



# GROUNDNUT



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## Preface

With a robust agro potential the Country has, the Government of India has launched the One District One Focus Product Scheme (ODOFP) for agriculture sector by the Ministry of Food Processing Industries. Among its primary objectives, the ODOFP initiative aims to enhance the value of the products which is eventually expected to boost employment and income levels of the farmers. The identified products across the country is available at <https://www.nfsm.gov.in/odopstatecropsreport.aspx>

Karnataka has identified its product mix with high demand and export potential across all the districts. The implementing agency for this initiative is the Karnataka State Agricultural Produce Processing and Export Corporation Limited (KAPPEC), the nodal agency in the State.

VTPC being the nodal agency for promotion of exports from the State has made an attempt to draw the action plan district wise, to capture the potential, present status and future prospects in domestic and international markets. Besides, detailed insights have been provided into the biological description of the product, their local, national and international varieties, export-import analysis, HS codes. For a holistic perspective for those concerned, each report also provides SPS standards, processing technologies available, export grading and packing specifications, and suggested pivotal roles and responsibilities among the government departments, boards, corporations and Universities.

Presenting the Action Plan/Report for Groundnut, a ODOFP product mapped to Chitradurga and Yadagiri districts of Karnataka, formulated by VTPC. I sincerely hope that this ready reckoner with first-hand information regarding the farming sector would help all those concerned, especially the FPOs and food processing entrepreneurs who have a desire to focus on exporting this product.

**S.R. Satheesha**

Director (Exports) & Managing Director

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# Groundnuts: Potential to explore

## Introduction:

Peanut or groundnut (*Arachis hypogaea*), is a species in the legume or "bean" family. Like most other legumes, peanuts harbour symbiotic nitrogen-fixing bacteria in root nodules. The capacity to fix nitrogen means peanuts require less nitrogen-containing fertilizer and improve soil fertility, making them valuable in crop rotations. Soil conditions in some producing regions are ideally suited for dry, clean and spotless Groundnuts in Shell.

The peanut was probably first domesticated and cultivated in the valleys of Paraguay. It is an annual herbaceous plant growing 30 to 50 cm (1.0 to 2 ft.) tall. The leaves are opposite, pinnate with four leaflets (two opposite pairs; no terminal leaflet), each leaflet 1 to 7 cm (0.5 to 2 inches) in length and 1 to 3 cm in breadth.

Peanuts are known by many other local names such as earthnuts, ground nuts, goober peas, monkey nuts, pygmy nuts and pig nuts. Despite its name and appearance, the peanut is not a nut, but rather a legume. They have a rich nutty flavour, sweet taste, crunchy texture and over and above a relatively long shelf life. Peanuts are similar in taste and nutritional profile to tree nuts such as walnuts and almonds, and, as a culinary nut, are often served in similar ways in Western cuisines.

China ranks first in groundnut production with 17.57 million tonnes followed by India with 6.73 million tonnes, Nigeria with 4.45 lakh tonnes, Sudan with 2.83 million tonnes and the United States of America with 2.49 million tonnes accounting for 36.01, 13.79, 9.12, 5.80 and 5.11 per cent respectively of total world production of 48.80 million tonnes in 2019-20. According to the 2nd advance estimate, All India groundnut production estimate (Kharif and Rabi) was 10.14 million tonnes for 2020-21 as against 9.95 million tonnes in 2019-20. During the assessment of 20-21 production, the United States was expected to produce 3.1 million tons of peanuts as against 2.8 million tons in the previous year. Large-scale sowing has been done in China and the country estimated to harvest 18 million tons of peanuts. Production has increased by 0.7 to 0.75 million tons in Brazil.

## Groundnuts Cultivation in India & Availability

India is the second-largest producer of groundnuts in the world. It is the major oilseed crop in India, and it plays a major role in bridging the vegetable oil deficit in the country. Groundnuts in India are available throughout the year due to a two-crop cycle harvested in March and October. Ground Nuts are important protein crops in India grown mostly under rain-fed conditions.

The awareness and concern for quality amongst the Indian groundnut sellers and processors are growing steadily. Multiple sorting and grading are fast becoming a norm. Indian manufacturers have the capability to prepare and supply edible peanuts conforming to the highest standards. Indian groundnuts are available in different varieties: Bold or Runner, Java or Spanish and Red Natal. The main Groundnut varieties produced in India are Kadiri-2, Kadiri-3, BG-1, BG-2, Kuber, GAUG-1, GAUG-10, PG-1, T-28, T-64, Chandra, Chitra, Kaushal, Parkash, Amber etc.

