

# Value-added products from Cashew

# A comprehensive handbook on Cashew and its value-added products



सत्यमेव जयत

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**Technology Enabling Centre** 

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#### The Market of the Cashew

Cashew is widely cultivated in Vietnam, Nigeria, and India as major producing countries. It was introduced to India in the second half of the 16th century for tree planting and soil conservation. Cashew nuts, along with tea and coffee, have become significant sources of foreign exchange since their humble beginnings as a crop aimed at controlling soil erosion. Cashew nuts sometimes referred to as "natural vitamins," produced £ 4.1 billion in 2002 and are now the number one nut crop in the world, promoting health for centuries.

In India, cashew is cultivated in 9.91 lakh, producing 6.92 lakh raw cashew nuts annually. It is mainly grown in Maharashtra, Goa, Karnataka, Kerala on the west coast, Tamil Nadu on the east coast, Andhra Pradesh, Orissa, and West Bengal. It is also cultivated in a limited area in non-traditional areas such as the Bastar region of Chhattisgarh, Karnataka, Gujarat, and the Chorale region of Jharkhand mountainous regions of the northeast. It will be 25.0 lakh by 2030 and reach the 45.0 lakh mark of raw cashew nuts by 2050.

It has directly or indirectly 100,000 rupees on farms and factories, most of whom are women in the underdeveloped socio-economic community. The economy of many rural and suburban Indian villages depends on this industry. On average, the industry earns Rs 5.2 billion worth of foreign exchange annually in the country.

#### The Most Notable Features of the Industry are:

- India accounted for about 25% of the world's total raw cashew production between 2016-17, our raw cashew production was estimated at Rs 78,000.
- Cashew cultivation is carried out in 17 provinces of India with an area of Rs 1041, 000.Hectare.
- India is the world's largest cashew processor (processing about 160,000 rupees of cashew nuts).
- Export of cashew nuts and related products made from roasted and salted cashew nuts,
   Cashew Seed, Cashew Shell Liquid (CNSL), and Cardanol (Purified CNSL). India has reached the rupee. 5213Cr for 2016-17. (The US \$ 778).
- The export value of cashew nuts in 2016-17 is rupees. 5169 Cr. (US \$ 771) and India accounts for about 21 percent of the world's total cashew exports.
- Average cashew nut export prices tripled during the last Ten years from 200 rupees per kg in 2007-08 to 628 rupees per kg per year 2016-17.

- India exports Cashew nuts directly to more than 80 major markets. United Arab Emirates, United States, Saudi Arabia, Japan, Netherlands, Germany, Belgium, Members of South Korea, Spain, France, Great Britain, Kuwait, and Singapore. The domestic consumption of cashew nuts in India is estimated to be the largest in the world. In 2016-17, it will be about 27,000 rupees. Domestic consumption 70% in the last ten years.
- Unlike the rest of the world, consumption in India is primarily "broken" grade. It is used as a material for food.
- The price of cashew apples at the domestic market ranges between USD 7-13 / kg.

#### Value-added products of cashew

Value-added products from cashews offer numerous benefits and opportunities for both producers and consumers.

- Cashew value-added products allow for the diversification of offerings in the market.
   Instead of solely relying on raw cashew nuts, producers can create a range of products catering to various consumer preferences and dietary needs.
- Value-added cashew products open up new market opportunities both domestically and internationally. These products can cater to niche markets such as vegan, gluten-free, and health-conscious consumers, thereby expanding the customer base.
- Value-added products generally command higher profit margins compared to raw commodities like cashew nuts. Processed products such as cashew butter, milk, and cheese often have higher perceived value and can be sold at premium prices.
- Processing cashew nuts into value-added products allows for the utilization of byproducts and waste materials. For example, cashew shells can be used to produce cashew shell oil, which has industrial applications such as in lubricants and biofuels.
- Many value-added cashew products offer health and nutritional benefits. Cashews are rich in protein, healthy fats, vitamins, and minerals, making them a valuable ingredient in plant-based diets and alternative food products.
- The production of value-added cashew products encourages innovation and creativity
  in product development and marketing strategies. Producers can experiment with
  different formulations, flavours, and packaging designs to attract consumers and stand
  out in the market.
- The development of value-added cashew products contributes to the strengthening of the cashew value chain. This involves the integration of various stakeholders including

- farmers, processors, distributors, and retailers, leading to increased collaboration and economic development within the industry.
- Value-added cashew products can also align with sustainability goals by promoting responsible sourcing practices, reducing food waste, and supporting local communities involved in cashew production.

