# DIC KORAPUT, JEYPORE ODOP: CASHEW





DISTRICT INDUSTRIES CENTRE, KORAPUT, JEYPORE.

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# 1. INTRODUCTION

Koraput district with abundant natural resources, rich cultural heritage, and skilled work force and well-developed infrastructure has become the vanguard of investment destination in Odisha. The District Industries Centre, Koraput, Jeypore, which came into existence in the year 1978, has extended various supports and services to the prospective entrepreneurs for establishment of Micro, Small, Medium Enterprises, Handicraft & Cottage Industries and their sustained growth through various Schemes and Policies of the Government, providing thereby various incentives to the units as well as through Skill DevelopmentTraining and creating awareness.

Basing upon the achievement made under different Schemes/Programmes during the financial year 2022-23, the Annual Action Plan for the year 2023-2024 has been prepared for effective implementation of different Govt. Schemes, Policies & Programmes to realise the desired goal of achieving all round development of the MSMEs, employment generation through establishment of new MSMEs, handholding the youth of the district to undertake ventures & enlarging production base& opportunities of employment.

# 2. DISTRICT PROFILE

Koraput district came into existence on 1st April 1936. The district is named after the "Khora" tribes according to one theory and on the other hand, it is named after, 'Karaka- Pentho', the land of Karaka or hailstones.

It is also believed that one 'Khora Naiko' laid foundation of the village during the time of Nandapur kings. He hailed probably from Ranpur and served under the Nandapur kings in the Militia, and for his faithful and meritorious services he was permitted to establish this village which was named after him as Khora Putu, and later on the name has been abbreviated to 'Koraput'.

Located in the hilly terrain of the Eastern Ghats, it is known mainly for the hilly terrain, mineral reserves, vast forest cover, rich medicinal herbs and a rich tribal culture with pristine natural spots.

Before the 10<sup>th</sup> century, it was ruled by the Silavamsi Dynasty, then the Jains, and finally in the 15<sup>th</sup> century the kingdom of Jeypore was established. It was a part of the Madras Presidency, left in the hands of local zamindars. It formed a part of Visakhapatnam district unit, 1936 when it was merged with the Odisha state. Collector was established in 1794. The District got separated from the Madras Presidency and formed the part of the newly created State of Odisha province with effect from 01.04.1936.

Koraput district is located between 18 degree 13' and 19 degree 10' North Latitudes and 82 degree 5' and 83 degree 23' East Longitudes. It shares its borders with Rayagada District, Nabarangpur district, Kalahandi district on the north, with Bastar district of Chhattisgarh on the west, with Malkangiri District on the south and with Alluri Sitharama Raju and Parvathipuram Manyam districts of Andhra Pradesh on the east. Its area is 8,807 km², making it the third largest district of Odisha after Mayurbhanj and Sundargarh.

Koraput comes under the Eastern Ghat Highland Agro climatic Zone. It is composed of two separate plateaus at an average elevation of 3000 and 2000 feet respectively which are separated from each other and the surrounding plains by a ring of hills. The plateau itself is marked by undulating hills and valleys through which numerous streams run down to join the Indravati to the north and the tributaries of the Godavari to the south. Most of the land is given over to the cultivation of paddy, ragi and flax. Two other major rivers flowing through the district are the Sabari river (Kolab river) and the Sileru river (Machhkund hydropower project) which drain into the Godavari river after completing their course through the district.

Agriculture is a traditional occupation and the way of living of the inhabitants of the Koraput district. The district is well known for its fertile soil and agricultural productivity. A large variety of crops are grown here like Paddy, Millets, Maize, Oil seeds, Pulses, Coffee etc. Apart from these, cashew nut, Jackfruit, Turmeric, Rosemary essential oil, spices, etc. are produced. Fishing, Livestock rearing and mining related activities play a vital role for the livelihood of the people. Because of the agro climatic condition Koraput ,is included as the agricultural District whose climate is essential for the growth of several essence based crops.

At present the Koraput district is comprised of 02 sub-divisions with 14 blocks. Koraput is renowned for Deomali, the highest peak of Odisha. The literacy rate of the Koraput district is nearly 50 percent.

The establishment of two major PSUs NALCO & HAL paved way for the setting up of civilized societies and boosted the growth of infrastructure which has become the vanguard of investors destination.

The District Industries Centre, Koraput, Jeypore has come into existence in the year 1978. After establishment of District Industries Centre, Koraput at Jeypore, various support and services are being provided to prospective entrepreneurs for establishment of Micro / Small / Medium/ Handicraft & Cottage Industries in the District.

Prime Ministers Employment Generation Programme (PMEGP), Odisha MSME Development Policy 2022, Odisha Food Processing Policy-2022, Industrial Policy Resolution 2022, Odisha Procurement Performance Policy for Micro & Small Enterprise 2022, Odisha Start-up Policy 2022, Odisha Export Policy -2022 & Odisha Youth Innovation Fund-2013 schemes have been pronounced to provide various incentives to MSMEs for their sustained growth. In addition to this, the Govt. of India has also declared a number of policy initiatives viz, UAM, GeM, ZED and Micro & Small Enterprises - Cluster Development Programme (MSE-CDP) etc. for the growth of MSME

sectors.

Large scale industries viz. Hindustan Aeronautics Limited, Sunabeda; National Aluminium Company, Damanjodi; SEWA Paper Mill, Jeypore; Kolab Hydro power project, Koraput; Machhkund Hydro power project, Lamtaput; Kodingamali bauxite mines; are the mother units facilitating for establishment of Ancillary & downstream enterprises.

IDCO has developed Industrial Estates at Kaki, Sunabeda; Pandi, Koraput; & Rondapally, Jeypore, to facilitate the establishment of enterprises by providing necessary infrastructures.

Two numbers of MSECDP clusters viz Koraput Turmeric Cluster at

Deogandhana, Nandapur, & Millet Cluster at Subai, Semiliguda are considered as an effective platform to enlarge production base,trigger growth,

alleviate poverty & redress regional and economic imbalance . They have been facilitated to face challenges boldly & effectively in the district.

