Market Access Plan for Cashew

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

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1 Crop Background

Cashew scientifically known as *Anacardium occidentale L.*, is a native crop of Eastern Brazil introduced to India by the Portuguese. It was first introduced in Goa from where it spread to other parts of the country. Various parts of the crop such as nuts, apple and other by products are commercially important.

Cashew nuts are source of protein, dietary fiber, carbohydrates, dietary minerals, and vitamins. Cashew kernels are used as snacks. They are also used as a major ingredient in sweets and cooking, particularly in Asian cuisine. Cashew nuts are also used as an ingredient in chocolate, cookies, and ice cream. Of late, cashew milk has also become popular as a lactose-free milk substitute.

Mature cashew apples are eaten fresh, cooked, or fermented into vinegar, citric acid or alcoholic drinks. Cashew nutshell liquid (CNSL) or cashew shell oil (CAS) is a natural resin is another byproduct of cashew industry. It has multiple medical and chemical industry uses. Discarded cashew nuts and residues from cashew kernel can be used as animal feed.

1.1 Global Scenario

1.1.1 Production

According to FAO, the total area under cashew cultivation is more than 65 lakh hectares producing more than 37 lakh MT of cashew, primarily spread across Asia, and West & East Africa. Côte d'Ivoire is the largest and India is the second largest producer of cashew both in terms of area under production and quantity of production. Productivity of cashew in India is at 0.64 MT/ha (2021), which is higher than the estimated global productivity of 0.56 MT/ha and Côte d'Ivoire's productivity of 0.42 MT/ha.

T	Table 1: Top 10 Countries by Cashew Production (Cashew nuts in shell) – 2021				
S. No.	Country	Production (MT)	Area (ha)	Productivity (MT/ha)	
1	Côte d'Ivoire (Ivory Coast)	837850	1989861	0.42	
2	India	738000	1159000	0.64	
3	Viet Nam	399308	294901	1.35	
4	Philippines	255931	29650	8.63	
5	United Republic of Tanzania	210786	712624	0.30	
6	Indonesia	170462	477977	0.36	
7	Benin	150414	406893	0.37	
8	Burkina Faso	137722	121885	1.13	
9	Mozambique	135161	162916	0.83	
10	Guinea-Bissau	122283	222585	0.55	

	World	37,08,384.42	65,65,022	0.56
Source: FAO Stat				

The global production of cashew has increased from 741,330 to 1,095,030 MT (kernel basis) from 2017 to 2022. The average annual growth rate in this period has been 9%. However, while in 2021, the growth rate was 28% from previous year, for other years, it ranged from 1%-7%. The below table indicates the world 5-year average cashew production.

Table 2: 5-year average cashew production				
S. No.	Countries	Kernel Basis (MT)	% Share	
1	Western Africa	4,45,183	48	
2	India	1,75,824	19	
3	Vietnam	91,310	10	
4	Eastern Africa	68,540	7	
5	Cambodia	80,960	9	
6	Brazil	27,716	3	
7	Indonesia	23,690	3	
8	Others	14,180	2	
World				

Source: The International Nut and Dried Fruit Council Foundation (INC) NUTS & DRIED FRUITS STATISTICAL YEARBOOK 2022/23

1.1.2 Important Forms and Varieties

Cashew is used in various forms such as whole, split, piece, dice, and powder.

Table 3: Various forms of cashew

Pictorial representation

1. Whole cashew (Roasted)

Specifications:

Form of cashew

Count	Maximum no. of kernels per kilogram
150	325
180	395
210	465
240	530
320	706
450	990
500	1100

Source: East African Community

Application:

- Natural, roasted, or flavored snacks
- Ingredients for confectionary and bakery

2. Cashew pieces

Specifications:

Size code	Minimum size
Brokens	Kernels where one eighth or more of the original kernel is broken off
Butts	Kernels of less not than 3/8th of a whole kernel, which have been broken crosswise, but the cotyledons are still naturally attached
Splits	Kernels splits lengthwise naturally, provided that no more than one eighth is broken off
Large piece	Not passing through a sieve of aperture 4.75 mm
Small piece Not passing through a of aperture 2.80 mm	
Very small Source: Fast African Comm	Not passing through a sieve of aperture 2.36 mm

Source: East African Community



Brokens



Butts

Table 3: Various forms of cashew				
Form of cashew	Pictorial representation			
Application: Ingredients for cereals Ingredient for bakery and confectionary Sweets				
	Splits			
	Large piece			
	Small Piece			
	Very samll piece			

Table 3: Various forms of cashew				
orm of cashew		Pictorial representation		
B. Diced cashew				
Specifications:				
Size code Minimum size				
Baby bits/ granules	Not passing through a sieve of aperture 1.70mm			
Source: East African	Community			
Application:				
Ingredient for bak	kery and confectionary			
Topping for dess	ert			
Ingredient in cere	eals			
I. Flour/Meal				
Application:				
Preparation of Ca	ashew paste			
Preparation of cashew butter				
 Ingredient in Indian curry, bakery, and confectionary 				

Cashew grades are denoted by two or more alphabets followed by a number – e.g., W 320 means Whole 320. The number "320" indicates that in one pound by weight, there will be 320 cashew kernels. There are many grades of cashew, however provided below are the specifications of the five major grades of cashew namely, W180, W210, W240, W320, and W450.

Table 4: Various grades of cashew **Pictorial representation Cashew grades and specifications** W180 Known as the "King of Cashew", the whole cashew 2.99 gram 3.28 gram nut W180 is the largest size of all cashews and very - 20 mm -3.03 gram expensive. Maximum number of kernels per kilogram is 395. 34 mm-2.84 gram 3.07 gram W210 Known as the "Jumbo nuts". Maximum number of 2.28 gram 2.56 gram kernels per kilogram is 465. 2.27 Gram 2.27 garm 2.22 gram W240 Attractive grade which is reasonably priced. 27 mm Maximum number of kernels per kilogram is 530. 2.3 gram 1.86 gram 1,92 garm 1.97 garm W320 Most popular among cashew kernels and highest in 1.97 gram terms of availability, worldwide. 1.90 gram 1.95 gram Maximum number of kernels per kilogram is 706. 1,63 garm 1.68 garm

Table 4: Various grades of cashew			
Cashew grades and specifications	Pictorial representation		
W450 Smallest and cheapest white whole kernels and hence the favorite among low priced whole grades. Maximum number of kernels per kilogram is 990.	1.31 gram 1.27 gram 1.11 gram 1.21 garm 1,10 garm		

Source of information: Cashew Export Promotion Council of India

1.1.3 Global Trade

Global trade of cashew in 2021 stood at 704,576 MT. Viet Nam was the largest exporter of cashew kernels in 2021, accounting for 65% of global exports. India is the second largest exporter of cashew with 71,139 MT exports in 2021 and 10% share in the overall exports.

	Table 5: Major Countries by Cashew Exports – 2021 (Shelled MT)					
S. No.	S. No. Countries Quantity (MT)		Type of country (Processing or Transit)	% Share		
1	Viet Nam	456,757	Processing	65		
2	India	71,139	Processing	10		
3	Netherlands	40,715	Transit	6		
4	Germany	21,012	Transit	3		
5	UAE	19,197	Transit	3		
6	Brazil	15,370		2		
7	Côte d'Ivoire	15,252	Processing	2		
8	Others	65,135		9		
	World					

Source: The International Nut and Dried Fruit Council Foundation (INC) NUTS & DRIED FRUITS STATISTICAL YEARBOOK 2022/23

United States of America, Germany, Netherlands, China, and UAE are the top five cashew importers in the world out of which Germany and Netherlands are also the transit countries.

	Table 6: Top 10 Countries by Cashew Imports – 2021 (Shelled MT)				
S. No.	Countries	Quantity (MT)			
1	USA	185,782			
2	Germany	72,991			
3	Netherlands	51,122			
4	China	34,063			
5	UAE	28,543			
6	UK	23,505			
7	France	17,906			
8	Canada	17,455			
9	Australia	15,921			
10	Russian Federation	15,745			
	World	704,576			

Source: The International Nut and Dried Fruit Council Foundation (INC) NUTS & DRIED FRUITS STATISTICAL YEARBOOK 2022/23

Despite India being the second largest producer of cashew, and Viet Nam being the third largest producer, Viet Nam is a bigger exporter of cashew compared to India because India is also the largest consumer of cashew as can be confirmed from the below table on cashew consumption across the world.