State	2019-20			2020-21		
	Area (lakh ha)	Area (lakh acres)	% to total area	Area (lakh ha)	Area (lakh acres)	% to total area
Karnataka	1.07	2.64	22.20	1.32	3.26	27.73
Telangana	1.15	2.84	23.86	0.87	2.15	18.28
Tamil Nadu	0.93	2.30	19.29	0.87	2.15	18.28
Odisha	0.78	1.93	16.18	0.72	1.78	15.13
Andhra Pradesh	0.66	1.63	13.69	0.67	1.66	14.08
Others	0.23	0.57	4.77	0.31	0.77	6.51
All India	4.82	11.91	100.00	4.76	11.76	100.00

Source: [www.agricoop.gov.in](http://www.agricoop.gov.in)

India has exported 638,582.97 MT of groundnuts to the world valued at Rs. 5,381.61 Crores/ 727.40 USD Millions during the year 2020-21. Peanut oil exports took a hit over high domestic price. According to IOPEPC, exports of peanut oil increased by 142% and stood at 2,13,448 tons in (Apr-Feb) 2021 against 35,629 tons in 2020. Blanched peanut and peanut butter exports increased by 15%, from 35,552 tons in 2020 to 41,363 tons in 2021. At the same time, raw peanut exports declined by 3% from 5,89,661 tons of raw peanut kernels in 2021, against 6,06,323 in 2020.



## Groundnut Varieties in India

- The cultivated groundnut (*Arachis hypogaea* Linn.) has three distinct botanical groups viz., pish (Sub sp. *fastigiata* var. *Vulgaris*), Valencia (Sub sp. *fastigiata* var. *fastigiata*) and Virginia (sub. Sp. *hypogaea* var. *hypogaea*).
- The Pish and Valencia types popularly called "Bunch" grow erect, possess light green foliage and produce pods in clusters at the base of the plant. The seeds are non-dormant and roundish with light rose testa (deep rose or purple testa in Valencia).
- The Virginia group which includes both Virginia bunch (Semi-spreading) and Virginia runner (spreading) types, on the other hand, possesses dark green foliage and the branches trail on the soil surface either partially or completely. The main stem is devoid of fruit and pods are scattered all along the branches. The seeds are dormant, oblong in shape with brownish testa. In general, the spreading and semi-spreading varieties mature late as compared with the bunch varieties. Groundnut is cultivated commercially in both Kharif as well as Rabi/summer seasons. In Kharif (rainy) season the crop is grown under rainfed conditions between May to December by planting varieties belonging to different habit groups. In contrast, during Rabi/Summer (post rainy) season the varieties belonging to pish bunch and valencia are preferred for their shorter duration and are grown under irrigated conditions

## Groundnut Growing Zones of India

- Zone I (North Zone): Uttar Pradesh, Punjab, Haryana, Bihar and Northern Rajasthan (Jaipur, Ajmer, Bharatpur, Sawi Madhopur and Tonk districts).
- Zone II (Western Zone): Gujarat, Southern Rajasthan (Chittorgarh, Udaipur and Jhalawar districts).
- Zone III (Central Zone): Madhya Pradesh (excluding Mandsour and Ratlam districts) and Maharashtra (excluding Satara, Sangli, Solapur, Kolhapur, Osmanabad and Nanded districts).
- Zone IV (south-eastern zone): Karnataka, Andhra Pradesh (Srikakulam and Visakhapatnam, districts) and Southern Maharashtra (Satara, Sangli, Solapur, Kolhapur, Osmanbad and Nanded districts).
- Zone V (Peninsular zone): Karnataka Andhrapradesh, (excluding Srikakulam and Vishakapatnam districts) and southern Maharastra (Satara, Sangli, Solapur, Kolhapur, Osmanabad and Nanded districts).

Zone VI (Southern zone): Tamil Nadu and Kerala.