# 2.1 DISTRICT AT A GLANCE

Sl.	Particulars	Units
No.		
1	Geographical Area	8807km <sup>2</sup>
2	No. of Sub-divisions	02
3	No. of Tehsils	21
4	No of C D Blocks	21
5	No. of Municipality Corporation	03
6	No of NACs	02
7	No. of G.Ps	240
8	No. of R.I. Circles	14
9	No. of Revenue Villages	1985
10	Population as per Census, 2011	13.79 lakhs
11	No. of different commercial Bank Branches	42
12	No. of Assembly Constituencies	05
13	Total Road Ways	9147.148 km
14	National Highway 26	293.53 km
15	State Highway.	230.873 km
16	Rail Lines.	192 km
17	No. of Air Port (At Jeypore)	01
18	Climate	Hot & Humid

# 2.2 ADMINISTRATIVE SET UP

The district is divided into 2 Sub-Divisions, 21 Tahsils and 14 Blocks covering 1985 villages. This district is having 03 Municipal Corporations and 02 NACS. The details are as follows:

Sub-Divisions	Blocks	Tahasils	Municipal Corpn. / N.A.C.
KORAPUT	1.Koraput	1.Koraput	1.Koraput
	2.Narayanpatna	2.Koraput Town	2. Sunabeda
	3.Machhkund	3.Sunabeda	
	4.Nandapur	4.Semiliguda	
	5. Bandhugaon	5.Pottangi	
	6.Dasmantpur	6.Kotiya	
_	7. Laxmipur	7.Narayanpatna	
	8. Semiliguda	8. Machhkund	

	9.Pottangi	9.Nandapur	
		10. Padua	
		11.Bandhugaon	
		12. Damanjodi	
		13.Dasmantpur	
		14.Laxmipur	
		15. Kakiriguma	
JEYPORE	1.Jeypore	1.Jeypore	1.Jeypore
	2.Boipariguda	2.Boipariguda	
	3.Borigumma	3.Bhairabsingipur	
	4.Kotpad	4.Borigumma	
	5.Kundura	5.Kotpad	
		6.Kundura	

#### 3. RESOURCES& POTENCY OF THE DISTRICT

#### 3.1 INFRASTRUCTURE FACILITIES:

#### A. ROADS:

The district has good network of roads as per details below:

i) National High Way (NH-26): 293.53 km

ii) State High Way: 230.873 km iii) Major district Road: 86.412 km iv) Other District Road: 310.683 km

v) Village Road: 866.9 km vi) Forest Road: 208.75 km vii) G. P. Road: 5967 km viii) P. S. Road: 1183 km T O T A L: 9147.148 km

#### B. RAILWAYS:

The total length of Railway line in the district is 188 km (Jagdalpur- Bhubaneswar)&152 (Kirandul –Visakhapatnam). Starting fromKotpad Road Railway station in the west to Tikiri in the east and Kotpad Road Railway Station in the north to Darliput in the south. Koraput Junction is the important Railway station and there are 14 Railway Stations in Koraput District.

#### C.AIR PORT:

Jeypore Airport is functional which connects Visakhapatnam & Bhubaneswar with daily flights.

#### D. POST & TELEPHONE FACILITIES:

i) No. of Post Offices: 244

ii) No. of Telegraph Offices :02iii) No. of Telephone Exchanges :02The Head Post Office is at Koraput.

# E. ELECTRONIC AND MASS MEDIA:

T.V Station 01 All India Radio 01 News Papers (Daily) 07

Computer and Internet facilities are available in all Blocks, NACs & Tehsils of the district.

# 3.2. BANKING NETWORK

There are 65 branches of different commercial banks operating in the district as given below.

SL NO	BANK NAME	BRANCH NAME	IFSC CODE	EMAIL ID
1	IOB	PUJARIPUT	IOBA0000865	iob0865@iob.in
2	IOB	JEYPORE	IOBA0000287	iob0287@iob.com
3	IOB	BOIPARIGUDA	IOBA0000468	iob0468@iob.in
4	IOB	LAXMIPUR	IOBA0000545	iob0545@iob.in
5	IOB	KORAPUT	IOBA0001006	iob1006@iob.in
6	SBI	BELL ROAD,GANDHI CHOWK,JEYPORE	SBIN0012095	sbi.12095@sbi.co.in
7	SBI	A MALKANGIRI	SBIN0016133	
8	SBI	KORAPUT EVENING BRANCH	SBIN0016132	sbi.16132@sbi.co.in
9	SBI	POTTANGI	SBIN0009952	<u>sbi.09952@sbi.co.in</u>
10	SBI	BALDA	SBIN0009663	<u>sbi.09663@sbi.co.in</u>
11	SBI	KOLABNAGAR	SBIN0006684	<u>sbi.06684@sbi.co.in</u>
12	SBI	MACHHAKUND	SBIN0002083	sbi.02083@sbi.co.in
13	SBI	BZR BR JEYP	SBIN0006909	sbi.06909@sbi.co.in
14	SBI	KORAPUT	SBIN0000121	sbi.00121@sbi.co.in
15	SBI	KOTPAD	SBIN0002079	sbi.02079@sbi.co.in
16	SBI	BORIGUMMA	SBIN0002030	sbi.02030@sbi.co.in
17	SBI	BOIPARIGUDA	SBIN0012097	sbi.12097@sbi.co.in
18	SBI	SUNABEDA	SBIN0001304	sbi.01304@sbi.co.in
19	SBI	SEMILIGUDA	SBIN0010938	sbi.10938@sbi.co.in
20	SBI	DAMANJODI	SBIN00006908	sbi.06908@sbi.co.in
21	SBI	MB JEYPORE	SBIN0000101	sbi.00101@sbi.co.in
22	SBI	KOTPAD	SBIN0002079	sbi.02079@sbi.co.in
23	SBI	NARAYANPATNA	SBIN0003382	sbi.03382@sbi.co.in

