A STUDY OF THE COST STRUCTURE OF THE CASHEW INDUSTRY IN KERALA, KARNATAKA AND TAMILNADU

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C E R T I F I C A T E

THIS IS TO CERTIFY THAT THE DISSERTATION ENTITLED ' A STUDY OF THE COST STRUCTURE OF THE CASHEW INDUSTRY IN KERALA, KARNATAKA AND TAMIL NADU ' IS A RECORD OF RESEARCH WORK DONE BY MR. P.G. DHARMA RAJAN, A PART-TIME STUDENT OF DOCTOR OF PHILOSOPHY IN THE SCHOOL OF MANAGEMENT STUDIES, UNIVERSITY OF COCHIN DURING THE PERIOD OF HIS STUDY.

THE DISSERTATION IS THE OUTCOME OF PERSONAL ENQUIRY AND RESEARCH DONE BY THE CANDIDATE UNDER MY OVERALL GUIDANCE.

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15th JUNE, 1984.

D E C L A R A T I O N

THIS IS TO CERTIFY THAT THE DISSERTATION ENTITLED ' A STUDY OF THE COST STRUCTURE OF THE CASHEW INDUSTRY IN KERALA, KARNATAKA AND TAMIL NADU IS A RECORD OF RESEARCH WORK DONE BY ME, AND THAT IT HAS NOT PREVIOUSLY FORMED THE BASIS FOR THE AWARD OF ANY DEGREE, DIPLOMA OR OTHER SIMILAR TITLE.

P.G. Dharmarajan

P.G. DHARMA RAJAN.

P R E F A C E

The sharp rise in wages, the scope of non wage benefits, the magnitude of the mushrooming growth of the Trade Unions, their bargaining strength during the past quarter of this century and their varying impact upon the cashew industry in Kerala, the increasing competition for rawnuts in the International Markets, the shift from prime produce to finished products in the traditional rawnut supplying countries and their technological advancement in processing, the increasingly fragmented and discriminating consumer markets, competition from other nuts, disruptive changes in consumer tastes, public sector processing in Kerala and the legal enactments in different stages and the lack of indigenous production of raw nuts urged the processors of Kerala to shift the locale of processing to the areas where the profit proposition based on the cost of processing was more promising.

The differences in the cost of processing in Kerala, Karnataka and Tamil Nadu have been surveyed. The study has evolved strategies to restore the pristine glory of the industry in Kerala because of its socio economic importance to the state.

It is future - oriented. Since we are concerned more with the future than with the past, those historical data and concepts which shed light on the future are presented. In an era of unprecedented change and discontinuity, the experiences of the past are often guidelines for the future.

A study of this kind would not have been possible without the scholarly guidance of Dr. N. Parameswaran Nair, Director, School of Management, University of Cochin. In writing this, I have drawn freely on several authors on the subject. It takes me out of my scope to acknowledge individually the great debt of gratitude I owe to these honourable experts. However, I place on record my sincere sentiments of special gratitude to my guide Prof. P.N. Rajendraprasad, School of Management, University of Cochin and Dr. N. Parameswaran Nair, Director, School of Management, University of Cochin.

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June 1st, 1984.

P.G. Dharma Rajan.

C O N T E N T S

LIST OF TABLES

.....

LIST OF DIAGRAMS AND CHARTS.

.....

C H A P T E R - I

INTRODUCTION

1 1 0 IMPORTANCE OF CASHEW

Cashew is one of the important gifts of the 'new' world to the 'old world.[1] Although a native of tropical America, it became commercially important in its adopted homes in India, Tanzania, and Mozambique soon after its introduction over three centuries ago. More countries have adopted this wonderful plant which however has by and large remained as a poor man's crop but rich man's food.[2]

In the international trade of tree nuts, cashew occupies the third position coming after Hazel nuts and Almonds. Eventhough cashew has been grown in many countries for several centuries, the credit for initiating commercial production and export of cashew kernels goes to the Southern State of Kerala in India from where this business grew phenomenally to become an activity of great economic and social impact in recent years. Kerala is the spring board from which the cashew industry had spread to the various parts of the country as well as the world.

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1. M.S. Swaminathan, CASHEW - Page No. 1.
2. Ibid.

The traditional skill in processing, the constant growth in world consumption of cashew kernels, expanding markets, unchallenging entrepreneurial ability of the private processors, cheap labour, low level of technology, and very little capital requirements aided by the raw material supplies from the East African Countries to supplement the indigenous supply of raw nuts facilitated a phenomenal growth of the cashew industry in Kerala and kept India until the early sixties a virtual monopoly in the export of cashew kernels to the world market.

The cashew industry is of considerable importance to the economy taking into account its labour intensive character providing employment to lakhs of workers, its export orientation earning for the country a substantial amount of foreign exchange and the income it gives to the growers of cashew trees.

But now the situation has drastically changed. India has lost its ground as the sole exporter of cashew kernels in the international market and Kerala has lost forever its age-long monopoly over cashew processing. The political and organisational changes in the East African countries and their shift in emphasis from prime produce to finished produce, the setting up of mechanical

processing facilities and the competition for the available raw nuts from the new competitors, dried up the traditional sources of raw nut imports for India. This has particularly affected the prospects of the Indian Cashew Industry which has been leaning rather very heavily on the African Markets for the supply of raw nuts. The situation has become all the more acute during the recent past owing to the competition from other nuts like Almonds, Walnuts, Pistachios, Peanuts in the International Market.

The General neglect of cashew plantations, since it was found as a wild growth, unorganised production programmes, absence of crop protection, reckless felling, diversification of cropping patterns, shift in priorities and the land ceiling laws of the state limited the indigenous production of raw nuts which has brought the industry to near stagnation.

The expansion of the cashew processing industry in the country has not been on a sound footing. The processing capacity was built up on the supply of imported raw nuts. The indigenous production has not kept pace with the increase in the processing capacity. Owing to the sharp decline in imports and the failure of indigenous supply to catch up with the demand and the entry of the Central and State Government's Organisations and their controls and regulations, over import,

internal procurement, distribution, processing and marketing of nuts made the situation more intense. The industry, which could provide employment to its workers almost throughout the year during the late sixties, could provide employment hardly for three to four months a decade later and much less during the last two years. The high cost of labour coupled with its bargaining strength has led to a large scale migration of the industry to the neighbouring states, particularly Tamil Nadu, where the lower levels of wages partly due to theemployment of children, absence of organisation of labour and non-enforcement of the Factories Act etc., are the significant causes of the shifting of the industry. This has been getting reflected in acute unemployment and downward pressure on wages - taking a variety of forms - among workers engaged in processing.

That the cashew industry in Kerala has all along been passing from crisis to crisis has been an acknowledged fact and yet this has not stirred the desired awakening in the concerned quarters to device lasting remedies to the maladies afflicting this vital sector of the states economy and to evolve strategies that may put the industry back on a firm footing.

1 2 0 METHODOLOGY AND SURVEY:

Since the world demand for cashew kernels has been rising steadily for several years in the past, conferring significant price increase, the processing of cashew remains a highly profitable industry. India being the earliest and largest supplier of cashew kernels in the world market it is our prestigious obligations to re-establish her pristine monopoly. Further the added importance of the industry in the socio-economic context of the State of Kerala makes various measures imperative in order to bring back to the industry its pristine glory of the late sixties to give a face lift and to stabilize the industry. This present study adopts a comprehensive frame work of analysis compassing the major issues involved in the cultivation, distribution, import, processing and marketing of cashew under the private and public sector, migration of the industry and the financial requirements of the industry.

Cashew being an export oriented industry the study is not only limited to Kerala and other cashew producing states in India, but also extends to the major producing and consuming countries of the world.

The data required for the study is obtained from primary and secondary sources. Secondary data both published and unpublished were obtained from all available sources. Investigations were made into the state of cultivation of cashew in both private and Government owned plantations, systems of collection and distribution of domestically grown nuts, working of various Government agencies, distribution of imported nuts, working of Public Sector processing units in Kerala, and Private Sector processing units, the socio economic status of the workers, the conditions of their employment, wage parity, and the utility of bye products in the various cashew producing and processing states. These investigations were mostly in the nature of field studies, surveys and personal interviews with a selected number of persons including agronomists, workers, processors, Government Officials, trade union leaders and other acknowledged persons in this sphere, it is on this substratum that the pages to follow are set out.

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C H A P T E R - II

CASHEW IN THE WORLD

2 1 0 ORIGIN, IMPORTANCE, PROBLEMS AND PROSPECTS OF CASHEW IN THE WORLD.

Cashew botanically known as ANACARDIUM OCCIDENTALE is a native of Brazil, Its diffusion in Asia and Africa is due to the Portuguese in the first and second half of the sixteenth century respectively. Later on it spread rapidly along the West and South East coast of the Indian sub continent as well as the Western and Eastern coast of the African continent in a short time.

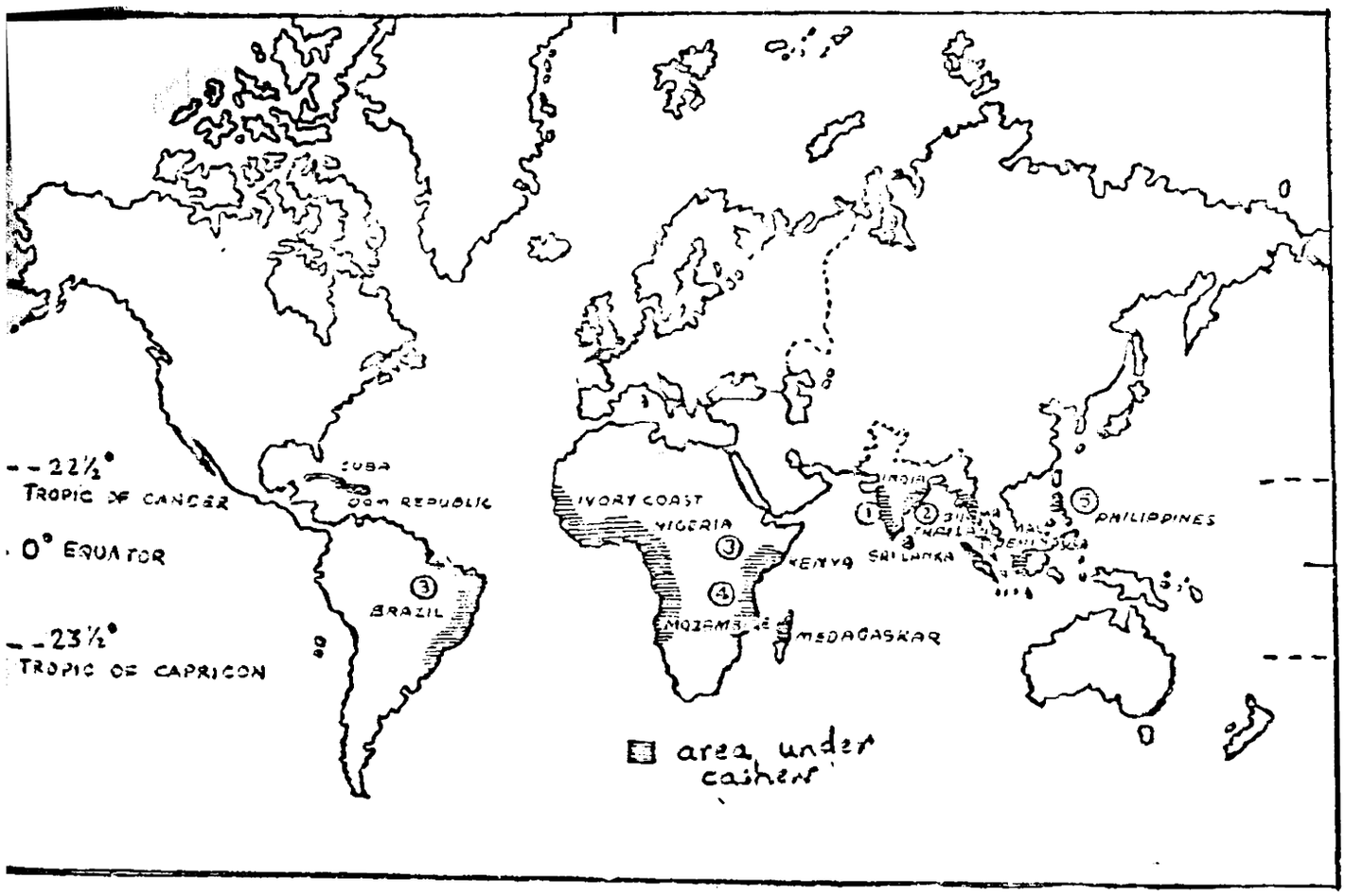

Diagram. 1 CASHEW GROWING AREAS OF THE WORLD.

Cashew is found to tolerate a wide range of ecological factors and it has become naturalised in extensive areas in tropical countries. Cashew has thus found an area of widest diffusion and greatest economic potential in the countries bordering the Indian ocean and the Afabian Sea. Now cashew is grown almost throughout the coastal areas of the tropics bet-ween the tropic of Cancer and the tropic of Capricon.

Cashew, a low spreading evergreen tree of the tropics, has several distinctions to its credit as a cash crop. But no other cash crop in the world acclaimed as a dollar earner has been earmarked for growing exclusively in land unsuitable for raising any other crop. No serious efforts appear to have been made to collect historical evidence nor any archeaological survey has been attempted to study the history of the cashew cultivation. Most of the cashew growing regions in the world are of semi-wild growth and its commercial importance was not known. As the years passed it gained commercial importance and now it is one of the top foreign-exchange-earner for the producing countries. Systematic cultivation of cashew received attention only very recently and the available statistics on area, production, etc. are conflicting and are of doubtful reliability. Even today most of the cashew

collected and processed for world markets are picked up from sporadically self-sown wild growth of cashew trees. However commercial production in the world is mainly confined to India, Mozambique, Brazil, Tanzania, and Kenya and the total world production amounts to nearly 6 lakhs tonnes of raw nuts annually.[3]

Though the usefulness of the cashew apple and nut was known to man right from the time it was taken up for cultivation by him, there was no international trade in cashew until the mid twenties of this century. This was because cashewnut has only a poor keeping quality and it is very susceptible to pests. But small quantities of kernels were imported to the USA as early as 1905. In the mid_- twenties of this century the process of vacuum packing was developed and this paved the way for the rapid development of international trade in cashew. International trade of cashew was less then fifty tonnes annually in the early twenties and it rose to thousands of tonnes by the early thirties. [4]

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3. Cashew Export Promotion Council, Cochin, India.

4. L. Krishnaswamy ~~Paper~~ submitted in the International Cashew Symposium Cochin - 1979.

During the Second World War there was a slump in the international trade of cashew. After the war, world production and consumption of cashew increased sharply and it soon became the world's second most important dessert nut after Almonds and this went on uninterruptedly. In the beginning exports of cashew kernels were almost entirely to Europe, mainly to Marseilles and occassionally to London, but now large scale exports of cashew kernels are to destinations spread all over the world.

PROBLEMS AND PROSPECTS

The basic problem of the cashew industry in the world is one of raising the supply of raw cashew nuts so as to match the large demand from the processing factories. The processing capacity at present in the world is more than 10 lakh tonnes. In the beginning of the century it was limited and that too confined only to India which at that time was the sole exporter ofcashewkernels. As early as the twenties, harvesting and utilisation of raw nuts from the producing countries in the world were oriented towards meeting the demands on the part of the Indian Processors.

However, in view of the attractive prices that cashew kernels has been fetching in the international market and the low investment in setting up of industries,

almost all the cashew growing countries installed mechanical and non mechanical cashew processing units for processing the nuts produced in the respective countries. Mozambique is having a mechanical processing capacity of 120000 tonnes, Tanzania 115000 tonnes, Brazil a plant capacity of 100000 tonnes, Kenya and China 25,000 tonnes each and India has a non mechanical processing capacity of 700000 tonnes of raw nuts annually.[5] Several countries in the world due to the non-availability of adequate labour force, are now negotiating for installing additional mechanical processing units, some with UNDP assistance. The processing capacity in the world and the demand for cashew nuts are steadily increasing year after year. In the world production of raw nuts there was a steady increase till 1974. The world production of cashew nut registered a quinquennial increase from 76000 tonnes in 1947 to 118000 tonnes in 1952. This has further increased to 1.75 lakh tonnes in 1957 and to 2.25 lakh tonnes in 1962. In 1967 it was 2.82 lakh tonnes and it rose to 5.28 lakh tonnes in 1972. In 1974 there was a record production of 5.74 lakh tonnes. Thereafter there was a decline in the production. In 1978 the production was 3.48 lakh tonnes, thereafter the production has been stabilised to about 3.40 lakh tonnes annually and in 1980 the production was 3.52 lakh tonnes. The following table

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5. Source - National Seminar on Cashew Industry, Quilon-1981.

indicates that there was a regular increase in the production of raw nuts until the mid seventies, and there is not only no increase but also there has been a definite decline in the level of production in the late seventies.

TABLE - 1

2 1 1 WORLD PRODUCTION OF RAW CASHEW NUT ('000 MT. TONNES) *

COUNTRIES	70/71	72	73	74	75	76	78	79	80
INDIA	177	183	177	176	166	171	143	134	141
MOZAMBIQUE	152	178	216	200	160	95	80	120	71
TANZANIA	112	120	125	145	117	82	68	66	51
KENYA	23	21	10	21	16	18	6	12	18
BRAZIL	20	15	41	26	31	61	46	71	66
OTHERS	5	5	5	5	5	5	5	5	5
TOTAL	489	528	574	574	495	432	348	408	352

* Source - Edible Nuts Market Reports, Gill & Duffus Landauer Ltd., London.

These are only the estimated figures from different sources as no correct statistics are available.

The world exports of cashew kernels has more or less kept up this trend. It increased from 17150 tonnes in 1947 to 26854 tonnes in 1952, which further increased to 35804 tonnes in 1957 and 49080 tonnes in 1962 and 63485 tonnes in 1967. The kernel production of 102409 tonnes in 1972 was a record one. Thereafter a decline had begun and during the last ten years it has been stabilized at the lower level of 65000 tonnes annually. This can be clearly seen in the table given below:

TABLE - 2

2 1 2 WORLD EXPORT OF CASHEW KERNELS (MT. TONNES) *

YEAR	INDIA	MOZAMBIQUE	TANZANIA	KENYA	BRAZIL	Others CHINA	TOTAL
[illegible]	[illegible]	344	..	..	..	..	17150
1952	26499	355	..	..	..	..	26854
1957	34577	1227	..	..	..	..	35804
1962	46436	1900	49	75	620	..	49080
1967	52256	8080	1474	184	1491	..	63485
1972	64524	27181	2901	116	7169	500	102409
1978	23820	18300	3635	1680	10922	5000	63357
1980	36856	20000	3000	3800	10000	4000	76856

* Source- Cashew Export Promotion Council, Cochin.
1980 figures - Estimated.

It is natural that the kernel production should keep pace with the production of raw material.

The consumption of cashew kernels was steadily increasing with the increasing standard of living in developed countries till the early seventies due to its taste and nutrition value. Thereafter it has been showing a declining trend in consumption owing to a variety of reasons. The world consumption of kernels by various importing countries like the USA, the USSR, Canada, Australia, Belgium, France, Germany, Netherlands, the U.K., Japan, Sweden and Newzealand has fallen to 48836 tonnes in the year 1978 from 72836 tonnes in 1977, the latter being a deduction from 95336 tonnes in the year 1976. The figure represents the average consumption during the years 1972 to 1976.

The problem of falling production of cashew in the producing countries, has been one born of the interaction of various factors impinging ultimately on a general decline in the production and supply of raw nuts. The factors which are mainly responsible for the decline in production and supply of raw nuts in the producing countries in Asia and Africa are:

1 There has been a general neglect of cashew plantation in these countries with no organised production programmes. Cashew trees are generally found as wild growth, such unorganised production and procurement programmes lacked a scientific approach with no semblance of any crop planning.

2 The absence of crop protection programmes, its debilitating effect on the growth of cashew plantation leading to a sizable loss in production.

3 Cashew trees were also recklessly felled for being used as firewood.

4 The level of development witnessed in recent years in these countries also seems to have ushered in a certain measure of diversification in cropping patterns. There has taken place a shift in priorities with more land being used for the cultivation of other crops leading to the decline in production of cashew nuts.

In the meanwhile cashew has also been facing increased competition from other tree nuts which include Almonds, Walnuts, Pecans, Pistachios, Brazil Nuts, Macadamia, etc., Due to the shortfall in the world production in recent

years the kernel prices has risen so considerably that there has been indications of consumer resistance. Owing to the lower prices, easy availability, lack of price fluctuations and almost equal nutrition value, the consumer prefer other tree nuts to cashew. The following table shows the price variation of cashew kernels and Almonds in the New York Market.

TABLE - 3

2 1 3 PRICE OF KERNELS (COUNT - 320) AND OF ALMONDS IN THE NEW YORK MARKET U.S. $ / Kg.

Year	Price of Cashew	Price of Almonds	Price of Cashew as % of Almonds' price
1971	1.64	1.97	93
1972	1.67	1-97	85
1973	2.26	3.47	65
1974	2.63	3.02	87
1975	2.40	2.29	105
1976	2.68	2.26	119
1977	4.68	2.66	176
1978	3.69	4.25	87
1979	4.46	4.87	92
1980	6.24	4.42	141

Source. Compiled from Cashew Export Promotion Council Cashew Bulletin (various issues).

Price mentioned is average of June and December.

ESTIMATES AND PROSPECTS

Data on total world production of raw nuts are virtually non existant mainly because of lack of sufficient information on the areas covered by cashew trees as well as on home consumption in the producing countries. However a reasonably accurate insight into the production for trade purpose can be obtained by comparing the many data available on the imports and exports of cashewnuts and kernels. On the basis of the historic review of production and consumption in various countries, a prognosis has been made of the increase in production in the next 25 years. These estimates of future production are based on existing cashew acreage in the various countries as well as on programmes already planned for new plantations. It goes without saying that these estimates are rather arbitrary and subject to disputes. They are not made to accurately predict the level of increase but to indicate the scope of possible development in future and this information is badly needed by those planning national and private cashew enterprises.

