

PRODUCTION AND EXPORTS OF COCONUTS IN CEYLON

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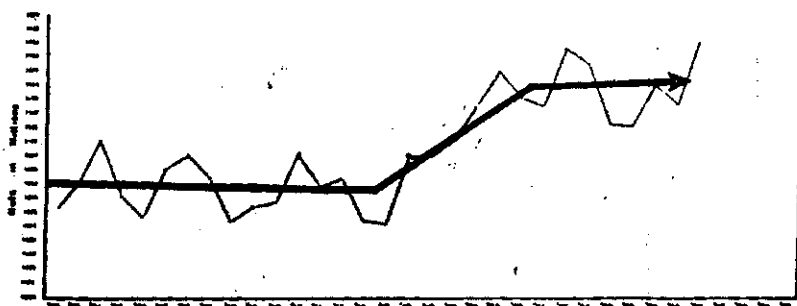
INTRODUCTION

Ceylon, consisting of 1.1 million acres of land under coconuts, is the fourth major coconut producing country in the world. Nearly fifty per cent of the production is consumed locally and the rest is exported mainly as Copra, Oil, Desiccated Coconuts and to a lesser extent as fresh nuts. In the export trade she comes next to Philippines and Indonesia. Her products fetch a good market in most of the major importing countries excepting perhaps the United States, which normally draws almost all its supplies from Philippines.

PRODUCTION

Fig. 1

Estimated Production of Coconuts in Ceylon



The above figure indicates graphically the estimated production of coconuts in Ceylon since 1932. The estimated production is calculated

from the exports of Copra, D.C., and Oil using the conversion factors, (1 ton of Copra=5000 nuts, 1 ton of D.C.=6900 nuts, 1 ton of Oil = 8125 nuts) and adding the local consumption based on 140 nuts per head of population.

From 1932 till 1945, the production did not show any signs of rising. The tendency towards a trend, if there was any, bordered on the decline. In fact it was this tendency to decline that urged the Government to appoint a Commission in 1949 to go into its causes. The short-term fluctuations are mainly due to changes in weather. From 1949 till about 1955 the production had been increasing steadily and reached the peak value of 2,746 million nuts in 1955, which was the record production till 1960. Since 1955 the rising trend appears to have had a temporary set back due to 3-4 years of poor weather conditions. The upward trend in production from 1949 up-to-date could be attributed to a great extent:—(I) To the improved agricultural methods adopted by the coconut land owners as a result of the high prices fetched by coconut products during and after the Korean War. (II) To the availability of artificial fertilizers by about 1950, after the shortage immediately following the Second World War, and (III) To a certain extent New Planting. The unfavourable weather conditions, in 1956 and 1957 following the peak production of 1955, brought about a depression of production in 1957 and 1958. However the weather conditions improved and the production in 1959 recovered to a great extent. Production in 1960 fell by a small margin of 129 million nuts, that is decrease of 5.2% over 1959 production, due to the drought conditions in the early part of 1959. The highest production of 2,796 million nuts was recorded for 1961 which amounts to an increase of 18.4% over 1960, 17.0% over last 5 years average production, and 1.8% over the previous record of 1955.

TABLE I

1. Production in 1961	2,796 million nuts
2. Production in 1960	2,363 million nuts
3. Average production for the last 5 years	2,390 million nuts
4. Previous production record in 1955	2,746 million nuts
5. Increase over 1960	18.4%
6. Increase over the last 5 years average	17.0%
7. Increase over the previous record of 1955	1.8%

This record production in 1961 could be attributed to the highly favourable weather conditions and the cumulative effect of increased use of artificial fertilizers after the launching of the Coconut Fertilizer Subsidy Scheme in 1956. Due to the prolonged drought conditions that prevailed in 1956 and 1957, the full benefits of the Subsidy Scheme would not have been shown in the early years, although the quantity of fertilizer used immediately after the launching of the Scheme was more than double that had been used prior to the Scheme.