24	SBI	LAXMIPUR	SBIN0012098	sbi.12098@sbi.co.in
25	SBI	KUMBHARIPUT	SBIN0009347	<u>sbi.09347@sbi.co.in</u>
26	SBI	DASMANTAPUR	SBIN0017970	sbi.17970@sbi.co.in
27	BANK OF INDIA	SUNABEDA	BKID0005440	sunabeda.bhubaneswar@boi.co.i n
28	BANK OF INDIA	KORAPUT	BKID0005443	koraput.bhubaneswar@bankofind ia.co.in
29	BOI	JEYPORE	BKID0005441	jeypore.bhubaneswar@bankofind ia.co.in
30	INDIAN(AL LHA) BANK	BALDA/ SEMILIGUDA	IDIB000S619	semiliguda@indianbank.co.in
31	INDIAN(AL LHA) BANK	SUNABEDA	IDIB000S788	sunabeda@indianbank.co.in
32	BANK OF BARODA	SEMILIGUDA	BARB0SUNABE	cs.ho@bankofbaroda.com
33	BANK OF BARODA	JEYPORE	BARB0JEYPOR	jeypor@bankofbaroda.co.in
34	INDIAN(AL LHA) BANK	DAMANJODI	IDIB000D520	indmail@indianbank.co.in
35	Indian bank	JEYPORE	IDIB000J067	jeypore@indianbank.co.in
36	UNION BANK OFINDIA	SEMILIGUDA	UBIN0814083	bm1408@unionbankofindia.com
37	UNION BANK OF INDIA	JEYPORE	UBIN0539139	jeypore@unionbankofindia.com
38	UNION BANK OF INDIA	BORIGUMMA	UBIN0825085	borigumma@unionbankofindia.c om
39	ANDHRA( UNION)	JEYPORE MAINROAD	UBIN0802603	bm0260@unionbankofindia.com
40	ANDHRA( UNION)	pr peta	UBIN0825042	-
41	UNION BANK	Jeypore 2	UBIN0539139	-
42	UNION BANK	borigumma1	UBIN0825085	-
43	UNION BANK	borigumma NABRANGPUR ROAD	UBIN0574821	-
44	UNION BANK OF INDIA	Kotpad	UBIN0573507	cbskotpad@unionbankofindia.co m

45	ANDHRA( UNION)	UMURI	UBIN0828441	bm2844@unionbankofindia.com
46	UNION BANK OF INDIA	church koraput	UBIN0570711	-
47	UNION BANK OF INDIA	Koraput	UBIN0813249	cbskoraput@unionbankofinidia.c om
49	AXIS	SEMILIGUDA	UTIB0003022	semiliguda.branchhead@axisban k.com
50	AXIS	JEYPORE	UTIB0000633	customer.services@axisbank.com
51	AXIS	KUNDRA	UTIB0003737	kundra.branchhead@axisbank.co m
52	AXIS BATSONA	KOTPAD	UTIB0003487	
53	AXIS JGDLPUR	KOTPAD	UTIB0003913	
54	PNB	JEYPORE	PUNB0211810	bo098920@pnb.co.in
55	PNB	KOTPAD	PUNB0765400	bo7654@pnb.co.in
56	PNB	KORAPUT	PUNB0677000	bo6770@pnb.co.in
57	ORIENTAL BANK COMMERC E (PNB)	JEYPORE	PUNB0676900	bo6769@pnb.co.in
58	UCO	JEYPORE	UCBA0001868	jeypor@ucobank.co.in
59	CORPORA TION(UNIO N)	JEYPORE	UBIN0919853	cb1985@corpbank.co.in
60	UGB	JEYPORE	SBIN0RRUKGB	bmugbjeypore@gmail.com
61	UGB LAMTAPU T	MACHHAKUND	SBIN0RRUKGB	ro.lamtaput@ukgb.in
62	CANARA	JEYPORE	CNRB0018053	cb18053@canarabank.com
63	CANARA	JEYPORE	CNRB0006374	cb6374@canarabank.com
64	CENTRAL BANK OF INDIA	KORAPUT	CBIN0284327	cbsnethelp@centralbank.co.in
65	ICICI	NANDPUR	ICIC0003064	mohit.chinaray@icicibank.com

# 3.4 POTENTIAL ITEMS OF MANUFACTURING SERVICES IN THE DISTRICT

The following items are potential for manufacturing / servicing in Koraput district.

- 1. Cashew kernel
- 2. Granite slab & tilescutting
- 3. Essential oils
- 4. Rice &flour mills
- 5. Fabrication & engg. works,
- 6. Solar equipment
- 7. Mineral water bottles
- 8. Egg trays
- 9. Pvc pipes
- 10. Textile units
- 11. Fly ash bricks & pavement tiles
- 12. Corn flakes
- 13. Electronics & electrical works
- 14. Dtp & internet services
- 15. Ply &sun mica works
- 16. Mobile repairing
- 17. Two & four wheeler repairing works
- 18. Ayurvedic medicine
- 19. Non-woven sack carry bags
- 20. Cattle & poultry feed
- 21. Agarbati products
- 22. Paper plate & cup
- 23. Stone crushing
- 24. Pvc door &windows.
- 25. Aluminium utensils.
- 26. Bakery products.
- 27. Soft drink.
- 28. Milk products.
- 29. Studio & videographer.
- 30. Consultancy.
- 31. Electronics & electrical work shop.
- 32. Packaged drinking water.
- 33. M. S. welding electrode

# 3.5. DISTRICT LEVEL EXPORT PROMOTION COMMITTEE (DLEPC)

The District Level Export Promotion Committee (DLEPC) has been constituted by the

- 1. Collector & District Magistrate Chairman
- 2. Additional Director General of Foreign Trade, Kolkata Co -Chairman
- 3. Director EP&M or his representative Member
- 4. Representative of MSME-DI, Cuttack Member
- 5. Lead District Manager, Koraput Member

- 6. Representative of District Industries Association Member
- 7. Representative of NABARD Member
- 8. Chief District Agriculture Officer, Koraput Member
- 9. Deputy Director, Horticulture, Koraput Member
- 10. Chief District Veterinary Officer, Koraput Member
- 11. Dy. Director, Handlooms & Textiles, Koraput -Member
- 13. General Manager, DIC Member Convener

# 4. DISTRICT OFFICE DETAILS

Office of the General Manager, District Industries Centre, Koraput, Jeypore

Contact Person	Address	Contact Details	Email
Sri Chinmaya Parida	District Industries Centre, Koraput, Jeypore-764005	8763069530	dickor@nic.in

# 5. PRODUCT PROFILE

Product Identified: - Cashew Kernel

Troduct Identified. Cusife w Itemer	
H S Code	Product Details
80132	Cashew Kernel



# 6. CASHEW EXPORT OPPORTUNITIES IN KORAPUT

#### Introduction

Cashew (*Anacardium occidentale L.*), a tree native of Eastern Brazil, was introduced in India bythe Portuguese nearly five centuries ago. In India, cashew was first introduced in Goa, from where itspread to other parts of the country. Initially, it found use in soil binding to check erosion. Commercialcultivation began in the early 1960s and, over the years, cashew became a crop with high economic value and attained the status of an export-oriented commodity, earning considerable foreign exchangefor the country.