The following table gives a survey of the past and predicted figures on world production of cashewnuts excluding those for home consumption in the processing countries. It shows that between 1962 and 1972 the world production increased by an average from 5% to 15% or 10 to

20 thousand tonnes annually and that the annual average increase in production between 1972 and 1987 can be estimated to be from 4% to 8% or 20 to 30 thousand tonnes. But there was a decline from 1975 onwards due to unfavourable climatic conditions and various infrastructural difficulties affecting the yield in Mozambique, Tanzania, and Kenya. But this is bound to pick up from 1980 onwards at the rate of 10%.

TABLE - 4

2 1 4 ESTIMATED WORLD PRODUCTION OF CASHEW NUTS (1000 TONNES) FROM 1985 TO 2005; FROM 1962 TO 1980 ACTUALS.

Year	India	Mozam-bique	Tanza-nia	Kenya	Brazil	Other	World	Actuals
1962	71	88	60	-2-	-4-	-		225
1967	56	132	81	-8-	-5-	-		282
1972	177	216	125	10	41	-5-		574
1975	166	160	117	16	31	-5-		495
1980	141	71	51	18	66	-5-		352
1985	170	150	40	10	50	-5-	425	
1990	220	220	80	30	110	10	670	
1995	290	250	120	50	175	25	910	
2000	340	325	135	55	205	40	1100	
2005	400	380	150	70	240	60	1300	

J.O. OHLER - Cashew - Souvenir - International Cashew Symposium - Cochin - 1979 - Page 3.

Possibly world production in the years to come could be higher than what is indicated in this table if no major political and infrastructural changes in the East African countries take place and the climatic conditions remain favourable. The high prices of cashew kernels will almost certainly stimulate the planting programmes in various countries. In addition to planting cashew on a small scale, plantation scale cultivation and production are expected to increase many fold, as the new plantations start yielding. Government and Cooperative based large scale plantations have been started in Mozambique, Tanzania, Brazil, East and West Africa, and India. But cashew nuts compete with other nuts and high nut prices due to the present cost of processing of cashew which is much higher than those of other nuts, allows little flexibility in cashew kernel prices; but large supplies of nuts may result in the decrease in prices in the future and it is of great importance to develop cheaper but more efficient cashew production techniques.

As the world's installed processing capacity is about 10 lakh tonnes,[6] the production of raw nuts also should reach more than 10 lakh tonnes if all the cashew processing units round the world have to work satisfactorily.

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6. Source - National Seminar on Cashew Industry Quilon - 1981.

The world production has to go up to two million tonnes by the end of the eighties as the average recovery percentage is 24.[7] If cashew has to maintain its present position vis-a-vis other nuts, then the price of processed cashew will also have to be brought down substantially and the raw nut should be made available at a much cheaper rate if cashew has to sustain its position in the world market. This can be achieved only by increasing the production of raw nuts and reducing the cost of cultivation and processing. If the producing countries take up cashew cultivation on scientific lines using improved manure and by following the recommended manurial and plant protection schedules, it can obtain the desired production targets. The cost of raw nuts can be further brought down by evolving high yielding cashew types which could yield their harvest within a short period of 3 to 4 weeks as against the present 3 to 4 months. It has been estimated that 40% of the cost of the raw nuts is taken up by the harvesting charges. This could be brought down considerably if the bulk of cashew harvest can be obtained within a short period of three weeks. Besides by identifying varieties with a short flowering period, this can be attained by proper hormonal treatment.

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7. L. Krishnaswamy - Paper submitted - National Seminar on Cashew Industry Quilon - 1981.

There is also a need to reduce the cost of production by reducing the cost of processing. About 45% of the retail price of processed cashew is taken up as processing and marketing cost. The answer to this is to adopt mechanical processing in all the producing countries and the existing mechanical processing units also needs some further development and sophistication, because the breakage percentage of processed kernels goes to 30 to 40 with machanised processing. Possibly this could be reduced considerably if we can evolve cashew nuts which are bigger and less curved.

SETTING UP OF AN ORGANISATION/INTERNATIONAL BODY OF THE CASHEW PRODUCING AND EXPORTING COUNTRIES (CPEC)

In the interest of all cashew producing countries it will be useful to have an understanding about making available raw nuts to the different countries where there are established processing factories, the minimum price at which cashew will be released for the consuming countries, the regions in which each of the producing countries may market their nuts and such other vital problems of mutual interest. This would be possible by forming a cashew community similar to the OPEC. All future propoganda work being jointly undertaken, the benefits of increased consumption will be available to all producing countries.

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CHAPTER - III

CASHEW IN INDIA

3 1 0 INDIA'S PRESENT POSITION:

Cashew a native of Brazil, which was brought to India by the early Portuguese settlers more than 400 years ago for the purpose of checking soild erosion, has by a unique set of circumstances become a prestigious iteg of merchandise in the international trade in edible nuts. The importance of the cashew industry to the Indian economy is three-fold its labour intensive character providing gainful employment in its processing to about 2.30 lakh workers and its export orientation earning for the country a substantial amount of foreign exchange with a record performance of 151 crores in 1980 and the income it gives to the growers of cashew trees.[8]

Cashew, like any other introduced species also got naturalised under more favourable conditions found along the coastal regions of Peninsular India. However, in India the nut remained largely neglected until the turn of the century. In the earlier years of cashew production in India the apple was considered valuable and it was only in the beginning of the 20th century that the cashew kernel, found favour among the customers, and cashew started being cultivated in almost the entire coast line of India and it is now one of the ten top foreign exchange earners of the country. But systematic cultivation of cashew started only recently.

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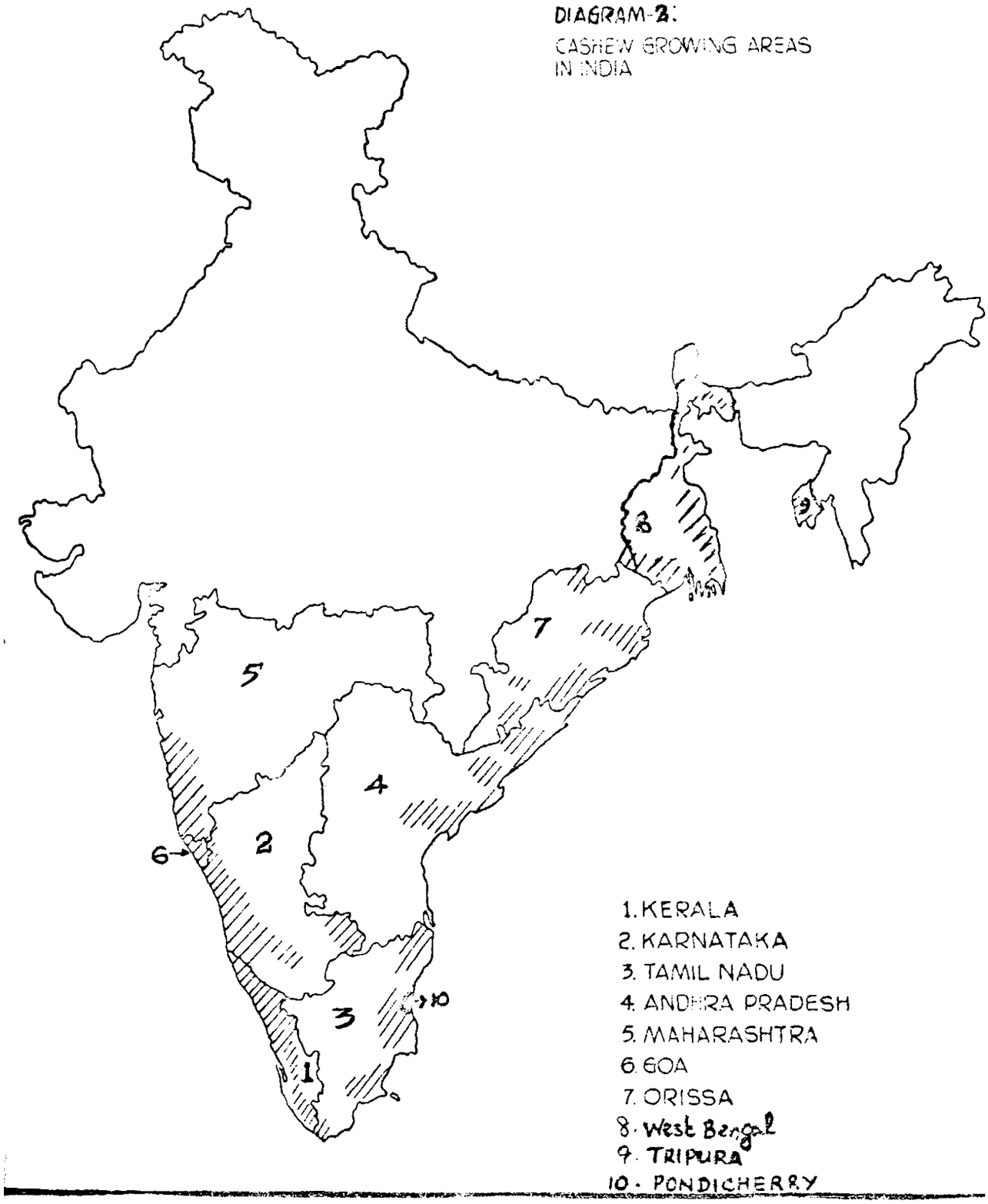
8. Source - Cashew Corporation of India.

DIAGRAM : 2. CASHEW GROWING AREAS IN INDIA.



Today the major producing states in India are Kerala, Karnataka, Tamil Nadu, Ahdhra Pradesh, Maharastra and Goa. West Bengal, Tripura and Pondicherry are the minor cashew growing states in the country. The crop has profound influence on the agricultural economy of many states in India particularly Kerala and Goa.

Soon after it gained economic importance in India, cashew production as well as the processing capacity began to increase. Imports of raw nuts from East African countries, export of kernels to the European markets and the earnings increased not slowly and sporadically but rapidly and persistently till the mid seventies.

Eventhough cashew was cultivated in several other countries for the past many years, until about two decades ago, except India, no other country seriously entered the field of processing cashew. Processing of cashew on commercial lines was started in Mangalore initially and from there it spread to the various parts of the country and was concentrated mainly in the southern part of India. Unpeeled cashew kernels were exported from India even from the start of the century. However the advent of the system of packing of kernels in containers charged with Carbon Dioxide in the early twenties brought greater life to the Indian cashew

trade. Since the close of the Second World War, the Indian cashew industry has expanded a good deal.

Abundance of cheap and skilled labour, easy access to raw cashewnuts as well as the growing demand for cashew kernels in the International market have contributed in no small measure to the growth of the industry in the country. In 1947 the total production of raw nuts in India was 32668 metric tonnes and in 1952 it rose to 45512 metric tonnes.[9] In 1962 it was 72107 metric tonnes and in 1972 it went up to 81590 metric tonnes and in 1977 it was 181681 metric tonnes, while in 1980 it was only 141832 metric tonnes.[10]

The indigenous production of raw nuts was all the while supported by the traditional suppliers of the East African countries till the early seventies. In 1962 the import of raw nuts from East African countries was 131108 metric tonnes.[11] In 1972 it increased to 192879 metric tonnes. In 1977 it was only 65076 metric tonnes. [12]

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9. Source - Directorate of Cashew Development - Cochin.
10. Ibid.
11; Ibid;
12. Ibid.

The expansion of the existing markets and the entry into new markets gave considerable scope for the expansion of our export trade. The export for 1923 was only 45 metric tonnes, and by 1930 it increased to 2300 metric tonnes and in 1947 to 19300 metric tonnes.[13] In 1957 it went up to 36900 metric tonnes and in 1972 it rose to 64542 metric tonnes and in 1980 it was only 36856 metric tonnes.[14]

The cashew industry, right from its inception, was a major foreign exchange earner of the country and in the period between 1947 to 1950 it earned foreign exchange of 55 million.[15] In 1957 the earnings were 158 million and 1967 it was 432 million.[16] In 1977 it rose to 1450 million.[17]

The processing units as well as the processing capacity in the country were increasing. In 1957 the total number of processing factories in India were 170 with a processing capacity of about 2 lakh tonnes.[18]

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13. Paper submitted - Mr. D. Balasubramaniam, The Cashew Export Promotion Council - Cochin.

14. | Ibid. 16. | Ibid.
15. | 17. |

18. Industries - State Planning Board and Bureau of Economics and Statistics, Government of Kerala-1976.

In 1967 it rose to 273 with a processing capacity of about 3.50 lakh tonnes.[19] In 1972 it was 390 and the processing capacity built up in the country was about 5 lakh tonnes.[20] At present there are more than 600 processing units with a capacity of more than 7 lakh tonnes annually.[21]

The following table shows the increase in India's production, import, export, earnings and the number of processing unitsfrom the late forties to the late seventies:

TABLE - 5

3 1 1 PRODUCTION, IMPORT, EXPORT, EARNINGS AND PROCESSING UNITS IN INDIA (1947 - 80).

Year	Production in Metric Tonnes	Import in Metric Tonnes	Expert in Metric Tonnes	Earnings in Millions	No. of processing Units.
1947	32663	35750	19300	55.00	-
1957	78897	99081	36900	158.00	170
1967	70462	144546	52256	431.72	273
1972	177314	192879	64542	665.31	390
1977	181681	65076	40051	1449.28	
1980	141832	20682	36856	1510.48	600

Source - Cashew Expert Promotion Council, Cochin.
Cashew Bulletin (various issues).

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19. Report of the Cashew Enquiry Committee - 1969.
20. Cashew Corporation of India.
21. Paper submitted - Mr. P. Gangadharan Pillai - National Seminar on Cashew Industry Quilon - 1981.

The spectacular growth of the cashew industry since its humble beginnings in the 1920's has an undercurrent of a crisis of one type or the other. Each crisis has provided an opportunity for displaying the industries resilience in holding its own in the increasingly competitive international cashew market. An assured global market, a consistent rise in the world consumption of cashew kernels and the traditional skills of processing provided an ideal environment for the growth of the processing capacity in India far in excess of the indigenous availability of raw cashew. The gap in supplies was bridged by imports mostly from the East African belt of Mozambique, Tanzania and Kenya. Dependance on imports became so marked that the imported supplies accounted for two thirds of the industry's requirements and the Indian processing industry was able to absorb the entire raw nut production of the world in addition to its own indigenous production. India has thus enjoyed a near monopoly in the processing and export of cashew kernels to the world markets till the early sixties with the help from the East African Countries. In the early seventies India commanded more than 60% of the world exports of kernels with only 16% share in the world production of raw nuts. After the mid seventies the position of the Indian Industry became gloomy and today most of the cashew factories are idling for a major part

of the year throwing lakhs of workers out of jobs. Under-employment and seasonal employment have been the constant features of the industry throughout. The reason is obvious as our processing capacity was built up on the imported raw nuts chiefly from the East African countries. Moreover the major producing countries in the African continent supplying raw nuts to India have started operating their own cashew processing plants and they have themselves entered the international market, thereby forcing us to depend only on the indigenous raw nut production. Eventhough such an eventuality could be foreseen, tangible efforts were not made to increase our indigenous production of raw nuts to cope up with the demand of the industry. This made the position gloomier.

The problems around this industry are now well known, the imports from the traditional supplying countries have completely been dried up and our indigenous production is inadequate in relation to the needs of the processing facilities that we have created. While we can process about 5 to 7 lakh tonnes our raw nut production is only 1.5 lakh tonnes annually. The inadequate supply of raw nuts to the processing industry in terms of production within the country are due to a variety of reasons.

INDIGENOUS PRODUCTION

An analysis of the production pattern of cashew nuts in India, the problem working against the spread of Cashew plantations in the country and various suggestions for the future prospects are attempted hereunder:

In India cashew has been growing in marginal lands and under poor management and over the years the self sown wild growth of cashew trees was generally neglected because of the poor economic returns. The absence of plant protection programmes and crop management have effected the yield rate of cashew and the old plantations have outlived their productivity. Apart from this, large number of cashew trees are being felled for use as fire wood. Besides this the diversification of cropping patterns with more land being used for the cultivation of other crops has led to the decline in production of raw nuts.

The production of cashew nuts in various states and the area under cultivation of cashew are not evenly balanced. The following table shows the area and production of cashew in India for the last 12 years.

TABLE - 6

3 1 2 AREA AND PRODUCTION OF CASHEW IN INDIA

AREA IN HECTARES PRODUCTION IN TONNES

STATE	1971 Area	1971 Prod.	1976 Area	1976 Prod.	1978 Area	1978 Prod.	1980 Area	1980 Prod.
KERALA	107516	115391	118139	129020	140748	84527	147891	83843
KARNATAKA	17563	16500	36534	15175	49935	13519	53171	15226
A.P.	25798	13000	32400	12500	38200	7600	44300	12300
T.N.	81896	21474	92360	10150	91780	9960	94770	10410
GOA	34522	5600	39317	6568	41600	6118	41600	6118
MAHARASHTRA	17734	3503	30024	4258	22692	7173	22692	7663
ORISSA	5314	1255	23727	3906	26837	4343	38830	3199
WEST BENGAL	2389	-	859	62	858	69	838	48
TRIPURA	-	-	322	42	363	206	363	218
PONDICHERRY	-	-	-	-	3498	221	6698	2807
TOTAL	292732	176723	373682	181681	416491	133736	451154	141832

Source - Directorate of Cashewnut Development.

It can be seen from the table that over the years the area under the crop in India has been steadily increasing but corresponding increase has not been observed in the production of nuts, due to the fact that a large portion of the plantations consist of self sown seedlings and or, raised from unselected seedlings.

It is because of the wild growth nature of cashew that not much organised cropping programmes could be made. This has been one of the reasons why the yield from cashew is not upto the desi-red level. Proper planting and cropping programmes on scientific lines may help to increase the yield rates.

Plant protection methods and effective crop management programmes may be evolved to improve the overall productivity of cashew.

The rehabilitation of existing plantation, granting of plantation status for cashew and implementation of effective steps against indiscriminate felling of trees should be undertaken and this would certainly help in increasing the overall production of cashew in the country

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3 2 0 IMPORTS:

Since import plays a very crucial role in the growth of the cashew processing industry, the factors governing such imports and the implications of its decline require closer examination.

Cashew processing industry in India perceiving the export opportunities and aided by the raw material supplies from East Africa to supplement its indigenous supply of raw nuts registered a phenomenal growth as early as the beginning of the century. Import of raw nuts to India was started even in the early thirties, a few years after the commencement of export of kernels to the world market on a commercial scale, and the quantities involved were less than 10,000 tonnes per annum and it was increasing steadily in response to the increase in demand for cashew kernels in the world market touching 1 lakh tonnes by the end of the fifties and nearly 2 lakh tonnes by the middle of the sixties. Between then and 1975 import fluctuated between 1.5 and 1.75 lakh tonnes per annum after which the import of raw nuts dropped to an insignificant level. The following table shows the import of raw nuts to India during the last 4 decades.

TABLE - 7

3 2 1 IMPORT OF RAW NUTS TO INDIA

QUANTITY IN TONNES

COUNTRIES	1947	1957	1962	1968	1976	1980	1982
MOZAMBIQUE	..	63696	81421	121354	18062	..	..
TANZANIA	..	34112	47575	72606	43115	14060	..
KENYA	..	1272	1689	8440	13006	6032	..
MADAGASCAR	..	..	..	..	..	590	..
DAHOMEY	..	..	..	..	1502	..	..
IVORY COAST	..	..	..	..	..	..	..
OTHERS	..	1	423	117	496	..	..
TOTAL	35750	99081	131108	203517	76181	20682	5000

Source - DOCI & S, Calcutta.

It can be seen from the table given above that till the late sixties 90% of the raw nuts imported by India was accounted for by Mozambique and Tanzania due to the increased production of raw nuts in these countries and lack of processing units there.

Mozambique, Tanzania and Kenya accounted practically for the entire import of raw nuts to India till the early seventies. However, since the mid seventies the imports from the traditional

suppliers started declining. This has been mainly the result of declining levels of internal production in these countries in the course of their development process.

Mozambique, a Portuguese Colony attained Independence in 1975 and in its wake nationalised cashew trade and regulated exports of raw nuts in its overall national interest. The traditional collection arrangements financed by the merchants with a net work of collection centres were replaced by a centralised machinery set up by the Government.

In Tanzania, the National Agricultural Products Board had been controlling the marketing of raw nuts and functioning on a three tier system. This agency was collecting the nuts from the growers through primary societies, fixing the prices at the beginning of the season for every zone, paying subsidy for marketing and performing various other functions. Since 1978 the procurement machinery changed from the co-operatives to the hands of a newly created agency called the Cashew nut Authority of Tanzania, created for the purpose of processing and Marketing of raw nuts, Cashew Kernels and its bye-products.

The reasons contributing to the decline of imports of raw nuts from these countries were not only the organisational, political changes, and occasional climatic failures but also the development of the mechanical processing industries with the help of western European Technology and the non-availability of skilled labour. All these countries installed mechanised processing plants which enabled them to process more than their indigenous production. By the end of 1984 the capacity of the licensed machanised processing units in Mozambique, Tanzania, Kenya and Brazil would exceed 5 lakhs tonnes per annum.[22] With the aid of the World Bank Loans these countries have started massive plans of expansion of processing capacity and new factories are under various stages of commissioning.

Mozambique once a net exporter of raw nuts has had to import them from Tanzania in recent years to meet part of their requirement of their processing industry. Tanzania which is the main source of supply of raw nuts, has also been facing increasing demand for its raw nuts, partly from the domestic processing industry and partly from foreign buyers of raw nuts mainly China and Brazil.

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22. National Seminar on Cashew Industry, Quilon - 1981.

Most of these countries are now richer than they were a decade ago and are able to make better use of their natural resources. Lands on which cashew trees used to thrive as wild growth have been used for other crops. A shift in the levels of income has led to the diversification of priorities, accompanied by less importance to cashew; Further, not much head way has been made in increasing the production in these countries, and the general neglect of cashew plantations, absence of plant protection measures and reckless felling of trees have dried up the imports from these countries.