Exports

Fig II
Four Yearly Moving Averages
of
Production Exports
&
Local Consumption

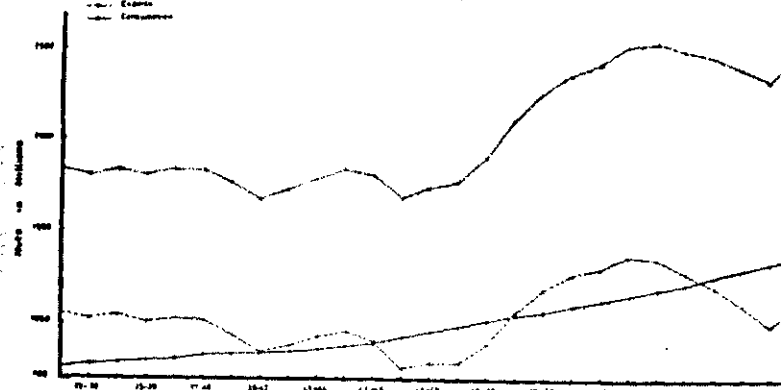


Table II indicates the four yearly moving averages of local consumption, exports, production and percentage of the local consumption and exports over the total production from 1932 to 1961.

TABLE II. FOUR YEARLY MOVING AVERAGES

Average of	Consumption in Thousands	Exports in Thousands	Production in Thousands	% of Consumption	% of Exports
1932-1935	769160	1053947	1823107	42	58
1933-1936	778015	1026085	1804100	43	57
1934-1937	788725	1042236	1830961	43	57
1935-1938	798035	1007233	1805268	44	56
1936-1939	808815	1026185	1835000	44	56
1937-1940	820365	1013784	1834149	45	55
1938-1941	831530	937605	1769135	47	53
1939-1942	839160	840167	1679327	50	50
1940-1943	847735	878107	1725842	49	51
1941-1944	859495	920853	1780348	48	52
1942-1945	876015	956329	1832344	48	52
1943-1946	899040	906645	1806285	50	50
1944-1947	925610	757602	1683212	55	45
1945-1948	953645	781089	1734734	55	45
1946-1949	981820	782129	1763949	56	44
1947-1950	1010695	886666	1897361	53	47
1948-1951	1040060	1060126	2100186	50	50
1949-1952	1069180	1181002	2250182	48	52
1950-1953	1096410	1260014	2356424	47	53
1951-1954	1124584	1295298	2419882	46	54
1952-1955	1154579	1363331	2517910	46	54
1953-1956	1184609	1355069	2539678	47	53
1954-1957	1217859	1278329	2496188	49	51
1955-1958	1253290	1205846	2459137	51	49
1956-1959	1290215	1105267	2395483	54	46
1957-1960	1329028	991702	2320731	57	43
1958-1961	1368053	1094496	2462549	56	44

Figure II gives the graphical representation of the moving averages of consumption, exports and production in Table II. The exports had been declining steeper than that of production from 1932 till about 1949. This is to be expected as one of the components of the estimate of production is internal consumption which is a constant multiple of an ever-increasing population. The average exports between 1944 and 1949 had been below 800 million nuts. With the recovery of production from about 1949 onwards, the exports too increased, but at a slower rate.

Exports

TABLE III

Exports by Volume—Nut Equivalent	Thousands
1. 1961	1,373,297
2. 1960	974,888
3. Average for the last 5 years	1,079,191
4. Previous record in 1955	1,541,902
5. Increase over 1960	40.9%
6. Increase over the last 5 years average	27.3%
7. Decrease over previous record of 1955	10.9%

Although the production in 1961 was higher than that of 1955 (previous record), the quantity exported had been 10.9% less than in 1955. This is because the domestic demand had increased by about 219 million nuts since 1955 which amounts to an increase of 18% over 1955.

Percentage Distribution of Exports by Volume

Table IV indicates the percentage distribution of exports by volume (converted to nut equivalent) of oil, copra, D.C. and fresh nuts from 1944. The bulk of the coconuts exported goes out as oil and copra. In 1944 nearly 95% of the exports had been as oil and copra. Since then the fraction exported as oil and copra decreased considerably and that of

TABLE IV

PERCENTAGE DISTRIBUTION OF EXPORTS BY VOLUME

Year	Coconut Oil	Copra	Oil and Copra	Desiccated Coconut	Fresh Nut
1944 ..	38.0	57.1	95.1	2.3	2.8
1945 ..	33.1	59.9	93.0	3.9	3.1
1946 ..	56.3	31.2	87.5	10.8	1.6
1947 ..	59.7	25.8	85.5	13.8	0.7
1948 ..	62.9	27.8	90.7	8.3	1.0
1949 ..	75.8	11.3	87.1	11.6	1.3
1950 ..	59.2	10.2	69.4	29.8	0.8
1951 ..	71.4	7.7	79.1	20.4	0.5
1952 ..	59.3	13.9	73.2	26.2	0.5
1953 ..	59.9	8.4	68.3	31.1	0.5
1954 ..	47.4	19.5	66.9	32.3	0.8
1955 ..	51.2	22.2	73.4	25.9	0.7
1956 ..	48.3	20.2	68.5	30.8	0.8
1957 ..	45.7	18.1	63.8	35.1	1.2
1958 ..	40.5	15.6	56.1	44.0	—
1959 ..	49.5	18.7	68.2	31.8	—
1960 ..	46.2	14.9	61.1	38.8	—
1961 ..	54.3	20.0	74.0	24.3	1.4