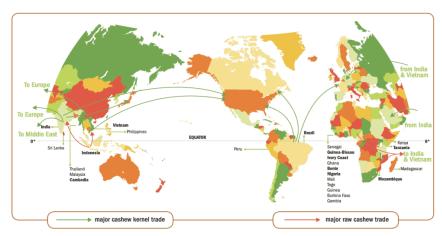


**Key Markets and Export Destinations** 

- Export earnings from cashew nut in FY23 stood at US\$ 837.76 million.
- India accounts for about 65 per cent of the global cashew export.
- India exports cashew kernels to over 60 countries. Its major markets are the US, theNetherlands, Japan, Spain, France, Germany, the UK as well as the Middle East countries suchas UAE and Saudi Arabia.

The Cashew Export Promotion Council of India (CEPCI) works to promote the export ofcashew kernels and CNSL. The council serves as an intermediary between importers of cashew kernelsand exporters who are members of the council. It also deals with disputes on export/import arising due to quality standards and breach of contractual obligations among others. It undertakes numerous activities, such as organizing global buyer-seller meets as well as studies on nutritional aspects of cashewand providing support to cashew processors and exporters for improving infrastructure.

Cashew is one of the India's major foreign exchange earners and the second biggest dollarearner. Till recently, India has had virtual monopoly in the world supplies of both cashew kernels andcashew nut shell oil. But with the development of domestic industries in some of East Africancountries, India would increasingly begin to face stiff competition from these sources in her exportmarket. The cashew that is exported from India is not grown within the country itself. In fact, nearlythree fourth of it is imported from Mozambique, Tanzania and Kenya. About 177,289 tons of rawcashew were imported by India, whereas its exports of the same were to the tune of 57,976 tons in 1974. Though, India holds a virtual monopoly in cashew trade, supplying more than 90 per cent of the World's demand for cashew, she has to depend heavily on raw cashew imports from abroad.



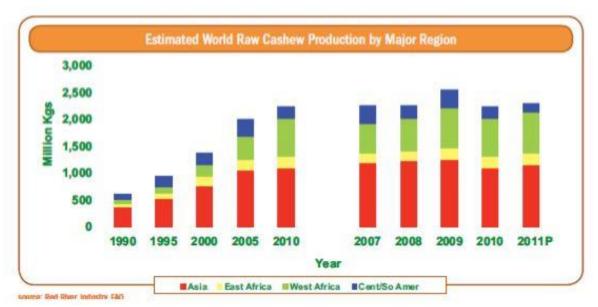
An attempt is made to analyse the trends of India's imports and exports of cashew products ininternational market covering a period of 18 years based on the data from the Cashew ExportPromotion Council, Cochin. India's cashew exports abroad were divided into six zones, viz., American.European, West Asian, South East and Far East Asian, African and Oceanic zone. India's exports toU.S.A., Canada, U.S.S.R., Netherlands, U.K., Hong-Kong, Japan and Australia were estimated. Thefollowing linear function was used to depict the trends of imports and exports of cashew.

Y = a + bx

Where, Y = quantity in thousand tons, x = Y ear and a = constants.

In addition to domestic produce, India imported raw cashew from other countries likeTanzania, Kenya, East Africa, Tanganika, Mozambique, etc. besides many other small countries. Thetotal imports which stood at 97 tons valued at Rs. 7.3 crores during 1957 rose to 177.8 thousand tons, amounting to Rs. 40.79 crores by 1974. Though the increase in the quantity imported during 1974 wasless than double to that of 1957, the increase in value was as much as six times. This differential increasein quantity and value were evidently due to ever increasing prices of the raw nuts, as against an average.

In order to promote Odisha cashew for exports, the Cashew Export Promotion Council of India(CEPCI) will open its first Regional Office in Bhubaneswar soon.

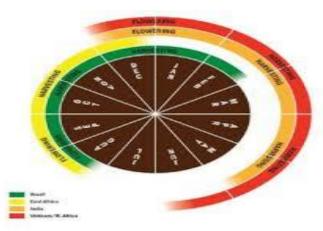


The Department of MSME is promoting cashew clusters with common facility centers. WhileOdisha is second largest producer of cashew, export from the State is nonexistent. In order to makeeach and every cashew processor an exporter, the CEPCI is opening its Regional Office in the State.

Odisha is the third largest State in cashew cultivation, production and processing, processors are unable to export a single kilogram to other countries. Interestingly the cashew processors from Stateslike Kerala and Karnataka are exporting the products of Odisha and receiving huge profits.

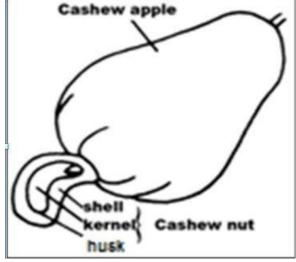
#### 6.1. RAW CASHEWNUT HARVESTING, HANDLING AND STORAGE:

Cashew nut is handpicked and manually handled in various stages of Operation-right from picking at farm level to processing at factory level and to storage and transportation. To preserve the quality of harvested nuts, it is imperative that proper safeguards are observed against natural and man-made contaminations. Improper post-harvest handling and storage ofnuts, such as high moisture, temperature and insect or mechanical damage can influence theincidence of the fungus that produces toxins like afflatoxin. By following proper method ofdrying fungal infection can be avoided. After drying (to about 8 to 10 per cent moisture) the nutmust be freed from any adhering plant material. Shrivelled and spoiled nuts should be removedwhich are potential source of fungal infection. Only healthy and matured Nuts should be keptfor storage. Quality of Raw nut in harvesting, handling and storage can be ensured by:



- 1. **Proper Harvesting techniques** Only matured nuts from fully grown Apple must be harvested.
- 2. **Proper Drying methods** Nut should be sun dried immediately after Harvesting / collection. Drying should be on hard ground, preferably, concrete / slate drying yards. Quantity of nuts dried shall not exceed 20kg per sq.mt. Uniform drying can be achieved by constantly turning nuts over to prevent partial / non-uniform heating / drying. Freshly harvested nuts normally require three days for sun drying.
- 3. **Proper storing methods** Dried nuts should be stored in jute / sisal bags [80kg nut per bag] and not heaped or stored in silos to avoid warm humid Condition in storage room. Storing in woven HDPE bags are not recommended for storage of raw nuts. While storing it is necessary to provide proper wooden Dunn age to prevent damage to the cashew nut in bags by avoiding direct contact of bags to the Warehouse floor. This can be economically achieved by keeping bamboos, criss-crossed and tied and placed on the warehouse floor. Dried nuts should be stored in wellventilated, fly-proof place with low Humidity, free of stored product pests and well insulated to prevent water Seepage during rains.