There is no practical suggestion as to how imports can be increased from the traditional and non traditional raw nut supplying countries. So the concern is only to feed the Indian Processing Industry with the indigenous raw nuts.

ORGANISATION OF THE C.C.I. AND ITS ROLE IN THE DEVELOPMENT OF THE PROCESSING INDUSTRY ITS CRISIS AND DRAW BACKS.

With the prospects of imports tending to become critical due to political, organisational and structural changes that took place in the East African countries in the seventies and the socio-economic importance which the industry had assumed and to save the industry from stagnation, the Government of India decided to do away with the system of open General License. In September 1970,

the C.C.I. came into existance as a subsidiary of the State Trading Corporation. This agency apart from being made the sole importer of raw nuts into India also assumed the responsibility of distributing the raw nuts among the processors. The reason given for banning the OGL system which was prevalent in India before the setting up of the C.C.I. and for creating a state monopoly for the import of raw nuts was the unhealthy competition among the direct importers leading to progressive rise in cost of raw nuts and drain on the available foreign exchange resources. But after the canalisation of nuts through the C.C.I., the margin between the price paid for the imported nuts and the price secured for the exported kernels have been rising fairly rapidly. Apart from securing the maximum amount of good quality raw nuts from abroad at reasonable prices, the C.C.I. equitably distributed to all those who were engaged in processing, many of whom had previously depended on private importers. The allotment of imported raw nuts, governed by certain stipulations laid down by the C.C.I., gave rise to two groups, of processors.

1 those who had directly imported raw nuts and exported kernels during the period 1968-70, termed as "eligible users", who were mainly large scale processors.

2 Those factories which had submitted the proforma to the C.C.I. for the allotment of raw nuts, comprising of small processors called "non eligible users".

The quota allotted to the eligible processors was based on the number of workers in the factories in the base year on the condition that they should have exported, imported and processed nuts in the base year.

CRISIS

The working of the C.C.I. was going on smoothly and uninterruptedly till the mid seventies, however after 1976 due to the various changes that took place in the East African Countries, it became increasingly difficult to secure raw nuts from these countries by the C.C.I. and the powerful lobby of private processors and the Governments of Karnataka and Tamil Nadu, applied pressure on the Central Government to decanalise the import of cashew and make increasing allotments to their states. It was argued by them that the C.C.I. was not efficient enough in importing the raw nuts and that private agencies should also be allowed to enter the trade. In that situation the C.C.I. started to explore the possibilities of imports from non-traditional countries, mainly Madagascar, Dohamey, Nigeria and Senegal,

but this plan did not materialise. In this context the Government of India in July 1979 permitted the eligible manufacturers - exporters to import from sources other than Tanzania, Mozambique, Kenya and Mallavi subject to the condition that 50% of the quantities was made available to the C.C.I. at the contracted price for its allocation to the other eligible processors in terms of the stipulations laid down by the C.C.I. The Government of India relaxed the canalisation policy for a wide participation from the industry for tapping the raw nuts from the new sources. The private processors succeded where the C.C.I. had failed.

In 1980-81 the import policy of the Government was further reviewed on the recommendation of the C.C.I. with a view to maximise the imports in the face of stiff international competition for the limited supplies. Since May 1981 the import policy was again relaxed and it permitted the actual users and export houses to import raw nuts from any source, traditional and non-traditional countries, on the condition that 50% of the quantity contracted for import is offered by the importer to the C.C.I. for distribution in such a manner as may be decided by the Government.

The decanalisation policy of 1981 enabled the big processors to import raw nuts, which the C.C.I. was not able to secure, at exhorbitant rates, and it resulted in an unworkable price parity in relation to international price for kernels.

The progressive shrinkage in the supply of raw cashew in the international market and the import quantum will have a very large impact on the industry and the C.C.I.'s functioning in terms of imports of raw nuts will be all the more critical. Consequently the economic significance in view of the substantial unbridged gap between demand and indigenous production will continue.

DRAWBACKS & SUGGESTIONS

The entry of the C.C.I. as the sole importer and its policy to stabilize the unit price through canalisation, made them to offer low prices for raw nuts in the East African Countries and this led to less interest being shown by the growers and collection agencies in those countries which resulted in the dwindling of imports. This also provided them with an opportunity to increase their indigenous processing. Prior to the canalisation, the offer of attractive price by the Indian individual importers for the raw nuts did not appear to have kindled the desire for developing

their processing industries. Another concomittant of the offer of lower rates by the C.C.I. has been the entry of competitors for these nuts. China in particular has emerged as a strong competitor and has captured a portion of the market from us.

Another matter which seems to have had a slackening effect on the flow of imports has been the belated entry of the C.C.I. into the world market for raw nuts. In the pre-canalisation days, the practice of the importers was to send their representatives well in advance to enter into contract with the East African exporters to arrange for the procurement of raw nuts. They further used to arrange for finance through their African agents for the collection of nuts as well as for providing storage and transportation facilities. This practice was resulting in the higher levels of procurement and greater imports. These imports used to take place during December - February. This normally happen to be the off season for internal production in our country, with production taking place only between March and June. This used to be the redeeming feature as it used to ensure uninterrupted supply of nuts over a long period. The belated entry of the C.C.I. into the world market inhibited the flow of imports both in terms of quantity as well as the coverage period and has also created a concomittant

problem as it eventually led to the entry of imported nuts into the market along with the local nuts. This caused an unnecessary strain on the financial resources of the processing industries during March - June, but also led to a sizable reduction in the number of working days during the other months of the year.

The import policy of the Government of India, both when canalisation was introduced and subsequently when it was partially and later fully decanalised, restricted the actual number of eligible users; and the stipulation laid down by the C.C.I. that there should not be any break in export business to retain the eligibility status caused the elimination of many medium and small processors. The policy of the Government and the C.C.I. have only benefited more the interests of the big processors than the medium and small processors in the industry.

The canalisation policy of the Government and the setting up of the C.C.I. had given only a temporary relief to the industry; but the belated entry of the C.C.I. and the quoting of lower prices impeded the flow of imports rather than helped it, not forgetting the fact that the C.C.I. as a Government organisation has its own limitations.

In these circumstances when the C.C.I. has nothing to do with direct imports, the Government of India has to examine the stipulation that an actual user will cease to be eligible for allocation of the imported raw nuts if he had not been in export business for a continuous period of one year and should consider granting relaxation in this regard.

The C.C.I. should identify new markets and explore the possibilities of imports from the existing markets.

The C.C.I.'s proposal of joint venture establishment of cashew plantations in third world countries with buy-back-arrangements for the purpose of stepping up our import of raw nuts is a long process. Even the private processors too can undertake such joint ventures in the countries abroad with the permission of the Government of India. This is not at all a practical solution to the problem of declining imports. Even if it materialises these joint venture proposals would require atleast a minimum of ten years and heavy financial assistance from International Banking Agencies before it is able to bear fruit. Even then the risk of political changes that could take place in the third countries, which could dry up the imports, are great.

3 3 0 EXPORTS - ITS GROWTH, PROBLEM, & SOLUTIONS:

Eventhough cashew has been grown in many countries for several centuries, the credit for initiating export of cashew kernels goes to India. Between the beginning of this century and the outbreak of the first World War small quantities of unpeeled cashew kernels were packed in mangowood cases lined with newspapers and exported to European countries. Infestation was a serious problem and a good portion became moth-infested and weevil-infested and unfit for human consumption by the time the consignments arrived at their destination.

In the mid twenties the process of vacuumpacking was developed and this paved the way for the rapid development of international trade in cashew. From an annual export of 50 tonnes in the early twenties it rose to 10,000 tonnes by the early thirties. During the Second World War the exports remained at a low ebb; but after the end of the war, exports started reviving. The progressive expansion of known markets and the opening of new markets coupled with large amount of import of raw nuts from the East African Countries resulted in a great spurt in exports during the three decades after the end of the War. During the fifties the average annual exports rose to about 20000 tonnes and in the sixties it was 55000 tonnes and reached on all time record of 64542 metric tonnes in 1972.

India which had remained unassailed in the trade of cashew kernels in the sixties started loosing ground since the beginning of the Seventies. The share of India in the world export trade in Cashew declined to about 70% by 1970 from 95% in 1960 and still further to about 60% in 1975.[23] In 1978 in came down to about 40%. It however picked up since then and stood between 45-50% during the early eighties.[24]

The following table shows the export of Cashew Kernels from India to principal World Markets and the percentage of India in the total world exports.

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23 - Cashew Export Promotion Council - Cochin.

24 - Ibid.

TABLE - 8

3 3 1 EXPORT OF KERNELS TO PRINCIPAL WORLD MARKETS FROM INDIA

QUANTITY IN TONNES

COUNTRIES	1949	1959	1969	1972	1975	1978	1980
U.S.A.			29359	19568	18458	6015	5948
U.S.S.R.			25712	25385	24797	8885	22780
JAPAN			479	2001	3769	3441	1798
U.K.			2261	1991	808	490	397
AUSTRALIA			1910	1332	2220	594	1160
NETHERLAND			647	1079	1402	1125	1678
CANADA			1776	5486	2830	604	307
E. GERMANY			2156	2662	266	..	79
W. GERMANY			616	892	577	341	220
HONGKONG			843	1017	858	293	524
CZEC			328	952	90	189	308
N. ZEALAND			103	29	250	79	271
FRANCE			510	401	471	239	125
BULGARIA			116	142	93	..	..
LEBANON			221	223	166	43	67
OTHERS			1677	1982	2119	1482	1194
INDIAN TOTAL	19273	38172	62678	64542	59174	23820	36856
WORLD	19278	39302	82610	101909	95542	57435	76856
PERCENTAGE IN WORLD EXPORTS	99.9	97.1	75.9	63.3	61.9	41.5	47.9

Source - 1. Gill & Duffus Landesaur Ltd., London.
2. International Trade Centre (UNCTAD - GATT).

The reasons for the decline in our export from 1970 onwards are reviewed hereunder:

COMPETITION FROM OTHER COUNTRIES:

It can be seen from table - 8 given above that India was enjoying a monopoly position in the export of Kernels to the world markets till the late sixties, although India was by no means the only or even the largest producer of raw nuts. The reason was that the other major cashew growing countries did not have processing facilities and almost their entire production of raw nuts was shipped to India for processing and re-export. During the past two decades, however, Mechanical processing factories were installed in these countries enabling them to process their own raw nut production locally. Other countries like Brazil, China and Sri Lanka have also entered the field of processing and started buying raw nuts from the East African Countries. Consequently the source of supply of raw nuts started to dry up and competition in the International kernel market began. Brazil and China started supplying cashew kernels to the U.S.A., and Canada raising competition in the European Markets too.

COPETITION FROM OTHER NUTS:

In the Mid seventies the cashew industry saw the reversal of the growing trend in exports due to a severe shortfall in world production, which caused a world

shortage of Cashew Kernels pushing up prices to very high levels. The steep rise in unit value has continued unabated, although there had recently been some signs of consumer resistance in the major cashew consuming countries. It is noticed that in the major nut consuming countries, in addition to cashew there are a number of other tree nuts which compete with one another in finding a place in the consumers' plate. They include Almonds, Walnuts, Pecans, Pistachios, Brazil Nuts and Pea nuts. While each nut has its own industrial flavour and a chemical composition for which it is preferred by consumers, comparative prices of various nuts play a very important role in the determination of the consumption pattern.

Over the years cashew has found such favour with consumers due to their delicious taste and lower fat content than that of many other nuts, that it has had to face severe competition only from Almonds and to a less extent from Peanuts. The consumers have had to change their preference to other nuts owing to the frequent fluctuation of the price of cashew kernels and the free availability of other nuts. For the last 20 years only the price of cashew kernels has risen ten fold which is a higher rate per unit than in the case of

most other nuts. If unit cost increases at this rate in the coming years it is feared that the existing market of cashew kernels might even be displaced marginally by other competing nuts, particularly Almonds.

SUGGESTIONS:

India now exports cashew kernels to more than 50 countries in the world and 80% of India's total export for the last 20 years goes to the USA the USSR and JAPAN. Concentration on these particular countries for the exports is not a healthy procedure and there should be diversification of exports country wise and this will help to augument the experts. Although India cannot be expected to make much headway in the diversification of markets in the near future, mainly because of the inadequacy of raw nuts as well as because several new exporting countries, which enjoy competitive advantages over India in respect of availability of raw materials, geographical nearness to consumer markets and easier shipping facilities, etc., have come into the field, in the long run diversification will always be better than concentration.

Greater efforts should be made to locate new markets abroad for cashew kernels.

Indian exports of cashew kernels have traditionally been of unroasted kernels in bulk packings mainly because of the high tariffs levied on consumer packs in the importing countries. Negotiations should be made to eliminate such practices.

Cashew can be expected to hold its ground and meet competition from other nuts, only if its prices are stabilized at reasonable levels and this can be achieved only if the world production can be increased appreciably in the next few years.

EXPORT OF BYE-PRODUCTS:CASHEW NUT SHELL LIQUID (CNSL):

Among the bye-products of cashew CNSL enjoys a very important position. It has wide industrial application and has been enjoying good export potential for the past several decades, CNSL is extracted by various means and we are exporting it to various destinations. As with cashew kernels, India had a virtual monopoly in the export of CNSL until the early sixties. It had played a very important part in the profitability of the cashew industry during times of good demand and high prices.

The export of CNSL from India and the value realised can be seen from the table given below:

T A B L E - 9

3 3 2 STATEMENT OF INDIA'S EXPORT OF CNSL TO PRINCIPAL WORLD MARKETS

(AMOUNT IN Rs) (QUANTITY IN MT. TONNES).

COUNTRIES	YEARS					
	1956/60	'62	'67	'72	'77	'80
U.S.A.	..	2747	3156	183	100	2919
U.K.	..	2555	4453	2941	965	2147
JAPAN.	..	1033	2198	1350	500	4007
AUSTRALIA	..	200	55	15	200	..
BELGIUM	..	1	15	40	115	80
F R .G.	..	16	69	15	65	185
ITALY	..	64	..	..	51	25
NETHERLANDS	..	10	..	94	90	173
SPAIN	..	..	..	..	..	20
CZECKOSLOVAKIA	..	..	..	70	60	60
ROMANIA	..	..	..	108	350	250
YUGOSLAVIA	..	..	10	..	85	35
KOREA (REP)	..	..	120	120	245	718
OTHERS	..	20	26	77	140	80
TOTAL	5100	6645	10102	5013	2966	10699
VALUE (IN MILLION)	4.27	6.59	15.66	5.90	9.64	94.33

*Source - Cashew Export Promotion Council, Cochin.

It can be seen from the table that the exports of CNSL has been declining from 1970 till 1980. During this period the export had been fluctuating according to the demand and supply. The East African Countries and Brazil started producing CNSL and exporting it in the World Markets. Like kernels, the CNSL also had to face stiff competiton from other producing countries. This can be overcome to a certain extent if the India consumption is stepped up.

CASHEW EXPORT PROMOTION COUNCIL

In the beginning India's export of cashew kernels was almost to Europe and once the USA entered the field they quickly became the largest buyer and for many years it was the U.S. market which accounted for more than 80% of India's output of cashew kernels. With a view to promote exports to existing markets as well as finding new markets and diversification of exports the Government of India set up the CEPC in 1955. The Council started its efforts without any loss of time and within the first five years of its inception many new markets for Indian Cashew kernels were discovered. Exports to the USSR were started in 1957 and to JAPAN in 1959. The Council regularly undertakes market studies and surveys for cashew kernels and CNSL in foreign countries and sends trade missions to prospective overseas markets.

It also participates in international fairs and exhibitions and undertakes extensive publicity compaigns through newspapers and other media. The Council also acts as an intermediary between exporters in India and buyers in foreign countries and uses its good offices for settling disputes arising in the course of the trade from time to time. The other markets which were opened up after the inception of the CEPC, were the G.D.R., the F.R.G., ITALY, SWITZERLAND, BAHARAIN, KUWAIT, the U.A.E., SAUDI ARABIA, IRAN, LEBANON, HONGKONG, SINGAPORE, MALAYSIA and NORWAY.

With a rapid increase in exports and emergence of new markets, the need for greater standardisation was felt and in 1963 the CEPC introduced a system of Quality Control and Pre-shipment Inspection of all cashew kernels exported from India. The standard laid down by the CEPC has found acceptance among buyers in the world over and adopted subsequently by other cashew exporting countries. In 1966 the job of Quality Control and Pre-shipment Inspection was taken over by the export inspection agency of the Government of India.

The introduction of quality control and Pre-shipment Inspection by the CEPC and later by the Export Inspection Agency went a long way in influencing

confidence in the minds of buyers located in various parts of the world in the quality of the product and has helped India's Export Promotion efforts. Of late, the efficiency of the pre-shipment inspection has came in for sharp criticism by some overseas buyers. The authorities have to take necessary steps to ensure that no room is given for complaints by buyers about the quality of the product.

EXPORT GROWTH POTENTIAL:

The potential for increased world consumption of cashew kernels is very large and it will further increase from the mid eighties onwards. Had it not been for the severe constraintsin world supply and consequent price increase, the growth of world demand would have continued as it was going on till the mid seventies and a world demand sufficient to absorb more than 1.5 lakh metric tonnes might have been possible today. As far as India is concerned, the urgent need of the hour is to increase indigenous production of raw nuts in order to provide the industry with additional raw nuts which it requires so badly.

Given sufficient raw nuts, it is conceivable that India can double its exports to around 75000 metric tonnes by 1985 and increase them much further during the remaining years of the decade.

3 4 0 FUTURE PLANS FOR INCREASED PRODUCTION OF CASHEW NUTS IN INDIA

In the backdrop of falling levels of import of raw nuts from the traditional raw nut exporting countries, the prospect of the Indian Cashew Industry and the plight of the workers appear to be rather bleak unless steps are taken immediately to step up the internal production of cashew in the country.

Viewed in this background, future planning for cashew nut development in the country may be dealt with under the following heads.

1 Intensive Development of Cashew nut.

2 Extensive Development of Cashew nut.

These development programmes in the various states are to be undertaken with the help of the Government of India and with the participation of the World Bank.

INTENSIVE DEVELOPMENT OF CASHEW NUTS

Intensive development of cashew nuts with an eye on toning up yield rates of cashew through genetic development of cashew and various other methods:-

In the field of genetic development the Indian Council of Agricultural Research (ICAR) organised on All India Co-ordinated project for the improvement of Cashew production in the country. Various research centres formed by it are functioning in different parts of the country. Research work is carried out with various propogation methods like GROUND LAYERING, INARCHING, VENEER GRAFTING, HYBRIDS, SEXUAL RATIO INTERPRETATION, EMBRYOLOGY, SEEDLING ANATOMY, HORMONAL EFFECT ON GROWTH. The result of the research work done by the ICAR for obtaining raw nuts in the very year of planting as against the normal gestation period of 5 years was made possible through the adoption of AIR LAYERING METHODS. SIDE GRAFTING is also another improved method of crop production.

Of the various other methods for improving the overall production of cashew nuts, one of the main methods employed is the use of DEMONSTRATION PLOTS.

It has an alround impact on cashew production in the country and also has enabled cashew growers to keep abreast of latest development effecting the growth and prospects of cashew in the country. PLANT PROTECTION MEASURES against attacks by pests were evolved to improve the overall productivity. EFFECTIVE USE OF FERTILIZERS was also taken up as part of effective crop management programme.

EXTENSIVE CULTIVATION OF CASHEW:

The problem of dwindling supplies of raw cashew to feed the processing industries in India is likely to remain unsolved, unless not only intensive but also extensive cultivation of cashew is resorted to on a massive scale.

Extensive cultivation of cashew in the country can be brought about by the Public Sector and the Private Sector Enterprises. The Public Sector Enterprises in Cashew plantations are under the auspices of the various state Governments.

The Government of India in the back drop of continuing decline in the cashew exports and employment in the industry felt the need for a project approach to the problem with World Bank assistance. The project

envisages provision of finance over the five year period from 1980-84 for improvement of cashew nut production in 22 districts in the four states of Kerala, Karnataka, Andhra Pradesh and Orissa. The development programme is to be financed mainly through Banking Institutions comprising of credit co-operatives for Short and Medium Term Credit, Co-operative Land Development Banks mainly for long term credit and Rural and Commercial Bank for all types of loans. All these institutions have been associated with the I.D.A - supported - lending through participation in A.R.D.C. SPONSORED SCHEMES.

The proposed IDA credit which amounts to U.S. $ 22 million would be made to the Government of India. The balance has to be made available jointly by the Government of India, the State Governments participating in the project, the ARDC, the bankers and the participating growers. Financial assistance provided by the project for new planting includes credit assistance for distribution of seedling fertilizers and pesticides, cash payment for labour engaged in the preparation of land etc.

The project envisages cashew planting and improvement programmes covering an area of 61275 hectares of which 35000 hts. are to be developed under the private sector, the balance 26275 hts. under the public sector,

comprising the various State Cashew Corporation, Forest Development Corporation or Plantation Corporation. The project also envisages strengthening research work in cashew in the country through improvement of existing facilities as well as provision of additional facilities. Further it also covers a study envisaging improvements of the organisational structure of the Industry besides provision of the necessary infrastructural facilities.

Large scale development of cashew involves not merely public sector enterprise but also active private sector involvements in development programmes. The cashew nut project of the World Bank envisages assistance to the private sector for cashew development covering an area of 35000 hectares. Of this an area representing 30500 hts. is intended for new planting of cashew, while the balance of 4500 hectares has been earmarked for the improvement of existing plantations. The assistance for the private sector is intended for small holders to ensure active participation of farmers in the project. The programme would call for intensive promotion and other supporting services. The subsidy for the participating small holders for the improvement of cashew would come to about Rs 25 million. This is to be offset against State Revenues, from raw nut purchase tax, and the

State Government has agreed to set apart adequate funds towards provision of subsidies envisaged in the project. Under the Intensive Development Programme of cashew, all the research work done and yet to be done in the future for increasing the production will be futile, unless a social awareness is created in the minds of the people as to the importance of the crop to the economy.

