

# Coconut as an Oil seed- Production and Trade in India

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Coconut is not only a food crop but also a minor oil seed crop of horticulture origin in India. Coconut was declared as 'oil seed of tree origin' by Government of India in 1990 to give emphasis on the importance of coconut as an oil seed for price support operations. Global production of coconut oil in 2015-16 was 3.31 million tonnes which account for 1.77% of total vegetable oil production in the world. India is the largest producer of coconut which sustains the economic well being of nearly 12 million families. It is cultivated in 16 states and 4 Union Territories in 2.10 million ha. Out of the total production of 22.24 billion nuts in 2016-17 in India, four southern states, Kerala, Tamil Nadu, Karnataka and Andhra Pradesh contribute 89% of area and 91% of production. 98% coconut holdings are owned by small and marginal farmers in the country (less than 2 ha). It contributes

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more than Rs.2,50,000 million to GDP annually. The present production of coconut in the country is mostly utilized for meeting domestic demand and only a marginal surplus is available for foreign trade.

India is the third largest producer of copra and coconut oil in the world. India's export of copra and coconut oil is very low compared to other major coconut growing countries. However, export of coconut oil from India has increased manyfolds recently and it is the second largest commodity exported from India next to activated carbon.

## Production and trade of copra in India

Copra, the dried kernel has highest oil content (65-68%) as compared with other oil seeds. Two types of copra are produced in India, milling or cut copra and edible or ball copra. Out of total production of coconut in India 39 percent is used for making copra ie,30 percent is used for making milling copra and only about 9 percent is used for ball copra. In Indian concept, milling copra equates to general concept of copra in other countries which goes for coconut oil extraction. The quantity of coconut converted to milling copra varies from state to state depending upon the area and production of coconut and culinary culture of the region. Except in the south, hardly any conversions from coconut to copra takes place in other coconut growing states of India.

Total copra production in India during 2016-17 was estimated at 1.246 million tonne out of which milling

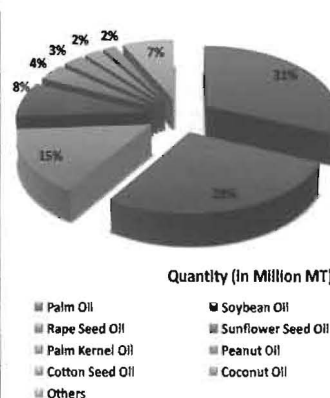
STATE/UT	2014-15		2015-16		2016-17*	
	Milling	Edible	Milling	Edible	Milling	Edible
1. Kerala	317	35	478	53	480	53
2. Karnataka	57	141	59	153	59	153
3. Tamil nadu	440	43	406	40	406	40
4. Andhra Pradesh	11	14	17	24	17	24
5. A&N Island and Lakshadweep	11	3	11	3	11	3
All India	836	236	971	273	973	273
Estimated production of Coconut Oil @62.5%(in Lakh Tonnes)	5.225		6.069		6.081	
Estimated production of Oil Cake @35%(in Lakh Tonnes)	2.926		3.399		3.406	

\* First advance estimate, Department of Agriculture & Cooperation(Horticulture Division), Ministry of Agriculture & Farmers Welfare, Govt. of India

## Global Vegetable Oil Production (2015-16)

Sl. No	Product	Quantity (in Million MT)	% share
1	Palm Oil	58.84	31.44
2	Soybean Oil	51.80	27.68
3	Rape Seed Oil	27.75	14.83
4	Sunflower Seed Oil	15.50	8.28
5	Palm Kernel Oil	7.14	3.82
6	Peanut Oil	5.37	2.87
7	Cotton Seed Oil	4.33	2.31
8	Coconut Oil	3.31	1.77
9	Others	13.10	7.00
	<b>Total</b>	<b>187.14</b>	<b>100.00</b>

Source: APCC Coconut Statistical Yearbook 2015



copra production was 0.973 million tonne .Trend of copra production in India is shown in Table 1.

In India milling copra is produced only in six traditional coconut producing states in south India. Maximum copra is produced in Kerala (0.480 million tons) followed by Tamil nadu (0.406 million tonnes). Together they produce over 90 % of total copra produced in India. About 86 % of total world copra is produced by three countries. The Philippines produces about 36 %, followed by Indonesia about 28 % and India about 22 % (2015-APCC).

