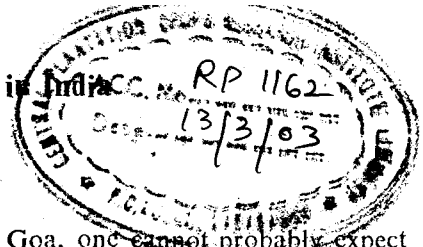


Status of Production and Trade of Cashew in India

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CASHEW is an important source of foreign exchange. It is worth noting that though cashew has been under cultivation in many countries for the several centuries, however, its scientific processing and export was taken up only by India as early as 1900's. In this paper attempt has been made to examine trends in area, production and trade in cashew in India**.

TRENDS IN CASHEW AREA

It is extremely difficult to estimate the area under cashew accurately. This is so because cashew cultivation falls into several categories, such as, small holder plantations, community or village plantations, social forestry, corporate sector plantations, government owned forest and soil conservation plantations and above all spontaneous or semi-spontaneous plantations spread over several odd places. The Directorate of Cashewnut Development, Ministry of Agriculture, Government of India is, however, estimating the area under this crop from time to time by collecting crop statistics from the respective State Governments and further affecting improvement on those figures taking the concerned developmental schemes into considerations.

According to the official estimates, the area under cashew in India in the year 1955-56 was of the order of 110,000 hectares. This area remained stagnant only for one year and thereafter moved steadily upwards. It was 241,000 hectares in 1965-66, 369,000 hectares in 1975-76 and 481,000 hectares in 1981-82 (Table 1).

This unprecedented growth in the cashew area reveals that this crop has assumed great importance in recent years. The area expansion is, however, not uniform in all the cashew growing areas in India. While in the States such as Orissa, Karnataka, Andhra Pradesh and Maharashtra the growth in area under cashew has been of high order, in the other States, namely, West Bengal, Tripura, Kerala, Tamil Nadu and the Union Territories of Goa and Pondicherry, the growth was comparatively of lower order (Table 2). Since quite a sizeable area was already under cashew before 1955-56 in Kerala,

Tamil Nadu and Goa, one cannot probably expect more than what has been achieved in these States in the face of mounting pressure on land. Inavailability of land is a major constraint in Pondicherry. However, the position is not so in West Bengal and Tripura where land for cashew cultivation is available.

The spatial distribution of cashew areas during 1981-82 suggests that Kerala alone accounted for some one-third of the total area under cashew in the country followed by Tamil Nadu which accounted for one-fifth of the total area. Karnataka, Andhra Pradesh, Orissa and Goa accounted for one-tenth of the area whereas Maharashtra and West Bengal accounted for 4.6 per cent and 1.5 per cent of the area, respectively (Table 4).

COMPOUND GROWTH RATES OF AREA

The compound rates of growth of area under cashew in India for two periods namely, (i) 1961-62 to 1970-71 and (ii) 1971-72 to 1980-81 are estimated at 4.22 per cent and 4.06 per cent per annum, respectively. Coming to the cashew growing States, the growth rate during the second period has been lower than that during the first period in respect of Maharashtra, Tamil Nadu and Karnataka. Small reductions in the growth rates also have been noticed in the cases of Andhra Pradesh and Kerala. The annual compound growth rates in case of Orissa and Goa recorded marginal increases during the period 1971-72 to 1980-81 over the period 1961-62 to 1970-71. It may be seen from Table 5 that the rate of growth in area under cashew has been of quite high order in case of Orissa.

TRENDS IN CASHEW PRODUCTION

Direct estimation of production of cashewnut is more difficult than the estimation of its area due to obvious reasons. The Directorate of Cashewnut Development, therefore, estimates the raw nuts production taking into account several factors, such as, area under the crop, quantity processed, local consumption, import of raw nuts and export of cashew kernels.

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**The sources of the data used for analysis are (i) the Directorate of Cashewnut Development, Govt. of India, Cochin (for area and production) and (ii) the Cashew Export Promotion Council, Cochin (for imports of raw nuts and exports of kernels).