In the case of Extensive Cultivation of Cashew, inadequate infrastructural facilities, lack of technical staff at the field level and problem of actual or legal transfer of land to the State Corporations for development and the disbursements of finance would be the major constraints. In addition, more finance would be needed for institutional credit and subsidies to complete the project. This would amount to not less than 100 million.

T A B L E - 10

3 4 1 CASHEW PLANTING PROGRAMME AS ENVISAGED UNDER THE PROJECT DISTRIBUTED BETWEEN SMALL HOLDERS & CORPORATIONS IN STATE WISE

YEAR - 1980-'84 AREA IN HECTARES

STATE	Programme to be implemented by CORPORATIONS		SMALL HOLDERS		Total Programme		
	New	Improve	New	Improve	New	Improve	Total
KERALA	2275	-	10000	-	12275	-	12275
KARNATAKA	2500	500	7500	2500	10000	3000	13000
ANDHRA PRADESH	8000	-	8000	2000	16000	2000	18000
ORISSA	10500	2500	5000	-	15500	2500	18000
TOTAL	23275	3000	30500	4500	53775	7500	61275

Source - A.R.D.C.

DEVELOPMENT UNDER FIVE YEAR PLANS

Schemes for development of cashew were implemented in India during the Second Five Year Plan itself. Efforts were made both in private holdings and Government owned areas to increase the area under cashew cultivation. In private areas it was accomplished by giving various incentives and assistance to the growers in the form of supply of planting materials at subsidised rates. The Departments of Agriculture, Horticulture, Soil Conservation and Forest in the respective states were responsible for increasing the area under cashew in Government lands. More intensive efforts on the cashew development programmes were put from the fourth five year plan onwards. During the fifth plan, besides intensification of efforts to increase the area and production as in the fourth plan, cashew development corporations were established in different states.

In view of the increased demand of raw nuts for the processing units in the country and the world demand of cashew kernels, the proposals for the Sixth five year plan have been drawn up by the Directorate of Cashew Development with the dual objectives of attaining a production level of 3 lakhs mts. of raw nuts by the end of the sixth plan and attaining the ultimate objective of 5 lakh mts. by 1990.

SCHEME WISE DETAILS OF THE SIXTH PLAN:

1 Scheme for laying out demonstration plots in riot holdings:

The object of the scheme is to educate the growers on the efficiency of adoption of improved farm techniques, viz., manuring and plant protection measures for obtaining higher yields. About 12000 plots will be brought under the scheme with an expenditure of ₹ 1 crore during this plan period.

2 Scheme for improvement of Cashew by Vegetative propogation:

This scheme is to improve the newly raised cashew plantation of low yielding nature by adopting the techniques of vegetative propogation, in situ budding, grafting, etc., so as to convert them into trees of merit in respect of yield and quality. An area of 16000 hectares in different cashew growing states are to be covered with an expenditure of ₹ 50 lakhs during this plan period.

3 Scheme of establishment of Progeny Orchids for Cashew:

The object of this scheme is the large scale multiplication of propogation materials for future plantations and it would serve as an adjunct to the scheme for the improvement of cashew by vegetative propogation.

4 Scheme for subsidised Plantation Programmes for area expansion:

The scheme intends to increase the area by encouraging the fresh planting by providing incentives in the form of subsidy on the cost of planting and maintenance of cashew. This programme is tied with the World Bank aided Multi State - Cashew Project in the four states of Kerala, Karnataka, Andhra Pradesh and Orissa during the Sixth Plan Period. It is proposed to bring new areas of 78800 hts. during the plan period out of which 53775 hts. will be under the World Bank Project. The amount of subsidy varies from Rs 500 - 900 per hectare, for both departmental and private areas.

5 Scheme for adoption of Prophylactic Plant Protection measures of Cashew:

The objective of this new scheme is controlling the pest attack on cashew plant in non-departmental areas by the spraying of plant - protection chemicals and thereby increasing the productivity of the existing plantations. A major portion of the expenses incurred will be met by the central and state Government equally.

6 Scheme for Statistical Survey of Area and Production of Cashew:

This scheme proposes methods to get reliable statistics of area and production of cashew for the benefit of the cashew industry in India.

SCOPE FOR FURTHER DEVELOPMENT:

The national commission on agriculture has estimated the total export and domestic consumption requirements by 2000 A.D. at 7.0 lakh tonnes. It calls for augumenting yields in the existing plantations through uses of technological advances and new planting with high yielding genetically superior planting material in selected sites, and also for identifying lands suitable for cultivation of cashew in this country.

Land that is suitable for the cultivation of cashew, in areas not under cultivation at present can be identified for ideal cultivation if it satisfies the conditions required for the ideal growth.

TEMPERATURE:

The flowering of cashew is sensitive to temperature conditions. Low temperature delays flowering. The most favourable annual temperature of cashew lies between 24° - 28° C.

RAINFALL:

There is a strong relationship between the performance of cashew and the availability of water in the soil . For proper vegetative development and regular fruit setting, cashew ought to enjoy an average annual rainfall of 1000 - 2000 mm over five to seven months with a clearly defined dry season of proportionate length.

HUMIDITY:

If the relative humidity drops below 10%, the flowers get burnt and the small nuts may shrivel, turn black and drop, excessive humidity favours the growth of fungi. Hence the humidity should be moderate.

SOIL:

Cashew can be grown on a wide variety of soils. Cashew requires a well drained soil, as it cannot withstand bad drainage, stagnating water and flooding. The best soils for cashew are deep fertile, well drained sandy loam soils without a hard-pan with the water level at a depth of 5 to 10 metres.

TOPOGRAPHY:

Cashew can be planted on all slopes with appropriate soil conservation measures.

On the basis of the abovementioned criteria a total of more than 3.25 lakhs hectares of land in the states of Kerala, Karnataka, Tamil Nadu, Andhra Pradesh and Orissa seems to be ideal for cashew cultivation. India being a tropical country and because of its geographical condition more areas suitable for cashew cultivation are bound to be available in most of the states, but their exact location and quantification would require field surveys.

TABLE - 11

3 4 2 AREAS IDENTIFIED FOR NEW CASHEW CULTIVATION IN KERALA, KARNATAKA, TAMIL NADU, ANDHRA PRADESH, ORISSA, MAHARASHTRA & GOA.

STATE/DISTRICT	IDENTIFIED AREAS	AREA IN HTS.
ANDHRA PRADESH:		
PRAKASAM	In the villages of Mannaru, Charala, in Kandukur Taluks.	1000
GUNTUR	Rapalle, Divetalu Taluks.	1000
NELLORE	Cultivable waste land in Coastal Areas.	5000
KRISHNA	-do-	1200
EAST GODAVARI	Rajamundry, Somalkot, Peddapuram, Kakinada, Tuni.	1200

STATE/DISTRICT	IDENTIFIED AREAS		AREA IN HTS.
VISHAKAPATNAM	Bhimunipatna, Anakppali, and Vijayanagaram Uplands.		2000
SRIKAKULAM	Palasa, Bendigate		6000
KARNATAKA:			
NORTH KANARA	Ghats area		45000
SOUTH KANARA	"		
KOLAR	Cultivable Waste lands.		3000
MYSORE	Cultivable Waste lands.		4000
Bidar	-do-		3000
KERALA:			
CANNANORE	Kasargod Taluk, Upper Slopes		8000
	Hosdurg Taluk -do-		9500
	Taliparamba Taluk -do-		14500
KOZHIKODE	Badagara Taluk	200	
	Quilandy "	300	
	Kozhikode "	1250	1750
MALAPURAM	Ernad "	1000	
	Perinthalmanna "	2000	
	Tirur "	1250	
	Ponnani "	50	4300
PALGHAT	Manarghat "	1000	
	Ottapalam "	2000	3000
TRICHUR	Talapally "	1000	
	Mukundapuram "	200	1200
ORISSA:			
BALASORE	Cultivable Waste Land		3000
BALANGIR	-do-		4000
CUTTACK	-do-		3250

STATE/DISTRICT	IDENTIFIED AREAS	AREA IN HTS.
DHENKANAL	Cultivable Waste land.	27100
GANJAM	-do-	10000
KALAHANDI	-do-	12000
KOLAPUT	-do-	26500
MAYURBHANJA	-do-	6500
PHULBHANI	-do-	10750
PURI	-do-	5000
SAMBALPUR	-do-	9000
SUNDARGASH	-do-	35500
TAMIL NADU:		
RAMANATHAPURAM	Sivarganga, & Tirapthur Taluk	6500
TIRUCHIRAPPALLY	Sandurai, Tiruvarambulam & Audimandam Taluk.	2000
S. ARCOT.	Kallakurichi, Tiruvilur & Vridachalam Taluks.	4500
TIRUNELVELI	Mid land.	9000
THANJAVUR.	-do-	8000
CHINGELPUT	-do-	10000
KANYAKUMARI	Thovala Taluk.	3000
GOA:		
GOA	Satari and Sangum Taluks.	5200
MAHARASHTRA:		
RATNAGIRI	Undulating & Hilly Areas	4000
KOLABAR	Kogal, Ajera, Chandgad, Padhangiri, Ganjanbawda Taluks.	10000

Reference - K.P. KANNAN - Cashew Development in India.

C H A P T E R - IV

CASHEW IN KERALA COST AND ITS SIGNIFICANCE:

4 1 0 INTRODUCTION

Cashew as a rare fruit, one on which the nut stayed outside was introduced by the Portuguese settlers about four centuries ago, not for harvesting nuts but for checking soil erosion. The plant has found hospitable environment and has established itself just as at its native home.

Centuries rolled by, and the days of cashew as a tasty and nutritive food had arrived. The economic and commercial value of cashew also came to be recognised, though belatedly, new entrepreneurs came into the picture and those with foresightedness ventured into the cashew expert business. The pioneering spirit of the early entrepreneurs and the unsurpassed skill of Kerala Women in extracting kernels from the nuts made a start of the industry much early in the century at Quilon in the state of Kerala around which the phenomenal trade of the latter years was built.

Relatively small capital investment, low level of technology, availability of skilled labour in abundance, constant growth of world consumption, expanding markets and invention that enhanced the storage life of cashew, aided by the raw nut supplies from the East African.

Countries to supplement the indigenous supply of raw nuts, had contributed to the rapid proliferation of processing units.

The speed of the growth of the industry was so great and the kind of expansion which might formerly have taken centuries to accomplish was achieved in the matter of decades. For quite a long time we were enjoying a virtual monopoly in the export of cashew kernels and the foreign exchange earnings were increasing by leaps and bounds. It was in this phenomenon of rapid and persistant growth of the industry, that the benefits were accruing only to the aristocracy of the society and not to the workers of the cashew industry.

This did not last for long, and for the first time in the history of the cashew industry in the seventies, we saw the sudden reversal of the growth. The golden age was followed by the Dark age, the feast by the famine. For the majority of cashew workers long periods of under employment anda meagre return have been the basic facts of the industry. Until a couple of years ago, Kerala was the home of the delactable Indian cashew nuts, but now she has a story of unrelieved gloom, sordid in its details, with all the elements of persecution, blackmail and unalloyed greed.

From the day the first cashew factory came into existence, decades ago, it was all hunky-dory for the private industrialists. Though local production of raw nuts was not adequate it could be liberally imported from East Africa. Occasional strikes sponsored by competing trade unions, were minor pin pricks and could be dealt with.

Then came on the scene the Government owned cashew Development Corporation which took over a number of factories and began processing on its own, to put a stop to the free wheeling tendencies of the private processors and to save atleast a section of the work force from the worst type of exploitation. Import of raw nuts also came to be restricted and canalised through the Cashew Corporation of India. Local procurement of the commodity was entrusted, on a monopoly basis, to the Co-operative Marketing Federation. All thought that after the setting up of the Cashew Corporation of India and Cashew Marketing Federation, the empire building tendencies of the cashew barons would come to an end. But they were a hardened lot and would not go down that easily. They collect whatever amount of raw nuts was available under the counter, smuggled them to the neighbouring Tamil Nadu where labour was cheap and trade unions less

organised and they were cock-a-snook at the local trade unionists and the state Government which were trying to be the spokes in the cashew wheel.

That was the beginning of the crisis, a solution to which is nowhere in sight. While the worker starves and the Government and the trade unions produce the required noises and leaves a tale of private avarice, public apathy and governmental bungling, thousands of workers with the lines of poverty etched on their faces are the hapless, starving spectators.

The basic problem of the industry is shortage of raw nuts. To give full employment to the entire work force of over a lakh and a half, over four lakh tonnes of raw nuts will be required. The indigenous production is less than half of this, while the imports have almost dried up in the recent years.

4 2 0 KERALA'S PRESENT POSITION:

PRODUCTION, SUPPLY & PROCUREMENT OF CASHEW IN KERALA

Kerala is one of the principal cashew growing states in India and it accounts for 2/3rd of the cashew produced in the country while the area is only 1/3rd of the total area under cultivation of cashew. The yield per hectare of cashew is the highest in the country but the availability of indigenous nuts was never sufficient to feed the factories on a regular basis. The production of nuts in the state was estimated to be less than a lakh tonnes. The figure has remained static for the past few years. The factories in the state require 4 to 5 lakh tonnes of cashew to provide employment to the workers throughout the year. The processing capacity of the cashew factories in the state was built up with the help of imports. Since the indigenous production was very limited the factories were all along depending very heavily on the imported raw nuts. In fact more than 60% of the raw nut requirements of the industry was met by the imports. The imports since of late have dwindled very much and in 1980 it was only 20,000 tonnes while it was nearly 2 lakh tonnes in 1972. The sudden decline in the level of imports, owing to the various changes that took place in the traditional supplying countries, brought

the industry, which was of great socio-economic importance to the economy of the state, to a standstill. In order to save the industry the Government of India set up the C.C.I. in 1970 for stabilizing the price of raw nuts available for processing and for its equitable distribution. They canalised the import of raw nuts which was managed completely by the private trade.

The canalisation policy of the C.C.I. (which was securing large quantities for the processors from the East African countries) was not challenged and questioned till 1976; but after 1976 it became increasingly difficult to secure raw nuts and the private agencies forced the government of India for decanalising the imports. The Government of Kerala opposed such a relaxation policy for fear that it may adversely affect the deteriorating position of the cashew workers in the State. Under the canalisation scheme, despite all its limitations, the factories in Kerala were eligible for 80% of the imported raw nuts since a majority of the factories were located in Kerala at the time of canalisation. Relaxation of this policy allowed the processors to import raw nuts freely, freed them from their obligation to process the raw nuts in factories in Kerala, and helped them to divert imported raw nuts on a large scale for processing in factories outside the state in areas where the wage rates were very low.

Relaxation has strengthened the interests of big processors. Further they found it economical to import the raw nuts directly and half the nuts imported by them could be processed anywhere and this enabled them to openly divert the processing to the areas outside Kerala.

Though the C.C.I. had helped the Kerala processing industry for a long time, it was also responsible for the present situation of the industry. The C.C.I.'s offer of lower prices as well as its belated entry in the international markets for the raw nuts helped other countries in developing their processing industries and also created a competition for the available raw nuts from all over the world.

The history of the C.C.I. as a monopoly organisation has made it amply clear that this organisation had failed in importing larger quantities of raw nuts. It is evident that the C.C.I.'s canalisation, partial decanalisation and full decanalisation policies in the 1970's and 80's had not saved the Kerala Processing industry from the crisis it was facing. The import policy of the C.C.I. in different periods only led to elimination of many small and medium processors from the trade. It was all standing for the interests of the big processors. Had the canalisation not been imposed,

the story of imports of raw nuts and the export of Kernels and the position of the Kerala Cashew Industry as a whole would have been quite different, without ruling out the fact the price of cashew kernels would have been higher and there would not have been any stability in the price of imported raw nuts.

In 1955 the Government of India with the object of promoting the export of cashew kernels and CNSL organised the Cashew Export Promotion Council. In 1963 the Export Inspection Agency was formed for Quality Control and for the Pre-shipment Inspection of Exports. It is relevantly enquired whether these National Organisations have done anything worthwhile for the Kerala Cashew Industry. It can be even said that the Kerala Cashew Industry would have flourished and achieved greater laurals even without the help of these agencies.

Keeping all these in view, it can be stated that the Kerala Processing Industry is not going to survive unless indigenous production is stepped up. To understand the nature of the crisis in Kerala and to find out means to stabilize the industry it is necessary to have a clear perspective of the special features of the Industry.

ANALYSIS OF PRODUCTION PATTERN OF CASHEW NUTS IN KERALA

Cashew as a crop has not been taken seriously by the farmers. It was grown more as a means of checking soil erosion and as a source of fuel supply. This was because cashew was treated as a wild crop and found mainly on lands unsuitable for cultivation of other remunerative crops. The crop has never received systematic manurial irrigation and plant protection care; still the crop has been generous to us. Even in the midst of these heart-burning indifferent treatments, it continued to flower and bear. The growers were not motivated in taking up cashew cultivation in the early days because of poor economic returns compared to that of the other cash crops like pepper and cardamom. The poor economic returns and low production can be attributed to a large proportion of plantations consisting of self-sown seedlings. As the years rolled by, after the recognition of the commercial importance of the crop, we witnessed a shift from wild production of cashew to production on commercial lines.

The area under cashew as well as the raw nut production has been increasing in Kerala, the home of several cash crops, till the mid seventies. Thereafter

although the area under cashew was increasing the production has stabilized to around 80,000 tonnes annually. The following table shows the area and production of cashew in Kerala during the last 3 decades:

TABLE - 12

4 2 1 AREA AND PRODUCTION OF CASHEW IN KERALA *

YEAR	AREA IN HECTARES	PRODUCTION IN TONNES.
1952	35,410	54,750
1962	82,120	92,040
1972	1,00,661	1,12,943
1977	1,18,139	1,29,020
1978	1,40,748	84,527
1980	1,47,891	83,843

* Source - State Planning Board and Bureau of Economics and Statistics, Trivandrum.

The indigenous production of raw nuts even in the peak periods was not sufficient to meet the needs of the processing industry of the State. To feed the processing industry in Kerala with indigenous raw nuts, schemes for the development of cashew were implemented even in the second Five Year Plan itself, and even in 1950's ad-hoc research schemes on cashew were started for standardising methods of cultivation. Efforts were made both in private holdings and Government owned areas to increase the area under cashew. Various incentives and assistance were given to the growers. The departments of Agriculture, Horticulture, Soil Conservation and Forest in the State were responsible for increasing the area under cashew in Government lands. More intensive efforts on cashew development programmes were put from the next Five Year Plan onwards.

The Kerala Agricultural Department started another research station at Anakkayam in 1963. The ICAR sanctioned All India Co-ordinated Project in the Fourth Five Year Plan for the improvement of cashew with its head quarters at the Central Plantation Crops Research Institute at Kasargod. Future planning for cashew nut development in the state is under way.

INTENSIVE DEVELOPMENT:

Considerable research has been undertaken by the ICAR on the genetic development of cashew with the object of increasing the yield rate. Improved methods of crop production, plant protection methods, scientific use of fertilizers, etc., were implemented as part of the effective crop management.

EXTENSIVE CULTIVATION:

This comprises of the area development of cashew by the public sector as well as the private sector enterprises. The Private Sector in Kerala is represented by the Small holders while the Public Sector Enterprise has been undertaken by the Plantation Corporation of Kerala.

PLANTATION CORPORATION OF KERALA LIMITED:

The Corporation was established in 1962 for the development of the plantation industry with its head quarters at Kottayam. The Corporation is engaged in the cultivation of cashew on a large scale and it owns a number of cashew estates extending to over thousands of hectares in the different districts of the State. At present, the Corporation

has taken up cultivation on a very large scale with the assistance of the World Bank under the Kerala Agriculture Development Programme. The World Bank extension of finance for cashew production programme in the state of Kerala covers the undulating midlands in the districts of Cannanore, Calicut, Malapuram and Palghat.

The project envisages provision of finance over the five year period from 1980-84. Provision of adequate infrastructural facilities, extension services, and credit institutions are represented in the project areas. Land Development Banks, Rural & Commercial Banks have Co-operated in extending Credit Facilities.

The World Bank Project covers an area of 12275 hectares in Kerala, out of which 10000 hectares are for new planting by small holders and 2275 hectares for new planting by corporations. The Plantation Corporation of Kerala is currently diversifying itself into cashew Corporation and Palm Oil Corporation with separate divisions for them.

Though there has been significant increase in the area of production as well as in research donefor increasing the yield under the various projects and during

the successive plan periods, the productivity of cashew did not improve satisfactorily.

MARKETING OF RAW NUTS:

Marketing of raw nuts in the early days was not organised in a systematic manner. The ungraded produce was bought by the itinerant merchants who visited the growers' premises for the collection of nuts during the harvesting season.

After the setting up of the processing factories in the twenties, the collection of indigenous raw nuts produced in the state and the distribution among the processing factories went to the hands of the agents of private processors, who opened collection centres in important producing areas for buying nuts directly from the farmers. The petty dealers who bought the nuts from the growers also disposed of the nuts in these depots. As there are a number of intermediaries operating in the field between the primary producer and the processing unit, the different costs and margins in the total spread between the producer and the processing unit are quite significant and the producer's share in the price paid by the processing unit is generally low.

Malpractices like underweighing, unjustified cut for supposed inferior quality, delayed payments, payment in instalments without interest etc. were widely prevelent. In the event of a bumper crop the price would naturally fall and the growers would have to be contented with a lower price, since most of the cashew growers in the state were small and marginal farmers. Prospects of unremunerative prices for raw nuts had not enthused them to increase production. Most of the processing companies were also at a disadvantage in as much as they, not being able to collect nuts in competition with the big processing companies, failed to provide employment to their labourers and forced them to close their operation rendering large labour force jobless for a major part of the year. The economic exploitation of cashew growers and the jobless workers had been a source of grave concern to the State Government.