## List of Groundnut Varieties Released State-Wise

States involved	No of varieties evolved	Habit groups			
		Bunch		Pish	
		Virginia	Valencia	Semi spreading	Spreading
Zone I (Northern Zone)					
Bihar	2	-	-	BG1	1
Haryana	2	MH1	MH2	-	-
Punjab	8	SG84	-	C 501	PG 1
				M 145	M 13
				M 197	M 37
					M 335
Rajasthan	2	-	-	RSB 87s	RS 1
Uttar Pradesh	5		-	T 28	Chandra
				T 64	Chitra
				Kaushal (G 201)	(MA 10)
Total	19	2	1	9	7
Zone II (Western Zone)					
Gujarat	5	J 11	-	-	
		GAUG 1	-	-	GAUG 10
		GG 2			GG 11
TOTAL	5	3	-	-	2
Zone III (Central Zone)					
Madhya Pradesh	2	Jyoti	Gangapuri	-	-
Maharashtra	9	AK 12-24	Kopergaon	TG 1	Karad
		SB XI		(Vikram)	4-11
		JL 24		Koper gaon1	
		TG 17		UF 70-103	
TOTAL	11	5	2	3	1
Zone IV (South – Eastern Zone)					
Orissa	2	Kisan	-	-	-
		Jawan			
TOTAL	2	2	-	-	-
Zone V (Peninsular Zone)					
Andhra Pradesh and Telangana	4	ICGS 11	-	Kadiri 2	Kadiri 71-1
				Kadiri 3	
Karnataka	6	pish	-	-	S 230
		Improved			
		S 206			
		DH 3-30			
		KRG 1			
		DH 8			
Total	10	6	-	2	2
Zone VI (Southern Zone)					
Tamilnadu	16	TMV 2	-	TMV 6	TMV 1
		TMV 5		TMV 8	TMV 3
		TMV 7		TMV 10	TMV 4
		POL 1			
		TMV 9			
		POL 2	TMV 11		
		TMV 12			
		CO 1			
		CO 2			
Total	16	9	1	3	3
Grand Total	63	27	4	17	15



## Groundnut products and its HS codes APEDA

12023010	Groundnuts HPS of Seed Quality in Shell (Not Roasted or Cooked)
12023090	Other Groundnuts of Seed Quality
12024110	Other Groundnuts HPS Not of Seed Quality in Shell (Not Roasted or Cooked)
12024190	Other Groundnuts in Shell Not Roasted or Cooked
12024210	Shelled Groundnuts Kernel H.P.S
12024220	Shelled Groundnuts Kernel, Others
12024290	Other Groundnuts
15179020	Peanut Butter

## Processed Peanuts

- Apart from raw edible peanuts, India is also in a position to supply Blanched Peanuts, Roasted Salted Peanuts, Dry Roasted Peanuts and a variety of peanut-based products. Some innovative entrepreneurs have come up with other by-products of peanuts like peanut whiskey, peanut vine, a wide range of confectioneries, peanut paste, peanut sauce, peanut flour, peanut meal etc.,
- A small quantity of peanut skins obtained after making products from peanuts is utilized to extract polyphenolic compounds or make cattle feed. These skins are a rich source of edible antioxidants and an inexpensive source of polyphenols hence can be used as a functional ingredient in energy foods or dietary supplements.
- The peanut vine is rich in dietary fibres and flavonoid compounds. It is made from roots, stems, leaves and flowers.
- Most peanuts grown in the world are primarily used to produce edible oil. After the peanut oil is extracted, the protein content in the cake can reach up to 50%. It also contains other functional components, such as peanut lectin, resveratrol, piceid etc. This crushed cake forms the main ingredient for peanut meal.

## SPS-TBT Standards of Groundnuts

- Buyer Registration, Batch Processing by APEDA Registered Peanut Units · Consignment Creation, Application for Certificate of Export, Monitoring of Aflatoxin Analysis by NRL - <https://apeda.gov.in/apedawebsite/GroundNut/GroundNut.htm>.
- Procedures for export of peanuts and peanut products - [https://apeda.gov.in/apedawebsite/HACCP/ppp\\_procedures\\_2021.pdf](https://apeda.gov.in/apedawebsite/HACCP/ppp_procedures_2021.pdf)
- Criteria for grant of registration certificate to peanut processing units integrated peanut processing units for export- [https://apeda.gov.in/apedawebsite/HACCP/ppp\\_processing\\_unit\\_2021.pdf](https://apeda.gov.in/apedawebsite/HACCP/ppp_processing_unit_2021.pdf)