#### **Growing Market of Cashew Value-Added Products**

Cashew apples and value-added products are the main by-products of the cashew nut industry. The 573,000 MT cashew apple, discarded after ingesting walnuts, is far more nutritious than many fruits and is a cashew jam using apple juice cashew, cashew jelly, and osmotic dehydration. This work will meet the apparent social health benefits, and growing global demand of farmers, entrepreneurs, and consumers, maintain market share, and be economically viable ahead of the rapidly emerging competition in the worldwide market.

#### • Cashew apple juice:

The harvested cashew apples are washed to ensure it is free from dust or microbial spoilage. The juice from the cashew apples is usually extracted from methods like basket pressing, screw press, or hydraulic press. To 8-10 litres of the extracted juice around 10 grams of polyvinyl pyrrolidone would be added and filtered through a muslin cloth, the supernatant is allowed to settle for 20-40 minutes and to the cleared supernatant 0.5kg/ litre of sugar is added, finally, preservatives like sodium benzoate and citric acid (both 6g) are added for extended shelf life.

The equipment cost for cashew apple juice production in India can range between Rs. 4-16 Lakhs. This includes costs of facilities like fruit washing machines, fruit crushing machines, juice extractors, filtering equipment, pasteurization equipment, storage tanks, and other utilities like water, electricity, and fuel for running the equipment.

#### • Cashew apple squash:

Cashew apple squash is prepared in a method similar to cashew apple juice preparation, keeping high concentrations of sugar and citric acid. Sugar is added at a concentration of 3kg/liter and 100g of citric acid is added as a preservative. To make one glass of cashew apple juice the prepared squash is diluted three times in water and served. The cost of setting up a cashew apple squash production unit in India would require equipment similar to those in juice

production, with some additional processing equipment specific to squash preparation. In addition to the cashew apple juice extraction set-up, this facility includes mixing and blending tanks, boiling pans and evaporators, and bottling and packaging equipment making the cost Rs. 5-25lakhs.

#### • Cashew apple syrup:

To 1 lite of clarified cashew apple juice 2kg sugar was added and is maintained under moderate heat. The mixture is continuously stirred until the sugar dissolves. Then 15g of citric acid is added to the mix and stirred continuously. To make 1 glass of juice, the syrup is diluted 5 times in water and served. Cashew apple syrup preparation would require equipment similar to those used in juice and squash preparation, ranging between Rs. 5-25Lakhs.

#### • Cashew fenny:

Fenny is prepared through the fermentation and distillation process of cashew apple. Matured and ripened cashew apples are collected, juice extracted, fermented, and subjected to distillation. The distillation method helps to adjust the concentration of alcohol. Fenny was awarded the geographical indication recognition in 2009 as a special alcoholic beverage from Goa. Cashew fenny production requires specific equipment tailored to the traditional distillation process that includes distillers, fermentation tanks, storage tanks, bottles and packaging materials, and laboratory equipment like alcohol meters, pH meters, and hydrometers.

#### • Cashew apple wine:

The harvested cashew apples are sorted out and washed to ensure it is clean. Then, the apples are immersed in a 5% salt solution for 2-3 days to ensure the diminution of tannins present in the fruit. Later, the cashew apples undergo steaming for 15 min at 15lbs using an autoclave or pressure cooker. The steamed apples are squeezed to procure maximum juice content and filtered through a muslin cloth. 1kg sugar and 6g of tartaric acid are added to the juice with continuous stirring. Later, 2& (v/v) yeast culture was added and the mixture was allowed to ferment at room temperature for 6 days. Later, the mixture could be filtered and served.

To produce cashew apple wine in India, specific equipment tailored to the wine-making process would be required the cost of which would range between Rs.3-10 lakhs, if done on a small scale. The costs include a fruit washing machine, fruit crushing machine, fermentation tanks, press, airlocks and bungs, transfer pumps, filtration equipment, bottling equipment, storage tanks, and other utilities like water, electricity, and fuel for running the equipment. Additional costs of bottles, corks, labels, regulatory compliance, and licensing costs should also be considered.