# 6.2. CASHEW PROCESSING:



(Cut Section of Cashew Nut with Apple)

#### 1. STEAM COOKING:

The raw cashew nuts suns dried and stored in the warehouse are steamed in boiler [without steam pressurizing the cooker vessel] for about 20 minutes. The cooking time is varied depending upon the conditions of cashew nut and atmospheric conditions. The steaming expands the shell, softens the nuts due to penetration of steam into the shell. After steaming, the nuts are air-cured by spreading out on the floorin the shade. These ultimately harden theshell and make it fit enough for de-shelling in the manually operated cutting machine. Thesteam processing preserves the original colour of the cashew kernel inside the Nut. The cutshells of steam roasting process yield quality Cashew Nut Shell Liquid [C.N.S.L.].

# PROCESS FLOW: BOILING PROCESS



#### 2. SHELLING:

The Steam cooked and air-cured Cashew nuts are de-shelled by hand and leg operated cutters. Two workers work on one cutter, one de-shells the nut and the other worker retrieves the kernels from the cut opened shell. The nuts are fed one by one manually between the twosets of blades to fit the Contour of the fixed blade. The pressing of the pedal pierces the Cashew nut on the convex side by means of two blades. The two blades are used to split thenut by operating the handle of the cutter. After de-shelling the nut falls freely due to gravity and is collected beneath the cutter. The operator's assistant works upon each de-shelled nut and takes out the cashew kernel embedded inside the shell. A pair of skilled worker normally de-shells about 80kg of cashew nuts in 8 hours, which yields approximately 25 kg. of Cashew kernel. De-shelling in the mechanical cutter soils the hands of operator, causing corrosion due to C.N.S.L oozing out from the shells due to impact of blades. It is a general practice to rinse thehands with suitable oil, mostly castor oil, to protect the hands from corrosive shell oil. Alternatively, suitable water soluble and washable protective chemical coating like "Kerodex" cream can be applied to the hands for the purpose. In some places workers use wood ash orwhite cement for the purpose. Even in some places Hand Gloves are used for protection.

#### 3. HEAT TREATMENT OF UNPEELED KERNELS [BORMA TREATMENT]:

The kernels after they are removed from the shells have to be dried in order to loosen the red skin adhering to the kernel for easy peeling. A few processors adopt conventional tray drier commonly known as "Borma". The borma chamber outer sides are heated by means of flue gas generated by burning oil-extracted shell-cake at the bottom. The inner chamber heats upby radiation of heat. The above system is becoming obsolete due to poor heat transfer efficiency. In the absence of aircirculation inside the chamber, heating is non-uniform. This results in over heating of kernels causing scorching of kernels in spite changing of trays and turning the kernels in the trays periodically. The conventional "Borma" is presently replaced bymore efficient Cashew Shell waste operated tray driers. This system ensures uniform heating of kernels for a pre-set temperature [80<sub>°</sub>C] and time [6 to 7 hours] by means of reliable electronic controller and timer. This system reduces the heating time considerably and does not require periodic changing of trays during heating, as uniform heat is maintained throughout the drier by forced air circulation. This system preserves the original colour of the Cashew Kernel and quality consistency is achieved within a batch and in everybatch treated.

# 4. HUMIDIFICATION OF UNPEELED CASHEWKERNELS:

The Borma treated Cashew kernels are humidified [Moisturized by water-mist] by means of electrical humidifier]. The Cashew kernels in trays are kept in trolleys are humidified in a closedroom for a period depending on the atmospheric conditions and moisture level of Cashewkernels. The treatment time varies anywhere between 15mts to 20 mts. Depending on the condition of the Cashew kernels under treatment and climatic conditions. The brown skin[Testa] of the humidified kernels undergoes shrinkage due to sudden cooling. This helps to dislodge the hold [Adhesion] of skin to the kernel.

#### 5. PEELING OF CONDITIONED CASHEW KERNELS:

The Cashew kernels conditioned as above is now ready for peeling. Peeling of the Testa is done manually; usage of sharp edges of knife is discouraged as it causes scraping of kernels. Scrapping marks [spoils] the look of the Cashew kernel and is more pronounced after oil roasting. However knives are very selectively used on a very small quantity of Cashew kernel, whose skin does not peel off easily in manual peeling. Major classification / grading of kernelsinto wholes, broken and rejections are done at this stage. A skilled labourer can peelapproximately 6to 8 kg. per day.

#### 6. GRADING OF CASHEWKERNELS:

The peeled kernels are manually graded in natural light by skilled labour. The Cashew kernelsare graded on the basis of shape, size and color. International specification and standard forgrading are widely followed in the industry. The colour grade chart officially issued by the Cashew Export Promotion Council of India serves as a guide for colour grading. Normally askilled laborer can grade anywhere between 20 to 25kg. Of Cashew kernel per day dependingupon grader's skill and the size of the kernel being graded. For grading broken into LWP, SWP,SSP and BB graded mechanized wire-mesh sieves are used.

#### 7. CONDITIONING OF GRADED CASHEWKERNEL:

The moisture percentage permitted in the graded Cashew kernel is 5% max. By weight at the port of importation. While a moisture level above 4% at the time of final packing is not preferredas

the same may cause fungi and aid infestation, low moisture level below 2% is undesirableas it causes breakage of kernel during processing and shipment. Processors by and large control the final moisture level up to 3%. Cashew kernels are humidified to increasemoisture percentage to the required level, heat treated to reduce the excess moisture beforefinal packing.