## World Export and Imports

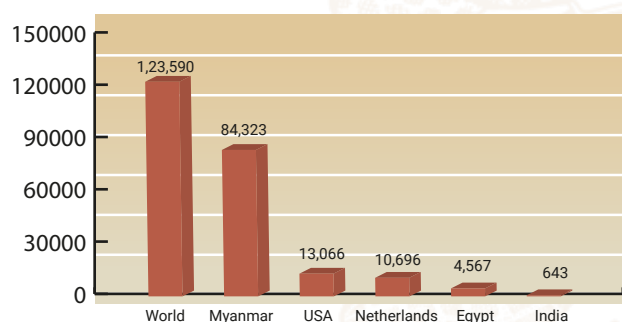
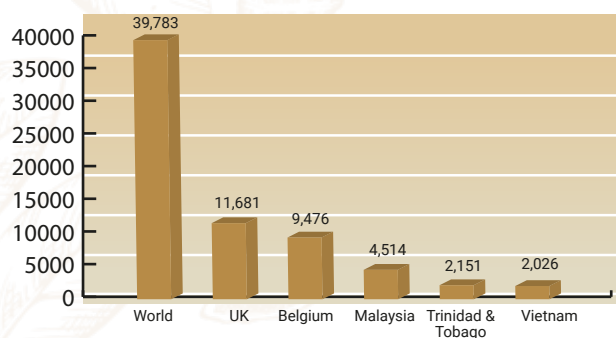
### 120230: Ground-Nut Seed for sowing.

2021 Global Imports 39,783 USD.

No.	Country	Value USD
1.	United Kingdom	11,681
2.	Belgium	9,476
3.	Malaysia	4,514
4.	Trinidad & Tobago	2,151
5.	Vietnam	2,026

2021 Global Exports 123,590 USD.

No.	Country	Value USD
1.	Myanmar	84,323
2.	USA	13,066
3.	Netherlands	10,696
4.	Egypt	4,567
10.	India	643



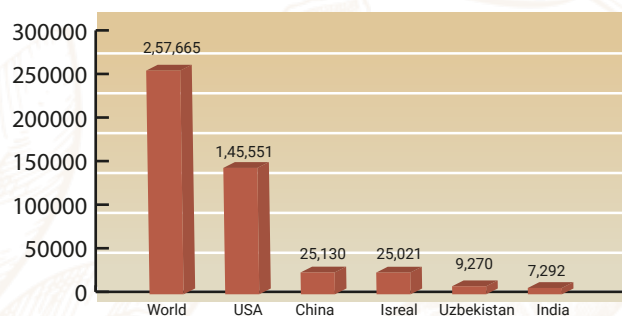
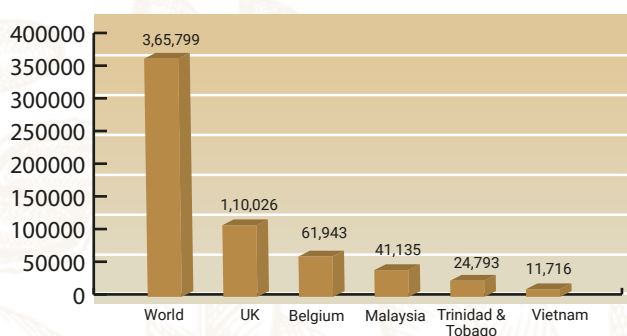
### 120241: Groundnuts, in shell (excluding seed for sowing, roasted or otherwise cooked)

2021 Global Imports 365,799 USD.

No.	Country	Value USD
1.	China	110,026
2.	Italy	61,943
3.	Germany	41,135
4.	Spain	24,793
5.	Canada	11,716

2021 Global Exports 257,665 USD

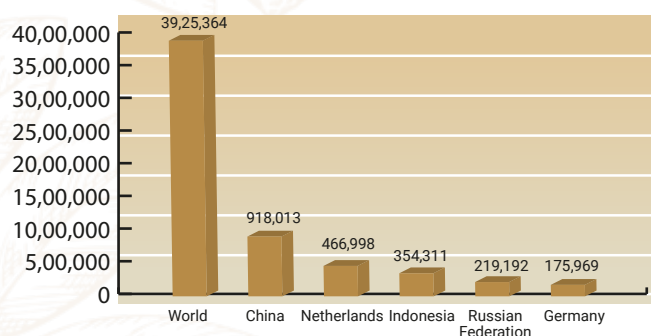
No.	Country	Value USD
1.	USA	145,551
2.	China	25,130
3.	Israel	25,021
4.	Uzbekistan	9,270
5.	India	7,292