The exigencies induced the state government to effectively intervene and to introduce monopoly procurement of raw nuts produced in the state. This served the twin objectives of ensuring remunerative prices to the cashew growers for their produce, thereby making cashew cultivation a profitable proposition, leading to increased production through the application of modern

agriculture practices, and of securing equitable distribution of all available indigenous raw nuts among the processing factories according to their muster roll strength.

LEGAL ENACTMENTS:

With the object of saving the cashew industry from gradual extinction, the State Government requested the Central Government to declare cashewnut as an essential commodity. This request was not acceeded to by the Central Government and the State Government therefore issued the Kerala Raw nuts (Movement Control) Order 1975 under the Defence and Internal Security of India Rules 1971, restricting the transport of nuts from one district to another or from any place in the state to any place outside the state without a permit from the Cashew Special Officer. The State Government also declared raw cashew nut as an Essential Article under the Kerala Essential Articles Control Act 1961 and detailed provisions for the purchase and distribution of raw nuts by authorised agents of the Government at notified prices, were issued by the Kerala Raw Cashew nuts (Restriction & Marketing) Order 1976.

In April 1977 the Kerala Raw Cashew nuts (Procurement & Distribution) Order bought the procurement of raw nuts extensively in the Co.operative Sector and

appointed the Kerala State Co-operative Marketing Federation as the sole monopoly agent of the State Government. The Supreme Court on the 23rd of January 1981 squashed this order on the ground that raw cashew nut, though a food article is not an essential article and as such does not come within the purview of the Act under which the order was issued. To overcome the crisis caused by the judgement of the Supreme Court, the State Government, promulgated on 3rd February 1981 in Kerala Raw Cashewnut (Procurement & Distribution) Ordinance 1981, under Article 213 of the constitution, treating cashew nut as an essential raw material of the cashew industry, retaining the raw nut procurement within the Co-operative sector with the Marketing Federation as the exclusive agent of the Government.

PRESENT PATTERN OF MARKETING:

KERALA STATE CO-OPERATIVE MARKETING FEDERATION

The Federation is an apex body of over 70 Taluk Level Marketing Societies spread over the entire state of Kerala. The Federation was formed to provide marketing support to the cultivators of the state for their agricultural operations, to ensure fair prices for the produce by eliminating exploitation. The Federation

over a short period of its existence entered into a wide range of marketing activities covering produce like Pepper, Cardamom, Ginger, Turmeric, Copra, Cocoa, Cashew etc. The Federation has an extensive net work of societies for the distribution of fertilizers and other inputs required by the agriculturists. The Federation is one of the Major exporter of spices and the sole exporter of cocoa beans from India.

The Federation was nominated as the sole agency for the procurement of cocoa, besides cashew from the state. The current dealings in the sale of cashew nuts produced within the state comprises of the following operations:

Growers are required to sell their cashewnuts only to agents or sub agents of the Federation, who shall not refuse to purchase any raw nuts offered to them for sale. The agents are required to furnish a weekly return to the Government showing the place or places where the raw nuts have been stocked by them, the quantity thereof, the price paid by them etc. The agents are authorised to appoint any co-operative societies as their sub agents for the purpose of procurement and every sub agent is also required to submit a return to the respective agents on the stipulated dates. The agents/sub agents are however prohibited to process raw nuts or sell them except in accordance with

the provision contained in the ordinance in this regard. It further stipulates that no person other than the agent/ sub agent can hold at any time raw nuts in excess of 50 Kgs. The ordinance has also placed restrictions on the transport of cashewnuts produced in the state. However there is no restriction on the movement of raw nuts by cultivators to agents/sub agents for sale thereof. The growers are expected to keep safely the bill they receive from the collection Depots as and when the sale is effected. The growers should demand for the bill in case it is not given to them. These bills if kept safely will enable them to a bonus which will be given by the federation if the processing industry gets a profit. All raw nuts purchased by the agent/ sub agents are required to be sold to cashew factories in the state registered in pursuance of Rules made under the Factories Act 1948 and which are eligible for imported raw nuts. The eligibility criteria governing the quantity of cashewnuts to be sold to the factories are muster roll strength or the licensed strength of workers in the factory as on Jan-1-1976, whichever is lower and the quantity of raw nuts purchased by the agents/sub agents from time to time as regards the sale of raw nuts to eligible factories by the agents. The offer of sale to such factories will stand cancelled if raw nuts are not taken delivery of within 7 days from

service of the requisite notice by the authorised officials. The Ordinance rests adequate powers with the competent authorities to sieze raw cashew nuts whenever contravention of the ordinance is being or is about to be committed and to avoid penalties for such contravention of the ordinance.

PROCUREMENT PROCEDURE OF THE FEDERATION:

APPOINTMENT OF SUB - AGENTS

For the effective procurement operations the federation has appointed about 1100 Service Co-operative Societies as sub agents for the procurement of raw nuts, functioning at the village level in cashew producing areas where there are a very large number of individual growers. With such large membership and extensive coverage of growing areas only service co-operative societies are able to provide the most suitable infrastructure for implementing the cashew procurement programme. Only agricultural societies and societies exclusively formed for the Welfare of Harijan & Girijan Communities are eligible for appointment as sub agents by the Federation. After being selected as sub agents, procurement operations can be undertaken by them only after completing the formalities laid down by the Federation, just as execution of agreement in the prescribed form, and receiving appointment order.

OPENING OF COLLECTION DEPOTS BY SUB AGENTS:

Sub agents would set up sufficient number of collection depots/collection agents and appoint Depot Managers in their allotted areas with the sanction of the Zonal Officer. As far as possible, collection Depots are to be set up in the producing centres. There are about 7000 collection Depots/Collection Agents operating in the field of procurement.

OPENING OF DRYING YARDS:

The Federation has opened 75 drying yards having a drying area of 15 lakhs square feet in the various districts of the state and has also provided godowns for storing the dried raw nuts.

ZONAL OFFICE:

The Federation has formed 11 Zones for making effective supervision over the sub agent societies, Collection Depots/Agents and Drying Yards. As far as possible Zonal Offices are set up at the Drying Yards situated at the Zonal Head Quarters. In almost all the districts the Zonal Divisions have the same boundary as the Revenue Districts. But in Cannanore which accounts for 40% of the total procurement in the State has 3 Zonal Divisions.

FINANCE:

The finance required by all sub agent societies together in the state would be funds to the tune of roughly Rs. 15 crores for the estimated procurement targets during the peak period of procurement ie, during the month of April. The District Co-operative Banks in the state cater to the requirements of the societies. When the societies deliver the stock at the yards of the Federation payment is to be made to the societies. The funds required by the Federation for such operation are sanctioned by the Kerala State Co-operative Bank with the approval of the Reserve Bank of India.

DISTRIBUTION OF NUTS TO THE PROCESSING FACTORIES:

The eligibility criteria for the allotment of indigenous raw nuts to the processing factories are the same as for imported raw nuts, according to which 194 factories out of the 270 in the state are eligible for allotment. The competent authority for making allotments is the cashew Special Officer. The Federation delivers the dried nuts to the factories against allotment orders on payment of the allotment money to its financing bank.

QUALITY CONTROL:

Quality loss played havoc in the cashew procurement in the early years. The Federation has lost heavily because of the reluctance of the processors to take allotment of

raw nuts in view of their poor quality. Lately, only quality nuts are collected by adopting strict quality control measures, in the face of sharp criticism from the growers and sub agents. Untimely rains also caused trouble making the drying operations a tough task.

VIGILANCE:

Whenever there is monopoly procurement considerable smuggling of cashew out of the state takes place. To check this smuggling of cashew about 100 checkposts including the existing checkposts of the Salestax Department were set up. District level Vigilance Committees have also been constituted under the Chairmanship of the District Collectors. The representatives of the political parties and trade unions are also included in the Vigilance Committee together with the concerned officers of the Government.

PROCUREMENT PRICE:

The year 1983 is the seventh year of implementation of monopoly procurement programme, factors influencing the fixation of raw nut prices now are the price of cashew kernels in the International Markets as well as the price of imported raw nuts. Since both these prices have gone up considerably the government have fixed the procurement prices in the various districts at higher levels than in the previous years.

PERFORMANCE OF THE FEDERATION (K.S.C.M.F.) IN THE PROCUREMENT OF RAW CASHEW NUTS.

The Federation could show substantial progress in procurement during the initial stages when monopoly procurement was introduced in 1977. In the year 1977 it collected 68191 MTS in 1978 79293 MTS, in 1979 37144 MTS and 1980 60781 MTS of raw cashew nuts. The following table shows the districtwise data of raw nuts procured between 1978 to 1980 and the average comparative prices for raw nuts fixed by the Government of Kerala.

As can be seen from the table, since the last two to three years the procurement of raw nuts has reached a low ebb, due to the reasons given below:

1 Systematic cultivation of cashew received attention only very recently. Till then, cashew was grown in marginal lands under poor management. A large proportion of the plantations consisted of self-sown seedlings attributed to wild or semi wild growth. The older plantations have outlived and their productivity has come down below economic level for any good management and the newly raised plantations have yet to bear economic yield.

2 The problem in increasing the procurement of raw nuts from indigenous production is not so much of non availability of land for the cultivation of cashew, but the very low levels of yield in all the cashew growing regions. The present yield rate of 3-5 Kg/tree is considered to be far below the potential yield of 15-20 Kg/tree.

3 In southern and Central Kerala the area under cashew has been declining at an alarming rate while there has been an increase in the area under rubber. The increase in the area under rubber in southern and Central Kerala during the last two decades was far in excess of the decline in the area under cashew and cashew is progressively being displaced

by other plantation crops not only because of the high levels of income at the present levels of yields and prices but because of the land ceilings under the Kerala Government Land Legislation Act. The following table shows the change in area under Rubber and Cashew in Southern and Central Kerala.

TABLE - 15

4 2 4 CHANGE IN AREA UNDER CASHEW & RUBBER BETWEEN 1964 & 1978 (IN 000 HECTARES) *

DISTRICT	Cashew				Rubber			
	1964	1974	1978	Change	1964	1974	1978	Change
TRIVANDRUM	4.63	4.47	4.35	-.28	4.34	7.64	7.84	+3.50
QUILON	9.30	8.69	8.30	-1.00	23.04	32.38	33.00	+9.96
KOTTAYAM & ERNAKULAM	8.99	7.24	7.09	-1.90	63.48	87.32	88.52	+25.04
TRICHUR	9.32	6.79	6.30	-3.02	6.90	8.93	9.13	+2.23
ALLEPPEY	2.98	3.62	2.90	-0.08	2.50	3.79	4.01	+1.51

* Source - State Planning Board.

4 The indiscriminate felling of cashew trees for fire wood and pulp has retarded the growth and spread of cashew plantations. Apart from this indiscriminate felling, large number of cashew trees were felled down in the state and replaced by rubber planting as the growers were much attracted by the incentives offered by the rubber board.

5 The pest problem caused a serious constraint to increasing the productivity and thereby the procurement of cashew. The stem borer and tea mosquito menance could not be effectively controlled so far.

PROBLEMS OF THE K.S.C.M.F. IN MONOPOLY PROCUREMENT OF RAW NUTS

1 Pricing of raw nuts is a difficult task before the Federation and it plays an important role in the success of monopoly procurement operations. The task before the agency is to ensure remunerative prices to the growers, as well as to see that the price satisfies the processors also for the profitable running of the industry. Being an article of international trade the price of kernels is subject to wide fluctuations. Price fixation and monopoly procurement depends upon three situations:

(a) If the price of raw nuts is low it would act as a deterrent to the growers who would not be enthused to sell the nuts to the Federation.

(b) If the price is high procurement would also be high. However high prices would dissuade the processors from lifting the stock. Such an eventuality can cause damage to the nuts and heavy loss to the Federation.

(c) If the international price falls below the price fixed by the Government on procured nuts, this would result in a crisis in the industry undermining the procurement programme.

2 The entry of the Federation into the area of procurement operations late in the season indirectly helps interstate smuggling of cashew especially in the early stages of the crop season. The reason adduced for the late entry of the Federation is the paucity of funds with the Federation in its early stages of operation and because of the delay by the Government in fixing procurement prices.

3 Low wages in the neighbouring states as well as the helpful attitude of labour coupled with loop holes in procurement operations had led to large scale smuggling all along the state borders.

4 In view of the uncertainties as to the very legality of centralised procurement operations in Kerala, the Federation is unable to evolve any long terms strategy for the procurement of nuts which can avoid monetary loss on account of inadequate planning.

COMPLAINTS AGAINST THE K.S.C.M.F.:

1 The Federation, it is alleged, does not dry the nuts properly which ultimately affects the out turn and quality of nuts from the processing units.

2 The processors and exporters have no choice in regard to the nuts allotted to them.

3 It is also alleged by the growers that all sorts of malpractices like underweighing, discard of nuts, etc. by the sub agents of the Federation are largely prevalent.

COMPLAINTS BY THE K.S.C.M.F.:

1 The buying and selling rates for cashew nuts are fixed by the Government and the Federation as an agent of the Government has no freedom to alter them. All expenses in connection with the procurement are to be met out of the margin provided by the Government which is included in the difference between the selling and buying prices. It is the responsibility of the Federation to see that only good quality nuts are delivered to the allottees. Even if defective and inferior nuts are procured, quality standards, at the time of despatch will have to be ensured by the Federation and the loss, if any, on this account also is to be borne by it.

2 There is no undertaking on the part of the Government to compensate the loss, if any, sustained by the Federation in its operation.

However there is a general impression that if monopoly procurement is dispensed with, the growers will get a better price, but it is not so, because in the absence of monopoly procurement the farmers will be at the mercy of the private traders whose main motive is profit making and ultimately the cultivaters will be the losers. The prices fixed by the Government for monopoly procurement of raw nuts over the years have been far higher than the price obtained prior to the monopoly procurement.

There is a clamour for dispensing with the services of the Federation for the procurement of raw cashew nuts and for entrusting it to some other agency. How a different agency can offer better results than the Federation is still a question. The Federation has a staff whose expertise and experience in this field, acquired over the years cannot be matched by persons from any other agency.

The problem of price fixation of raw cashewnuts by the Federation and the alleged complaints of the growers of underweighing, discard of nuts on the ground of low quality standards and the resultant low prices to growers

and the higher rates that can be obtained in the neighbouring states, the Federations belated entry into the market, low wage rate and liberal treatment by the processors of neighbouring states led to a situation where large quantities of raw nuts are clandestinely smuggled across the borders to the neighbouring states particularly Tamil Nadu. The share of such smuggled nuts in the total nuts produced in the state is said to be over 50% and in the absence of restriction on movement of cashew across the borders perhaps very little raw cashew nuts are likely to be available to the local industries resulting in a large scale displacement of local labour.

4 3 0 SUGGESTIONS:

The following are the various suggestions to overcome the difficulties and to increase the overall effectiveness of the K.S.C.M.F.'s procurement operations:

1 In order to avert the important problem of the price fixation of raw cashewnuts and to arrest large scale smuggling of raw nuts from Kerala and for the effective overall procurement operation, the Government has either to fix a remunerative price for raw nuts based on the cost of production and current rates for kernels in the international markets or atleast those ruling in the preceding year; or the Government has to fix some sort of a base price for the raw nuts in the first instance on parity with the average international price for the cashew kernel in the preceding year and to make the processing industry share its profit in excess of the realisation, with the growers by a system of bonus or some similar arrangement. Thereby both the interest of the grower and the industry can best be safeguarded.

2 To eliminate the general feeling among the growers that cashew cultivation is not a profitable proposition, the Government may consider fixing minimum support prices

for cashew. Such a measure would provide the necessary impetus for the growth of cashew plantations in the country, leading to a considerable increase in the supply of indigenous nuts.

3 Cashew is an annual crop and the season normally is between February and June with varying yields. Yields varying every year depends upon the vagaries of nature, such as rainfall, moisture, fog, etc. and hence forecasting of production for any year is difficult. So the Federation should start the procurement operation before the commencement of the season to combat active smuggling which takes place in the early part of the season. For this adequate finance should be made available to the various levels of operation well in advance.

4 The lack of good marketing facilities and payment of inadequate price to growers and collectors have been one of the serious threats of the Federation. To ensure better results of procurement, better marketing facilities in the cashew growing regions will have to be adopted. This would also help in minimising the wastage of cashew produced in the country. Besides, the setting up of large number of collection centres has helped to strengthen the procurement operations by eliminating the necessity of the growers to travers large distances to sell their produce.

5 In view of the open market trade in cashew in the other states and in the light of the recent directive of the Government of India decanalising the import of raw nuts, the Government of Kerala should consider having an open market, free trade in raw nuts produced in the state, on the condition that at least 50% of the nuts purchased by the individual processors is tendered to the Federation for distribution to the eligible factories in the state. The Government should also stipulate that raw nuts purchased by the individual processors in the state should be processed in the factories situated in the state itself. The movement of raw nuts across the state borders should however be prohibited and the prohibition should be enforced strictly. This would not only ensure better prices to growers but also eventually lead to a tapering off inter state smuggling. The Government should also fix lower and upper ceiling rates for purchase of raw nuts by individual processors.

6 The principal cashew producing areas are concentrated in Cannanore, Malappuram, Quilon and Trichur Districts which together account for 75% of the total production in the state. To make a success of the procurement programme concerted efforts in these districts are essential. The Government should tighten anti-smuggling measures in these four major cashew growing districts. In fact in

Cannanore District about 50% of the nuts produced are procured, while in the other three districts about 60 - 80% nuts are procured, the balance being generally smuggled out.

7 In order to avoid the alleged complaints from the processors for improper drying of raw nuts by the Federation which affects the quality of the kernels etc., the Federation should ensure that proper drying is done and also allow inspection of raw nuts or permit cutting tests prior to their delivery and also ensure proper packing of nuts.

8 To ensure good quality in regard to raw nut procured by it, the Federation may educate the cashew growers to desist from the undesirable practice of collecting unripe nuts.

9 Transport of nuts from the collection centres of the sub agents to the drying yards of the Federation should be the responsibility of the sub agents themselves for which they should be paid on a slab scale.

10 Due to some reason or the other most of the sub agent societies of the Federation prefer setting up of agency depots rather than direct depots. The Federation should persuade them to set up direct depots by diverting

the services of their own staff. The societies in Quilon, Alleppey and Trivandrum Districts heavily depend on hawkers for the collection of nuts from growers for which they are appointed as collection agents. Since hawkers have neither a defined area for procurement nor a permanent place of business it is impossible for the supervisory staff to control their activities. The Federation should therefore, as far as, possible discourage the system of appointing hawkers for collection.

11 At present procurement operations are carried on, on a yearly basis. This involves a lot of additional expenses to the Government as well as for the Federation. If the policy is settled once and for all, the Federation can make permanent arrangements for procurement and plan its operations accordingly.

The following are the various suggestions to increase the level of production of cashew in the state and it would certainly help in improving the overall situation of the industry:

1 Since cashew is found as a wild growth and there is the absence of organised cropping programme, the implementing of proper cropping programme by competent authorities on scientific lines will help in increasing the yield rates.

2 Cashew is generally being planted upto now on the hill slopes with shallow soils, red sandy areas, littoral sand and denuded and degraded hills, The early planting made on eroded soils with a view to rehabilitate them proves the importance of the tree as a soil binder and its ability to rehabilitate degenerated soils. It is however fallacious to think that cashew needs to be planted on such poor soils. In order to obtain higher production fertile areas with deep soils, loamy and alluvial soils are to be preferred.

3 To increase the yield rate of cashew and to improve the overall production standards of cashew, plant protection methods, and crop management should be effectively implemented. In India now cashew is known to be infested by more than 60 species of insects during the different stages of its growth and development. Important among them are the stem and root borers, which are capable of killing the tender shoots, flower bunches and developing nuts. The leaf minor and the leaf and blossom webber, tea mosquito account for more than 30% of the crop lost every year. Though technology is available to control the pest problem by spraying of endosulphan, an effective systematic pesticide applied as a high volume spray and also as a low volume spray at the time of emergence of new flushes, inflorescences

and at the time of fruit set is necessary. A community action for the control of pests is however necessary since spraying insecticides in patches is not found to be effective in controlling the pests. Where extensive areas are to be covered it is advisable to go in for aerial spraying of insecticides. It will be effective and cheaper. The phyto sanitary would be more effective in controlling the stem borer pests.

4 In Kerala, Cashew Plantations come under the Land Legislation Act for land ceiling. If plantation status is granted to cashew and the consequent exemption of cashew farmers from the provision of land ceiling legislation, cashew will not be replaced by other plantation crops. To prevent further shift to other plantation crops in view of the higher returns they offer compared to cashew, the state authorities may have to formulate more suitable schemes under which small cashew growers in particulars are provided with assistance in the form of subsidy, supply of free nuts etc.

5 The Government has to take effective steps both at the administrative and legislative levels for the prevention of indiscriminate and unauthorised axing of cashew trees.

6 The per unit value as well as the per unit productivity of plantation crops are quite high and they contribute sizable amount to the state and Central Exchequers besides generating additional employment potential. Cashew is to be accorded plantation status, it is imperative that a portion of suitable lands is to be allocated for the plantation of cashew.

7 The State Government should consider cashew as a cash crop and evolve suitable measures to expand the cultivation of cashew on scientific lines and not with a view to merely helping in soil conservation or for the prevention of encroachment of Government waste lands.

8 The Government should consider leasing out areas to individual cashew processors or exporters on the condition that the produce from the area would be used solely for export.

9 The Government should impose a levy on the profit realised by the cashew processors/exporters and utilise the proceeds, thereof to subsidise, encourage cultivation, indigenous production of raw nuts etc. The processors on the other hand should use a part of the high margin of profit for increasing the domestic output of raw nuts in their own long term interest which is not however done.

10 In the absence of definite recommendation on the optimum dose of fertilizers for cashew and the spacing of trees, varying norms are being adopted by different agencies which may cause below optimal effect on production. Effective propoganda and advice on judicious and optimal use of fertilizers should be undertaken. Identification and propogation of the root stock and scion material with dwarf characteristics and high yielding nature may be helpful to these issues.