#### 8. FILLING AND PACKING:

The graded and moisture conditioned cashew kernel are filled in 18Lt/ square tins, 25Ibs (11.34kg) or 10 kg to a tin as per requirement. The Cashew kernel is fed into the vibratory fillingmachine. 4 or 8 Tins (Leak tested and Tar weighed) are filled at a time. Filled tins are thenweighed for a net weighed of 11.34 kg or 10 Kgs plus or minus Maximum 10 gms using electronic weighing scale. The weighed tins are "Vita Packed". Vita packing is the process of vacuumising and injecting an inert gas viz. Carbon-Di-oxide or Nitrogen into the cashew kernelfilled tins. The gas infused tins is hand-soldered hermetically using lead free solder. Two tinsare packed in a unit carton and strapped and stencil marked for sale. The consignment isshipped after per-shipment inspection formalities if sold in Export Market.

# 9. MODERN PACKAGING:

Cashew Kernels are being packed in Multilayer Flexible Pouches; Gas Flushed and Sealed –25 pounds net per pouch. All importers in USA and Europe prefer this system of packing. Recently Consumer Poly Packs of different weight like 250 gram, 500 gram are packed for value addition and attraction. For which Sophisticated Automatic Pouch Packing Machines arenow available. But for the time being we are here going for simple Hand Operated PouchPacking. Recently CFTRI Mysore have developed some techniques of Processing & Packingfor Value Additions in different way.

# 10. HYGIENE & QUALITY MAINTENANCE:

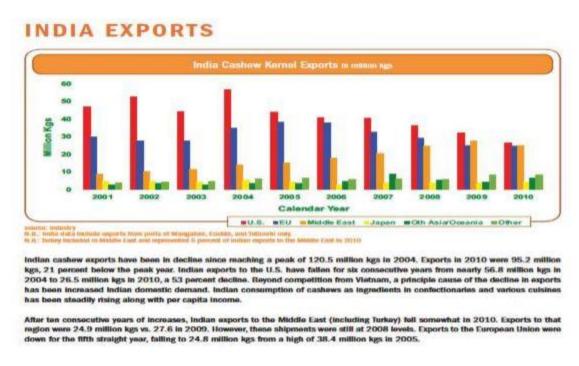
Because Cashew Processing is Labour Intensive, hence proper care should be taken during every step of processing sanitation point of view. In our country Mangalore stands first for their quality maintenance and for hygiene. The workers are supplied with Caps, Aprons & Gloves, etc during processing. Instead of working in sitting on ground floor, Peeling & Grading are doneon Stainless Steel [304 S.S. Sheet] Top Tables and sitting in chairs. By which the quality is maintained and the colour of Kernels remains full white. Always the colour plays a major rolein determining the price of Cashew Kernels.

#### 7. PRODUCTION IN KORAPUT DISTRICT

Production Data of Cashew kernels for the last five years has been provided in the table below.

Name of the Product	Year	Quantity of Production (in
		MT)
Cashew Kernels	2018-19	11780
	2019-20	12650
	2020-21	13800
	2021-22	14750
	2022-23	16780

**Growth Trend:** The economy of the Koraput District is agro-based industrial economy. Due to concentration of economically important minerals, and varied agricultural produce, especially Raw cashew, many small and large scale industries havefound a conducive environment for their growth and development. Due to availability of resources, infrastructure, manpower and demand, there is positive growth trend with respect to Cashew and Foodbased industries in the district.



#### 8. Trade Analysis: Existing and Potential Markets

Koraput Cashew industry is well-established. The major items traded in cashew market iscashew kernels and the consumption of cashew kernels are mainly in the form of 'broken' and 'pieces' that are widely used as ingredients in food items. The domestic consumption of cashew Kernels in India was earlier negligible and has increased over the years. Now the present domestic consumption of cashew kernels are more than export quantity of processed cashew.

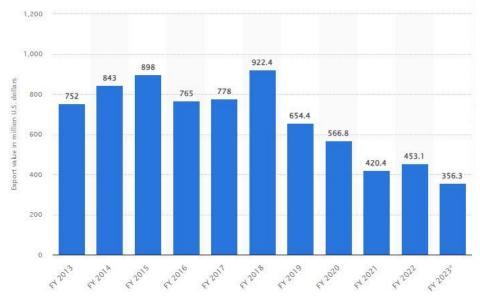
India exports the processed cashew across the globe. The major countries to which India exports cashew are UAE, USA, Saudi, Japan, Netherlands, Germany. During the year 2013-14 UAS wasthe major importer of cashew kernel from India with a quantity of 33898 MT. and it decreased to 9780 MT in 2017-18. UAE became the country that imports major proportion of processed cashewkernels from India in 2017-18, 10053 MT.

# 9. Policy Support to the Export Promotion

The Cashew Export Promotion Council of India or CEPC or CEPCI was established by the Government of India in 1955, with the active cooperation of the cashew industry with the object ofpromoting exports of cashew kernels and cashew nut shell liquid from India. The Council servesas an intermediary between importers of cashew kernels and exporters who are members

of thecouncil. The council is also supposed to deal with any disputes on exports or imports arising onaccount of quality standards, breach of contractual obligations, etc. It undertakes numerousactivities, such as organizing global buyer-seller meets, organizing studies on the nutritional aspects of cashew and providing support to cashew processors and exporters for improving infrastructure.

The CEPC Laboratory and Technical Division was established by The Cashew Export PromotionCouncil of India (CEPC) in 1997. It is situated at Cashew Bhavan, Mundakkal, Kollam city. The labis capable to do food products testing, water testing and other quality-based testing services. Theyalso offer consultancy services to the food processing industry and field surveys. There is a planto set up a quarantine facility and a cashew testing lab at the Kollam Port with the support of the Cashew Export Promotion Council.



India's Cashew Kernel Export Trend

# 10. Potential – SWOT Analysis of Koraput

#### 10.1 Strengths:

- District is strategically well placed and well connected to other districts and states by road and rail.
  - Strategically located near to port Visakhapatnam, and Jeypore Airport.
  - Positive Investment Climate.
  - Easy and cheap availability of work force.
  - Innovative Public Service Management. Availability of Engineering Colleges/Technical Institutes in nearby locality Availability of Central and State Government Institutions for providing assistance at the time of need.
  - Availability of Banks and Financial Institutions in nearby locality at Koraput, Jeypore & adjacent blocks.