In India, the market price of copra is mostly dependent on price of coconut oil and often experiences very high fluctuation. During the last five years during 2012 to 2017, annual fluctuation in average market price ranged between (-) 28.31 % to (+) 70.19 % (Table-2).

To minimize the fluctuation in copra price, government of India has introduced a price support system. Based on the suggestions of Coconut Development Board, Commission for Agricultural Costs and Prices (CACPC) recommends to government the minimum support price (MSP) for copra. On receiving approval, Ministry of Agriculture announces MSP for copra at the beginning of the year usually by January end. If and when market price of copra falls below MSP, National Agriculture Cooperative Federation (Nafed) intervenes in the market and start procuring copra at MSP through state cooperatives. During the last five years export of copra ranged

Table- 2: Trend of milling copra price in India

Year	AMP (Rs / Qtl)	Fluctuation in AMP	MSP (Rs / Qtl)	Variation in AMP & MSP
2012	4332		5100	-15.05%
2013	5365	23.84	5250	2.19%
2014	9131	70.19	5250	73.92%
2015	8408	-7.91	5550	51.49%
2016	6027	-28.31	5950	1.29%
2017	9960	65.25	6500	53.23

AMP: Average market price. MSP: Minimum support price

between 17619 tonnes to 54130 tonnes per annum which was only 1.43 % to 5.67 % of total copra produced in India. Growing demand and short supply of copra has pushed at an all time high prices during 2017. The price started increasing from January 2017 and now recorded an all time very high price. The average price of copra during the month of November is 12,650 per quintal. De-husked raw coconut is now being sold in the market at Rs.55/- per kg. The increasing demand in coconut sector for export and for production of value added products coupled with decline in production has caused the present all time high price for coconut.

### Coconut oil production and trade in India

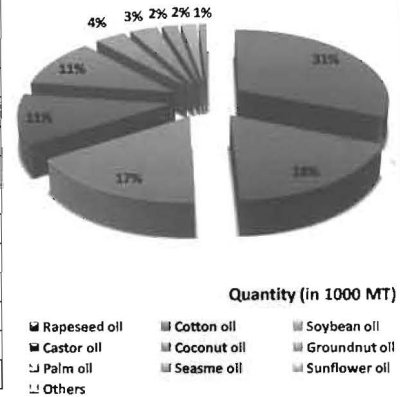
All over the world before the era of electricity, coconut oil was used for lighting and illumination and was exported from India as 'Cochin oil'. Still today, the word cochin like 'cochin copra' and 'cochin oil' synonymies with very high quality products in coconut sector. Indian coconut oil always had a distinct quality advantage and still continues to have a reputation of high quality with the pleasant flavour. There are two processing routes for extraction of coconut oil. One is drying process through the copra route and other is wet processing through coconut milk route called virgin coconut oil. Out of the total coconut oil produced in the country, about 40% is consumed as edible oil, about 40% toiletry and soap sector, 14% is used in various industrial applications and remaining 6% is exported.

The price of all coconut products including raw coconuts is determined by the ruling price of coconut oil supply and demand and its derivatives determine the growth and sustainability of coconut industry in India. The situation is similar in almost all the coconut growing countries of the world. Coconut oil economy dominates the coconut situation of the country. In

### Vegetable Oil Production in India (2015-16)

Sl. No.	Product	Quantity (in 1000 MT)	% Share
1	Rapeseed oil	1724.50	31.10
2	Cotton oil	1013.50	18.28
3	Soybean oil	928.80	16.75
4	Castor oil	619.10	11.16
5	Coconut oil	606.90	10.94
6	Groundnut oil	207.00	3.73
7	Palm oil	187.10	3.37
8	Seasme oil	104.00	1.88
9	Sunflower oil	103.00	1.86
10	Others	51.80	0.93
	Total	5545.70	100.00

Source: Oil World Annual 2015



India primary processing of coconut into copra and milling of oil are dominated by small units which do not enjoy the economies of scale and therefore, are not globally competitive.