	Table 7: WORLD CASHEW ESTIMATED CONSUMPTION (Kernel Equivalent)						
S. No.	Countries	Consumption	Consumption per capita	Estimated Consumption			
3. NO.	Countries	(MT)	(kg/year)*	per capita (kg/year)^			
1	India	322,160	0.229	0.158			
2	USA	182,814	0.542	1.644			
3	Germany	53,621	0.643	1.888			
4	China	35,063	0.024	0.069			
5	UK	22,589	0.336	1.016			
6	France	17,321	0.268	1.058			
7	Canada	16,022	0.42	0.838			
8	Australia	15,855	0.612	1.223			
9	Russian						
9	Federation	15,623	0.108	0.43			
10	Italy	13,905	0.235	1.557			
	World	965,490	0.100				

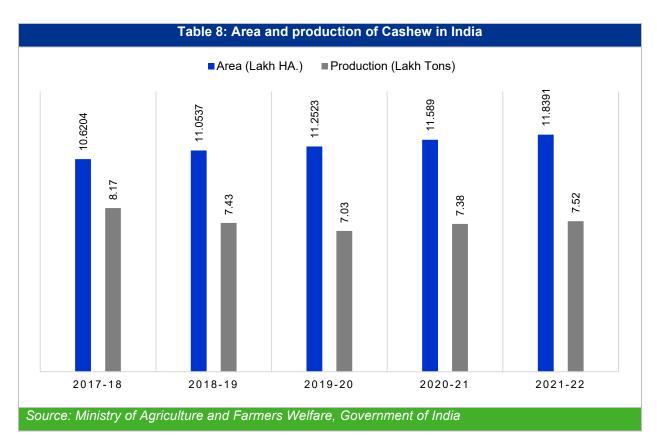
Source: The International Nut and Dried Fruit Council Foundation (INC) NUTS & DRIED FRUITS STATISTICAL YEARBOOK 2022/23

1.2 Indian Scenario

1.2.1 Production

Cashew is the third most important plantation crop in India alongside coconut and Areca nut, contributing almost 5% of the total plantation crop production of the country.

In 2021, India was the second largest producer of cashew after Ivory Coast in terms of both area under cashew cultivation and total production. Out of the area under cashew globally, India has 18% of the total area under cultivation and contributes to 20% of the world production. Between the period 2017-18 to 2021-22, area under cashew in India has increased by 11%. In the last three years, productivity of cashew has remained almost constant at 0.6 MT per Ha.



Commercial cultivation of cashew is mostly taken up in western and eastern coast of India. Maharashtra is the largest producer of cashew in India in terms of both area under cultivation and total domestic production. The state contributes to 16% of the total area under cultivation and more than 25% of cashew production of the country.

Table 9: Major state-wise cashew statistics of India (2021-22)					
State	Area (000'Ha)	Production (000'Tons)			
Maharashtra	191.45	189.71			
Andhra Pradesh	197.92	127.22			
Odisha	223.45	121.28			
Tamil Nadu	173.24	77.30			
Karnataka	138.00	74.86			
Kerala	106.52	71.76			
Goa	59.02	24.82			
Chhattisgarh	32.40	21.44			
West Bengal	14.55	12.77			
Meghalaya	8.78	9.98			
Source: Ministry of Agriculture and Farmers Welfare,	Government of India				

	Table 10: State-wise cashew production clusters					
S. No.	Top Cashew producing states	Cashew producing districts				
1	Maharashtra	Konkan region – Palghar, Raigad, Ratnagiri and Sindhudurg				
2	Andhra Pradesh Vishakhapatnam, East Godavari, Srikakulam, West Godava Vizianagaram					
3	Odisha Khurda, Ganjam, Koraput, Nabarangapur, Puri, Dhenkanal, Cuttac Jajpur, Nayagarh, Rayagada, Gajapati					
4	Tamil Nadu	Cuddalore, Ariyalur, Villupuram, Theni, Nagapattinam,				
5	Karnataka	Dakshin Kannada, Udupi, Belagavi, Uttar Kannada, Shivamogga				
6.	Kerala	Kannur, Kasaragod, Kollam, Thrissur, Kozhikode				
Source:	Indian Council of Agricu	Itural Research (ICAR)				

Maharashtra accounted for 25% of India's production in 2021-22, and its productivity is also higher than the national average of 0.64 MT per Ha.

Table 11: Ma	Table 11: Maharashtra – Cashew Production, Area under Cultivation and Productivity – 2017-18					
to 2021-22						
Year	Production (000 MT)	Area (000 ha)	Productivity (MT/ha)	% of India's Production		
2021-22	189.71	191.45	0.99	25%		
2020-21	190.2	191.5	0.99	15.12%		
2019-20	181.1*	191.5	0.95	14.68%		
2018-19	215.64	191.45	1.13	14.01%		
2017-18	269.44	191.45	1.41	15.64%		
Source: Department of Agriculture and Farmers Welfare, Government of India; *Million Nuts						

District-wise production of cashew in Maharashtra is provided in the table below. Ratnagiri, Sindhudurg and Raigad are the top 3 cashew producing districts in Maharashtra.

Table 12: District-wise area and production of cashew in Maharashtra (2018-19)				
Area (Ha)	Production (MT)			
80,100	67,872			
51,300	68,964			
17,500	12,180			
16,150	42,815			
9300	6,813			
191,450	16,996			
	Area (Ha) 80,100 51,300 17,500 16,150 9300			

1.2.2 Important Varieties

India produces different varieties of cashew. The table below provides brief on major cashew varieties grown in India.

Table 13: Major cashew varieties in India

Maharashtra

Vengurla 1

The average yield is 19 kg/tree. The nut weight is 6.2 g with the shelling percentage of 31. It is early flowering variety. Color of the apple is yellow. Kernel grade is W 240.



Vengurla 2, 3 and 5 varieties are withdrawn from recommendation for cultivation.

Vengurla 4

The yield of nuts is 17.2 kg/tree. The nut weight is 7.7g and shelling percentage is 31. The color of the apple is red. Kernel grade is 210 (export grade).



Table 13: Major cashew varieties in India

Vengurla 6

The variety has average yield of 13.8 kg/tree with nut weight of 8 g. The kernel grade is W 210. The color of apple is yellow. This variety is popular among farmers.



Vengurla 7

Average yield is 18.5 kg/tree. It is a bold nut type with nut weight of 10 g and shelling percentage of 30.5. Kernel grade is W 180. The color of apple is yellow with apple weight of 60g and with juice content of 75 per cent. Average weight of kernel is 2.9 g. This variety is recommended for the Konkan region of Maharashtra and adjoining cashew growing regions of Goa and Karnataka.



Vengurla 8

It yields 15-20 kg /tree. It has bold nuts with 86 nuts / kg. It is red apple variety with juice recovery of 85%.

Andhra Pradesh

BPP 1, 2, 3 and 5 are withdrawn from recommendation for cultivation.

BPP 4

The average yield is 10.5kg/tree with a nut weight of 6 g. Shelling percentage is poor (23%). The apple color is yellow, and shape is conical. Kernel grade is W 400



BPP 6

Average yield of nuts is about 10.5kg/tree. The nut weight is 5.2 g and shelling percentage of this variety is also only 24. Protein percentage is 20.3%. Juice content of apple is very high (74%). Kernel grade is W 400.



Table 13: Major cashew varieties in India

BPP 8

The variety has average yield of 14 kg/tree with nut size of 8.2 g. Shelling percentage of this variety is 29%. Kernel grade is W 210 (export grade).



Odisha

Bhubaneswar

This variety has average yield of 10 kg/tree with small nut size (4.6 g nut weight). The shelling percentage is high (32%) with kernel grade of W 320.



Jagannath (BH-6)

This variety has bold nuts with 8.6 g nut weight. The variety gives an average nut yield of 2.1 t/ha (10.5 kg/tree) and possesses high shelling percentage 32.5 %.



Balabhadra (BH-85)

This variety has bold nuts with 7.4 g nut weight. The variety gives an average nut yield of 2.0 t/ha (10.0 kg/tree) and possesses high shelling percentage (30.0 %).



Tamil Nadu

VRI-1 and 2 are withdrawn from recommendation for cultivation.

VRI-3 (26/2)

The average yield of this variety is about 10 kg/tree, The nut size is medium with 7.2g nut weight and shelling percentage of 29.1%. The kernel grade conforms to W 210 export grade. This variety is picking up fast among farmers of Tamil Nadu as well as other states.