Desiccated Coconuts increased. By 1958 percentage exported as copra and oil dropped to 56% from 95% in 1944 and that of D.C. shot up to 44% from 2.3% in 1944. Due to the decline in the D.C. prices as a result of the pathogenic bacteria found in Ceylon D.C. the fraction exported as D.C. had declined in the recent years. With the new legislations framed by the Government, and supervision of Mills by the Coconut Board, for hygienic preparation of D.C. the prices are again on the increasing side. Yet it is hard to say whether the quantity of D.C. produced would increase because the new legislations may cause some hardships to Mill owners. Because of the system of export duty giving preference to the exports of oil rather than copra, a larger share had been exported as oil since 1946. Since the reduction of export duty on copra in 1961, there had been a slight increase of the percentage exported as copra in 1961.

TABLE V

Exports by Value	
1. 1961	Rs. 203,699,497
2. 1960	Rs. 183,426,715
3. Average for the last 5 years	Rs. 193,167,929
4. Previous record in 1951	Rs. 322,827,380
5. Increase over 1960	11.1%
6. Increase over the last 5 years average	5.5%
7. Decrease over previous record of 1951	36.9%

The exports earnings from major coconut products (excluding fibre and poonac) had recorded an increase of only 11.1% over 1960 and 5.5% over the last 5 years average, although the volume exported had been 40.9% and 27.3% higher than in 1960 and last 5 years average. This apparent anomaly is due to the extremely low prices fetched by the major coconut products throughout 1961.

Percentage Distribution of Exports by Value

Table VI indicates the percentage distribution of exports by value. It is almost identical to that of volume (Table IV). This could be expected as very often the prices of different coconut products (viz. oil, copra and D.C.) rise or fall together (refer Table VII and Fig. III).

Prices of Coconut Products

The average price of Coconut Products from 1944 are given in Table VII. The highest price of oil and copra had been recorded in 1951, when a ton of oil fetched Rs. 1633/- and a candy of copra Rs. 246/-. The price

of D.C. had declined to -/61 cts. per lb. in 1951 from 0.83 cts. in 1950, which was the highest recorded so far. As stated earlier the high prices fetched by coconut products during 1950-1951 could be attributed to the Korean War.

TABLE VI

PERCENTAGE DISTRIBUTION OF EXPORTS BY VALUE

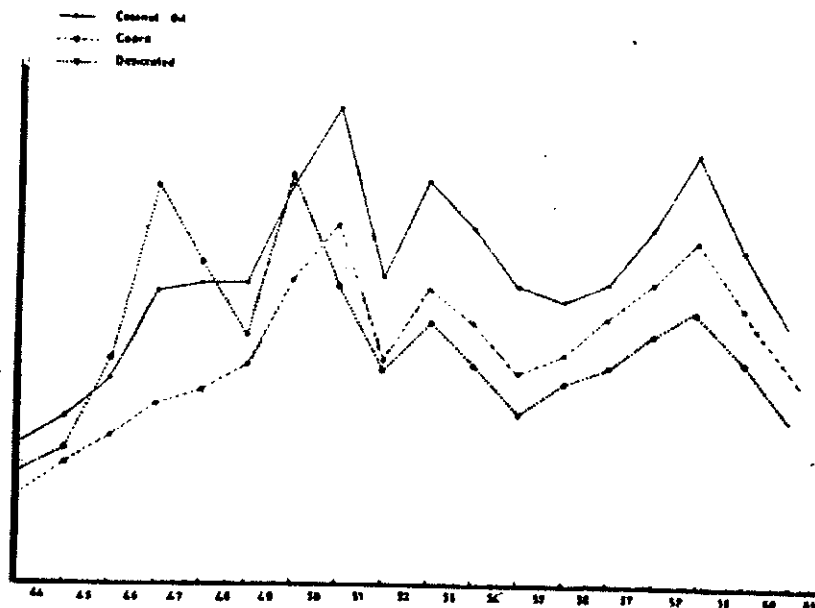
Year	Coconut Oil	Copra	Oil and Copra	Desiccated Coconut	Fresh Nut
1944	38.3	56.2	94.5	3.0	2.5
1945	32.5	59.1	91.6	0.4	3.4
1946	52.1	28.7	80.8	18.0	1.2
1947	51.8	22.8	74.6	24.7	7.6
1948	54.8	27.5	82.3	16.5	1.3
1949	70.1	12.5	82.6	14.7	2.7
1950	50.5	10.1	60.6	37.8	1.6
1951	70.3	8.4	78.7	20.3	1.0
1952	56.7	14.2	70.9	27.8	1.3
1953	57.7	9.3	67.0	32.0	1.1
1954	46.6	21.1	67.7	30.8	1.4
1955	49.6	25.1	74.7	24.0	1.3
1956	46.0	22.7	68.7	30.0	1.3
1957	42.6	20.9	63.5	34.4	2.0
1958	37.8	17.9	55.7	44.2	—
1959	48.1	21.1	69.2	30.8	—
1960	43.4	17.5	60.9	39.1	—
1961	52.4	23.5	75.9	23.4	0.7