#### 10.2 Weaknesses:

• The consumption rate of cashew in India is more than exporting rate.

- Lack of availability of labour is hindrance for transportation and investment.
- Lack of infrastructure facilities.
- Lack of entrepreneurial qualities.
- Lack of City Core.
- The seasonal nature of fruits pose detrimental for supply of raw materials.

# 10.3 Opportunities:

- Since Koraput is a major RCN producer, there joint effort can make them as the world leaders in RCN production and processing.
- Koraput can establish new cashew processing industry in district so that thewhole world market can be easily covered.
- The yield per quantity and quality on processing is maximum for cashew, so the production of cashew has to be increased and HYV cashew has to be planted.

#### 10.4 Threats:

- Other major cashew producing countries Adoption of mechanization inNigeria, Brazil, Ivory Cost etc.
- Difficulty in encountering competition unless raw material import is madecheaper
- European and Arab countries implementing new cashew processing plants.
- Poor skill base of the workers and lack of awareness about modern technology.
- Migration of local people

# 11. Comparative Advantages

The low wage of service professional provides Koraput comparative advantage in exports. The locational advantage of Koraput to the nearby railway station of Koraput and Vishakapatnam port is also a major advantage for the development of the export of the products from the district.

#### 12. MAJOR CASHEW PRODUCERS OF KORAPUT DISTRICT

SI. N o	Name of the Industry	Address of the Unit	Contact Person	Mobile Number
1	M/s Gupteswar Industries,	Telliguda, Jeypore	Penta Ramesh	943757 9445 7008971242
2	Sri Padmavati Cashew Industry	Telliguda, Jeypore	Maddi Vikram	9438266663
3	Sri Laxmi Ganesh Cashew Industries	Bankobija, Railway Station Road, Jeypore	S Arjun	943704 5235 9777634619
4	Sri Ram Food Processing Industries	Ambaguda, Jeypore	Monosish Panda	943704 6605 8249035895

5	Cashew Home	Badapindapodar, Post- Borigumma	Jami Ramesh Jami Shiva Sai	993766 6818 9937666717
6	Sri Janaki Rama Industry	Telliguda, Jeypore	V Venkata Rao	993703 3170 9439334626
7	Sri Satya Sai Industries	IDCO Land, Bisoiput, Umiri, Jeypore	Varanasi Sai	993870 0494 7008575289
8	SKML Cashew Industry	Railway Station Road, Bankobiza, Jeypore	A Rama Krishna A Naveen Kumar	943703 1337 9937583303
9	Sri Choudeswari Cashew Industries	BJ-2, Ambaguda, Jeypore	D Rama Rao S/o D Somulu VIP Lane Jeypore	9437031376
10	M/s Maruti Cashew Indstries	Mazurmunda, Ambaguda, Jeypore	S Rajesh S Chitti Babu	986133 4151 9937144439
11	Om Sri Laxmi Ganesh Cashew Industries	Rondapalli, Jeypore	Gudla Ravi Kumar K Krishana	943709 5233 9437094458
12	Jagat Priya Industries	Bodomondapodor,Am b aguda, Jeypore	Polaki Srinivasa Rao Polaki Ganesh Gembali Munna	809327 5649 8338890608 8093322448
13	M/s Kalyani Cashew Industries	Telliguda, Jeypore	J Ravi Kumar	9437197151
14	Tumbeswara Cashew Industries	Mazurmunda, Ambaguda, Jeypore	Kailash Ch Samantra	9437077559
15	Sri Sai Balaji Cashew Industries	Dudusapalla, Near Nuagaon, Borigumma	B Rama Raju	993722 4099 9437109594
16	M/s Maha Laxmi Cashew Industries	Kosaguda, Borigumma	S Santosh S Venkat	797808 5061 8249011360
17	Sri Lalitambika Industry	Gujiniguda, Borigumma	B Chandra Shekar	9439277777
18	SLVN Cashew Industries	Kenduguda, Haradaput, Jeypore	A Raju	738101 9028 9437119028
19	Sri Laxmi Narayana Enterprises	Gate Guda, Jeypore	J Laxmana Rao Jami Shiva	943709 4670 7788009773
20	M/s Sri Satyanarayana Industries	Hato Podha, Jeypore	G Abhilash	8270333333

21	M/s G R M Industries	Rondapalli, Jeypore	Gudla Bhaskar Rao	83778 22193 8270333333 9437023169
22	Jai Kamamma Talli Cashew Industries	Kumbarput, Post- Kebidi Via-Borigumma	Patnana Ashok Patnana Vaikunta Rao	79789 92910 7978174781
23	Maa Vaishno Devi Cashew Industries	Bobiya, Via- Ambaguda, Jeypore	Kunna Patro	9778002852
24	Sri Krishna Cashew Industy	Brahmunigao, Jeypore	Polaki Ekambara Krishna Polaki Kameswar Raja	70082 27212 8637277578
25	Sri Sai Donardevi Cashew Industries	Bhatigam, Borigumma	B Rama Raju G Raja	993722 4099 9437109594 7013930275 9437693644
26	M/s Sri Siva Sankar Industries	Kundraguda, Borigumma	G V Ramana Avinash G	94370 33796 9437036392
27	Lalita Sri Enterprises	Gate Guda, Jeypore	D Babji D Kishore	955678 3766 9078999580
28	Sri Maa Jagat Janani Enterprises	Hatopodha, Jeypore	U Srinivasa Rao	943735 1129 9937900361
29	Siridi Sai Sankar Industries	Dandasenaguda, Ambaguda	Shanmuk ha Potnuru	9437434066
30	Balaji Cashew Industry	Kundariguda, Borigumma	Sanathan Hari Bhaskar	933776 0882 7008870627 9337055596
31	M/s Ayyappa Cashew Industries	Kanagaon, Borigumma	M Suresh Kumar M Sudhakar	90401 05787 7978794544
32	Parasnath Industry	Bangalaguda, Via- Aunli Post-Borigumma	Suraj Kumar Jain	9439464007
33	Sri Shiva Balaji Enterprise	Dubuli, Godo podar,Jeypore	B Mahesh	9437972888