Agri. Engg. Today 1980 and 1983 are not available in our library.

The production of raw nuts in India in the year 1955-56 was estimated at 79,000 tonnes. It steadily rose to 144,000 tonnes in 1965-66 and to 183,000 tonnes in 1971-72 and thereafter fluctuated between 134,000 tonnes and 178,000 tonnes upto the year 1979-80. In the year 1980-81 the production rose to 185,000 tonnes and in the following year it rose still further to 196,000 tonnes (Table 1).

From this study it would be observed that increase in production of raw cashewnuts did not commensurate with the expansion of area in all the cashew growing tracts during the period 1955-56 to 1981-82 (Table 3). The relatively less proportionate production compared to the expansion of area in this crop is by and large due to the passing of juvenile stage by the young plantations in most cases and at the same time, the presence of sizeable senile and unproductive cashew trees in some locations. One more factor which is contributing to the above mentioned situation is the illegal felling of productive trees in some of the potential sectors by organised gangs for their supply to both paper and rayon industries since the pulps from cashew trees are considered to be ideal raw material. In the case of a major cashew producer, namely, Tamil Nadu it is, however, a matter of great concern that the production followed a sharp declining trend during the 1970's for one reason or the other in spite of significant increase in the crop area during the corresponding period (Table 3).

The spatial distribution of raw cashewnut production among the producing States reveals that during the year 1981-82 Kerala alone accounted for 60 per cent of the total raw cashewnut production in the country, even though its share in the total area under cashew was nearly 31 per cent. In other words, the productivity of cashew per unit area in the case of Kerala was twice the national average. Kerala also maintained its first place in cashew production as in the case of cashew area but the position of Tamil Nadu slipped to fourth from second with rising of Andhra Pradesh and Karnataka to second and third ranks, respectively (Table 4).

COMPOUND GROWTH RATES OF PRODUCTION

The compound growth rates of production of raw cashewnut in India for the periods 1961-62 to 1970-71 and 1971-72 to 1980-81 work out at 5.05 per cent and (---) 2.18 per cent per annum, respectively. The growth rates in respect of all the four major cashew producing States in India have not only been reduced in second period from the first period,

but also have become negative in case of India as a whole (Table 5). The possible reasons for these negative growth rates have already been indicated elsewhere in this paper. With the passage of some more time the newly planted cashew crops are expected to cross the juvenile stage and enter the stability phase in production and coming years will, therefore, show high growth rates in production of raw cashew nut in India, though the situation at this transition stage looks very gloomy.

DEMAND FOR RAW CASHEW

Since cashew industry in India has been built up from the beginning of this century to cater to the needs of the cashew kernel importing countries, the demand for raw nuts mainly arises from the export sector. While the demand from the domestic consumption sector for cashew kernels is very small, the real demand for raw cashew is of very high order from the processing sector in the country.

Presently there are some 550 cashew processing factories in India with a working force of 280,000. The estimated installed capacity of these units is around 500,000 tonnes of raw nuts per annum. In order to run the processing industry to full capacity and provide round the year employment to these workers, the demand for raw nuts thus comes to 500,000 tonnes. At 24 per cent of average recovery some 120,000 tonnes of cashew kernels could be produced per year, if the industry is allowed to run to full capacity. However, if we analyse the effective demand for cashew kernels, the processing industry is found to have unduly large capacity. The internal demand for cashew kernels is estimated at around 15,000 tonnes per annum. The demand from export sector falls somewhere between 30,000 tonnes and 65,000 tonnes, depending upon the supply positions of the competing countries. We may, therefore, estimate the realistic demand for raw cashew at some 285,000 tonnes.

SUPPLY GAP

As already discussed, the present level of supply of raw nuts from the indigenous source is of the order of about 190,000 tonnes. The supply gap thus works out to 95,000 tonnes per annum.

In order to bridge the gap between supply and demand, the cashew industry in India has been relying heavily on the imported raw cashewnuts from East African countries. Unfortunately for India, there has been gradual fall in the availability of raw nuts for import. The trend in the import of raw nuts into India would give some insight to the problem.