## 120242: Groundnuts, shelled, whether or not broken (excluding seed for sowing, roasted or otherwise cooked)

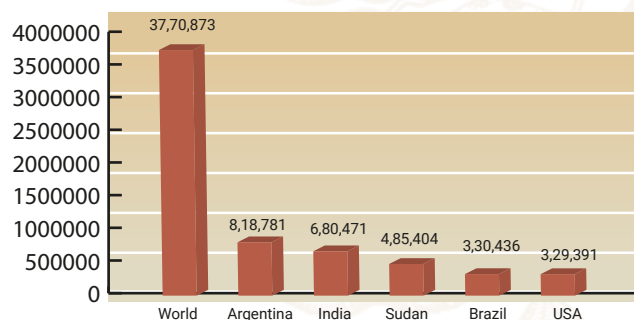
2021 Global Imports 3,925,364 USD.

No.	Country	Value USD
1.	China	918,013
2.	Netherlands	466,998
3.	Indonesia	354,311
4.	Russian Federation	219,192
5.	Germany	175,969



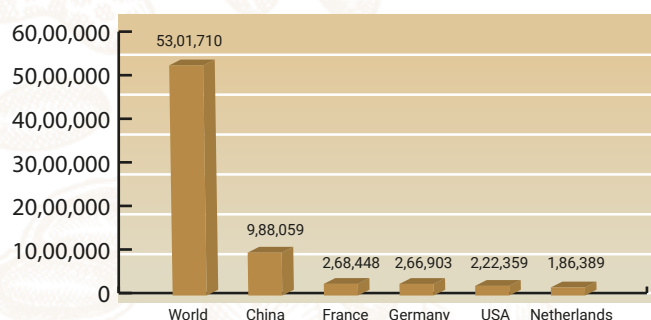
2021 Global Exports 3,770,873 USD.

No.	Country	Value USD
1.	Argentina	818,781
2.	India	680,417
3.	Sudan	485,404
4.	Brazil	330,436
5.	USA	329,391



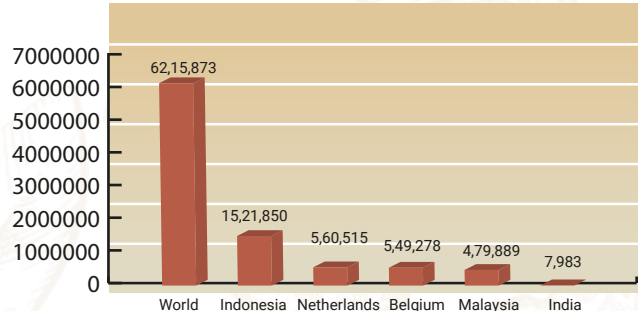
2021 Global Imports 5,301,710 USD.

No.	Country	Value USD
1.	China	988,059
2.	France	268,448
3.	Germany	266,903
4.	USA	222,359
5.	Netherlands	186,389



2021 Global Exports 6,215,873 USD.

No.	Country	Value USD
1.	Indonesia	1,521,850
2.	Netherlands	560,515
3.	Belgium	549,278
4.	Malaysia	479,889
45.	India	7,983