11 There is a popular variety of cashew in Brazil called " THE SIX MONTH CASHEW", that flowers in less than one year. Another variety flowers and fruits throughout the year. Cashew being a seasonal crop in our country, the processing factories will get raw nuts only during the harvesting season, which means that the processing factories will have to be shut down for the major part of the year leaving lakhs of workers out of jobs. If the processing factories are to be worked throughout the year, they have to store up sufficient quantity of nuts, which at the present situation is impossible, for a long period of time. It would be a loss to them since the raw nuts are liable to be spoiled or eaten up by insects and also a huge amount of capital will be blocked. Keeping this in view, research has to be carried out to develop early ripening and late ripening varieties of cashew, like that

of " WINTER WHEAT and SUMMER WHEAT", which will be able to provide the industry with raw nuts throughout the year.

12 About 20-30% of the indigenous production of raw nuts are getting lost before it could ripen for harvesting. This is beemuse it is being used especially in Kerala by the people as a vegetable for the preparation of various dishes unknowingly of the fact that it would add to the national exchequer and to the economy of the state. A public conseience has to be created, letting them know the value of raw nuts.

13 To ensure effective management of cashew plantations taken up for the development of the crop, the minimum size of the block of land has to be fixed at 2000 hectares on the condition that atleast 2 or 3 such blocks are situated within a radius of 15 KMs from each other. In the project areas the poor condition of feeder roads is a constraint and suitable measures should be implemented to improve it.

14 Rehabilitation of existing plantation should be taken up expeditiously.

15 Various existing research agencies should conduct more and regular research for the genetic improvement of cashew and should arrange to disseminate the results of such studies to the field staffs and growers, by means of brochures and the provision of adequate advisory or extension services. A national Cashew Research Centre with adequate number of regional centres for intensifying research in the commodity should be set up.

16 Cashew is a means of preventing soil erosion in the high lands. Research has been taken up for the cultivation of cashew on the coastal plains of Kerala. Crores of rupees is being spent for the checking of sea erosion and it would not be much difficult to cultivate. The World Bank Project in Orissa covers the coastal plains.

17 The present method of estimating area, output and yield need to be replaced by statistically more sound proceedures and made uniform throughout the country, so that more accurate assessment and reviews of the state of cashew cultivation will become possible. To cite an example of the present methods of poor statistical technique production estimate of cashew in the country

as obtained from the concerned state authorities for the year 1980 was only 1.42 lakh tonnes. During 1980, India exported 36856 tonnes of kernel. As the average recovery is about 24% about 1.54 lakh tonnes of raw nuts, out of which 20682 tonnes were imported raw nuts, should have been processed for that export. It means that only about 1.33 lakh tonnes came from indigenous production. The internal consumption is roughly estimated at about 10000 tonnes of raw nuts. Therefore the total production of raw nuts in the country should be about 1.75 lakh tonnes against the official estimate of 1.42 lakh tonnes. Hence it is necessary that correct statistics of area and production of cashew should be collected. Timely reporting schemes on cashew industry should be undertaken to review the status of the industry, to establish costs and returns of raw nut production, processing, kernel, export, local sales, institutional arrangements, etc.

In a densely populated state like Kerala it would be uneconomical to use more fertile land for cashew cultivation. The high man-land ratio and the intense competition for the available land from the various crops, do not give cashew any hope of getting land where more remunerative crops can be grown. The draw back of cashew being grown on relatively poor soil and terrain scattered all over is that it would be

difficult to give cashew the kind of attention that cash crops generally receive, resulting in the low yield per tree. This can be overcome by way of intensive cultivation than extensive cultivation by the adoption of special agronomic practices.

In Kerala one will come across more than two associations of growers for every crop. Some times even before the crop covers an area of 1000 hectares, one will hear the cry to protect the interests of the growers, whose group may include even those who are thinking to grow the particular crop.

In order to improve the overall production, efficiency of cashew plantations, and to ensure better procurement, cashew may be grown in concentrated holdings since close and continuous supervision of cashew gardens is essential to check pilferage. Since the cost of supervision and collection in respect of small holdings is minimal and supervision does not require external help beyond the confines of the farmers household, the Government should through allotment lease out land not exceeding 2 hectares to each cultivator, preferably to members belonging to scheduled castes/tribes for

cashew plantation. The State Government should, under the agricultural Development Programme also take up cultivation of cashew as is done by the Plantation Corporation of Kerala Limited to ensure that the entire crop is produced bearing very little scope for wastage. The Government should make effective propoganda about the economics of cashew cultivation among the people, in order to eliminate the general feeling that cashew cultivation is not a profitable one.

4 4 0 COST OF CULTIVATION AND PROFITS:

Correct data to obtain the cost of cultivation of cashew nut is not available because most of the cultivators do not maintain proper accounts. Whatever quantity harvested is sold. Moreover the cost of cultivation also varies from place to place and it mainly depends on the cost of labour and maintenance.

It is estimated that the cost of cultivation of cashew in Kerala is about Rs 1100/ per hectare for a ten year old plantation when full bearing is expected. The grower will have to incur an expenditure of Re. 1/ per Kg. for collecting the nuts and the total cost of collection per hectare will work out to Rs. 1000/. The total cost of production of raw nuts works out to Rs. 2100/ per hectare. Though with proper management, scientific planting techniques timely fertilizer application and plant protection measures, yields upto 1500 Kg. per hectare can be obtained. It is estimated that the average yield will be from 100 Kgs. per hectare in the fifth year gradually increasing to 1000 Kgs. per hectare in the tenth year. The cost of maintaining one hectare cashew orchard from the sixth year onwards

will be Rs. 1100/ and the total cost for the first five years for establishing the orchards will be Rs. 6000/ at the present cost of fertilizers and labour. However these costs do not include the cost of farm machinery and sprayers.

Thus if we consider the annual recurring cost to be Rs 1100/ and the cost of raw nuts to vary around Rs. 6/ to Rs 8/ per Kg. the break even yield would be less than 160 to 240 Kgs. per hectare or 1.5 Kgs/tree after the trees have started bearing regularly. The average yield in Kerala is reported to be above 5 Kg. per tree for several years.now. With selected planted material and regular fertilizer application, the average yield should be above 10 Kgs. per tree out of which 1.5 Kgs. of nuts per tree could meet the maintenance cost of the orchard and the profit would be the cost of 8.5 Kgs. nuts per tree or nearly 1.5 tonnes of raw nuts per hectare fetching between Rs. 9000/ and Rs 12,000/. The benefit of the grower will be at a minimum of Rs. 5/ per Kg. of raw nuts.

The fertilizer application has been assumed at the rate of 250 gms. of N, 125 gms. of P2 05 and 125 gms. of K20, per bearing tree, (200 trees/ht).

On fourth of this dose will be applied in the first year of planting, half in the second year, three fourth in the third year, and full dose from the fourth year onwards. Plant protection method of spraying endosulfan 35 EC at the rate of 750 ML per hectare, thrice annually is to be introduced. In the long run, there is potential to realise yield upto 2000 Kgs/ht in various cashew growing states under fresh planting. The indirect benefits of the cashew plantations which are not quantifiable are checking of soil erosion on hill slopes and coastal sand dunes, improvement of waste lands, augumenting fuel supply, stepping up the general economic activity with the increased income of cashew cultivation.

PRODUCTION ESTIMATE:

On the basis of the performance of the past production, existing cashew acreage and the programmes planned for new plantation, the following table gives the production estimate of cashew in Kerala.

TABLE - 17

4 4 2 ACTUAL AND ESTIMATED CASHEW PRODUCTION IN KERALA TILL 2000 A.D.

| AREA IN HECTARES | | PRODUCTION IN TONNES |

YEAR	AREA	PRODUCTION	
		ACTUAL	ESTIMATE
1952	35410	54750	
1962	82120	92040	
1972	100661	112943	
1977	118193	129020	
1980	147891	83843	
1985	150000	-	100000
1990	-	-	140000
1995	-	-	180000
2000	-	-	240000

Complied data from various issues of Cashew Journal.

It can be seen from the table that since cashew cultivation was taken up on commercial lines, the area under cashew as well as the production was steadily increasing till 1977. Between 1952 and 1977 production increased by an average of about 6% or nearly 3000 tonnes per annum. From 1977 to 1980 only the area under production was increasing and the production showed a decreasing trend by about 10% or 12000 tonnes annually due to the absence of cultural operation as well as the climatic failures. But now the situation has changed. Intensive and extensive cultivation, of cashew, adoption of scientific methods of cultivation, implementation of the results of the research, and the growing public consciousness together with the better prices offered for the raw nuts have helped in increasing the production in the state. It is now expected that by the mid eighties the production will increase by 6% annually as it was in the fifties and seventies.

Eventhough prediction of the production of raw nuts is arbitrary, under the circumstances, of the increase in area of production and scientific lines of cultivation, the present yield of nearly 5 Kgs. per tree will definitely be increased. If the climatic conditions are favourable if no serious set backs in the cultivation takes place and if all the area under production covers a minimum of 200 trees per hectare and the yield rate reaches 7 Kgs. per tree in 1990 the production will be nearly 140000 tonnes, and in 2000 A.D. the production will be around 240000 tonnes.

4 5 0 PROCESSING:

Eventhough according to official classification, cashew processing is a traditional industry, it has a history of only half a century. Commercial processing started in the late twenties and was almost concentrated in the District of Quilon in Kerala. Till the mid sixties nearly 90% of the total world exports of cashew kernels was accounted for by these factories in Quilon.

Export of a few tonnes of kernels to the north American Market in the twenties may indeed be said to have laid the foundation of the processing industry. The growing demand for kernels coupled with the geographical advantages it had, was the favourable factor for the rapid growth of the cashew processing industry. According to the enumeration done in 1972 by the cashew corporation of India there were about 390 factories in the country with more than 50% of them located in Quilon District of Kerala.

The importance of the cashew processing industry to the economy of Kerala is three fold. It gives employment to about 1.5 lakh people of whom 94% are women, and it provides a substantial income to the processors as well as the growers and in addition it gives to the State Exchequer considerable amount of revenue.

The factories in Kerala have a total processing capacity of three to four lakh tonnes of raw nuts annually, built up on the imports from the East African Countries. The supply of raw nuts, required for processing has fallen for short of the requirement for full use of the capacity in recent years. The inadequacy of raw nuts has resulted in the curtailment of the days of employment for the large number of workers dependent on cashew processing for their livelihood, nevertheless, since cashew processing requires very little fixed capital, profits are high and various administrative regulations have provided incentive for the creation of additional capacity, such expansion has proceeded along with growing underutilisation of capacity and severe unemployment of labour, within the existing, factories.

The processing of cashew in the state is a highly labour intensive activity. The processing technique in Kerala is inimitable and not menable to machines. Indeed factory production is merely a systematic co-ordination of a number of stages in manual processing. Processing can be broadly classified into the following operatins.

ROASTING:

The raw nuts are roasted to make the shell brittle and to facilitate the extraction of the kernel. The roasting process involves soaking the nuts in water, initially raising

the moisture content of the Kernel to restrict the risk of scorching during the process, as well as making it more flexible and less liable to breakage. The raw nuts are sprinkled with water and allowed to remain in moist condition for 24 to 48 hours. This step is known as conditioning. The optimum moisture level at the end of conditioning is reported to be 15 to 25%. The two important points to be taken care of during conditioning are:-

1 the water does not seep through the brown testa;

2 the water should be free from iron contamination.

Iron contamination in the water interact with polyphenolic materials of the testa andthe resultant bluish black complex may give patches on the white kernel.

The earliest process was the pan roasting wherein the nuts are heated on a metal pan over an open fire. Due to the heat and slight charring the shells become brittle. Pan roasting is not followed in organised sectors of the industries. The two important methods of processing now adopted are:

1 Drum roasting.

2 Oil Bath Roasting.

DRUM ROASTING:

The nuts are fed into a rotating red-hot drum which ignites the shell portion of the nut and the ignition starts. The drum maintains its temperature because of the burning of the oil, oozing out of the nuts. The drum is kept in rotation for about 2 to 4 minutes. The roasted nuts which are still burning are covered with wood ash to absorb the oil on the surface. The rate of shelling and outi turn of whole kernels are very high in this method. However the main disadvantage is the loss of CNSL which has a very good expert potential. In addition there will be considerable heat and intolerable fumes in the vicinity of this operation.

OIL BATH ROASTING:

The conditioned raw nuts are passed for 1 to 3 minutes through a bath of heated cashew nut shell oil maintained at a temperature of 190 - 200° C by means of screw or belt conveyor. The vessel is embedded in brick work and heated by a furnace which uses spent shells as fuel. During the roasting the shell gets heated and cell walls get separated releasing oil into the bath.

As the level rises the oil is recovered by continuous overflow arrangement. The roasted nuts are then conveyed into a centrifuge where the residual liquid clinging to the surfaces of the shell is removed by centrifuging. The roasted nuts are mixed with wood ash and sent for shelling, the balance of oil contained in the shell is subsequently obtained through expeller method and by solvent extraction method. This method is fairly automatic and the technique followed in different factories varies to some extent with regard to temperature and time of roasting. However a small percentage of kernels obtained through oil bath process gets scorched and hence do not compare favourably with the white wholes obtained through the drum roasting method. Despite, this, the extraction of CNSL more than adequately compensate the loss due to the minor decline in the quality of kernels.

In Addition to the above two methods in some places only a mild roasting is carried out and shelled by hand & leg shelling machines. In some places, where conventional roasting is prevalent, nuts are exposed to intense sun and the well dried nuts are hand shelled. In this method the complete CNSL remains in the shell and which is later recovered by heating the shells in kilns.

SHELLING:

The second stage in the processing of cashew nut comprises of shelling operations. The nuts after roasting are shelled manually except in some units where hand and leg operated shelling machine are used. The manual shelling is an operation which required some amount of dexterity. The nuts are knocked two, three times on each of the lens edge by wooden mallets, taking care to see that the whole kernels are released without damage or breakage as far as possible. Such operations are carried on generally by women workers who are required to contribute a basic level of output every day. The wages paid to such workers are generally on their out turn of whole kernels, which is 7 Kg - 10 Kg per 8 hour working days, wages being denied in respect of shelled broken kernels to ensure optimum efforts on the part of the workers and a certain degree of skill in their effort.

HEATING (DRYING), COOLING & PEELING:

After the Kernels are removed from the shells, they have to be dried to reduce moisture and to loosen the adhering testa. To facilitate the removal of the testa, the kernels are heated in a bormah, to the

required temperature. The dried kernels after removal from the bormah are kept aside for one or two days to enable them to absorb some moisture from the atmosphere.

Peeling is the operation of removal of the testa from the kernels. The skin can be loosened from the kernels by the drying which enables easy peeling off. The kernels are then peeled manually. The testa has been found to be an excellent source of tannin.

GRADING:

The next stage in the processing is the grading of kernels on the basis of specifications for exportable grades. There are 25 approved exportable grades depending on colour, size whether wholes or in pieces, on the basis of visual characteristics. The wholes are again size graded on the basis of the number of kernels per one pound. Almost all grading operations, are done manually.

PACKING:

The graded kernels are then packed in 25 lb (nett) tins from which the air is removed and replaced with carbon-di-oxide gas to prevent infestation of

kernels. The tins are packed two in a carton. The nuts are put to quality control tests on a random basis before they finally leave the shores of the country.

For nearly half a century this processing industry was under the monopoly of the private processors. The competition among them brought the traditional industry to the brink of total fragmentation, but the Government of Kerala came forward and put a keel of its own processing industry in the non-capitalistic path of industrialisation.

4 6 0 KERALA STATE CASHEW DEVELOPMENT CORPORATION:

The K.S.C.D.C. was set up in 1970 as a Public Sector Undertaking to combat the ills of the industry and put it back on its feet without in any way being a competitor to the innumerable private sector units saddled with their problems which had its repurcussions on the hapless workers who have the least mobility of labour.

The birth of the unit with the help of the Central and State Government was a compulsive one, since it aimed at infusing new life and vigour into a highly labour intensive and rather moribund industry employing lakhs of workers.

The growth of the K.S.C.D.C. was phenomenal. Starting with 3 factories in 1970, the K.S.C.D.C. at present runs 34 major cashew factories employing about 36000 workers and staff. From 1973 onwards the K.S.C.D.C. continues to be the biggest processor and exporter of cashew nuts in the whole of India. From the point of view of employment it is the biggest public sector undertaking in South India. Accounting for about a quarter of the total processing capacity in Kerala, the K.S.C.D.C. has attained a commanding position in the

field of processing. The President's merit Certificate for outstanding export performance was awarded to it for 3 years. This honour is a factual recognition of the unmistakable trend of the progressive expansion and consolidation of the Public Sector in the field of Cashew Processing and Exports.

The factors that paved the way for the remarkable growth of the K.S.C.D.C. are the concerted demand of the organised working class in Kerala for the expansion of the Public Sector in Cashew Industry, the effective support of overwhelming sections of the public, the central Trade Unions, all Political Parties, the State Legislature, the State as well as the Central Government unstinted co-operation of its workers and staff and the timely financial assistance and guidance from the State Government.

ROLE OF THE K.S.C.D.C.:

More important than the rate of growth is the progressive role of the K.S.C.D.C. in the field of Cashew Processing. This was borne out by the significant changes which took place in the cashew industry of Kerala in the recent past.

1 The K.S.C.D.C. fought hand in hand with the Cashew Workers and State Government for the Welfare of the workers and of the industry in general. It was first in the field to oppose open General Licence for import of nuts and for the establishment of a new policy of rawnut allocation to the processing units based on the number of workers employed and prohibitation of unauthorised diversion of allotted nuts from one factory to another.

2 The K.S.C.D.C. which has implemented the minimum wages laid down by the State Government which were deemed over much by certain interests has proved that the minimum wages need not in any way affect outputs and reasonable profits.

3 The K.S.C.D.C.'s willingness to take over factories of the recalcitrant private processors has considerably strengthened the position of the cashew workers even in the private factories.

4 The systematic increase in the rate of bonus and betterment in the service conditions, fringe benefits, Minimum Wages, D.A., Leave Facilities, P.F., Gratuity etc., of the workers of the K.S.C.D.C. are fast catching up in the private sector units also.

Another pace setting activity of the unit has been its management policy which had led to cordial industrial relations. There are multi tired negotiating forums starting from factory level, in which problems arising are thrashed out and finally put, if needed to higher forums and finally to the sub committee of the Board of Directors, in which the labour force is fully represented.

The management set up is unique. The predominant number of members on the Board are representatives of accredited trade union's in the industry. This has contributed largely to providing a congenial climate for harmonious industrial relations.

It would be desirable if measures are taken to ensure economical working of the factories through reduction in overall costs, especially in the backdrop of falling cashew nut shell liquid prices. Processing factories should examine the feasibility of introducing semi mechanised processing in cashew factories to improve the overall profitability of the industry in consultation with their unions.

The State Government, in co-ordination with the Central Government, should take immediate steps to examine the prospects of setting up industries engaged in processing the bye products of cashew industry. It should also examine the scope for the establishment of industries engaged in the processing of cashew apples.

4 7 0 CASHEW PROCESSING IN KENYA AND BRAZIL:

Processing of Cashew nuts in Kenya is mechanical. The raw nuts are first fed into a set of mechanical units for cleaning after which they are separated into nuts of three sizes mechanically as large, medium, and small nuts. These nuts are then conveyed into three different hoppers according to calibrated sizes. After this they pass though washing cylinders and later to a storage area for humidification to increase the moisture content of the kernels.

The second stage comprises of roasting of raw nuts. Roasting is done through oil bath maintained at a temperature of about 200° C. The nuts are subsequently discharged into a centrifuge to extract excess oil. The nuts obtained from the centrifuge are then cooled and conveyed to storage hoppers where they rest for atleast 12 hours. The next stage consists of shelling and detachment of shells mechanically. A machine shells about 90 nuts per minute, roughly 20 Kgs. per hour. The nuts discharged from the machines are fed into a group of separation benches; from there on to a sorting conveyer. The kernels are placed into trays and then on to trollies for the subsequent weighing.

The kernels placed on the trellies are then taken for drying. They are subsequently taken for mechanical peeling. The presence of an electronic colour sorter enables rejection of kernels not fully peeled. The peeled kernels are then graded according to counts and then packed in cans filled with carbon-di-oxide before they are finally marketed.

PROCESSING IN BRAZIL:

Cashew nut processing in Brazil is semi mechanised, occupying a position between the almost completely manual practices in India and the mechanical processing techniques in East Africa.

The processing consists first of cleaning the raw nuts followed by their being graded into three sizes, small, medium and large. This is necessary because the nuts are autoclaved to soften the shell and processing by size category prevents scorching. In addition the manual shelling machines are also calibrated to three categories, according to their size. Removal of the shell is done by a simple manual cutting apparatus mounted on a wooden work bench. If the cutting apparatus function's properly and the operator is skilled a total of 35-40 Kgs. of nuts can be shelled in an 8 hour shift. To protect their hands from the

caustic shell liquid, the operators dip them into a pan of vegetable oil as they work. This semi-mechanical system of shelling has some major drawbacks. Firstly, broken kernels are easily exposed directly to the shell liquid which is on the cutter and the work table. Contact with the liquid discolours and affects the taste of the kernel, the cutting apparatus are subject to frequent breakdowns.

After the shell is removed the kernels are heated and then cooled to loosen the testa and facilitate its removal. Once cooled, the kernels are placed in a perforated receptacle where steam jets from a branched manifold removes the skin.

The next stage is grading into their respective sizes. This is done mechanically and manually. The kernels are then packed into air tight cans.

In Brazilian Cashew Processing, women typically perform the shelling, and Grading operations, while men handle the auto claving, removal of the testa and packing.

In Brazil, the shell liquid is recovered by processing the shells after the kernels have been removed. The shell oil is extracted in a single operation by crushing the shells and mechanically extracting the oil.