TABLE VII

THE AVERAGE PRICES OF COCONUT PRODUCTS

Year	Coconut Oil per Ton	Copra per Candy	Desiccated Coconuts/Lb	Fresh Coco-nuts per 1000
1944	477.33	65.00	0.23	72.50
1945	569.72	80.44	0.27	85.25
1946	696.75	100.00	0.45	103.54
1947	995.59	122.00	0.80	122.92
1948	1022.38	134.90	0.66	135.42
1949	1021.75	150.00	0.59	142.03
1950	1361.00	208.85	0.83	399.99
1951	1632.68	245.94	0.61	413.79
1952	1052.27	156.20	0.44	326.75
1953	1385.38	203.09	0.53	297.60
1954	1229.03	180.97	0.45	233.21
1955	1027.70	146.03	0.35	163.74
1956	977.04	159.32	0.41	137.95
1957	1031.61	182.94	0.44	—
1958	1225.07	208.92	0.51	—
1959	1480.31	238.34	0.56	—
1960	1153.00	190.14	0.46	—
1961	806.11	141.80	0.34	—

Fig. III
Annual Variation in the prices
of
Coconut Products



The use of coconut oil in the manufacture of soap is tending to fall, since in many industrialised countries, soap is being replaced by synthetic detergents. But the generally rising level of margarine production has more than maintained the demand for coconut oil. In the recent years high production of Soya bean oil which too could be used in the production of margarine has brought about a decline in the prices of coconut oil and copra. As stated earlier pathogenic bacteria detected in Ceylon D.C. has caused a severe decline in D.C. prices. Due to hygienic methods of production and packing enforced by recent legislation, the D.C. market seems to be very much better than in 1961.

The average value of 1000 nuts exported from 1944 is given in Table VIII. The value of 1000 nuts exported had been increasing steadily from Rs. 60.26 in 1944 to Rs. 258.28 in 1951, which amounts to an increase of over 300%. Since then this value had been fluctuating and comparatively very low values had been recorded in 1955, 1956 and 1961.

TABLE VIII
THE AVERAGE VALUE OF 1000 NUTS EXPORTED

Year	Exports as Nuts Thousands	Export Value Rs.	Average Value of 1000 Nuts	
			Rs.	Cts.
1944	844,743	50,902,210	60.26	
1945	948,880	65,617,861	69.15	
1946	621,099	57,145,699	92.01	
1947	575,981	93,692,274	162.67	
1948	978,591	153,444,695	156.80	
1949	956,170	172,977,912	180.91	
1950	1,039,290	252,098,379	242.57	
1951	1,249,865	322,827,380	258.28	
1952	1,462,351	234,557,823	160.40	
1953	1,268,970	246,574,206	194.31	
1954	1,180,144	214,966,044	182.15	
1955	1,541,902	228,328,729	148.08	
1956	1,429,146	215,756,882	150.97	
1957	962,124	159,257,978	165.53	
1958	890,214	163,558,591	183.73	
1959	1,139,586	243,839,482	213.97	
1960	974,887	183,426,715	188.15	
1961	1,373,297	203,699,497	148.35	