#### Cashew Butter:

Similar to peanut butter, cashew butter is made by grinding roasted cashew nuts into a creamy spread. It is often used as a healthier alternative to peanut butter and can be used in sandwiches, sauces, and desserts. To set up a small-scale casher butter production unit in India it would cost around Rs. 5-15 Lakhs which includes a cashew nut roasting machine, nut shelling machine, nut grinding machine, mixing and blending equipment, and packaging equipment. Additional costs of raw cashew nuts, jars, labels, and other utilities like electricity, water, and fuel for running the equipment should be considered.

#### • Cashew Milk:

Cashew milk is a dairy-free alternative to cow's milk. It is made by blending cashew nuts with water and then straining the mixture to remove any solids. Cashew milk can be used in coffee, smoothies, cereal, and baking.

In India, the equipment costs for producing cashew milk can vary based on factors such as the scale of production, quality of equipment, and specific requirements. The approximate cost of setting up a cashew milk extraction plant ranges from 10 to 60 lakhs. The equipment includes cashew processing equipment, milk extraction and filtration equipment, pasteurization equipment, packaging equipment, storage tanks, utilities, quality control equipment, and cleaning equipment.

#### • Cashew Cheese:

Cashew cheese is a dairy-free cheese alternative made from cashew nuts. It is typically made by blending soaked cashews with water, nutritional yeast, and seasonings to create a creamy cheese-like consistency. Cashew cheese can be used in sandwiches, salads, and pasta dishes. Cashew cheese prices can differ based on several variables, including brand, region, manufacturing volume, and ingredient quality. However, a kilogram of cashew cheese normally costs between 500 and 1500 Indian Rupees in India.

#### • Cashew Flour:

Cashew flour is made by grinding raw or roasted cashew nuts into a fine powder. It is glutenfree and can be used as a substitute for wheat flour in baking recipes, such as cakes, cookies, and bread. To produce cashew flour in India approximately 1.5lakhs to 6lakhs would be required which would include processes like cashew nut shelling, drying, grinding, sieve, packaging machine, and weighing scale. Additional costs for installation and maintenance along with utilities like electricity, water supply, and ventilation systems would be incurred.

### • Citric acid from Cashew juice:

Citric acid can be derived from cashew apple juice by adding ascorbic acid and citric acid to the juice. The addition of these acids helps to suppress excessive sweetness and eliminate the specific oily smell characteristic of tropical fruits. The concentration of ascorbic acid added to the juice should be between 0.05-0.6wt.%, while the concentration of citric acid should be between 0.05-0.4wt.%. This process allows for the production of cashew apple juice that is free from these undesirable characteristics and can be used in various applications.

Extraction of citric acid from cashew apples involves a complex process and specialized equipment. It is not common commercial practice due to the low citric acid content in cashew apples compared to other sources. In a small-scale plant for the same, an investment of around 60,000 to 3,00,000 Indian Rupees would be required, the investment made could include cashew grinding machines, juice extraction equipment, filtration equipment, acidification equipment, crystallization equipment, drying equipment, packaging equipment, analytical and safety equipment. Additionally, the citric acid extraction process from cashew nuts would require expertise in chemistry and laboratory techniques.

#### Cashew shell and pulp in animal feed and bioethanol:

Cashew pulp has potential applications in both animal feeds and bioethanol production. In terms of animal feeds, cashew pulp can be used as a source of nutrition due to its nutritional characteristics and bioactive compounds. It can be processed and stored to maintain its quality and microbial safety. As for bioethanol production, cashew pulp can be subjected to acid digestion and pressure cooking to solubilize the pulp and release sugars. The solubilized pulp can then be fermented using yeast to convert the sugars into ethanol. The ethanol yield from cashew pulp is significant. Additionally, residual cashew pulp waste after juice extraction can also be utilized to produce value-added products, including bioethanol. Therefore, cashew pulp shows promise as a potential feedstock for both animal feeds and bioethanol production.

Setting up a bioethanol production pant from cashew nut would require an investment ranging from Rs. 21 Lakh to Rs. 2.32 Crores which would involve pre-treatment equipment like a grinder and steam boiler; fermentation equipment like fermentation tanks and agitators; distillation equipment like distillation columns, condensers and heat exchangers; dehydration equipment like molecular sieves and membrane separation units and denaturation equipment. Additionally, other costs like land acquisition, permits and licenses, labour, engineering, and project management should be considered.