Source: ICAR- Directorate of Cashew Research

1.2.3 Trade – International¹

Though India is a larger cashew producer than Viet Nam, Viet Nam is a bigger exporter than India. This is primarily because of strong domestic demand in India for cashews due to high consumption. The exports decreased in 2022-23 by more than 20% on account of global dip in demand. India exports both shelled cashew (kernels) and cashew in shell. However, 75-80% of exports are contributed by shelled cashew.

The major export destinations for Indian shelled cashew are UAE, Vietnam, Netherlands, Japan, and Saudi Arabia and for cashew in shell, the main export destination is Viet Nam. India also imports cashew kernels and cashew in shell. Cashew in shell is imported mostly from West African countries and processed within India and shelled cashew is imported mainly from Viet Nam.

Table 14: India Exports (kernels + in shell)				
	Quantity (MTs)	Value (INR Crs)		
2022-23	59,576	2,869		
2021-22	75,423	3,377		
2020-21	70,088	3,112		
2019-20	84,328	4,018		
2018-19	78,177	4,579		

Table 15: Top 10 Export Destinations (Quantity-wise) in 2022-23					
Country	Quantity (MTs)	Value (INR Crs)			
UAE	17,214	1,020			
Vietnam	14,240	142			
Netherland	5,238	292			
Japan	4,609	290			
Saudi Arabia	4,342	264			
Spain	2,016	137			
Qatar	1,612	97			
Kuwait	1,132	69			
USA	1,054	65			
Oman	1,019	60			

Table 16: Exports to Top 10 Destination (Quantity-wise) from 2018-19 to 2022-23					
Country	2018-19	2019-20	2020-21	2021-22	2022-23
Vietnam	11,674	17,707	20,185	21,784	14,240
UAE	13,716	14,783	12,800	16,575	17,214
Netherland	8,294	10,885	6,090	5,514	5,238

¹ Source of import-Export data: Agricultural and Processed Food Products Export Development Authority (APEDA)

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Table 16:	Table 16: Exports to Top 10 Destination (Quantity-wise) from 2018-19 to 2022-23					
Country	2018-19	2019-20	2020-21	2021-22	2022-23	
Japan	7,883	7,731	6,089	7,047	4,609	
Saudi Arabia	7,480	6,883	6,371	4,770	4,342	
USA	5,173	4,564	2,448	2,796	1,054	
Spain	2,839	3,016	2,663	2,425	2,016	
Germany	1,545	2,621	2,228	1,877	975	
Kuwait	1,645	1,613	1,134	1,830	1,132	
Qatar	1,345	1,405	1,126	1,330	1,612	
Total	78,177	84,328	70,088	75,423	59,576	

Table 17: India Exports - Cashew Nuts Fresh / Dried in Shell				
	Quantity (MTs)	Value (INR Crs)		
2022-23	14,322	143		
2021-22	21,653	202		
2020-21	19,832	200		
2019-20	16,316	146		
2018-19	11,416	144		

Table 18: Top 5 Export Destination in 2022-23 - Cashew Nuts Fresh / Dried in Shell			
Country	Quantity (MTs)	Value (INR Crs)	
Vietnam	14,193	139	
Nepal	85	.87	
USA	13	1.31	
UAE	9	.39	
Australia	8	.35	

Table 19: Expor	Table 19: Exports to Top 5 Destination from 2018-19 to 2022-23 - Cashew Nuts Fresh / Dried in Shell				
Country	2018-19	2019-20	2020-21	2021-22	2022-23
Vietnam	11,356	16,309	19,807	21,578	14,193
Nepal	9	2	15	52	85
USA	26	1	.16	4	13
Sri Lanka	16				
Australia				3	8
Total	11,416	16,316	19,832	21,653	14,322

Table 20: India Exports - Cashew Kernels (Whole, Broken, Others)			
	Quantity (MTs)	Value (INR Crs)	
2022-23	45,254	2,726	
2021-22	53,770	3,175	
2020-21	50,256	2,912	
2019-20	68,012	3,872	
2018-19	66,761	4,435	

Table 21: Top 10 Export Destination in 2022-23 - Cashew Kernels (Whole, Broken, Others)			
Country	Quantity (MTs)	Value (INR Crs)	
UAE	17,206	1,020	
Netherland	5,238	292	
Japan	4,609	290	
Saudi Arabia	4,341	264	
Spain	2,016	137	
Qatar	1,612	97	
Kuwait	1,132	69	
USA	1,040	64	
Oman	1,019	60	
Germany	975	66	

Table 22: Exports to Top 10 Destination from 2018-19 to 2022-23 - Cashew Kernels (Whole, Broken, Others)					
Country	2018-19	2019-20	2020-21	2021-22	2022-23
UAE	13,716	14,783	12,800	16,575	17,206
Netherland	8,294	10,885	6,090	5,512	5,238
Japan	7,883	7,731	6,089	7,047	4,609
Saudi Arabia	7,480	6,883	6,371	4,770	4,341
USA	5,147	4,563	2,448	2,792	1,040
Spain	2,839	3,016	2,663	2,425	2,016
Germany	1,545	2,621	2,228	1,877	975
Kuwait	1,645	1,613	1,134	1,830	1,132
Qatar	1,345	1,404	1,126	1,330	1,612
Belgium	3,132	961	392	374	274
Total	66,761	68,012	50,256	53,770	45,254

Table 23: India Cashew Imports from 2018-19 to 2022-23 (kernels+ in shell)		
Quantity (MTs) Value (INR Crs)		
2022-23	1,332,173	14,370
2021-22	939,199	9,338

Table 23: India Cashew Imports from 2018-19 to 2022-23 (kernels+ in shell)			
Quantity (MTs) Value (INR Crs)			
2020-21	834,400	7,491	
2019-20	941,416	9,026	
2018-19	839,636	11,162	

Table 24: Top 10 Import Origins (Quantity-wise) in 2022-23				
Country	Country Quantity (MTs)			
Benin	192,327	2,163		
Guinea Bissau	111,699	1,374		
Tanzania Rep	86,931	989		
Guinea	81,193	794		
Nigeria	79,519	830		
Burkina Faso	57,200	575		
Senegal	56,213	678		
Togo	49,796	549		

Table 25: Imports from Top 10 Origins (Quantity-wise) from 2018-19 to 2022-23					
Country	2018-19	2019-20	2020-21	2021-22	2022-23
Benin	140,169	164,084	163,677	196,131	192,327
Cote D Ivoire	191,339	113,380	99,608	102,755	272,641
Ghana	101,335	96,964	134,350	117,226	238,817
Guinea Bissau	66,058	89,809	99,088	114,245	111,699
Tanzania Rep	12,080	129,119	70,790	87,442	86,931
Nigeria	64,309	37,037	35,808	41,031	79,519
Guinea	26,839	41,406	40,854	45,321	81,193
U Arab Emts	46,669	53,425	39,661	46,879	33,181
Singapore	55,943	58,972	19,169	18,901	19,692
Burkina Faso	37,584	23,832	22,607	22,765	57,200
Total	839,636	941,416	834,400	939,199	1,332,173

Table 26: Top 10 Import Origins (Quantity-wise) in 2022-23				
Country	Quantity (MTs)	Value (INR Crs)		
Cote D Ivoire	272,641	2,726		
Ghana	238,817	2,450		
Benin	192,327	2,163		
Guinea Bissau	111,699	1,374		

Table 26: Top 10 Import Origins (Quantity-wise) in 2022-23				
Country	Quantity (MTs)	Value (INR Crs)		
Tanzania Rep	86,931	989		
Guinea	81,193	794		
Nigeria	79,519	830		
Burkina Faso	57,200	575		
Senegal	56,213	678		
Togo	49,796	549		

Table 27: India Imports - Cashew Nuts Fresh / Dried in Shell			
	Quantity (MTs)	Value (INR Crs)	
2022-23	1,329,751	14,248	
2021-22	935,574	9,145	
2020-21	831,231	7,331	
2019-20	936,113	8,777	
2018-19	834,327	10,877	