4 8 0 MIGRATION OF THE CASHEW INDUSTRY FROM KERALA

FACTORS WHICH INFLUENCED MIGRATION

The cashew industry of Kerala has all along been facing a number of problems. The most important among these had been the total inadequacy of raw nuts. From the very beginning the industry had been depending mainly on the imported raw nuts and because of the free availability of imported raw nuts the indigeneous development of cashew cultivation has been hampered. The political and organisational changes in the East African Countries developed their own cashew industries more as a matter of deliberate policy than as a sound economic proposition and this resulted in the drying up of sources of imported raw nuts. To add more to the problem China and Brazil have started buying raw nuts and the competition from other nuts like Walnuts and Almonds in the International markets put the cashew industry in a difficult position.

The cashew industry of Kerala was in the clutches of the private processors for the last half a century. The growing competition among them, absence of long term development policies, rack renting activities to obtain more profits, and the evil practices of the private processors paved the way for the setting up of various public sector undertaking. To stabilize the price of raw nuts, for the effective procurement operation,

to effect equitable distribution and processing of raw nuts, the C.C.I., the Kerala State Cashew Marketing Federation, and the Kerala State Cashew Development Corporation came into existence.

The entry of the C.C.I. as the sole importer of raw nuts and their canalisation policy which ensured equitable distribution of nuts among the eligible processing factories were beneficial to the Kerala Processing Industry. About 80% of the imported nuts were allocated to these factories, since most of the factories were located in Kerala at the time of canalisation. Though the C.C.I. helped to stabilize the prices of raw nuts, the procedures adopted by it for stabilizing the price coupled with the changes that took place in the supplying countries inhibited the flow of imports. In such a situation the Government of India on the recommendation of the C.C.I. and with the pressure exerted by the private processors announced partial decanalisation in 1979, which was followed by complete decanalisation in 1981.

The decanalisation policies, both partial and complete, made it possible for actual users and export houses to import raw nuts against license on condition that atleast 50% of the quantity imported is offered to the C.C.I. and the rest could be processed anywhere.

This relaxation in the policy allowed the processors to import raw nuts directly and helped them to divert more than 50% of the imported raw nuts for processing outside the state in areas where the wage rates are lower. The new import policies also made it much easier for the processors to organise smuggling. The imported raw nuts were taken out, under the pretext that they were allotments made by the C.C.I. to factories outside Kerala and they were then substituted by equivalent quantities of raw nuts purchased from the production within Kerala in order to satisfy the stipulated export requirements.

To ensure fair price for the produce by eliminating the exploitation of middle men, the Kerala Government appointed the K.S.C.M.F. as the Government agency for the monopoly procurement of cashew. The absence of proper pricing policy for raw nuts, lack of long term strategy for the procurement of nuts, belated entry of the federation into the area of procurement operation, various legal battles between the Government and the processors to impose and to suqash the ordinances issued by the Government under different circumstances and the limitations of the K.S.C.M.F. as a Government agency were partially responsible for the migration of the industry.

The setting up of the K.S.C.D.C. by the State Government in 1970, was to protect the interest of the cashew workers in the state and to salvage the industry. The K.S.C.D.C. helped the workers by obtaining for them minimum wages, better working conditions and various fringe benefits which were not given earlier by the private processors. The K.S.C.D.C's take over of the factories of the recalcitrant private processors strengthened the position of the cashew workers and at the same time weakened the entrepreneurial ability of the processors.

The C.C.I.'s decanalisation policy, the loopholes in the procurement operation, the price fixation policy of the K.S.C.M.F. and the K.S.C.D.C.'s challenge in all the levels of competition in the cashew industry in Kerala to the processors made the way easy for the migration of the industry from Kerala.

The introduction of the statutory minimum wages in the cashew industry in Kerala and its revisions in various years paved the way for the shifting of the industry to the neighbouring states where wage rates are deplorably low and encouraged clandestine processing within the state itself.

Only low level of technology being involved, the profits of the industry depend on the exploitation of labour and the speculative buying of raw nuts and disposal of kernels. The Entrepreneurs in Kerala, having limitations to their ability to influence and to have a control over prices, their profitability depends more on the cost of conversion, a major of which is the cost of labour. A majority of the companies in cashew processing and exporting, as much as 91% in 1979 were either proprietory or partnership firms. Exploitation of labour was a major factor in their profitability. They were prone to use every possible technique to avoid paying even their statutory obligations. It is not necessary to catalogue the sharp practices employed by the entrepreneurs both in trade as well as in manufacturing.

Militant Trade Unionism was a natural off shoot. In the peculiar situation of Kerala, political parties with strong working class support, have a major influence on government decision making. Therefore, as a result of the large number of struggles for wage increases wage levels in the cashew industry have been steadily increasing. Between 1953 and 1975 there has been a nearly 7 fold increase in the wage rates.

The normal strategy of the entrepreneurs to meet such increase in wage, will be to introduce technological innovations to improve productivity on the one hand and diversification into other lines of business on the other. For a variety of reasons, the Government policies being one of them, there has been no significant efforts to introduce innovations and increase labour productivity. There has also been no major efforts at diversification.

The strategy of the industry to meet the threat of high labour costs was to evade the law of minimum wages by closing down the factories and having the processing done in the cottages of workers. However, because of the Government enforcement machinery this became increasingly difficult. Therefore they adopted the alternative strategy of shifting their operation to the neighbouring states where the enforcement of minimum wages had not been as strict as in Kerala. As a result half the total quantity of nuts available for processing in Kerala was diverted to places outside the State and the cashew workers in Kerala have been loosing 2/3rd of the working days yearly.

On assessing the extent of shifting of cashew processing to the neighbouring states mainly Tamil Nadu, from Kerala it appears that this diversion took place mainly after 1967 when cottage processing was banned in Kerala. The following table shows the resultant increase in the number of factories in the neighbouring states of Kerala.

TABLE - 18 :

4 8 1 GROWTH IN NUMBER OF PROCESSING FACTORIES

STATE	1960	1967	1972	1980
KERALA	170	211	214	214
TAMIL NADU	..	12	107	308
KARANATAKA	..	7	8	13
ANDHRA	..	30	37	37
MAHARASHTRA	..	8	15	15
GOA	..	5	9	13
TOTAL	170	273	390	600

*Source - C.C.I. Limited, till 1972.
State Planning Board, & Bureau of Economics & Statistics, Government of Kerala.
Report of the Cashew Enquiry Committee.

Between 1967 and 1977 the number of factories in Tamil Nadu, in Kanyakumari District, adjacent to Kerala, increased 20 times, the quantity of nuts processed increased nearly 7 times and the number of workers 12 times. The process of shifting accelerated further after 1975 when the minimum wages were revised last.

SMUGGLING:

FACTORS THAT INFLUENCED SMUGGLING, CENTRES OF SMUGGLING, VARIOUS TECHNIQUES ADOPTED BY SMUGGLERS AND SUGGESTIONS.

Smuggling of cashew nuts started as early as in the Seventies. The setting up of various Government agencies for import, procurement, distribution and processing and their various policies reduced the profitability of the business and thus the private processors were forced to shift the industry to areas in the neighbouring states where the atmosphere was favourable. The loop-holes in the policies of the Government agencies helped them to openly divert the raw nuts from Kerala to such places. Things have came to such a pass that factories in Tamil Nadu cannot work without the raw nuts smuggled out from Kerala. The number of licensed processing units in Tamil Nadu have been growing from year to year, while that in other southern states have been static. The private processors in Tamil Nadu employ various techniques to get the maximum quantity of raw nuts out of Kerala, by offering high prices, thereby providing additional incentives for smuggling. Banning the movement of raw nuts to areas outside the state and deploying the police to watch its movements have hardly been able to contain the flow of raw nuts to other states.

Despite the effective arrangements check posts, Mobile Squads, Vigilance Committee's - Smuggling takes place through scheduled and unscheduled routes of the hill tracks and forest along the border areas of the neighbouring states.

The smuggling activity has spawned a new class of operator, who makes an easy and fast income on every kilo of raw nuts pushed across the state borders. The smuggling of raw nuts has reached such a state that even the consignment of raw nuts despatched by the marketing federation to the Government owned K.S.C.D.C. was recovered from the godowns of a private processor in 1981. Such instances of wheeling and dealing, sometimes with the connivance, overt or covert, of the powers that be are however many.

Smuggling activities are mainly concentrated in the northern and southern part of Kerala. In the Northern Region, Cannanore is one of the major cashew producing areas and it is through this region, that the major part of smuggling takes place. The nuts are smuggled out via Kasargod in Cannanore District to Coorg in Karnataka State. Coorg has become a smugglers' paradise and the commodity traded is cashew. In the absence of streamlined machinery for procurement it

is only natural for the cultivators to try to reach the nearest market and fetch a handsome price. Due to the lack of enough official collection depots of the federation at vantage points, farmers from the Eastern parts of Taliparambu will have to travel more than 100 Kms. and change a couple of buses to hand over the nuts to the federation, that too for a far lower price, than what the agents of the smugglers offer. The smugglers' agents collect cashew nuts in small quantities from house to house at prices far above the one fixed by the Government. The process is going on in all the parts of the producing districts. These unauthorised mobile depots pay higher prices and that too at the door of the farmer. Most of the cashew collected in this mode from Cannanore and its neighbouring districts will get to Makoottam, a border town which has become an important centre in cashew smuggling. Makoottam is only 2 Kms. away from Kettupuzha bridge which connects Kerala and Karnataka State. Due to the belated entry of the K.S.C.M.F., smugglers are smuggling out, the complete raw nuts of the first harvest of around 10000 tonnes from Cannanore district through various points between Majeswaram and Kettpuzha.

Smuggling takes place also through the Eastern Ghats from Maveli to Kottupuzha. Iritty, Analam, Payam, Kottiyoor, Kelakkam, Kaniehar, Perevoor, Muzhakunnu, Punnaadu, Erumathadam, Tellicherry, Koothuparambu, Mattenneor, Thaliparamba and Kambamedu are some of the major points through which cashew is being smuggled out of the state in the northern region.

The smugglers use various techniques to smuggle the nuts from the state. The smugglers adopt ingenious ways to evade the authorities. Cashew is being smuggled out in Gunny bags, rice carriers, oil tins, milk cans, ice cream boxes, suit cases, and through all types of transport vehicles including oil tankers. The velocity of the smuggling activities can be measured through the number of head load workers engaged in this activity. Most of the head load workers engaged are unemployed, which include women and child folk from the neighbouring places of Malappuram and Ponnani who take this opportunity to earn fast money. The average wage received varies from R. 50-100 per day.

After crossing many hurdles and greasing many palms the raw nuts reach Coorg to change hands for double the price than quoted at Cannanore. The Karnataka Government's attitude is encouraging for the

smugglers, endowing them to cut down the valuable forests and put up sheds for the storage of nuts. The Karnataka Forest Department stands to gain as they collect exhorbitant charges Rs. 250/ for a 2 Sq. Mt. stall, - without any official receipts.

In the southern region, Quilon and Trivandrum districts, borders linking the state with Tamil Nadu, are the important centres through which cashew is smuggled out. The raw nuts from Quilon district reach Punalur, Adamon, Ottakkal, Thenmalai, and are smuggled out to Aryankavu an important centre. From there it is transported to the various processing factories in Tamil Nadu. The nuts are transported from these regions to Tamil Nadu, mostly by the trains of the southern Railway. The smugglers either take it along with them in the train or book.the nuts are parcels with the contents in it mentioned as jack seeds, etc., It is a pity that Quilon, an important centre of cashew processing which has 95% of the processing factories in the state are not able to work atleast two months in a year, and the nuts which would have helped the Quilon factories are smuggled out mainly by the agents of the Quilon processors who have set up factories in Tamil Nadu.

The techniques followed for smuggling nuts to the neighbouring states are the same both in the northern and southern regions. In the northern region the smugglers depend more on manual operations and road transport vehicles, but in the south it is mainly through the rail transport. Because of the curbs on the movement of raw nuts from the state, the processors in Quilon with the help of private parties have started smuggling even processed cashew kernels from the state, which is not prohibited. Private parties with the help of industrialists started hundreds of licenced and unlicenced cottage processing units in the important raw nut producing centres like Kadakkal, Anchal, Kottarakara, Kundara etc., and these nuts are smuggled out through Aryankavu, Bhagavathipuram, and Shencottah. The prevailing unemployment problem forced the workers to work for very low wages offered to them by the cottage processing units. These units and the agents are not only smuggling out the kernels but also a part of the revenue of the state and further worsen the situation of the industry and the position of the workers in the state.

From Trivandrum district the nuts are smuggled out to Tamil Nadu through Amaravilla, Arattukadavu, Kannankuzhi, Karakonam, Dhanuvachapuram, and Kunnathukalu using the various techniques and all means of transport including water barges.

It is noticeable that all the processing factories in Tamil Nadu are situated only a few kms away from the Kerala State border which makes smuggling easier. It is a fact that 99% of the processors of Tamil Nadu are either processors or exporters from Kerala and a majority of the people engaged in the smuggling activities are also Keralites. Knowingly or unknowingly Keralites, both processors and smugglers, are responsible for the distintegration of the cashew industry in the State. Had not the experienced processors and big time smugglers indulged in this type of activities, the situation of the state would have been completely different.

In order to check the smuggling activities the Government should increase the punishment and penalties which now is very meagre under the Essential Commodities Act. A much more sincere and co-ordinated action of the police, revenue department,

sales tax department and marketing federation officials is inevitable. Foot-patrolling should be imposed on all the border areas where smuggling usually takes place. A public opinion should be created that smuggling of cashew nuts is a serious crime and those indulging in it are a curse to the society. The people should come forward and co-operate with the officials to check smuggling and save the cashew industry in the state, which is on the brink of extinction, and which was once the pride of the state and which put Kerala on the international map.

4 10 0 TRADE UNIONISM

Trade Unionism in the cashew industry in Kerala has a long history starting in the thirties and ranging from the economic protection it provides to the workers, to the migration of the industry. In the early stages of the industry, working conditions in the factories were miserable and inhuman and the disorganised workers were under the heels of their employers. In order to equalise the bargaining power of labour and capital and to establish uniform, minimum standard of wages, working hours and working conditions and to establish their status in the society the workers organised together and the first trade union among cashew workers was formed in 1939 - the All Travancore Cashew Workers Union, which had political affiliation with the then communist party of India.

In the years that followed each major, minor, regional political parties started organising workers in the cashew industry as part of a strategy for countering the ideological and organisational weight and in later years all the major unions got further

split into two or more unions. Such fragmentation and proliferation of unions was a corollary of the broader political developments in the State. The cashew workers are organised today under.

1. All Kerala Cashew Factory Workers Federation
   Revolutionary Socialist Party (S) - UTUC (S)

2. All Kerala Cashew Factory Workers Federation.
   Revolutionary Socialist Party (B) - UTUC (B)

3. Kerala Cashew Workers Centre
   Communist Party of India (Marxist) - CITU.

4. Kasuvandi Thozhilalli Kendra Council.
   Communist Party of India. - AITUC

5. Kerala Cashew Workers Congress
6. Kasuvandi Thozhilalli Congress
   Indian National Congress - INTUC.

7. K.T.U.C. - Kerala Congress (M).

8. K.T.U.C. - Kerala Congress (J).

9. S.T.U. - Indian Union Muslim League.

10. OTHERS.

The first six unions are recognised by the Kerala State Cashew Development Corporation.

These unions have done a lot to the workers for lowering the hours of work, payment of bonus, better terms and conditions of work, fixation of wages, payment of D.A., etc., In order to implement all these, and to revise their demands according to present standards, they were engaged in a constant struggle with the employers. The employers adopted a variety of methods to evade payment of minimum wages and other non-wage benefits. The methods resorted to included reducing the quantity of raw nuts supplied to each worker by recruiting more workers, thereby making them ineligible for the payment of D.A., under weighing their output, false recording of the number of days worked, thus denying the advantages of P.F., E.S.I., Maternity benefits, etc., and keeping several workers on rolls as apprentices. Often they closed down the factories on grounds of shortage of raw nuts or some other pretext, informally allowed the workers to work in the factories, encouraged cottage processing at half the minimum wage rates with no other benefits.

On the other hand the pressures generated by the raw nut shortage and strong trade union movement with active support from the state government

affected the relative bargaining power of labour and capital within the industry, consequently migration took place.

WEAKNESS OF THE TRADE UNIONS:

1 NOT MUCH WORK EXCEPT TO ORGANISE STRIKES

The trade unions in Cashew Industry is often looked upon as strike committee's and the leaders are all the time thinking about organising strikes. Trade Unions have been an arena for the struggle of the conflicting political ideologies. It is common that all promises are made and strikes are arranged only to serve the selfish aim's of the political parties. Every year there will be a number of strikes by different parties for the same demands. Illiteracy and outside leadership are the deficiencies.

2 ABSENCE OF UNITY:

There is no unity in the trade union movement of the cashew industry. In each factory there may be three or four unions controlled by different parties. If one declares a strike, the other may even go to the extent of siding the employers. In most of the cases,

the attitude of the employers has been found to be hostile to the organisation of trade unions. They have been setting up rival trade unions, employing spies, goondas, and strike breakers to sabotage the union activities.

In order to stabilize the industry in Kerala, the processors, trade unions and the workers have to co-operate. Workers must come to accept private enterprise not as a necessary evil, but as an affirmative good. [25].

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25 Eugene Black.- Forum of Free Enterprise.

4 11 0 TRADE UNIONISM IN JAPAN:

AN OBJECTIVE LESSON FOR THE TRADE UNIONS OF THE CASHEW INDUSTRY IN KERALA.

Japanese trade unions do not look upon their role as one of permanent opposition to management as else-where and at the same they are not an instrument of the management. They preserve their own dignity, independence and self respect without creating hostility.[26] Their basic approach to any problem is as follows:

1 Japanese unions appreciate more fully the fact that each worker wears atleast two masks, one that of the producer and another that of the consumer. When a group of workers goes on strike it may hurt itself as a consumer and further the advantage sought may be at the expense of other workers.

2 The unions are keenly aware of the fact that Japan is not endowed with rich natural resources and therefore ultimately her affluence depends upon her productive efficiency and her competitive position in the world market.

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26. Productivity in Japan - S.A. SAPRE - Forum of Free Enterprise.

3 Japanese unions realise fully that management and unions have common long term interests in higher productivity.

4 Ultimately the interests of the workers, ie., wages, welfare, facilities, security of employment etc., depend upon the prosperity of the nation and the firm. What hampers productivity, ultimately harms the workers themselves. A strong trade union pre-supposes an efficient and affluent firm. In a firm on the verge of liquidation, the trade union itself is on the verge of disappearance.

5 Union leaders as well as Managers share the conviction that a real mud slinging stand up fight would not be ultimately beneficial to anyone.

6 Japanese trade unions attach greater importance to harmony, efficiency and order rather than to individual dignity, freedom and equality. They respect managerial authority.

7 They feel that co-operation with management will be ultimately more beneficial to workers. They look upon themselves as collaborators of management on a footing of equality.

8 The unions accept the need for hard work, higher productivity, pride in skill and high quality of goods.

In Japan, unions usually launch their offensive for new wage claims at the end of March every year. If the negotiations fail, there may be generally a strike for a day or two. The flags and the red arm bands appear in the pre-strike evening rally. They do not try to humiliate management personnel. Their fight is against capital. The management may then make a fresh offer which is accepted and the strike ends and production resumes. Strikes are mostly symbolic. The trade unions on the whole show a great sense of responsibility and statesmanship of a high order.

INDUSTRIAL RELATIONS OF BRITISH, AMERICAN AND JAPANESE WORKERS AND THEIR ATTITUDE TOWARDS THE FIRM

In England Trade Unions are organised on the basis of Craft Guilds. Social security schemes cover all the working classes. Apart from the agitational aspect, trade unions have well developed constructive

side. Trade union leadership has emerged from amongst the workers themselves Dismissals and Victimisation of trade union workers seldom take place. The worker values his independence and wears his own uniform and may also own some of the tools. He is individualistic and looks upon his work as a contractual obligation towards the firm.

The American Factory seems almost like an armed camp. The foreman stands guard to make sure that workers do not slack off. The workers grumble at the foreman and the foremen are cross with the workers.

On the contrary, Japanese workers are proud of their firm and work even without the foremen watching. They do not hate the firm. On holidays the workers like to wear the badge of the firm. Japanese management too shows genuine concern for the welfare of the workers.

We in India have been facing a grave situation on the Industrial relations' front. Industrial conflict in India is endemic and unpredictable. There are no permanent solutions nor any instant cures for this.

4 12 0 COMPARATIVE STUDY: OF COLLECTION & MARKETING OF RAW NUTS IN KERALA, TAMIL NADU & KARNATAKA

Cashew trees flower in the month of February and most of the nuts mature in the month of March and April, though collection of nuts continues till the end of May. During these months, the nuts will have to be picked up 2 or 3 times every day as the ripened apples along with the nuts keep dropping. Continuous close supervision of cashew gardens is also then required to check pilferage. The attention given to primary collection of nuts has therefore been dependent on the cost of supervision and collection in relation to the price offered for nuts. This tends to vary with the size of the cashew gardens. The field investigations in Kerala, Tamil Nadu and Karnataka reveals the following:

The method employed for primary collection seems to differ with the size of the area under cashew and the economic status of the growers. Three systems were found to be widely practised:

1 through family labour.

2 through wage labour.

3 through tenants to whom the cashew gardens are leased out.

A large numbers of small growers with holdings of less than 2 hectares, collect the raw nuts themselves, directly from the holdings for sale to the local merchants. Collection is made by family labour, mainly women and children who go around the garden in the early hours of the morning and in the late afternoon. Since the holdings are small this group of growers do not have to incur any expenditure for checking pilferage.

Those who have holdings between 2 - 5 hectares in size generally engage wage labour either in daily wages or piece rate basis. Such labour consists mainly of children in the age group of 10 - 15 years. The wages are paid depending on the age of the worker and the acquired skill in collection. There is however an additional element of cost of collection to be taken into account in this size range of holdings ie., cost of supervision of the gardens for checking pilferage. Such supervision is done either by family members or by employing some onefor the period of harvesting.