#### • Cashews as a source of antioxidants like lutein and zeaxanthin:

Cashews contain antioxidants such as lutein and zeaxanthin. These antioxidants are important for their potential health benefits, including their ability to remove oxidizing agents that can damage cells and cause chain reactions. Additionally, antioxidants are widely studied in pharmacology for their potential use in treating diseases such as stroke, dementia, and neurodegenerative diseases. Zeaxanthin, in particular, has been found to have antioxidant activity and can be enriched in bioactive peptides. Furthermore, flavonoids, a group of polyphenolic antioxidants found in many fruits and vegetables, including cashews, have been associated with a reduced risk of chronic diseases such as coronary heart disease. Therefore, cashews can be considered a good source of antioxidants, including lutein and zeaxanthin, which may contribute to their potential health benefits in the management of ocular conditions like Age-related macular degeneration (AMD).

#### • Cashew Gum:

Cashew gum is a natural polymer obtained from the exudate of the occidental cashew tree. It has been investigated for its material properties, including surface morphology, thermal stability, and optical properties. Cashew gum has also been used in the development of bio-based polymer blends, such as polyvinyl alcohol/cashew gum (PVA/CG), which have shown improved structural, thermal, mechanical, and electrical properties. Additionally, cashew gum has been used in the synthesis of polyaniline-based sensors, demonstrating its potential for applications in food packaging and other devices. The modification of cashew gum through amine reactions has been shown to alter its molar mass, surface charge, and thermal stability, without presenting cytotoxic potential at certain concentrations. Furthermore, cashew gum has been used in combination with galactomannan for the microencapsulation of rosemary essential oil, with optimized proportions resulting in efficient encapsulation. Due to limited commercialization and reduced scale of cashew gum, the equipment facility is not readily available at the industry level in India.

#### • Cashew nut shell liquid (CNSL):

Cashew nut has two shells (double shell) or walls, the outer bone being smooth and somewhat elastic and olive green in colour before maturity. When the cashew nut matures, the outer shell becomes greyish-brown. The inner wall of the shell is hardware and needs to be cracked to remove the nut inside. The honeycomb structure is housed between the inner and outer shells. The nut or kernel inside the shell is covered with a brown skin known as testa. Cashew nut shell liquid has a reddish-brown colour due to charring as well as chemical changes during frying.

Cashew nut shell liquid constitutes about 20-25% of the weight of the cashew nut. The popular methods of manufacturing CNSL are:

- (1) Hot oil bath process- the raw cashew nuts with shell are passed through a bath of hot CNSL at 180-200 °C, resulting in bursting of the shell and releasing the CNSL. however, only 50% of the CNSL present in the shell is extracted by this process.
- (2) (2) Roasting process: shelled cashew nuts are exposed to sudden high temperatures (400-700deg .C) from the ambient. Shells are charred in the process forcing the CNSL out of the shell. Variations of this process using step-wise heating to higher temperatures and using vacuum and electrical or infrared heating are also used. Mostly,

- this method is used in conjugation with an oil expeller which expels the oil from shells to an extent of 90%.
- (3) Several other methods using superheated steam, extraction with solvents like benzene and toluene, supercritical carbon dioxide, etc. are reported.

Many countries import raw cashew nuts for processing, thus, producing CNSL as a by-product. Countries and regions such as India, Brazil, Bangladesh, Tanzania, Kenya, Mozambique, tropical regions of Africa, and Southeast and Far-East Asia produce cashew nuts and CNSL in abundance. The resinous oils obtained from cashew nut shells are used to produce several derivatives which have diverse applications including point and coatings, lubricants, waterproofing as well as specialist chemicals. Cardanol, an important component of cashew nut shell liquid, can be extracted from the shells readily and in quantities.