According to the available official information, imports of raw cashew from East African countries into India were started in the early 1930's, a few years after the commencement of export of cashew kernels to the USA, and the quantities of imports involved initially were less than 10,000 tonnes per annum. By 1939-40, these imports had risen to some 20,000 tonnes. Though the raw nuts imports into India were disrupted like other trades during the Second World War, the imports in the post-war years steadily rose and stood at 35,000 tonnes in the year 1947-48 and 55,000 tonnes in the year 1950-51. Since then there have been fluctuations in the level of imports but the overall trend has been upwards.

During the period 1955-56 to 1959-60, the average annual imports of raw nuts into India stood at 27,000 tonnes valued Rs. 61.96 million. The average annual imports rose to 145,000 tonnes at a cost of Rs. 105.60 million during 1960-61 to 1964-65 and to 166,000 tonnes at the cost of Rs. 240.73 million during 1965-66 to 1969-70 and further to 170,000 tonnes valued at Rs. 309.05 million during the period 1970-71 to 1974-75. The average annual imports of raw nuts for the period 1975-76 to 1979-80 was lower at 63,000 tonnes and the figure went down further to 27,000 tonnes during 1980-81 to 1981-82 (Table 6).

During the period 1946-47 and 1981-82, the record quantity of import (198,000 tonnes) was observed in the year 1972-73 and the minimum quantity of import (20,000 tonnes) was seen in the year 1978-79. From 1975-76 the imports had started declining. When India has to go a long way to achieve self-sufficiency in raw cashewnut production, the dwindling of imports should be matter of serious concern.

The main reason attributed to the declining trend of raw nuts imports into India is that Mozambique, Tanzania and Kenya, the major sources of imports, had taken recourse to large scale mechanised processing of raw nuts during these years. Until they were content to collect the raw nuts and ship them to India because they lacked the large labour force required to do the processing manually.

Apart from this reason, between 1975 and 1980 cashew production in the East African countries general and Mozambique and Tanzania in particular was badly affected due to drought, disease problems and ageing of trees and the collection of nuts from the plantations were also severely affected due to change in socio-political situations and consequent change in marketing and price policies.

COMPOUND GROWTH RATES OF IMPORTS

The estimated compound growth rates of imported raw nuts show that the growth per annum were 10.71 per cent during 1951-52 to 1960-61; 3.38 per cent during 1961-62 to 1970-71, and (—) 23.95 per cent during 1971-72 to 1980-81. In the case of imported value the growth rates were 3.31 per cent, 18.78 per cent and (—) 10.66 per cent for the corresponding periods. The negative growth rates of import value during the period 1971-72 to 1980-81 was due to very high negative growth rate of quantity of raw cashew imported in that period and not because of the decline in the unit value of imports. The growth rates of unit value of imports suggest that the growths were of increasing order from 0.74 per cent to 14.64 per cent and to 17.83 per cent during the three periods under reference (Table 7).

TRENDS IN CASHEW KERNEL EXPORTS

The commercial export of cashew kernel in the world first started from India with a shipment of about 45 tonnes of kernels in the year 1923 to the USA. By 1930, exports increased to about 2,300 tonnes and by 1939 to 18,500 tonnes. During the war years exports remained at a low ebb, but in the post-war period there was a phenomenal growth in the exports of cashew kernels from India. The average annual export of kernels during 1951-56 was of the order of 28,300 tonnes valued at Rs. 110 million. The exported volume increased to 36,000 tonnes, 48,000 tonnes, 55,000 tonnes and then to 59,000 tonnes per annum at the quinquennials ending 1959-60, 1964-65, 1969-70 and 1974-75, respectively. During the following five years, the average annual volume of export dropped to 42,000 tonnes and further declined to 32,000 tonnes in the next two years (Table 6).