Table 28: Imports from Top 10 Origins from 2018-19 to 2022-23 - Cashew Nuts Fresh / Dried in Shell											
Country	2018-19	2019-20	2020-21	2021-22	2022-23						
Benin	140,041	164,020	163,677	196,131	192,327						
Cote D Ivoire	190,709	111,415	99,608	102,755	272,641						
Ghana	101,335	96,964	134,350	117,226	238,783						
Guinea Bissau	65,947	89,809	99,088	114,245	111,699						
Tanzania Rep	12,051	128,949	70,718	87,442	86,931						
Nigeria	64,142	36,870	35,808	41,031	79,519						
Guinea	26,839	41,406	40,854	45,321	81,193						
U Arab Emts	46,335	53,338	39,654	46,879	33,181						
Singapore	55,943	58,972	19,169	18,901	19,692						
Burkina Faso	37,584	23,832	22,607	22,765	57,200						
Total	834,327	936,113	831,231	935,574	1,329,751						

Table 29: Top 10 Import Origins in 2022-23 - Cashew Nuts Fresh / Dried in Shell										
Country	Quantity (MTs)	Value (INR Crs)								
Cote D Ivoire	272,641	2,726								
Ghana	238,783	2,450								
Benin	192,327	2,163								
Guinea Bissau	111,699	1,374								
Tanzania Rep	86,931	989								
Guinea	81,193	794								

Table 29: Top 10 Import Origins in 2022-23 - Cashew Nuts Fresh / Dried in Shell										
Country	Quantity (MTs)	Value (INR Crs)								
Nigeria	79,519	830								
Burkina Faso	57,200	575								
Senegal	56,213	678								
Togo	49,796	549								

Table 30: India Imports - Cashew Kernels (Whole, Broken, Others)											
	Quantity (MTs)	Value (INR Crs)									
2022-23	5,310	285									
2021-22	5,303	250									
2020-21	3,169	160									
2019-20	3,625	193									
2018-19	2,422	122									

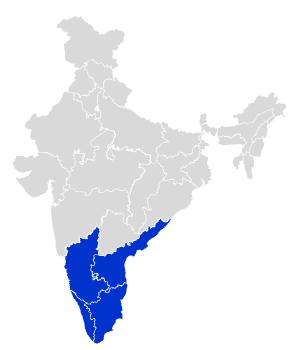
Table 31: Top 5 Import Origins in 2022-23 - Cashew Kernels (Whole, Broken, Others)										
Country	Quantity (MTs)	Value (INR Crs)								
Vietnam	2,267	112								
Japan	48	3								
Ghana	33	.3								
Sri Lanka	16	1								
Germany	16	1								

Table 32: Imports from Top 5 Origins from 2018-19 to 2022-23 - Cashew Kernels (Whole, Broken, Others)											
Country	2018-19	2019-20	2020-21	2021-22	2022-23						
Vietnam	3,659	2,069	2,911	3,423	2,267						
Cote D Ivoire	630	1,965									
Mozambique		573									
UAE	334	87	7		1						
Nigeria	167	167									
Total	2,422	3,625	3,169	5,303	5,310						

1.2.4 Trade - Domestic

Cashew is traded across the country, mainly through private / unorganized channels. Very less volumes of cashew go through the Government notified *mandis*. The price in domestic trade is dependent on supply-demand dynamics.

Cashew production in India is mostly spread along the coastal peninsula. Cashew is mainly grown in states like Maharashtra, Kerala, Karnataka, Tamil Nadu, Andhra Pradesh, Goa, Orissa, West Bengal, and some parts of the North-Eastern region. However, it is noteworthy that not all producing states are cashew trading states. Key trading markets for cashew are Karnataka, Kerala, and Goa. Major trading APMC mandis in India are Mumbai (Maharashtra), Muniguda



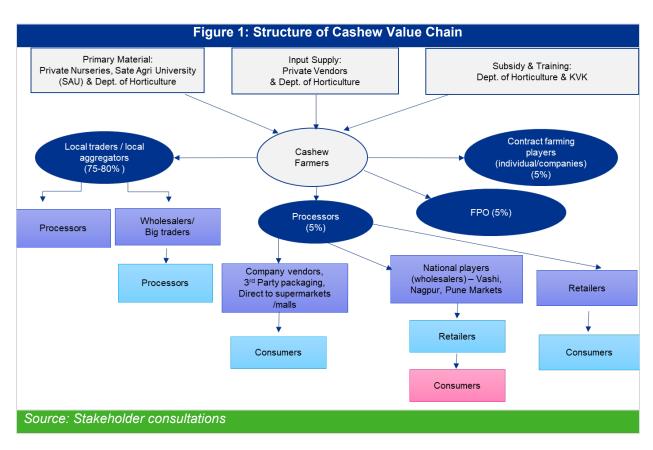
(Odisha), Gunpur (Odisha), Manjeswaram (Kerala), and Chintamani (Karnataka). Below table presents the data on cashew arrivals and its modal price in year 2022 at some of the major Mandis for cashew.

Table 33: Top 5 Cashew trading Mandis in India										
Mandis	District	State	Arrivals (MT)	Average Modal Price (INR / Qtl)						
Mumbai	Mumbai	Maharashtra	5,660	69,583						
Muniguda	Rayagada	Odisha	1,558	10,500						
Gunpur	Rayagada	Odisha	1,556	10,412						
Manjeswaram	Kasargod	Kerala	388	9,357						
Chintamani	Kolar	Karnataka	170	10,244						
Source: AGMAR	KNET									

Та	Table 34: Price Trend in Top 5 Mandis in India ('000 INR / Qtl)											
Mandi	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mumbai	75	75	75	83	86	73	67	65	65	57	55	55
Muniguda	10					11	10		11	11	11	
Gunpur	10	10				11	11	11		11		
Manjeswaram		9	11	10	9	7		8				
Chintamani					12	10	10	10	10	10		
Source: AGMARKNE	T											

1.2.5 Value Chain Map

The cashew value chain starts from nurseries / institutions supplying saplings to farmers. Trainings are provided through Government Departments and Krishi Vigyan Kendras. Cashew farmers sell their produce to local traders / aggregators, processors, FPOs / cooperatives, and contract farming players. Majority farmers sell their produce to local traders and aggregators. Cashews are supplied from traders / wholesalers to major consumption markets across the country and thereby to processors who then supply to institutional buyers and retailers. The structure of cashew value chain is provided in the figure below.



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 marketing 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 markets 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 cashews in the major market segments, namely, 1) Export Markets, 2) Domestic Markets, 3) Organized retail and eCommerce, 4) HoReCa, and 5) Processors. Key components of this section are:



2.1 Export Markets

Regions / countries covered under export markets are those to which cashew is mostly exported from India. Export markets are classified as 1) Europe, 2) Middle East, and 3) United States of America (USA).

2.1.1 Europe²

2.1.1.1 Characteristics of the Segment

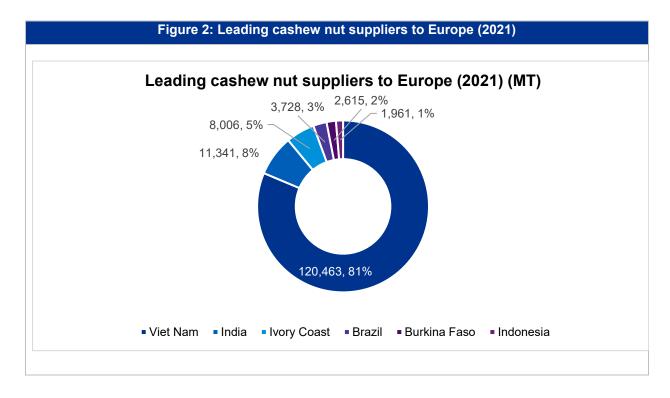
Netherlands, Spain, and Germany in Europe are the largest importers of cashew. Owing to the large-scale production and mechanized processing, Vietnam and India are the price makers for cashew in the European markets. There are two main end market segments for cashew nuts in Europe, namely, Snack segment (90%) and Ingredient segment (10%). Snack segment includes both roasted, flavored cashew and unsalted and unroasted cashew. Ingredient segment includes usage of cashews in chocolate snacks, spreads in cookies and pastries, breakfast cereal, energy bars and vegan dairy. The main import channel for cashews into Europe is through specialized nut importers. Other alternative channels include agents, food processors and food service companies. Importers sell cashew to roasting companies or may even have their own processing facilities. After processing and packing, cashews reach the end consumers.

² Source: Stakeholder consultations and Centre for the Promotion of Imports from developing countries (CBI)

2.1.1.2 Competitors

Other Countries:

Vietnam and India are the key suppliers of cashew nuts to Europe. Vietnam accounts for 78% of European Union cashew imports, and India accounts for 9%. Viet Nam has the advantage of low domestic consumption base, while it has established large-scale mechanized processing and has cheap labor. African countries are also gradually gaining market share owing to government initiatives for investments into processing capacities. Moreover, African countries have the comparative advantage of lower prices, shorter transport routes, lesser risks of delay and a better carbon footprint. In view of the increasing competition, it is important for India to focus on addressing the existing issues in cashew value chain particularly, increasing yield through better pre-harvesting practices and replanting of old & senile trees.