The CNSL is a by-product of the cashew industry. It is a cheaper and renewable substance that can be employed or the manufacture of various products and can replace phenol with equivalent or better results. polymerization is the most important reaction of CNSL from the point of its application. Th polymers formed show flexibility due to internal plasticization and also offer water resistance due to its hydrophobic nature. CNSL undergoes all the conventional chemical reactions of phenols. It also finds role as antioxidants, stabilizers, plasticizers and processing aids for rubber compounds, modifiers for plastic material. They also provide oxidative resistance to sulphur-cured natural rubber products. CNSL has innumerable applications in polymer-based industries such as friction lining (cashew friction dust, brake linings, clutch facings, brake pad composites), paints and varnishes, enamels, cashew lacquers, electrical conductors, laminating resins, rubber compounding rescind, cashew cements, polyurethane based polymers. CNSL is also known to possess germicidal and fungicidal properties

#### **Varieties Cultivated in India:**

Vengurla 1-8, Bappal, NethraVaman H130, Bhaskara, NRCC selection 1, NRCC selection 2, Ullal 1, Ullal 2, Ullal 3, Ullal 4, UN50, Chintamani 1, Chintamani 2, Goa 1, Goa 2, Vrindachalam, Dhokla, BPP-1-11, Madakkathara-1, Madakkathara-2, Kanaka, Dhana, Priyanka, Amrutha, Sulabha, Anakkayam, Dharasree, Akshaya, Anagha, Bhubaneshwar, Jagannath (BH-6), Balabhadra (BH-85), VRI-1 (M 10/4, VRI-2 (M 44/3), VRI-3 (M 26/2), VRI (CW), Jhargram-1, Jhargram-2 are few of the varieties of cashew nut verities of cashew nuts cultivated in India.

## **Cashew Cultivation Abroad:**

Nigeria, Tanzania, and Mozambique, these countries significantly produce cashew nuts in Africa and the Ivory Coast is emerging as a major cashew-producing nation. Vietnam is one of the top global producers and exporters of cashew nuts and Indonesia cultivates cashews in regions with suitable climates. Brazil is known for its large-scale cashew cultivation, especially in the north-eastern regions.

## Varieties of cashews grown worldwide are:

Variety	Country	Feature/ Quality
AC4	Tanzania	High-yielding, desirable nut and apple qualities, tolerant to major
		disease and insect pests, adapted to various agroecological
		Conditions.
AZA2	Tanzania	High-yielding, desirable nut and apple qualities, tolerant to major
		diseases (including, cashew leaf and nut blight) and insect pests,
		adapted to a wide range of agro-ecological conditions
BRS 274	Brazil	High-yielding, desirable nut and apple qualities, tolerant to major
		disease and insect pests.
CCP-76	Brazil	High-yielding, desirable nut and apple qualities, tolerant to major
		disease and insect pests.
Vengurla-	India	High-yielding, desirable nut and apple qualities, tolerant to major
2		disease and insect pests
Sulabha	India	High-yielding, desirable nut and apple qualities, tolerant to major
(K10-2)		disease and insect pests

## List of Cashew processing units /manufacturers and industries

Sl.	Name of the company	Sector	Place	
No				
	KARNATAKA			
1	Shree Venkateshwara	Food Processing	Vittal, Karnataka	
	Processors	Company		
2	Kalpavriksha Mahamaya	Food Processing	Ullal, Karnataka	
	Cashew Industries	Company		
3	Shri Laxmi Ramana cashew	Food Processing	Bantwal, Karnataka	
	industry	Company		
4	Rajashree Cashew industry	Food Processing	Karimaru, Karnataka	
		Company		
5	Kalbhavi Cashew Industries	Food Processing	Mangaluru, Karnataka	
		Company		
6	Mangala Cashew Industries	Manufacturer	Mangaluru, Karnataka	
7	Cashew Factory	Food Processing	Puttur, Karnataka	
		Company		
8	Kamath Cashew Company	Food Processing	Paduperar Proper, Karnataka	
		Company		
9	Reliable Cashew Company	Food Processing	Mangaluru, Karnataka	
		Company		
10	Sri Shantadurga Cashew	Manufacturer	Kallamundkur, Karnataka	
	Processors			
11	KCMA	Manufacturer	Mangaluru, Karnataka	
12	Vittal Cashew Processing	Food Processing	Kerala	
		Company		
13	Souza Cashews	Food Processing	Puttur, Karnataka	
		Company		
14	Cashew Factory	Food Processing	Bairanje, Karnataka	
		Company		
		GOA		
15	Pooja Cashew Industry	Manufacturer	Goa	