TABLE IX

Average value of 1000 nuts exported

1. 1961	Rs. 148.32
2. 1960	188.15
3. Average for the last 5 years	180.47
4. Previous record in 1951	258.29
5. Decrease over 1960	21.2 %
6. Decrease over last 5 years average	17.8 %
7. Decrease over previous record in 1955	42.6 %

It would be seen from the above table that although the highest production was recorded in 1961, the average value of 1000 nuts exported was extremely low. In some areas small-holders had to sell their nuts even below Rs. 70/- per 1000. Severe hardships were caused to the producers in 1961 as a result of the extremely low prices of coconut products. Replanting and development programmes were cut down severely. This is reflected from the large number of seedlings that remained unsold in 1961 in most of the C.R.I. Nurseries. The prices were a bit better during the early part of 1962, but declined considerably towards the middle of the year.

Conclusion

The average production for the last six years was about 2500 million nuts. With area under coconuts at 1.1 million acres the average yield per acre was about 2270 nuts. The average yield for the previous six years was about 2400 million nuts and yield per acre 2200 nuts. On the above six year averages the production had increased only by 3.2% and on this trend we could not expect anything more than 2350 nuts per acre, in six years time. But this trend is bound to get accelerated when the full effect of the fertilizer Subsidy Scheme is realised provided weather conditions maintain a normal level. The average yield per acre in 1961 was about 2540 nuts, and this could be attributed partly to favourable weather conditions, and partly to the increased use of fertilizers.

The volume of coconut products exported fluctuates with the production. But the fraction of the production exported is tending to decrease because of the increasing domestic demand. The prices of coconut products depends on the world market as well as the trade policies adopted by the Ceylon Government with the importing countries.

With the present rate of increase of population at 250,000 per year, an additional amount of 35 million nuts would be utilised for local consumption every year. Therefore if the exports are to be maintained at least at the present level the rate of increase of production must be at least 35 million nuts per year. This amounts to an increase of about 3.2 nuts per acre per year. The increase in production could be maintained at a much higher rate than that. The rate envisaged in the 10 year plan is 100 nuts per acre per year in order to increase the yield from 2000 nuts per acre to 3000 nuts per acre in 10 years. With regular manuring, systematic cultivation, draining the excess water and conserving soil moisture, replanting the old stands and replacing the senile palms etc., the goal of 3000 nuts per acre could be achieved without much difficulty. In fact the average yield of most of the well maintained estates is between 4000 to 6000 nuts per acre per year. But the small-holdings which constitute 70% of the acreage under coconuts are far below the required standard of proper management. Most of the small-holders live on their nuts, hence only what is left over after their personal expenses are met, is invested on the land. When the coconut prices are good the small-holders could leave a small margin from their income to invest on their lands. But when the prices are low as in the last year they had to undergo severe hardships. More often than not small-holders tend to neglect their lands purely due to financial difficulties. Hence it is hard to expect a proper standard of management maintained throughout the 1.1 million acres under coconuts in Ceylon. In arriving at a production target an

allowance had to be made for the difficulties of small-holders, and in this the writer agrees with the Commissioner of Coconut Rehabilitation that 3000 nuts per acre is little too optimistic to be achieved under small-holding conditions. A more practicable goal would be round about 2700 nuts per acre under the present conditions. If this goal could be attained by 1970 the average total production would be about 2970 million nuts. The population would increase to about 12 million by 1970 working on the present rate of increase of 250,000 per year. The domestic consumption at 140 nuts per head would be about 1680 million nuts. Hence the exportable surplus would be only 1290 million nuts in 1970. About 200 million nuts more than the last 5 years average. Hence an intensive programme of rehabilitation aimed at inducing the small-holder to invest more on the land, is rather necessary. Further a good number of coconut plantations are pretty old and unless they are replanted without much delay the industry would face a serious crisis due to the senility of the plantations. Fortunately the Government subsidised seedlings issued by the Coconut Research Institute are partial aid to the coconut planters to solve this problem of replanting. But another financial burden in the process of replanting is the cost of fence posts and barbed wire. A milla post costs over Rs. 2/- today, and barbed wire Rs. 65/- to Rs. 70/- per cwt. A Government subsidy on these items as suggested by the Commissioner of Coconut Rehabilitation would be a great relief to the coconut planters. The coconut plantation industry as it stands today needs an intensive programme of rehabilitation aimed at stepping up the yield per acre by modern agricultural methods and replanting old stands.

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