COMPOUND GROWTH RATES OF EXPORTS

The estimated annual compound growth rates of exports of cashew kernels from India for the periods 1951-60, 1961-70 and 1971-80 are 6.88 per cent, 2.51 per cent and (—) 8.31 per cent, respectively. The overall growth for the entire period of 1951-80 comes to 1.61 per cent. In the case of export earnings, the growths are in the order of 7.07 per cent, 15.61 per cent and 7.80 per cent during the above mentioned three periods with an overall growth of 10.37 per cent per annum during thirty years ending, 1980-81. For the unit value realisation from exports of cashew kernels the annual compound growth rates are observed as 0.20 per cent, 12.78 per cent and 17.57 per cent for the three periods under reference, whereas the growth for the pooled period of 1951-80 comes to 8.63 per cent (Table 7).

From the beginning of the cashew trade until the mid 1960's India had a virtual monopoly on the processing of raw nuts as well as exporting of kernels to the world markets. India's share in the world exports of cashew kernels had remained above 97 per cent upto the end of 1950's and between 90 per cent and 97 per cent during the early 1960's. By 1969, this share came down to 76 per cent, though India's volume of exports in that year had gone up to 62,678 tonnes from 22,458 tonnes (with a share of 99.8 per cent) in 1950. India had a record export of 64,542 tonnes of cashew kernels in the year 1972, even though her share in the world exports fell to the level of 63.3 per cent in that year. 1972 also coincided with the year of record world exports of kernels touching the level of 1,01,909 tonnes. From 1973 onwards the exports from India as well as the world exports followed a declining trend and by 1978, the exports from India dwindled to the level of 23,820 tonnes, with an all-time reduced share of 37.6 per cent of world export of 63,357 tonnes (Table 8).

While the main reasons for the decline in the exports of kernels from India are sharp fall in the imported raw cashew for processing and the emergence of formidable competitors like Mozambique and Brazil, the other reason for decline in the world exports could be attributed to the rise in the prices of kernels and its adverse effect on demand.

Keeping in view the world demand, the supply capacity of the competitors and the processing capacity in the country, India has launched a package programme of cashew development under the World

Bank assisted Multi-State Cashew Project. By the end of 1985, India's raw cashewnut production may touch 2,50,000 tonnes to bring about stability in this industry.

TABLE 1—AREA AND PRODUCTION OF RAW NUTS IN INDIA DURING 1955-56 TO 1981-82

Year	Area (Thousand ha.)	Production (Thousand tonnes)
(1)	(2)	(3)
1955-56	110	79
1956-57	110	80
1957-58	121	93
1958-59	130	99
1959-60	140	107
1960-61	176	111
1961-62	185	113
1962-63	212	120
1963-64	224	133
1964-65	232	141
1965-66	241	144
1966-67	249	149
1967-68	257	157
1968-69	266	164
1969-70	281	176
1970-71	303	177
1971-72	320	183
1972-73	328	177
1973-74	351	178
1974-75	358	166
1975-76	369	171
1976-77	372	140
1977-78	375	143
1978-79	416	134
1979-80	451	142
1980-81	464	135
1981-82	481	196

TABLE 2—QUINQUENNIAL AVERAGE AREA UNDER CASHEW IN DIFFERENT STATES IN INDIA

State/U.T.	(Thousand hectares)					
	1955-56 to 1959-60	1960-61 to 1964-65	1965-66 to 1969-70	1970-71 to 1974-75	1975-76 to 1979-80	1980-81 to 1981-82*
Andhra Pradesh	5.3 (100)	13.5 (255)	18.5 (349)	28.8 (543)	35.4 (668)	53.5 (1009)
Karnataka	5.2 (100)	7.8 (150)	12.1 (233)	31.3 (602)	42.2 (811)	57.3 (1102)
Kerala	43.5 (100)	71.9 (165)	93.6 (215)	105.0 (241)	127.7 (293)	146.2 (336)
Maharashtra	2.5 (100)	4.7 (188)	8.9 (356)	24.1 (964)	26.3 (1052)	22.7 (908)
Orissa	0.7 (100)	1.1 (157)	1.5 (214)	12.8 (1828)	27.6 (3943)	46.7 (6671)
Tamil Nadu	30.3 (100)	39.0 (129)	46.8 (154)	89.4 (295)	93.6 (309)	94.8 (313)
Tripura	—	—	—	—	0.8	0.8
West Bengal	2.1 (100)	1.8 (86)	2.3 (109)	2.7 (128)	5.1 (243)	6.7 (319)
Goa	32.5 (100)	32.5 (100)	33.2 (102)	36.2 (111)	40.9 (126)	43.5 (134)
Pondicherry	—	—	—	—	0.3	0.4
INDIA	122.1 (100)	172.3 (141)	216.9 (178)	330.3 (270)	399.8 (327)	472.0 (387)