33	Jaya Aparna Cashew	Food manufacturer	Jaggampeta, Andhra Pradesh
	Processing		
34	Sri Srinivasa cashew	Manufacturer	Mandasa, Andhra Pradesh
	industry		
35	KSM Cashew Industries	Food Processing	Therlam, Andhra Pradesh
		Company	
36	Sri Lakshmi Ganapathi	Manufacturer	Visakhapatnam, Andhra Pradesh
	cashew industry		
37	Sri Lakshmi cashew	Food Processing	Kasibugga, Andhra Pradesh
	industries	Company	
38	Sri Venkateswara Cashew	Manufacturer	Cheedigummala, Andhra
	Industry		Pradesh
39	Sri Uma Kameswara	Food Processing	Kasibugga, Andhra Pradesh
	Cashew company	Company	
40	Accoladzz cashew industries	Manufacturer	Kasibugga, Andhra Pradesh
41	Sri Lakshmi Venkata Jyothi	Manufacturer	Kasibugga, Andhra Pradesh
	cashew industry		
42	Surya Bhaskar Kaju Industry	Food Processing	Malikipuram, Andhra Pradesh
		Company	
43	Devi cashew industry	Food Processing	Cheepurupalli, Andhra Pradesh
	Company		
44	Cashew Factory	_	Diwancheruvu, Andhra Pradesh
		Company	
	TAMIL NADU		
45	Suvetha cashews	Food Processing	Panruti, Tamil Nadu
		Company	
46	Cashew manufacturing unit	Food Processing	Panickankuppam, Tamil Nadu
		Company	
47	Royal Industries   Cashew	Machine shop	Chennai, Tamil Nadu
	nut processing machine		
40	manufacturers		N. 1
48	Krishna Brothers Cashew	Food Processing	Melmambattu, Tamil Nadu
		Company	

cashewsCompany50Jai Bharath cashewsFood Processing CompanyChennappanayakkanpala Tamil Nadu51Cashew Manufacturing & Processing processingFruit and vegetable processingPanruti, Tamil Nadu52Rani CashewsFood Processing CompanyMaligampattu, Tamil Nadu53Cashew nut factoryFood seasoning manufacturerPowdikonam, Tamil Nadu54Chandru Cashews manufacturing millCompanyMuthandikuppam, Tamil Nadu55BK Impex, Cashew Processing IndustryCorporate OfficeThirubuvanam, Tamil Nadu56LuLuKaju and Food Processing, Nanda Brand Cashew, Dry FruitsCompanyCumbum, Tamil Nadu57Nikki Cashew IndustriesManufacturerPacode58Jayarakkini cashewsFood Processing CompanyPanikankuppam, Tamil Imparation Pactory59Thiyagarajan Cashew Food Processing CompanyMelkangeyankuppam, Nadu60M/S C.Ramakrishna Padayatchi - CashewsExporterKadampuliyur, Tamil Nadu	yam,		
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61 Tnk cashews Manufacturer Tamil Nadu			
TELANGANA			
62 Eat Cashew Processors Food Processing Hyderabad, Telangana			
Company			
63 Kaju Zone Industries Pvt Ltd Food Processing Hyderabad, Telangana			
Company			
64 Immunuts Enterprises Manufacturer Hyderabad, Telangana			
(Cashew processing unit)			

65	Sree Indu Cashews	Food Processing Company	Karimnagar, Telangana
66	Shri Venkateshwara Cashew Company	Manufacturer	Hyderabad, Telangana
67	Cashew Processing	Manufacturer	Hyderabad, Telangana
68	Cashew factory	Manufacturer	Telangana
69	Seetharam processors (cashew industry)	Food Processing Company	Annarugudem, Telangana
70	Sri Vasudev Cashew	Manufacturing & Industrial Consultant	Lakshmiguda, Telangana
71	Rk agro farms	Agricultural production	Nandigama, Telangana
	MAHARASHTRA		
72	Supper Cashew Processing	Food Processing	More, Maharashtra
	& Training Unit	Company	
73	BVP Cashew Nuts Processing Unit	Food Processing Company	Markal, Maharashtra
74	Sawant Cashew Industries	Food Processing Company	Tendoli, Maharashtra
75	Omkar Cashewnut Processing Unit	Food Processing Company	Ratnagiri, Maharashtra
76	M/s King Agro Processors	Manufacturer	Navghar, Maharashtra
77	Yash Cashew Processing Unit	Food Processing Company	Devrukh, Maharashtra
78	Hi-fi cashew industries	Food Processing Company	Kherade Wangi, Maharashtra
79	Shree Swami Samarth Cashew Processing Unit	Food Processing Company	Baramati, Maharashtra