Country-wise key initiatives for development of cashew industry										
Viet Nam	Vietnamese Ministry of Agriculture and Rural Development (MARD) supports the investments in new cashew plantations and productivity. MARD also cooperates with Cambodia to develop reliable sourcing for the domestic processing industry. The Vietnam Cashew Association (VINACAS) supports the development of									

Country-wise key	y initiatives for development of cashew industry
	technology and promotional activities, and the Vietnam Trade Promotion Agency supports export activities.
Ivory Coast	The Cotton and Cashew Board regulates cashew production and marketing and promotes processing in the country. The government supports investments in processing through various subsidies.
Brazil	Export promotional activities are undertaken by the Brazilian Trade and Investment Promotion Agency (APEX Brasil). APEX Brasil arranges for national stands at European trade fairs and other trade events.
Burkina Faso	The production is supported by the National Union of Cashew Producers (UNPA), the National Association of Processors, and the National Union of Cashew Nut Exporters. Additionally, Burkina Faso is included in the activities of African Cashew Alliance (ACA), ComCashew and Self Help Africa.
Indonesia	Indonesian Cashew Nut Association (INACANAS) works to improve efficiency, competitiveness, and marketing of Indonesian cashew nuts.

Seasonality of cashew production in top producing regions around the world is provided in the below chart:

Country	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July
East Africa												
West Africa												
India												
Brazil												
Viet Nam												
Flowering Harvesting												

It can be seen from the above chart that harvesting season of India coincides with the harvesting season of other major producing regions such as West Africa and Viet Nam. However, seasonality is not the sole factor to understand the competition as the extent of processing capacity helps maintain a particular level of cashew supply chain throughout the year.

Within India:

Besides Maharashtra, major cashew exporting states include Karnataka, Kerala, and Goa. Goan cashew is considered relatively sweeter, white, and high export quality. Cashew processing industry is also majorly concentrated in Kerala, Karnataka, Goa and Andhra Pradesh. Also, port-wise breakup of cashew exports from India indicates that 46% cashew is exported through Cochin, 19% through New Mangalore, 15% through Tuticorin and Vishakhapatnam each and 5% through other ports³.

Seasonality of cashew arrival in top producing regions around India is provided in the below chart:

State	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July
Maharashtra												
Karnataka												
Goa												
Kerala												
West Bengal												
Andhra												
Pradesh												
	Arrival season											

2.1.1.3 Maintaining quality standards and supply⁴

Exports of cashew kernels (included roasted and salted) from India are subject to voluntary quality control and pre-shipment inspection. Consignment-wise sample basis inspections are conducted in case of cashews to verify quality as per the prescribed standards.

Packaging: Cashew kernels are packed in four-gallon (18 liters) tins with a net weight of 11.34 Kg in each tin. These tins are then vacuumized and filled with CO₂ (carbon-di-oxide) gas and sealed. Two tins of the same grade are packed in a carton for export. Thus, the net weight of each carton is 22.68 Kg. Depending on varied buyer requirements, some manufacturers also pack in tins of 10 kg net. Recently, demand of packing in flexible packs of 10-25 Kg is also picking up from some importers. Contracts are generally done on FOB (Free on Board) or C&F (Cost & Freight) basis. The cost of insurance is borne by the buyer. Major shipments from India take place from Cochin port followed by other ports such as Tuticorin, Mangalore, Vishakhapatnam, and Mumbai.

Contaminants:

³ Source: Olam Nuts

⁴ Source: The Cashew Export Promotion Council of India, Centre for the Promotion of Imports from developing countries (CBI)- Netherlands Ministry of Foreign Affairs, Stakeholder consultation

The most common requirements regarding contaminants in cashew nuts pertain to the presence of mycotoxins, pesticide residues, micro-organisms, and heavy metals. The presence of mycotoxins (especially aflatoxins) is the main reason why nuts may be banned on the European market. The level of aflatoxin B1 in cashew nuts must not exceed 5 μ g/kg and the total aflatoxin content (B1, B2, G1 and G2) must not exceed 10 μ g/kg. Below table presents the European Union pesticide limits for cashew nuts.

Figure 3: The European Union pesticide limits for cashew nuts			
Pesticide name	Residue limit	Adoption date	
Triasulfuron	0.01 ppm	18.05.2020	
Prochloraz	0.01 ppm	04.09.2020	
Myclobutanil	0.01 ppm	02.01.2021	
Napropamide	0.01 ppm	02.01.2021	
Sintofen	0.01 ppm	02.01.2021	
Chromafenozide	0.01 ppm	06.01.2021	
Pencycuron	0.02 ppm	06.01.2021	
Sedaxane	0.01 ppm	06.01.2021	
Triazoxide	0.005 ppm	06.01.2021	
Chlorpyrifos	0.01 ppm	06.01.2021	
Chlorpyrifos-methyl	0.01 ppm	06.01.2021	
Propineb	0.2 ppm	25.10.2021	
Amisulbrom	0.01 ppm	25.10.2021	
Flubendiamide (F)	0.1 ppm	25.10.2021	
Meptyldinocap	0.01 ppm	25.10.2021	
Imidacloprid	0.01 ppm	27.10.2021	
Flutianil	0.01 ppm	07.04.2022	

European Commission set the maximum level of cadmium for cashew nuts at 0.20 mg/kg wet weight.

Quality standards:

The most important criteria used to define the quality of cashew nuts are as follows:

Grading: The European Union has not defined grading categories for cashew nuts. The most used grading classification, also from the UNECE, relates to the United States cashew nut standards. Accordingly, whole kernels are graded based on the number of cashew nuts in one pound (0.454 kg) or in one kilogram — for example, 210 nuts per pound equals 465 nuts per kilogram. Broken kernels are graded according to the diameter of the pieces.

Style and skin color: Quality and price are generally ascertained basis the characteristics of the cashew nuts, combining the style (whole, splits or pieces) with the grade and look of the skin. The skin may be white or may have been scorched or darkened to some extent during processing.

In the European markets, the most popular certification programmes for cashew nuts are those recognized by Global Food Safety Initiative (GFSI) such as International Featured Standards (IFS), British Retail Consortium Global Standards (BRCGS) and Food Safety System Certification (FSSC 22000).

2.1.1.4 **Pricing**

In the European markets, the prices of salty roasted cashew nuts usually range from Euro 20 per kg to Euro 25 per Kg (equivalent to INR 1,785-2,232 per Kg as on 6 November 2023), while prices of natural unsalted kernels commonly vary between Euro 12 and Euro 15 per Kg (equivalent to INR 1,071-1,339 per Kg as on 6 November 2023)). In 2021, the average European import price for cashew kernels was Euro 6 per Kg (~INR 536), while in 2017 it was Euro 9 per Kg (~INR 803). This is only the average price, as prices vary depending on the origin, quality, size, and type of product. The retail prices are much higher compared to the import prices owing to the addition of many other costs, such as transport, roasting, packing, sales, and profit margins.

Farmers generally sell raw cashew nut (RCN), or in some cases, whole or split shelled (skin / testa removed) cashews to the processors. For FPOs interested in undertaking cashew processing, it is noteworthy that operating cost of fully mechanized processing units is approximately INR 20 per Kg (including electricity, depreciation, maintenance, and labor) and it takes 0.5-person day for processing 1 bag (80 Kg) of cashew. Out of this, estimated cost of labor is INR 7-8 per Kg. For semi mechanized units, the time required for processing 1 bag cashew is 3 person days and it costs INR 25 per Kg (out of which labor cost is INR 10-15). Semi-mechanized means that only cutting of cashew is mechanized, sorting, and feeding operations are manual. Complete manual operations require at least 6 person days of labor for processing 1 bag of cashew. Additional cost incurred for export of cashews is INR 2-3 on packaging and shipping.

However, it is also to be noted that domestic market generally gives better price and cashew is exported only when supply is higher than the domestic demand. Moreover, since cashew is only a 3–4-month crop, to maintain economies of scale, it is important that the processing units remain operational for most part of a year. Processors generally import from other countries and process cashew in other months which also help them mitigate price risk. Thus, connections with exporters in other countries need to be established. List of major countries from where India imports cashew is given under **section 1.2.3**. Storage cost of cashew is also to be taken into consideration. Thus, cashew processing is a working capital-intensive business owing to the operational cost, interest rate and other carry costs.