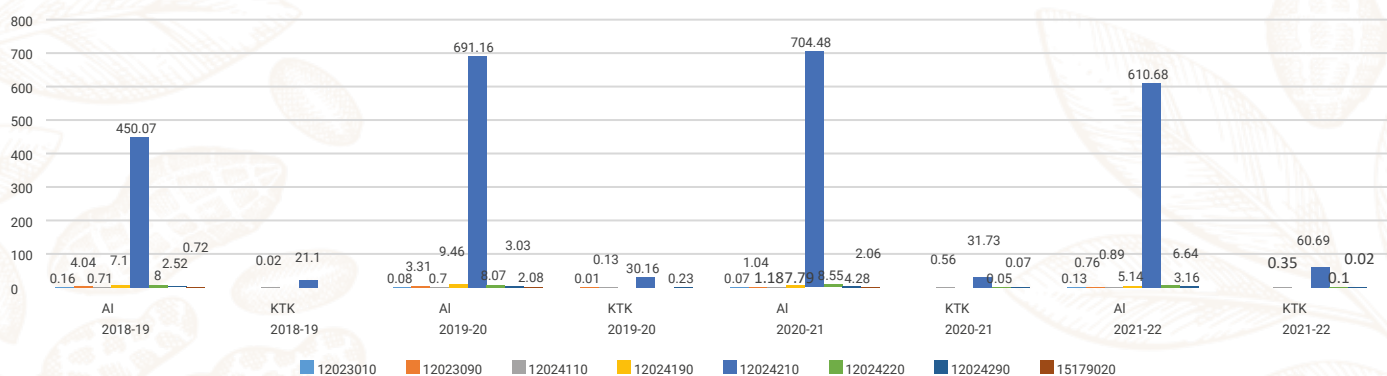




## Groundnuts Export Performance of last 4 years value in Mn USD

No.	HS Code	Product description	FY 2018-19		FY 2019-20		FY 2020-21		FY 2021-22	
			AI	KTK	AI	KTK	AI	KTK	AI	KTK
1.	12023010	Groundnuts Hps of Seed Quality in Shell Not Roasted or Cooked	0.16	Nil	0.08	Nil	0.07	0	0.13	Nil
2.	12023090	Other Groundnuts of Seed Quality	4.04	0	3.31	0.01	1.04	Nil	0.76	0
3.	12024110	Other Groundnuts Hps Not of Seed Quality in Shell Not Roasted or Cooked	0.71	0.02	0.70	0.13	1.18	0.56	0.89	0.35
4.	12024190	Other Groundnuts in Shell Not Roasted or Cooked	7.1	Nil	9.46	0	7.79	Nil	5.14	Nil
5.	12024210	Shelled Groundnuts Kernel H.P.S	450.07	21.1	691.16	30.16	704.48	31.73	610.68	60.69
6.	12024220	Shelled Groundnuts Kernel, Others	8.00	Nil	8.07	Nil	8.55	0.05	6.64	0.10
7.	12024290	Other Groundnuts	2.52	0	3.03	0.23	4.28	0.07	3.16	0.02
8.	15179020	Peanut Butter	0.72	Nil	2.08	Nil	2.06	0	Nil	Nil

Source: Exim analytics, DGCIS.

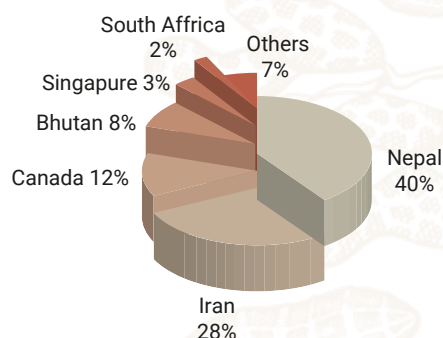
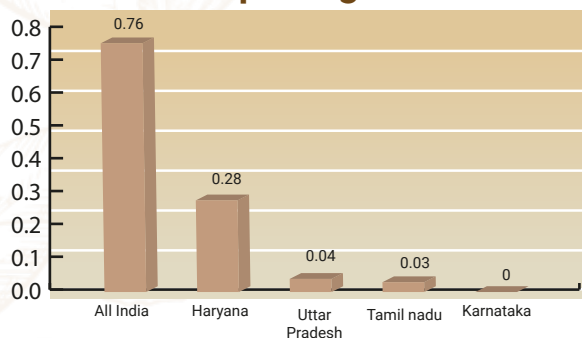


## Export Analysis of Groundnuts and its products: (Karnataka)

### 12023090: Other Groundnuts of Seed Quality

No	State	Value USD Mn	Destination
	All India	0.76	Nepal, Iran, Canada (+14)
1.	Haryana	0.28	Iran
2.	Uttar Pradesh	0.04	Nepal
3.	Tamil Nadu	0.03	Canada, Singapore, Maldives(+4)
7.	Karnataka	0	USA

#### Exporting states



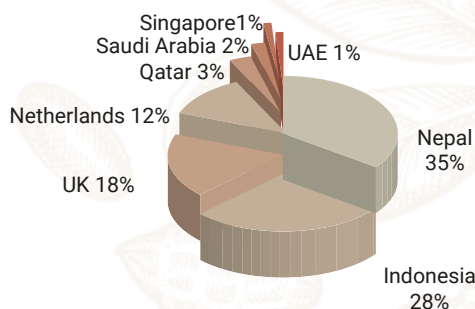
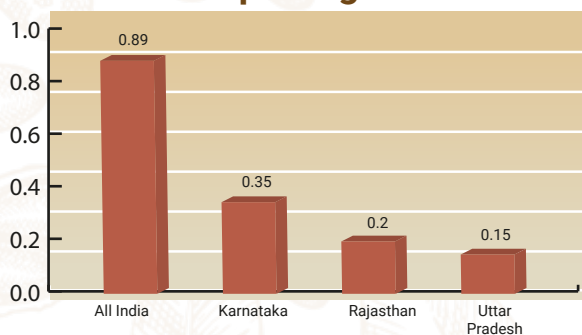
#### Importing Countries