*Biennial average.

NOTE.—Figures in parentheses denote indices in respect to quinquennial ending 1959-60 as the base.

TABLE 3—QUINQUENNIAL AVERAGE PRODUCTION OF RAW CASHEWNUTS IN DIFFERENT STATES IN INDIA
(Thousand tonnes)

State/U.T.	1955-56 to 1959-60	1960-61 to 1964-65	1965-66 to 1969-70	1970-71 to 1974-75	1975-76 to 1979-80	1980-81 to 1981-82*
Andhra Pradesh	3.4 (100)	7.4 (218)	12.2 (359)	12.6 (370)	10.9 (320)	18.2 (535)
Karnataka	4.7 (100)	5.6 (119)	8.9 (189)	24.0 (511)	14.9 (317)	17.2 (366)
Kerala	68.2 (100)	90.2 (132)	105.0 (154)	115.4 (169)	101.7 (149)	117.5 (172)
Maharashtra	N.A.	N.A.	N.A.	3.8	5.6	9.0
Orissa	1.7 (100)	1.4 (82)	1.4 (82)	1.7 (100)	3.8 (223)	7.0 (412)
Tamil Nadu	12.3 (100)	17.2 (140)	22.2 (180)	12.6 (102)	10.3 (84)	10.7 (87)
Tripura	—	—	—	—	0.05	0.05
West Bengal	1.5 (100)	1.1 (73)	1.4 (93)	2.1 (140)	1.5 (100)	2.3 (153)
Goa	N.A.	N.A.	4.4	5.6	6.8	8.2
Pondicherry	—	—	—	—	0.2	0.2
INDIA	91.8 (100)	122.9 (134)	55.5 (169)	177.8 (194)	155.5 (169)	190.1 (207)

*Biennial average.

NOTE.—Figures in parentheses denote indices in respect to quinquennial ending 1959-60 as the base.

TABLE 4—SPATIAL DISTRIBUTION OF AREA AND PRODUCTION OF CASHEWNUTS IN DIFFERENT PERIODS

State/U.T.	Area (%)				Production (%)			
	1955-56	1965-66	1975-76	1981-82	1955-56	1965-66	1975-76	1981-82
Andhra Pradesh	3.1	8.8	8.6	11.9	3.7	7.0	7.4	10.2
Karnataka	3.1	3.9	9.7	12.0	3.0	4.3	8.8	9.2
Kerala	34.1	36.2	29.6	30.7	74.0	68.0	69.7	60.2
Maharashtra	1.7	5.3	9.0	4.6	N.A.	1.8	2.4	5.1
Orissa	0.7	2.4	5.9	10.0	2.4	1.0	2.3	4.1
Tamil Nadu	25.9	29.0	26.2	19.8	15.0	15.5	6.0	5.4
Tripura	—	—	0.2	0.2	—	—	Neg.	Neg.
West Bengal	1.9	0.9	N.A.	1.5	1.9	0.9	N.A.	1.3
Goa	29.5	13.5	10.7	9.2	N.A.	1.5	3.3	4.4
Pondicherry	—	—	0.1	0.1	—	—	0.1	0.1
INDIA	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 5—COMPOUND GROWTH RATES OF AREA AND PRODUCTION OF CASHEW IN INDIA

(Per cent/annum)