Middle East⁵

2.1.2 Middle East⁶

The Middle East is a geographical region consisting of a group of countries including Saudi Arabia, UAE, Kuwait, Qatar, Oman, Bahrain, Yemen, Iran, Iraq, Turkey, Jordan, Israel, Egypt, Algeria, and few other surrounding countries.

2.1.2.1 Characteristics of the Segment

Consumption of cashew in the Middle East is growing given the population growth and increase in floating population and health benefits. Preferred origin of importation is India. UAE plays a crucial role in intercountry trade of cashew nut within the Middle East.

2.1.2.2 Competitors

Share of Viet Nam Share is increasing in the supply of cashew kernel to the Middle East. While in 2019, India's share of cashew kernels in the ME market was 43% and Viet Nam's share was 35%, in 2020, it accounted for 37% and 58% respectively. Supplies from Africa are mainly of broken pieces to the Middle East Market. Recently, the Middle East is focusing on importing processed cashew kernels from Vietnam and African countries, due to lower prices and continuity in supply of all grades throughout the year.

Table 35: Share of various countries in import of cashew kernels into the Middle East (2020)			
Country	Import share (MT)	Import share (%)	
Viet Nam	34,054	58%	
India	22,100	37%	
Africa	1,351	2%	
Brazil	234	<1%	
Others	1,504	3%	

⁵ Source: World Cashew Conference 2022

⁶ Source: World Cashew Conference 2022

2.1.2.3 Maintaining Quality Standards and Supply

Currently, the Middle East region is not very strict on the certification requirement such as BRC and traceability. Preference is for big size nut W160, W180, W210, W240, W320, SW210, SW240, and SW 320. While tin packing is preferred compared to flexi-pouch vacuum pack, acceptability of the flexi-pouch vacuum pack cargo is also increasing. Some retail consumer brands are enforcing cashew suppliers to obtain food safety certifications. Countries like UAE and Saudi Arabia require high quality of cashew kernels in terms of purity.

2.1.2.4 Pricing

Owing to Covid-19, in 2020, the import price dropped to USD 5.99 per Kg, while it increased again to USD 6.23 per Kg in 2021. The retail price range in United Arab Emirates dirham (AED) for cashew nuts is between AED 47.01 and AED 56.37 per Kg.

2.1.3 United States of America (USA)

2.1.3.1 Characteristics

The major cashew consuming states in the USA are California, Florida, New York, Texas, and New Jersey. In recent years, consumers have been incorporating cashew nuts into their diets, both as a snack and as an ingredient in various food products. Cashew processed products are also increasingly becoming popular in the country such as cashew milk, butter, cookies, smoothies, snacks, milk, cream, and cheese.

2.1.3.2 Competitors⁷

Viet Nam, Brazil, Cote d'Ivoire, India, and Indonesia are the major exporters of fresh or dried cashew nuts to the United States. In 2021, Viet Nam was the largest exporter, accounting for most imports at 163,169 MT. Brazil, Cote d'Ivoire, India, and Indonesia also exported significant amounts, with 5,718 MT, 4,608 MT, 3,149 MT, and 2,286 MT, respectively.

2.1.3.3 Maintaining quality standards and supply⁸

Association of Food Industries, New York define the quality specification for the US imports. The Association mentions that:

_

⁷ Source: ITC Trade Map

⁸ Source: Association of Food Industries (AFI, New York)

Each shipment to the U.S. shall be of good quality, free of off-tastes and off-aromas and be stored in accordance with good commercial practice. No live infestation is permitted.

The cashews shall be packed in new, clean, dry, leakproof, lead-free containers with an airtight (hermetic) seal and without internal paper liners. Packaging shall be of sufficient strength to assure the integrity of the product during normal shipment and storage. The outer container shall be free of infestation and visible mold and sealed without staples, unless specified by the end user. Cardboard cartons must be a minimum of 200-pound test, 32 ECT. Only food-grade CO₂ is permitted, at a minimum mix of 60% CO₂; the balance will be nitrogen.

Only pesticides approved for use on cashews may be used and residues must be within the tolerances set by the government of the importing country. No detectable residue is permitted for any pesticide that is not approved for use on cashews in the importing country. Use of/existence of methyl bromide, Naphthalene and any other chemicals that create a food safety risk and/or tainted taste are prohibited. Only chemicals approved in the receiving country may be used.

The moisture level of the cashews shall be 3%-5%, as determined by a Loss on Drying.

Cashew kernels are classified as: First Quality Fancy; Second Quality Scorched; Lightly Blemished Wholes, Lightly Blemished Pieces, Third Quality Special Scorched; and Dessert Blemished Wholes.

- First Quality Fancy cashew kernels have a uniform color which may be white, light yellow or pale ivory.
- 2) **Second Quality Scorched cashew kernels** may be yellow, light brown, light ivory, light ash-grey or deep ivory.
- 3) Third Quality Special Scorched cashew kernels may be deep yellow, brown, amber, and light to deep blue. They may be slightly shriveled, immature, and light-brown speckled, blemished or otherwise discolored.
- 4) **Lightly Blemished Wholes cashew kernels** may be light brown, light ivory, light ash-grey or deep ivory. Kernels may show light brown lines, swirls, loops or similar blemishes on the surface, provided that not more than 40 percent of the kernels are affected.
- 5) **Lightly Blemished Pieces cashew pieces** may be light brown, light ivory, light ash-grey or deep ivory. Pieces may show light brown lines, swirls, loops or similar blemishes on the surface, provided that not more than 20 percent of the pieces are affected.
- 6) Dessert, Blemished Wholes cashew kernels may be deep yellow, brown, amber or light to deep blue. Kernels may be slightly shriveled, immature or may show dark brown lines, swirls, loops or similar pitted spots on the surface, provided that not more than 60 percent of the kernels are affected.

For more information on the quality requirements of USA cashew imports, please refer: <u>Draft 2022</u> (<u>afius.org</u>).

2.1.3.4 **Pricing**

Retail price of cashew in the US markets range from USD 6 to 9 per Kg, wholesale price from USD 4 to 6 per Kg and average import price at USD 6 per Kg.

2.1.4 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 buy 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		
	Trade fairs (physical and virtual) conduct by APEDA. Details are published on		
	International Trade Fair (apeda.gov.in)		
	https://apeda.gov.in/apedawebsite/trade_promotion/International_trade_event		
Through an exporter	Connecting with exporters through Cashew Export Promotion Council of India		
from India	Exporters' Directory- The Cashew Export Promotion Council of India		
nom maia	(cashewindia.org)		
	Other National Trade Fairs conducted by various Organizations / Association.		
	These events are published on various platforms such as:		
	o <u>https://krishijagran.com/events</u>		

Export Route	Establishing Connects		
	o https://www.kisaanhelpline.com/agriculture-events		
	 https://www.2exhibitions.com/agriculture-and-forestry/ 		
	Online trade websites such as <u>www.indiamart.com</u> and		
	www.exportersindia.com		
	Buyer-Seller meets organized under the MAGNET project		
	• Trade fairs (physical and virtual) conduct by APEDA. Details are published on		
	International Trade Fair (apeda.gov.in)		
	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:		
	 https://krishijagran.com/events 		
	 https://www.kisaanhelpline.com/agriculture-events 		
	 https://www.2exhibitions.com/agriculture-and-forestry/ 		
	International Trade Fairs such as:		
Through an importer	 Fruit Logistica: yearly event at Berlin, Germany is one of the most 		
at the importing	important events for fruit trade across the world		
country	 Asia Fruit Logistica: yearly event conducted in Asia – at Hong Kong / 		
Country	Bangkok		
	 Fruit Attraction: yearly event at Madrid, Spain 		
	 Gulfood: International leading trade fair for flavors, techniques, and food 		
	sustainability INC Pavilion: Gulfood 2024 - International Nut & Dried Fruit		
	Council (nutfruit.org)		
	• 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		

2.1.5 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	 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 	 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	 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 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 and North American markets 	 Higher margins Long-term business opportunity. FPO can become an exporter for other FPOs / market players Increased exports through volume and by adding other crops in which the FPO is dealing

2.2 Domestic Markets

Domestic markets here are the private traders and processors and Government notified *Mandis* across the country.