### 12024110:

#### Other Groundnuts HPS Not of Seed Quality in Shell Not Roasted or Cooked

No	State	Value USD Mn	Destination
	All India	0.89	Nepal, Indonesia, UK (+6)
1.	Karnataka	0.35	Indonesia
2.	Rajasthan	0.20	Nepal
3.	Uttar Pradesh	0.15	Nepal

#### Exporting states



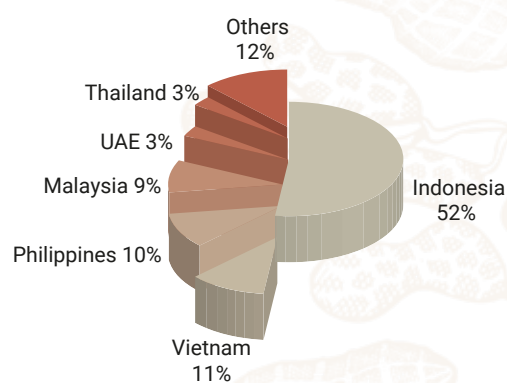
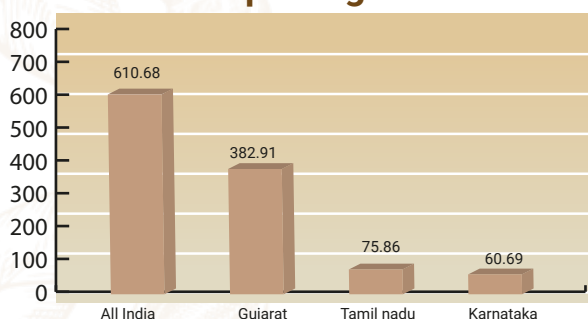
#### Importing Countries



### 12024210: Shelled Groundnuts Kernel H.P.S.

No	State	Value USD Mn	Destination
	All India	610.68	Indonesia, Vietnam, Philippines (+67)
1.	Gujarat	382.91	Indonesia, Vietnam, Philippines (+56)
2.	Tamil Nadu	75.86	Indonesia, Malaysia, Vietnam (+22)
3.	Karnataka	60.69	Indonesia, Vietnam, Philippines (+9)

#### Exporting states

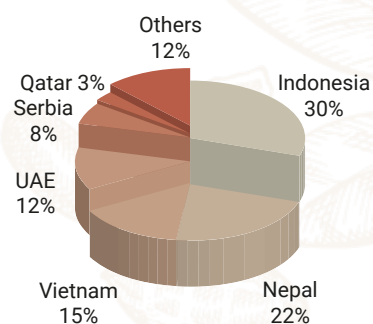
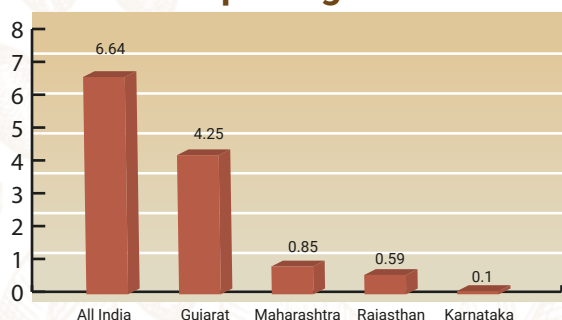


#### Importing Countries

### 12024220: Shelled Groundnuts Kernel, Others.

No	State	Value USD Mn	Destination
	All India	6.64	Indonesia, Nepal, Vietnam (+25)
1.	Gujarat	4.25	Vietnam, Indonesia, UAE (+17)
2.	Maharashtra	0.85	Indonesia, Philippines, Singapore (+5)
3.	Rajasthan	0.59	Nepal, Indonesia
8.	Karnataka	0.10	UAE, Indonesia

#### Exporting states



#### Importing Countries

## Processing technologies available

- Peanut butter CFTRI: <https://cftri.res.in/technologies/PSP/grb.pdf>
- Groundnut Oil Making Process (Peanut), Business Plan: <https://www.agrifarming.in/groundnut-oil-making-process-peanut-business-plan#:~:text=Grou,ndnut%20oils%20are%20extracted%20by,of%20the%20original%20plant%20material.>
- Groundnut Oil Manufacturing Process with Flowchart – The Goyum Group: <https://www.oilexpeller.com/groundnut-oil-manufacturing-process/>
- Processing of Peanut Oil – Niftem PowerPoint presentation: <http://www.niftem.ac.in/site/pmfme/processingnew/peanutoilprocessing.pdf>
- Model Detailed Project Report - Groundnut Oil: <http://mpagro.org/ModalProjects/Ground%20Nut%20Oil%20DPR%20by%20NIFTEM.pdf>