34	M/s Vaibhavlaxmi Cashew Industries	Sanamajhiguda Post- B Singuput	S Venkat S Santosh	82490 11360 7978085061
35	Sri Laxmi Narayana Cashew Industries	Umuri, Jeypore	K Viswanatham	94373 50319 8658278019
36	Sri Venkata Lakshmi Cashew Industries	Jhilimili, Post- Borigumma	Sai Kishore K Viswanatham	88920 76859 9437350319 8658278019
37	Banabasi Cashew Industry	Champia Road, Post- Kaliaguda, Via- Borigumma	S N Choudhary Vikky	99370 09521 9437072562 9777485768 9437785248
38	M/s Jagat Janani Cashew Industries	Kosaguda, Post- Borigumma	S Chitti Babu S Rajesh	99371 44439 9861334151
39	M/s Bhawani Shankar Cashew Industries	Sargiguda, Borigumma	A Sridhar	93489 50080 8018672786
40	Sai Shankar Industries	Pulkaput, Jeypore	P Suresh	9437123600
41	Subha Laxmi Cashew Industry	Ambaguda, Jeypore	Sanjay Samantra	9437046910
42	Sri Sai Laxmi Cashew Industry	Kondaput, Rondapalli	V Jagadish	9437039261
43	Sai Annapurna Cashew Industries	Haradaput, Jeypore	Srikant Kumar Saboto	993767 8531 9437340316
44	Vasavi Cashew Industry	Boriguda, Jamunda,	B Ramana	99376 48015 9439510222
45	Sri Dhanalaxmi Cashew Industries	Phampuni	D Babji	9556783766
46	Sri Vijaya Durga Enterprises	Mill Street Jeypore	Suru Suresh	9438237990
47	Sri Siva Sankar Industries	Kosaguda, Borigumma	G V Ramana Sujit Ravva R Rama Krishna	94370 33796 7854886666 9937040952
48	Om Sri Tripura Mohini Cashew Industries	Soshandi	Laxman Prusty	8480084078

49	Jami Cashews	Bisoiput, Rondapalli, Jeypore	Jami Ashok Akshay Jami Ashish Jami	943707 7432 9886580016 9916971373
50	Sri Siva Sankar Cashew Industries,	NH-26 Jayantigiri, Borigumma	G Siva Prasad	8377822193
51	M/s Maha Laxmi Cashew Industries	Majurmunda, Ambaguda, Jeypore	G Jagan Mohan Rao G Koteswar Rao	943704 6741 9777836768
52	Sri Jagannth Industries	Telliguda, Jeypore	S Rama Jagannath Rao S Naveen	943880 1890 9437793312
53	SS Traders	Bariniput, Jeypore	K Sandeep	9438749725
54	Maa Narayani Enterprises	Jayantigiri, Borigumma	K Satyanarayan a	9777866587
55	Maa Jagat Janani Industries	Doraguda, Kebidi,	Naveen A Krishna Rao V Gopi Kumar	94377 93312 9437123353 9437000439
56	Maa Jagat Janani Industry	Kundura	Vicky	95569 63403 7205123820
57	Sri Sai Surya Chandra Industries	Boipariguda	Ch Kiran	9938002342
58	M/s Laxmi Gurunadha Cashew Industries	Puruna Borigumma	Doki Chiranjeevi	99376 63353 9337680221
59	M/s Krishna Trading Company	Haradaput, Jeypore	K Krishna Rao	9437094458
60	M/s Kasturi Rama Cashew Industries	Purunagodo, Jeypore	Suru Venkat Raju	9583383396
61	M/s Om Sai Cashew Industries	Dabuguda	Kuna Patro	9778002852
62	M/s Laxmi Ganesh Cashew Industries	Goudaguda, Borigumma	D Shiva	7735653377
63	M/s Sri Shankar Balaji Industries	Rondapalli, Jeypore	P Sanmukha Rao	7008860898
64	M/s Sri Vijaya Durga Enterprises	Balia, Jeypore	Suru Suresh	9438237990
65	M/s Sai Annapurna Cashew Industries	Hardaput, Jeypore	K Sabat	7008984475
66	M/s R S Enterprises	Tola, Koraput	S Kiran	8280057077

# 13. Infrastructures for Export

Better infrastructures are key for better exports.

- Ports: Odisha is the coastal state along the Bay of Bengal with many small and minor ports. However, there is a major port as well i.e. Visakhapatnam port in Andhra Pradesh is also nearby which can be used forexport.
  - Air Connectivity: Jeypore Airport, Jeypore & Biju Patnaik International Airport, Bhubaneswar
  - Rails / Roads: Koraput & Jeypore have the faster connectivity throughrail/road which is utmost important.
  - Labs / Testing facilities: Quality control mechanism can be done using this.
  - Warehousing: the export of products depends upon proper storage andwarehousing facilities. Presently, exporting companies invest in warehousingalong with sophisticated ships for catching and packaging for export.

Koraput is well connected by road, rails and air. The movement of people, entrepreneurs and businessmen are very easy for doing export related activities. Banking infrastructures are well developed. The requirement of money for doing export import business, various branches of different banks are available in the city.

# 14. Strategy and Recommendations 2023-24

A well integrated strategy needs to be adopted by the state involving central commerceand industries ministry to make inroads into global markets. A district level export plan withcreation of district level export promotion committee will give proper direction to make itbeneficial for all stakeholders. Above all, the strategy should be focused on capacitybuilding of all stakeholders. It includes:

- Marketing Linkage and Product promotion: Development of web portals ,buyers-seller meet aggressive promotion.
- Training of producers and processors: Linking them to Self-Help Groups(SHGs) and Farmers' Producers Organizations (FPOs)
- **Export Inspection Agencies** need to be set up for checking and maintaining quality of products to be exported.
- **Credit Lending facilities:** Majority needs proper funding at various stagesof marketable production. Thus, linking to Micro financial Institutions (MFIs).
- **Use of latest Technology:** Advanced use of technologies for the creation ofvalue added products.
- Project based approach and target based implementation
- **Plugging the loopholes** in the infrastructure sector : Like warehousing, containers depots storage facilities and transportation etc.
- **New Market Identification** based on the demand and local needs of theimporting countries. The export can be improved if market studies are doneand analyzed in its favour.
- Creation of special purpose vehicle (SPV): by the state government, if need be.
- Resource estimation and product development.