2.2.1 Characteristics of the Segment

Cashew consumption in India has increased by 30% between 2017-2021 accounting for 322,160 MT (kernel equivalent) in 2021⁹. This shift in the consumption pattern is primarily owing to demand for flavored assorted cashew products in the retail market and increasing health consciousness leading to consumers preferring healthier snack options. Various available options are roasted, salted, flavored, and cashews coated with spices, honey, coconut powder, etc. Value-added products such as cashew paste, butter, and vegan milk are also available in the market. It has also remained one of the important ingredients in sweets and traditional dishes of Indian cuisine.

Almost 70 types of grades / types of cashews are available in the market. 10 to 12 grades of *tukda* (bits), 6-8 grades in *pakali* (2 pieces), 25 to 30 grades in whole cashew, and 8 to 10 grades in flavored cashew. As per demand of grade of cashew, processors supply cashew to the traders / other market players. W 240, W 320 W 180, W 210, tukda and pakali are more in demand in the domestic market.

2.2.2 Competitors

Delhi, Hyderabad, and Bangalore are some of the most potential regions for domestic trade. The main competition comes from other high production states such as Karnataka and Kerala and Goa which have huge processing capacities and trader networks. Furthermore, due to financial constraints, some processing units are not optimally utilized in Maharashtra and thus, the produce is sent to other states like Goa Kerala and Andhra Pradesh for processing. Farmers carry out initial operations such as breaking, blanching and grading and then supply to local traders. Sometimes, traders undertake grading engaging local labor. Washing, cleaning, sorting and other processing activities are done by processors.

2.2.3 Maintaining Quality Standards and Supply

Inter-state trade mainly happens between processors and traders in different regions. Various forms of cashew are traded depending on the buyers' requirements. Most common form of cashew traded is cashew kernel as raw cashew nut is bulkier and would incur more transportation cost. When the buyers require cashew bits (*tukda*), low grade cashew kernels are generally traded and cut into desired form at the buyer's processing units.

Logistics cost incurred on transport of cashew kernels ranges from INR 7-8.5 per Kg for a full truck load of 7 MT. Whole kernels are mostly packed in tin cans of 22.68 Kg vacuum or Nitrogen flushed. Cashew bits are packed in HDPE bags.

⁹ Source: INC NUTS & DRIED FRUITS STATISTICAL YEARBOOK 2022/23

If an FPO wants to undertake the primary processing activities for cashew, it will incur approx. INR 20-30 per Kg from raw purchase to processed product. This includes labor cost for washing, cleaning, sorting & grading, and packaging.

Packaging Material	Quantity per unit	Material Cost per unit (INR)
Standee pouch	100, 200,500 g	5-10 per Kg
Tin	10 Kg	180-200 per Kg

Packaging Material	Quantity per unit	Material Cost per unit (INR)
Corrugated box (vacuum	20 Kg	30 per Box
packed packet)		
Plastic bottle	1 Kg	10-15 per Bottle

2.2.4 Pricing

Major grades of cashew available in the market and their wholesale price range are provided in the table below.

Grades	Quality Specifications	Price range in peak months	Price range in lean months
W 400	Smaller than W 320	600 – 620	650 – 680
W 320	Smaller than W 240	700 – 720	760 – 780
W 240	Smaller than W 210	770 – 780	800 – 840
W 210	Smaller than W 180	870 – 880	930 – 980
W 180	Biggest in size	950 – 980	1000 – 1100
Pakali; Tukda	Pakali (2 broken pieces) Tukda (4 Broken pieces)	580 – 590	600 – 620
Kani	6 - 8 broken pieces	Mix brownish blakish Kani: 300 Pure Whitish Kani: 350	Mix brownish blakish Kani: 330 Pure Whitish Kani: 370

2.2.5 Establishing Connects

FPOs can supply to domestic markets by directly supplying to traders and processors 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 cashews in surrounding geography.

Online B2B platforms / trade websites such as www.kisanmandi.com, www.indiamart.com and www.kisanmandi.com, www.kisa

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 Processors

Processors are manufacturing units of secondary or tertiary processed products of cashew. They can be big processing units, MSMEs or cottage industries. Conversion of raw cashew nut to cashew kernels mainly involves the following sequenced activities: Steam roasting of raw cashew nuts (for loosening of shell), cutting (cashew kernel removal from shell), roasting for loosening of skin (testa), cooling, peeling (of skin), grading and quality check and packing ¹⁰.

2.3.1 Characteristics of the Segment

Cashew processing industry is highly fragmented. Snacking tops cashew consumption in India with 30% of the share followed by Bakery & Confectionary, Sweets & savory, HORECA, frozen desserts, all accounting for 15% each in the consumption pie chart. Remaining 10% consumption comes from temples, marriages, and functions¹¹. Maharashtra has many cashew cottage industries which undertaken small scale processing, mainly operations like manual breaking, blanching, and grading of cashews.

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¹⁰ Source: http://www.bolacashew.com/cashew-Nuts.php#stage3

¹¹ Source: Olam Nuts

2.3.2 Competitors

Karnataka, Kerala, and Goa have more mechanized cashew processing units. As per the data analysis by Olam Nuts, Kerala has 20% market share in processing, followed by Maharashtra (18%), Karnataka (16%), Tamil Nadu (12%), Andhra Pradesh (11%), Odisha (11%), West Bengal (6%), and Goa (3%).

Konkan region which is the main production belt for cashew in Maharashtra has relatively less processing facilities compared to its production volumes. Mostly labor-intensive primary processing activities are undertaken here. Also, the region has remote interior areas and logistics challenges. Thus, significant quantity of cashew from Maharashtra goes to the said states for processing and further trade.

2.3.3 Maintaining Quality Standards and Supply

There are three types of cashew processing operations, namely, 1) Manual, 2) Semi-mechanized means that only cutting of cashew is mechanized, sorting, and feeding operations are manual and 3) Fully mechanized. Depending on the capacity of the FPO, it can take up any of the above types of processing. The main concern highlighted by the cashew industry with respect to operations undertaken by farmers / small-scale processing units is that of hygiene. For better integration into the value chain, it is important for an FPO to invest in hygiene maintenance and improvement of their facility. The FPO should avail Food Safety and Standards Authority of India (FSSAI) license and Hazard Analysis and Critical Control Points (HACCP) certification for the processing unit. HACCP certification is required as the cashew kernel packs should not have harmful chemical, pesticides, and any foreign and harmful particles. Foreign particles can be hair, nails, metal, and glass fragments. Risk of inclusion of such products can be reduced by following HACCP protocols. Processors supply packed cashew to the traders either in tin packing or HDPE bags.

Cashew apple: Currently, cashew industry utilizes only around 30% of the total fruit as food material (kernels), and the remaining goes as a waste. This remaining part is cashew apple, which is the pseudo fruit of the cashew. Farmers mostly discard the cashew apples. However, the fruit has got great medicinal and industrial value. It is rich in sugars, tannins, minerals, pigments, antioxidants, and vitamins (Vitamin C content is three to six times more than an orange and twelve times more than pineapple). It contains thiamine, niacin, riboflavin, and precursors of vitamin A and is also found to be good source of minerals, such as copper, zinc, sodium, potassium, calcium, iron, phosphorous and magnesium. The juice recovery of fruit is in the range of 65 % to 80 % depending upon maturity, variety, and process of extraction 12.

Cashew apple is used in Goa for manufacturing of Feni (a regional liquor) and in Kerala for making products such as vinegar. In Kerala, Kerala State Cashew Development Corporation (KSCDC) also announced

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¹² Source: Tata Centre for Technology and Design

procurement of cashew apple from farmers at INR 3 per piece in 2020¹³. Aggregation of cashew apples and establishing link with potential buyers can help in income enhancement for the FPOs. Cashew apples are traded in the market at INR 300-450 per Kg.

2.3.4 Pricing

For FPOs interested in undertaking cashew processing, it is noteworthy that operating cost of fully mechanized processing units is approximately INR 20 per Kg (including electricity, depreciation, maintenance, and labor) and it takes 0.5-person day for processing 1 bag (80 Kg) of cashew. Out of this, estimated cost of labor is INR 7-8 per Kg. For semi mechanized units, the time required for processing 1 bag cashew is 3 person days and it costs INR 25 per Kg (out of which labor cost is INR 10-15). Semi-mechanized means that only cutting of cashew is mechanized, sorting, and feeding operations are manual. Complete manual operations require at least 6 person days of labor for processing 1 bag of cashew.