## Production data of Groundnuts in Karnataka (2021-22): In Quintal

Major Markets	2016-17	2017-18	2018-19	2019-20	2020-21
Yadagiri	549176	483731	667362	308407	404503
Raichur	175862	144513	121012	75697	114984
Gadag	120729	44531	87761	52419	110465
Challakere	56693	108021	53050	47027	113509
Hubballi	117664	65896	113426	44746	109189
Mundaragi	45599	33346	58163	42804	67927
Bellary	375579	51535	48875	39371	139153
Bagalkote	30201	19679	14372	12233	26509

## FPOs registered for Groundnuts in Karnataka

- Pavagada Farmer Producer Organisation, Pavagada – Groundnuts, Coconut and Pomegranates.
- Vanivilasa Horticultural Farmer Produce Company Limited, Hiriur – Groundnuts, Maize, Arecanut and Coconut.



## Action plan

- As India is a leading exporter of groundnuts, we should continue to focus on staying at par in quality and achieve more yield in existing Groundnuts varieties of India.
- Orientation and Facilitation must be prioritised to bridge the gap between research institutes, academia, industries, and farmers to facilitate more exports.
- A local APEDA testing lab and packhouses help growers in North Karnataka to understand quality standards for exports and to tap international markets.
- Encourage first-generation entrepreneurs and start-ups to establish themselves in the processing sector with effective handholding. These industries can produce value-added products thereby diverting the surplus produce and avoiding financial losses.
- State and Central governments can sponsor financial schemes/ subsidies to aid capacity building in setting up of industries and encourage skill development programmes for the youth.
- Create awareness and strategies about the conversion of the waste generated from groundnut processing.

## Opportunities in Groundnuts and related products

- New products such as Groundnut whiskey, groundnut vine and peanut meal can be taken up for processing.
- The value-added products of groundnut are providing employment to a larger group locally and also helping the industries to establish themselves in exports. Yet India can focus on the quality and quantity of groundnut oil and cake manufacturing.
- Processing industries for peanut butter, peanut meal and beverages will easily fetch revenues from local as well as international markets.



## Responsibility Matrix

No.	Actions	Responsibility
1.	Research on best global varieties	Agriculture Department, Karnataka
2.	Farmer Sensitization program on available opportunities	Horticultural Department and Lime Board, Karnataka
3.	Inviting Exporters/entrepreneurs to Investors meet for contract farming and processing industries	DIC Districts, APEDA and KAPPEC
4.	Processing technology and Value Addition Handholding	Agriculture Department and related FPOs
5.	Processing technology and Value Addition Handholding	APEDA and KAPPEC.
6.	Export training, orientation and Market Intelligence	VTPC Karnataka

## Regulators and Service providers

No.	Organization	Service	Contact
1.	APEDA	RCMC, Market survey and assistance.	1st Floor, Beeja Bhavan, Bellary Rd, Hebbal, Bengaluru - 560024. E: <a href="mailto:apedabl@apeda.gov.in">apedabl@apeda.gov.in</a>
2.	KAPPEC	PMFME Scheme	17, Richmond Rd, Shanthala Nagar, Richmond Town, Bengaluru - 560025. E: <a href="mailto:kappec1996@gmail.com">kappec1996@gmail.com</a>
3.	DGFT	IEC, Customs and ICEGATE	6th floor, Kendriya Sadan, C & E Wing, 17th main, Koramangala 2nd Block, Koramangala, Bengaluru - 560034 E: <a href="mailto:bangalore-dgft@nic.in">bangalore-dgft@nic.in</a>
4.	Plant Quarantine	Phyto Sanitary certification (SPS)	Hebbal-Boopasandra Road HA Farm Post, Bengaluru - 560024. E: <a href="mailto:dd-pqfsb-ka@nic.in">dd-pqfsb-ka@nic.in</a>
5.	BIAL Cool Port	Freight and Flight	KIAL Road, Devanahalli, Bengaluru -560300 W: <a href="http://www.aisats.in">http://www.aisats.in</a>