest in capacity building and post-harvest infrastructure such as collection centers, which the FPOs can leverage. FPOs can enter contracts with these companies and sell at profitable prices with reduced risk. Payment default risk is also lower with these companies.

Companies in this segment function on credit terms, though credit terms to FPOs can be as short as 3 days or as long as 15 days. Rejections and price cuts due to quality issues can be common occurrence as they can have strict quality norms. Since these customers procure from different sapota production regions and from numerous sellers, the pricing power with FPOs is low during negotiations.

2.4 Processors

Processors are manufacturing units of secondary or tertiary processed products of sapota. They can be big processing units, MSMEs or cottage industries.

2.4.1 Characteristics of the Segment

Processors segment is highly price sensitive, and usually procure medium-low grade sapotas. The consumption of value-added products of sapota in India is minimal, hence the demand from processors for sapota is also limited. The common products made from sapota are freeze dried sapota powder and sapota pulp.

2.4.2 Competition

For an FPO looking to supply to processors, its competitors are the local *Mandis* and wholesalers. The processors also tend to have long-standing relationship with select suppliers, as the suppliers understand their requirements. Large processors usually procure from multiple states to have consistent supply throughout the year.

2.4.3 Maintaining Quality Standards and Supply

Processors do not usually function with strict quality requirements, especially in terms of colour, size and physical defects. Since they are highly price sensitive, they procure lower grade sapotas from the market.

Varietal Preferences	No specific varietal preferences Cricket ball variety is suitable due to higher pulp content
Size	Smaller size (15-20 pieces per kg) are also acceptable

Processors producing additive / sweetener free sapota products may preferred high sweet varieties like Kalipatti.

FPOs should target for supplying to processors only if it does sorting and grading of their produce. Lower grades can be supplied to processors, while higher grades can be supplied to export or organized retail channel.

Processors generally maintain a stock buffer and procure on periodic basis. They also function in planned schedules and can provide their requirement quantity and timelines in advance. Hence, supply to

processors can be done in batches, as and when it procures sufficient quantity of required grade of sapota. FPOs should target to supply in full truck loads (at least 10 MT) to minimize logistics cost.

2.4.4 Pricing

Industrial processors tend to maintain a procurement price of lower than the market price. This is because of the large quantities they usually procure, thus giving an assured market for the suppliers.

Small scale processors and cottage industries operate at the day-to-day market prices. FPOs supplying to them have to match the prices that is prevailing the market for the required grade of sapotas.

2.4.5 Establishing Connects

FPOs can supply sapota to processors in its region (district and surrounding districts). FPOs can try to establish connects with this market segment by:

- Approaching processors in their region directly
- Through mutual connects who supply to such companies
- Listing on online trade websites such as www.indiamart.com and www.tradeindia.com
- Various Government Departments / schemes conduct Buyer-Seller meets. FPOs can meet representatives from companies in this segment
- MAGNET project's Buyer-Seller meets. These Buyer-Seller meets offer platform for FPOs to interact with various market players including Organized retailers and eCommerce players

2.4.6 Advantages and Risks Associated

Long-term business association with processors ensures a steady market for the lower grade sapota produce. Supply to processors can be done in batches as and when sufficient quantity of required quality sapota is available with the FPO. Logistics cost can be minimized by doing batched transportation.

Processors usually function on long credit cycles from 15 to 60 days leading to payment default risk.