Estimated production of coconut oil in the country was 600 thousand tonnes (2016-17). The total global production of coconut oil was 3.42 million tonnes in 2015. Philippines was the largest producer of coconut oil with a share of about 45.77%, followed by Indonesia (about 28.94%) and India (about 13%) in 2015. These three countries contribute about 87.73 % of the global coconut oil production. India's share in global production almost remained constant at about 13% in 2015.

### Indian coconut oil has an unbeatable quality advantage in the export market.

Irrespective of the price of Indian coconut oil, the ethnic population of Indians abroad prefers coconut oil of Indian origin. India mostly consumes what it produces. About 5.6% of total coconut oil production



is exported from India during 2016-17. Till June 2013 export of coconut oil was permitted only in consumer pack of 5 Kg. After withdrawal of this restriction, export of coconut oil picked up. since 2014-15 (Table-3).

Various edible oils are substitutable and link the price of coconut oil to price of other vegetable oils especially to that of palm oil. Palm oil is the closest and the cheapest substitute of coconut oil as far as industrial and culinary purposes are concerned. It

Table-3: Trend of coconut oil production and export from India

Years	CNO export '000 tons	Total CNO Production '000 tons	% export of total production
2011-12	6.52	588	1.11
2012-13	6.83	608	1.12
2013-14	7.07	563	1.26
2014-15	6.94	523	1.33
2015-16	8.55	546	1.57
2016-17	33.54	600	292

is also the largest imported edible oil. Coconut oil commands a premium of around 16% over palm oil given its superior dietary value, aroma and customary taste preference for coconut oil in the country. However, palm oil has a price advantage over coconut oil, especially for price sensitive consumers, which exerts a downward pressure on the prices of coconut oil.

The domestic demand for coconut oil in India is influenced by coconut oil used as edible oil. During last two decades demand for edible coconut oil registered a slow decline owing to the adverse propaganda on the consumption of coconut oil branding it as 'not health friendly'. To disprove the hostile branding, India has initiated research on health and nutritional aspects of coconut oil as well as virgin coconut oil. So far, Coconut Development Board has sponsored 11 research projects to reputed research institutes and is also conducting awareness programmes on health benefits of coconut oil across the country. As a result of sustained campaign by Coconut Development Board, use of coconut oil as edible oil in India has improved.

Virgin Coconut Oil (VCO) is the wonder oil having high value use as nutraceutical and in cosmetic sector. There are many reports of its anti microbiological properties and VCO is being used as health support against quite a few important diseases

like Alzheimer's, insulin disorders, autism etc. In India there are about 40 units of VCO at micro industry level and many of them are operating at low level of their installed capacity. Size of scale is the major problem which restricts them to continuously produce, attractively pack and aggressively market their products in spite of having an assured domestic demand. Total estimated production of VCO in India during 2016-17 was 18000 tonnes and average whole sale price was Rs 450 per kg. Estimated export during 2016 was 500 tonnes. From India, VCO was exported mainly to countries like USA, Britain, Japan, Australia and UAE.

## Conclusion

Coconut was declared as oil seed of tree origin to emphasize the importance of coconut as an oil seed for price support operations only. As an oil crop alone coconut cannot compete with oil palm and other cheaper vegetable oils because of less oil output per unit area and prevailing high price. Coconut oil production per ha. is 1 to 2 tonnes per ha. where as oil output per ha. from oil palm is 4-6 tonnes. However there is very good scope for diversification for other value added products from coconut like virgin coconut oil. Hence value addition and byproduct utilization of coconut need to be promoted on a massive scale. Under the central sector scheme Technology Mission on Coconut Board provides financial assistance to the extent of 25% of the project cost as back ended capital subsidy limited to a maximum ceiling of Rs 50 lakhs for setting up of coconut processing unit. Considering the increasing demand of virgin coconut oil(VCO) in domestic and international market, more emphasis should be given to increase coconut oil production especially VCO. Considering the increasing demand for copra and coconut oil, coconut production should be enhanced to meet the demand and to ensure a remunerative price and on par with international price. Popularizing the health and nutritional benefit of coconut oil and coconut products in the national and international market is another focus area identified by the Board. More clinical studies need to be conducted. India has become the world leader in coconut production and expected to experience substantial improvement in production and trade of copra and coconut oil and other value added products within few years. ■