State/U.T.	CGR of area		CGR of production	
	1961-62 to 1970-71	1971-72 to 1980-81	1961-62 to 1970-71	1971-72 to 1980-81
Andhra Pradesh	7.39	5.81	10.59	(-) 0.63
Karnataka	10.69	5.84	13.79	(-) 7.96
Kerala	5.25	4.79	3.13	(-) 2.46
Maharashtra	15.71	(-) 0.18	*	*
Orissa	12.49	16.84	(-) 0.80	25.32
Tamil Nadu	5.78	0.38	3.61	(-) 0.46
Goa	0.66	2.29	4.57	4.68
INDIA	4.22	4.06	5.05	(-) 2.18

*Not estimated due to lack of information for a few years.

TABLE 6—INDIA'S IMPORTS OF RAW CASHEWNUTS, EXPORTS OF CASHEW KERNELS AND THEIR VALUES

Period	Import of raw cashewnuts into India			Export of cashew kernel from India		
	Quantity ('000 tonnes)	Cost (Rs. in million)	Unit value (Rs./tonnes)	Quantity ('000 tonnes)	Value (Rs. in million)	Unit value (Rs./tonnes)
1955-56/59-60 ..	87	61.96	710	36	149.04	4,140
1960-61/64-65 ..	145	105.60	730	48	213.84	4,460
1965-66/69-70 ..	166	240.73	1,450	55	463.07	8,420
1970-71/74-75 ..	170	300.05	1,820	59	749.58	12,700
1975-76/79-80 ..	63	181.27	2,880	42	1,100.57	26,200
1980-81/81-82* ..	27	278.95	10,330	32	1,640.21	51,260

*Provisional.

TABLE 7.—COMPOUND GROWTH RATES OF IMPORTS OF RAW NUTS AND EXPORTS OF CASHEW KERNELS

Item	(Per cent/annum)			
	1951-52 to 1960-61	1961-62 to 1970-71	1971-72 to 1980-81	1951-52 to 1980-81
Import of raw nuts (Quantity) ..	10.71	3.38	(-)-23.95	(-)-0.41
Import value ..	3.31	18.78	(-)-10.66	7.34
Unit value of imports ..	0.74	14.64	17.83	7.61
Export of kernels (Quantity) ..	6.88	2.51	(-)-8.31	1.61
Export value ..	7.07	15.61	7.80	10.37
Unit value of exports ..	0.20	12.78	17.57	8.63

TABLE 8—INDIA'S SHARE IN THE WORLD EXPORTS OF CASHEW KERNELS

Year	India's exports (Tonnes)	World exports (Tonnes)	India's share (%)
1950 ..	22,424	22,458	99.8
1951 ..	23,907	24,185	98.9
1952 ..	26,499	26,854	98.6
1953 ..	28,121	37,256	92.9
1954 ..	31,652	32,604	97.9
1955 ..	31,452	32,466	96.8
1956 ..	32,490	33,519	96.9
1957 ..	34,577	35,804	96.5
1958 ..	39,673	40,901	97.0
1959 ..	38,172	39,302	97.1
1960 ..	39,436	41,578	94.8
1961 ..	41,191	42,920	95.9
1962 ..	46,436	49,080	94.6
1963 ..	53,395	57,326	93.1
1964 ..	52,645	57,504	91.5
1965 ..	53,793	58,830	91.4
1966 ..	48,616	56,976	89.9
1967 ..	52,256	63,485	82.3
1968 ..	60,491	75,749	79.9
1969 ..	62,678	82,610	75.9
1970 ..	54,074	78,336	69.0
1971 ..	59,985	88,710	67.6
1972 ..	64,542	1,01,909	63.3
1973 ..	57,062	96,538	59.1
1974 ..	57,976	94,072	61.6
1975 ..	59,174	95,961	61.7
1976 ..	55,940	94,118	59.4
1977 ..	40,051	70,653	56.7
1978 ..	23,820	63,357	37.6
1979 ..	37,287	75,000	49.7
1980 ..	36,856	76,000	48.5
1981 ..	29,449	70,000	42.1