80	Shri Swami Samarth Agro - Kaju (Cashew) industry hatkanangale	Food Processing Company	Hatkanangale, Maharashtra	
81	SG Cashew Processing Industry	Food Processing Company	Aurangabad, Maharashtra	
82	Kaju factory -Shiva Agro Exports	Food Processing Company	Gandhre, Maharashtra	
83	Ganesh Cashew Factory	Food Processing Company	Masade, Maharashtra	
84	Akshada Cashew Industry	Food Processing Company	Kudal, Maharashtra	
85	Divya cashew industries	Manufacturer	Kudal, Maharashtra	
86	Gowan Cashew Industries	Manufacturer	Shinoli	
87	Laxmi Narayan cashew industry	Food Processing Company	Maharashtra	
88	Haripriya Cashew Industry	Food Processing Company	Mandangad, Maharashtra	
89	Jay siyaram cashew industry	Manufacturer	Uttur, Maharashtra	
90	Aayush cashew processing unit	Food manufacturer	Chahardi, Maharashtra	
KERALA				
91	Emmanuel Cashew Industries	Food products supplier	Chepra, Kerala	
92	Choice Cashew Industries	Food Processing Company	Mayyanad	
93	Haseena cashew retail outlet	Food Processing Company	Aluva, Kerala	
94	St. Gregorios Cashew Industries	Food Processing Company	Puthoor, Kerala	
95	APSCA Vanitha Swayam Sahaya Sangam Cashew Nut Processing Unit	Manufacturer	Eruvessy, Kerala	

96	Vittal Cashew Processing	Food Processing Company	Kerala
97	Alphonsa Cashew Industries	Food Processing Company	Puthoor, Kerala
98	Molath (Aysha cashew industry)	Manufacturer	Kerala
99	Mahavishnu Cashew Factory	Food Processing Company	Kerala
100	St. Mary's Cashew Industries	Food Processing Company	Puthoor, Kerala
101	Cashew Factor	Food Processing Company	Kerala
102	St Gregorios Cashew Industries. Kizhakketheruv factory	Food Processing Company	Melila, Kerala
103	Old cashew nut factory	Food Processing Company	Azhiyur, Kerala
104	Cashew nut factory	Manufacturer	Anchalummood, Kerala
105	Tasty Nut Industries	Manufacturer	Kollam, Kerala
106	Bismi Cashew Company	Food Processing Company	Kerala
107	Kailas Cashew Nut Factory	Food Processing Company	Thamarakulam, Kerala
108	Souparnika Cashew Industries	Manufacturer	Kerala
109	Arathy Cashew Company	Food Processing Company	Kerala
110	M. A cashew factory (mulattu industries)	Food manufacturer	Mulavoor, Kerala
111	Sunrise agro food products	Manufacturer	Kannur
112	APSCA Vanitha Swayam Sahaya Sangam Cashew Nut Processing Unit	Manufacturer	Eruvessy, Kerala

# List of existing value-added products from cashew and major players in India

Product	Major players in Indian Market	
Cashew apple juice	Sanitur, Maharashtra	
	Goan Fest, Goa	
Cashew apple squash	Prakruthi Foods, Mangalore	
	Madhu multiples, Mangalore	
Cashew apple chutney	Goan fest, Goa	
Cashew apple syrup	Saguna farmfresh, Maharashtra	
	Urban platter, Maharashtra	
	Kerala Agricultural University, Kerala	
Cashew butter	Goan fest, Goa	
	Urban platter, Maharashtra	
	Pintola, Gujarat	
	Kwality, Mumbai	
	Nutrofy, Bangalore	
	Maskum Adventure Foods, Bangalore	
	Auroville online, Tamil Nadu	
	Peepal Farm, Himachal Pradesh	
	Just amazin, Bangalore	
	Butters & More, Mumbai	
	Zucchero cashew butter, Haryana	
Cashew milk	PlantCa Milks, Mumbai	
	Alt milk, Delhi	
	Freshmills, Bangalore	
Cashew cheese	Nourish you, Hyderabad	
	PlanB foods, Mumbai	
Cashew flour	The select aisle, Chennai	
	Padma corporation, Maharashtra	
	Nature's Soul, Delhi	