Since cashew is only a 3–4-month crop, to maintain economies of scale, it is important that the processing units remain operational for most part of a year. Processors generally import from other countries and process cashew in other months which also help them mitigate price risk. Thus, connections with exporters in other countries need to be established. List of major countries from where India imports cashew is given under **section 1.2.3.** Storage cost of cashew is also to be taken into consideration. Thus, cashew processing is a working capital-intensive business owing to the operational cost, interest rate and other carry costs.

Major grades of cashew available in the market and their wholesale price range is given in the table below:

Grades	Quality Specifications	Price range in peak months	Price range in lean months
W 400	Smaller than W 320	600 – 620	650 – 680
W 320	Smaller than W 240	700 – 720	760 – 780
W 240	Smaller than W 210	770 – 780	800 – 840
W 210	Smaller than W 180	870 – 880	930 – 980
W 180	Biggest in size	950 – 980	1000 – 1100
Pakali; Tukda	Pakali (2 broken pieces)	580 – 590	600 – 620
	Tukda (4 Broken pieces)		

¹³ Source: <u>Kerala State Cashew Development Corporation to buy cashew apples - The Hindu</u>

Grades	Quality Specifications	Price range in peak months	Price range in lean months
Kani	6 - 8 broken pieces	Mix brownish blakish Kani: 300	Mix brownish blakish Kani: 330
		Pure Whitish Kani: 350	Pure Whitish Kani: 370

2.3.5 Establishing Connects

FPOs can supply cashews 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 <u>www.indiamart.com</u> and <u>www.tradeindia.com</u>
- 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 Processors

2.3.6 Advantages and Risks Associated

Processing of cashew along with supplying raw cashew to processors can help in augmenting income for FPOs as there is a constant demand both in domestic and international market. Moreover, there is a demand for all forms and grades of cashew in various market segments.

Since cashew is only a 3–4-month crop, to maintain economies of scale, it is important that the processing units remain operational for most part of a year. Cashew processing is also a working capital-intensive business owing to the high operational cost.

2.4 Organized Retail and eCommerce

Organized retail and eCommerce are a fast-growing marketing channels for cashew. Organized retail includes large national retail players like Reliance, More, and D Mart, and other regional retail companies. Major eCommerce companies dealing in cashew are BigBasket, Swiggy, Amazon, and Flipkart.

2.4.1 Characteristics of the Segment

The major demand for cashews in the retail market is of plain / salted / flavored cashew kernels as most Indian consumers have the habit of consuming cashews as nuts for health benefits or as snacks.

The organized retail players adopt three main business models:

- 1) Engaging regional processors and traders for cashew sourcing, processing, and packaging for them as per the desired grades and specifications.
- 2) Sourcing cashew on their own and engaging regional processors and traders for processing and packaging for them as per the desired grades and specifications, on job work basis.
- 3) Processing (manufacturing) cashew and marketing on their own

2.4.2 Competitors

Some of the popular pan India retail brands of cashew in India are that of retail chains like Big Bazaar, D Mart and Reliance Retail. E-commerce players such as Big Basket also market their own cashew brands. Snack companies like Greendot Health Foods Pvt. Ltd. (Cornitos), Happilo and Yoga Bar also have their own cashew brands. Some of the leading processors as well have their own cashew brands with regional presence.

2.4.3 Maintaining Quality Standards and Supply

Cashews on retail shelves are available in sealed vacuum packages with zip-locks, in glass bottles, in tins, and in regular HDPE packages. Most common cashew grade available in the retail markets is W320. Cashews should be free from infestation, skin, and foreign matter, white in color and with low moisture level (5%). FPOs interested in integrating with the organized retail segment need to set up / upgrade their processing units as described in the 'Processors' section above. Accordingly, the FPO should avail Food Safety and Standards Authority of India (FSSAI) license and Hazard Analysis and Critical Control Points (HACCP) certification for the processing unit. Subsequently, FPO can get connected with the regionally present organized retailers and e-commerce players to undertake cashew processing and packaging for them.

2.4.4 Pricing

For FPOs interested in undertaking cashew processing, it is noteworthy that operating cost of fully mechanized processing units is approximately INR 20 per Kg (including electricity, depreciation, maintenance, and labor) and it takes 0.5-person day for processing 1 bag (80 Kg) of cashew. Out of this, estimated cost of labor is INR 7-8 per Kg. For semi mechanized units, the time required for processing 1

bag cashew is 3 person days and it costs INR 25 per Kg (out of which labor cost is INR 10-15). Semimechanized means that only cutting of cashew is mechanized, sorting, and feeding operations are manual. Complete manual operations require at least 6 person days of labor for processing 1 bag of cashew.

Since cashew is only a 3–4-month crop, to maintain economies of scale, it is important that the processing units remain operational for most part of a year. Processors generally import from other countries and process cashew in other months which also help them mitigate price risk. Thus, connections with exporters in other countries need to be established. List of major countries from where India imports cashew is given under **section 1.2.3.** Storage cost of cashew is also to be taken into consideration. Thus, cashew processing is a working capital-intensive business owing to the operational cost, interest rate and other carry costs.

For processing and packaging cashews for other market players, FPOs can get 4-6% of the product value on the job work. This includes cost of processing and additional costs such as fumigation, packaging and loading / unloading of produce.

Retail price of whole plain cashew kernels may range from INR 800-1000 per Kg depending upon the grade and price of value-added cashew (such as roasted, salted, flavored) can be 20-40% higher than the plain cashew kernels.

2.4.5 Establishing Connects

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
- 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:
 - o https://krishijagran.com/events
 - https://www.kisaanhelpline.com/agriculture-events
 - o https://ficci-web.com/events
 - https://www.2exhibitions.com/agriculture-and-forestry/

2.4.6 Advantages and Risks Associated

Processing of cashew along with supplying raw cashew to processors can help in augmenting income for

FPOs. Depending upon the processing capacities installed, FPOs can cater to different types of market

players.

Since cashew is only a 3–4-month crop, to maintain economies of scale, it is important that the processing

units remain operational for most part of a year. Cashew processing is also a working capital-intensive

business owing to the high operational cost.

2.5 HoReCa

Hotels, Restaurants and Cafes (HoReCa) segment accounts for 15% of the cashew consumption in India 14.

This segment also includes sweet shops and different types of eateries.

2.5.1 Characteristics of the Segment

Cashews are used as an important ingredient in various food items and sweets in India. HoReCa segment

is a highly price sensitive market but mostly less demanding in terms of quality. The segment currently

procures from processors / traders. The demand from this segment is higher during festivals, wedding

seasons, and other occasions.

2.5.2 Competitors

For an FPO looking to supply to customers in the HoReCa segment, its competitors are the local traders

and processors. The HoReCa customers also tend to have long-standing relationship with select suppliers

as the suppliers understand their day-to-day requirements.

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All types of cashew forms are used in HoReCa segment, including whole kernels, pieces, bits, powder and

even paste. While generally lower grades of cashew are consumed in this segment, there can be some

demand of superior grades in the high-end hotels and restaurants.

FPOs can target for supplying to these customers only if they are processing cashews and can sort and

grade their produce and need market channel for lower grades / forms. Most customers in this segment are

¹⁴ Source: Olam Nuts

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less quality conscious and hence can be supplied lower grade cashews. However, the requirement for cashew from this segment customers is steady throughout the year which further necessitates the processing and storage capacities.

This segment should be targeted mainly for supply in small quantities and at regular intervals. Based on the FPOs understanding of the proportion of lower grades it has after sorting and grading, it can fix a certain number of customers to supply. Supply should be ideally done in in restricted geography due to low order quantity, and frequent deliveries.

2.5.4 Pricing

In accordance with the quality requirement of this segment, the customers are price sensitive. FPOs may not be able to charge premium pricing for their supply consistency and quality standards. FPOs should also account in for the cost they would incur when delivering to these customers. Low quantities with frequent deliveries that is required by this segment can lead to high logistics cost.

2.5.5 Establishing Connects

As discussed in the sub-section above, the target customers in this segment are those within a radius of 10-15 kms around the FPOs' processing / storage facility. Establishing connects with this market is either through mutual contacts or through directly approaching potential customers.

2.5.6 Advantages and Risks Associated

HoReCa segment is a good channel, to sell low grade cashews, for FPOs that process and do sorting and grading of cashews. The customers in this segment also have consistent and predictable demand that can help the FPOs for easy planning. The risk of non-payments is minimized as the daily purchase volume per customer is low.

Since the customers are highly price sensitive, this channel cannot be used for reducing price risk.