The size group of 5 hectares and above is of crucial importance both in terms of quantity of nuts produced and the problems posed in the collection of nuts. The third method of primary collection through tenants to whom the gardens are leased out, appears to be widely resorted to in this size group. Eventhough it is much less remunerative from the point of view of the grower. The main reason is that, when the holdings are of large size, effective methods of guarding the gardens during the harvesting period lasting over several months become difficult, especially when there is no fencing. In such a situation employment of wage labour for direct collection can also be risky as no proper checking or accounting of the nuts collected could be possible.

The leasing of such land appears to be usually done by landless farmers, small cultivators or petty traders in the vicinity. The entire area would thus be leased out to several sub-collectors. While such persons should enter into lease agreements with the land owner, they hardly possess any financial resources to pay the lease amount in advance. Therefore a system has emerged, whereby the local trader would advance money to such prospective collectors at a price fixed by him for the produce. Because of these two factors, relative high cost of collection and supervision

that would have been incurred by the grower if he was to organise direct collection and, the two layers of intermediation, involved in the leasing arrangements, the rent commanded by the cashew gardens tend to be low. The cost of collection and supervision are relatively low in small and medium holdings on account of the feasibility of organising direct collection. But in the case of large plantations, primary collection proved to be costly and the scope for pilferage is considerable.

In Tamil Nadu and Karnataka, the system of collection of nuts are almost the same as in Kerala. The crop is gathered from the ground after the apple is allowed to drop down naturally with the nut. The fruits are collected every day and the nuts are separated. Allowing the fruit to fall by itself ensures a fully matured nut. The nuts gathered are sun dried for 2.3, days before storing.

In Tamil Nadu and Karnataka, the cost of supervision and pilferage are very low. In holdings less than 5 hectares collection costs are very little as the entire work of collection is done by the family members of the growers. In holdings more than 5 hectares leasing out is not so common, and the nuts

are collected by engaging child as well as adult labour for a very low payment. Supervision is done either by the grower or his family members or by employing some one only for the period of harvesting.

The system of marketing of cashew nuts seems to differ from one cashew growing state to another. Kerala which produces the largest quantity of raw nuts in India had a dual system of marketing. Till the introduction of a Government procurement programme in 1976, the system was marked by two to three layers of inter mediation by middle men in the northern districts where cashew growing is concentrated, and by a system of direct sale in the local market by the growers in the southern districts.

In the northern part, the representatives of the processors establish contacts with big merchants in the different market centres well before the arrival of the marketing season extending from March to May. The big merchants in turn, make advance payments to growers through their agents who are generally small traders or local merchants. Thus the grower commits his entire produce to the agent well in advance of the harvest at prices expected to prevail

during the harvesting season. Another method of the system is the one in which the processors agents make payments in advance to merchants in the major marketing centres against proposed purchases to be made in the following weeks. The advances so made cover the entire value of the proposed purchases. The entire operation of collection and marketing of raw nuts was based on a three tier system, at the base are the collectors of raw nuts some of whom are growers themselves and others who have leased the cashew gardens and petty village shop keepers who buy and keep raw nuts. All these groups of people sell the raw nuts to the local merchants who in turn sell them to the big merchants. In the southern region of Kerala which accounts for a smaller proportion of the total output of the state, they mostly have holdings much smaller than those in the northern districts. They sell their produce to the agents of the processors who visit the market centres and the raw nuts are purchased on cash basis.

While the collection of raw nuts at the field level continues more or less on the same lines as mentioned earlier, the role of the traders has been sought to be eliminated in Kerala since the introduction of the monopoly procurement programme by the Government in 1976.

In Tamil Nadu also the system of direct purchase either from market centres or from growers exists. Another system of marketing of raw cashew in Tamil Nadu is through the regulated markets. The Government of Tamil Nadu, in order to streamline the marketing system of cashew and to increase the producers share in the consumers price by regulating the costs and margins of different market services and functionaries brought cashew as a notified crop under the Agricultural Produce Market Act in that state. Cashew being a notified commodity, significant quantities are marketed through more than 20 regulated markets in the different parts of the state.

These regulated markets are meant for particular products. The management of such a market is entrusted to a market committee which is set up by the Government for a definite period. The committee represents different interests like state government, local bodies, traders, brokers or commission agents and farmers, and thus can take care of almost all the view points in making decisions. It issues licences to the functionaries of the market and fixes charges for weighing, brokerage, etc., Arrangements are also made for providing reliable and up to date market information.

The regulated markets receive cashew nuts from producers. The produce of each seller is given a lot number and the lot is sold to the trader who offers the highest price provided, the seller agrees to the price. The nuts are disposed off in closed bid auction system.

Apart from Tamil Nadu, the other states where the system of regulated market exists are Maharastra and Goa.

In Karnataka, Andhra Pradesh and Orissa the agents of the processors do visit the marketing centres for purchase of raw nuts. But in these states there is not much systematic collection of raw nuts, like those prevailing in Kerala and Tamil Nadu. In situations where growers' accessibility to market centres is limited due to distance and lack of modern transport, there is a possibility that a portion of the quantity of raw nuts does not reach the processing sector.

With regard to the price of the produce, except in a few cases as where regulated markets or direct sales exist, the producer is at the receiving end of the bargain in all the three states. However the producer has of late been able to secure a higher price, if not a higher share of the market price as a result of the rise in the prices since 1973. The following table shows the trend inaverage wholesale prices for the period 1968 - 80 in the main marketing centres in the major cashew producing states of Karnataka, Kerala and Tamil Nadu, Maharastra and Andhra Pradesh.

TABLE - 19

4 12 1 AVERAGE WHOLESALE PRICES OF CASHEW NUT IN THE DIFFERENT STATES IN INDIA *

YEARS - 1968 - 80 (RUPEES PER QUINTAL)

YEAR	KERALA	KARNATAKA	TAMILNADU	MAHARASHTRA	ANDHRA PRADESH	GOA
1968	136	113	144	142	190	138
1970	156	148	178	183	211	180
1972	181	168	201	183	193	160
1974	338	358	375	350	355	365
1976	255	249	313	300	325	310
1978	610	555	570	625	650	690
1980	600	763	764	810	795	765

* Source - The K.S.C.M.F. Ltd.

It can be seen from the table that till 1976 the prices in Karnataka were lower than those in Kerala, while in Tamil Nadu the prices were higher. In Tamil Nadu the nuts being traded through regulated markets seems to have been the reason for securing higher prices. However, the higher prices obtained with greater margin both in Karnataka and Tamil Nadu after 1976 were made

possible because of the Government fixation of prices for the Monopoly Procurement. Over the period from 1968 - 80 the increase in the prices in the states has been considerable. By the end of 1973, the average wholesale price doubled in all the three states and in 1980 there has been a four fold increase in Kerala, more than five fold increase in Tamil Nadu and more than six fold increase in Karnataka.

Such as increase in prices acted as an incentive for increasing the availability of cashew. The long term impact is likely to be felt at a later stage only when growers take to extension of area under cashew in response to the increase in prices.

4 13 0 COMPARATIVE STUDY OF THE TECHNOLOGY, ORGANISATION, AND PROFITABILITY OF THE CASHEW INDUSTRY IN KERALA, TAMIL NADU AND KARNATAKA.

The processing of cashew in Kerala, Tamil Nadu and Karnataka is a highly labour intensive activity. Indeed factory production is merely a systematic co-ordination of a number of stages in manual processing. Barring Mangalore where a certain degree of mechanisation has been introduced in the form of cutting apparatus for nuts, the industry in all the three states comprises mostly of women workers.

The technology of cashew processing involves very little investment in plant and machinery and electrical energy when compared with other industries. No major change in technology has been recorded since the inception of the industry except the change from open pan roasting, an unhygenic method that was in vague in the early days of the industry to the present widely adopted method of drum roasting. It was only a small step forward. Oil bath roasting which has the additional advantage of obtaining the CNSL is adopted by only a few processors, presumably because the capital investment required for the adoption of that technology is nearly ten times the investment required for drum roasting.

The technology of cashew processing adopted is slightly different in all the three states.

The following charts show the various processing methods adopted in these states:-

CHART - 1

PROCESSING METHODS

KERALA - (QUILON)

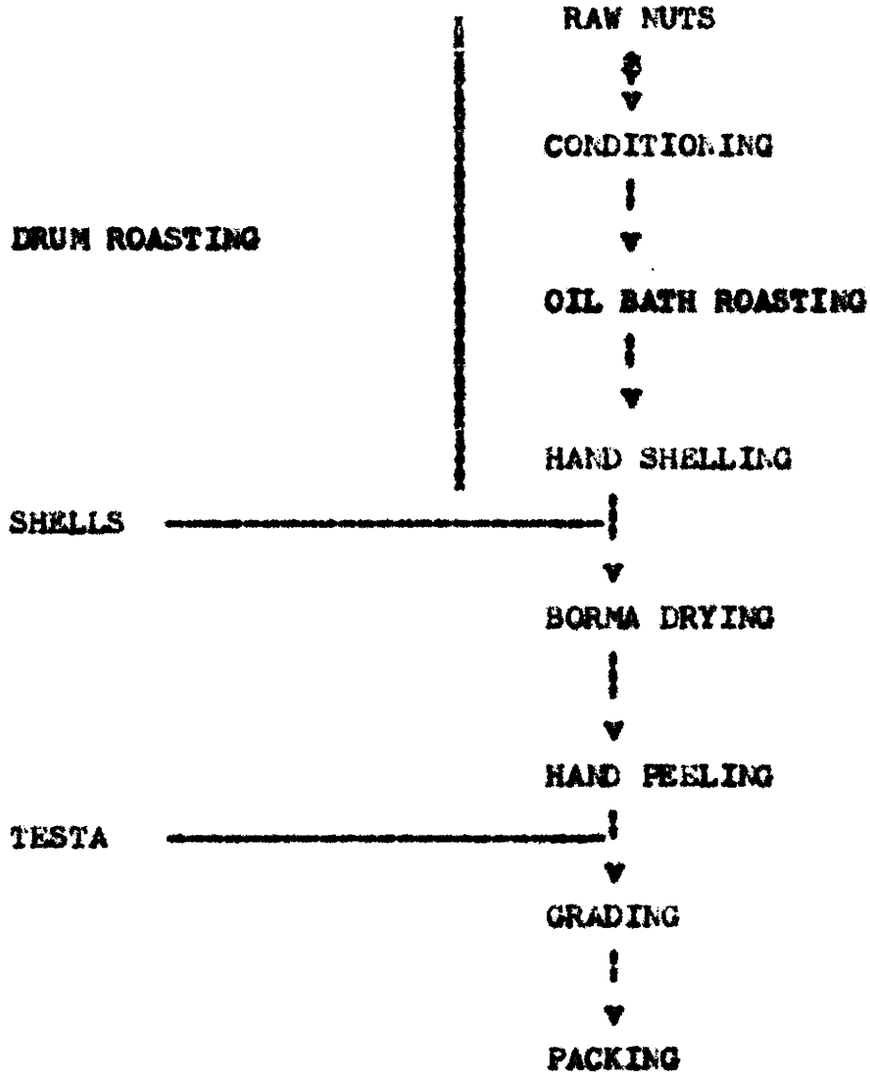


CHART - 2
PROCESSING METHODS
(KARNATAKA(M ANGALORE))

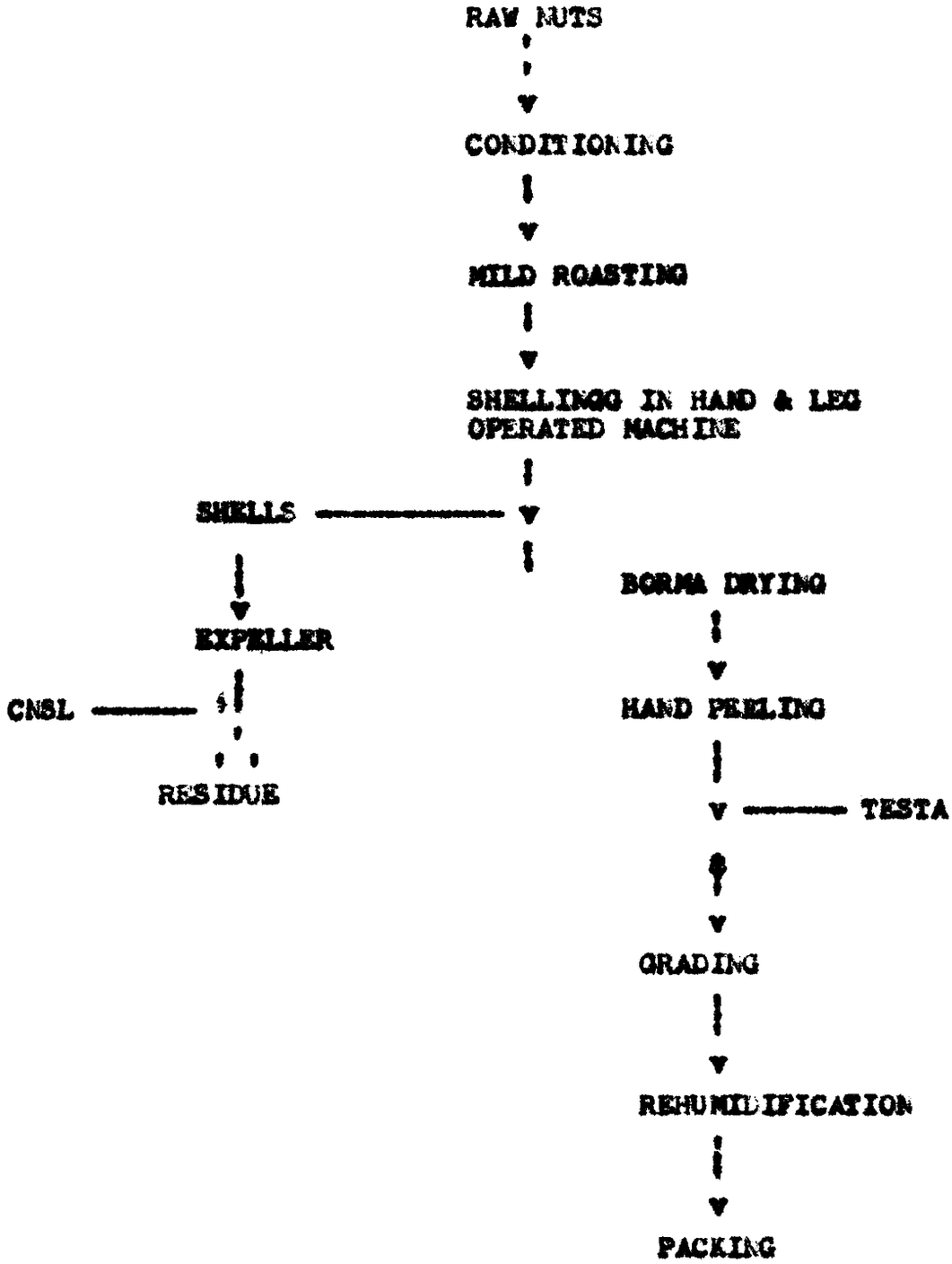
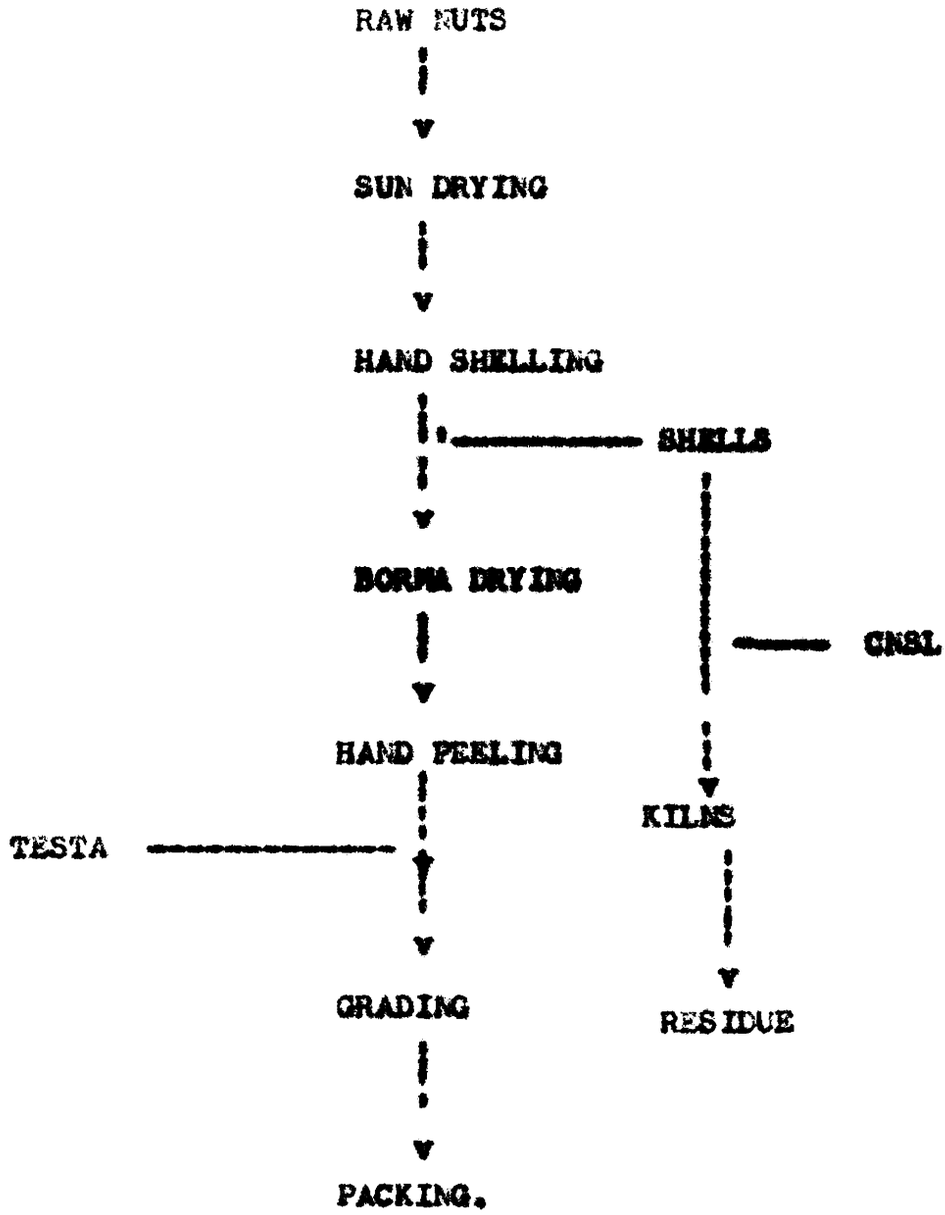


CHART - 3

PROCESSING METHODS - TAMIL NADU (PENRUTI)



It can be seen from the charts that the processing after shelling is almost similar except for adoption of re-humidification in some factories in Mangalore (Karnataka). Shelling in general is done entirely by hand. The units in Mangalore (Karnataka) employ the modern techniques prevalent in India. Here the shelling gadget used, gives improved output per worker without affecting the yield of whole kernels. Another notable feature is the use of mild roasting and efficient extraction of CNSL by means of motor driven expellers. The technology employed in Panruti (T.N.) is comparatively less developed, its interesting feature being the removal of CNSL by kilns after shelling operations.

Because of the low level of technology the capital investment on machinery is confined mainly to the setting up of a roasting unit which is locally fabricated. A major share of the capital investment in Kerala, Tamil Nadu and Karnataka is on land and buildings to provide sufficient work space for the processing activity. Of the total investment in fixed capital in Kerala buildings accounts for 48% Plant and Machinery 32% and land 20%. In Karnataka, buildings account for 42%, Plant and Machinery 38% and land 20%.

Since there are no economies of scale, the size of factories varies considerably in Kerala and the annual capacity ranges from 100 tonnes to 2000 tonnes and the labour strength varies from 200 workers to more than 2000 workers. But in the case of Tamil Nadu and Karnataka, the annual capacity and the labour strength are much lower.

In the case of capital investment Kerala accounts more, since the factories were started earlier and almost all the factories are built as per the stipulations laid down by the Factories Act. In Karnataka, investment for the factories is not so much. But in Tamil Nadu the capital investment on factories is very little, due to the fact that land is comparatively cheap and the factories set up are not on the lines of those set up in Kerala. The Tamil Nadu factories are more on a temporary basis and that too not as per the specifications laid down in the factories Act.

The working capital is however of crucial importance to the processors of all the three states since it is required for the purchase of raw nuts and payment of wages. The share of wages itself comes to

between 50_60%. The organisation of the cashew processing industry in all the three states has to be looked at keeping in mind this crucial role of working capital.

Processing as such warranted only very little technical coordination and management in the factories and the social character of capital of a large number of factories in Kerala is either proprietory or of partnership firms. In Kerala more than 90% of the Processor/Exporter firms are either proprietory or partnership. In Kerala, 90% of the factories are owned by 7 or 8 business family groups. But the large number with separate legal status conceals the inter connections among these firms. These business families carry on, because of their economic power and considerable political weight. In Kerala, a few factories are owned by the Government, but in Tamil Nadu and Karnataka all the factories are either proprietory or partnership firms. There are no government processing factories, even though the Government has set up cashew development corporations, the reason being that the processing industry does not face any serious crisis like that which Kerala Industry is facing.

PROFITABILITY - COST OF PROCESSING IN KERALA, TAMIL NADU AND KARNATAKA.

The processing of Cashew is a very profitable business. The rates of gross profit seem to be considerably higher than in other major industries like coir manufacturing, cotton textiles and tea manufacturing in Kerala, Tamil Nadu and Karnataka. However the rate of profits of the industry used to vary from state to state and also from firm to firm, in each state. This was mainly because of the variations in the rates of wages paid.

In the case of Kerala, which pioneered the processing of cashew, the processors were able to secure very high rates of profit in the earlier days, which was made possible because of the abundance of skilled and unskilled labour and imported raw nuts, that too at very cheap rates. The processing expenses of a Kg of raw nut at the time was less than a Rupee. But with the advent of the seventies, the general shortage of raw nuts in the world, and the bargaining power of the cashew workers increased the processing cost of cashew. Meanwhile, the processors were vigorously trying to maintain their high levels of profit by pushing down the labour cost.

The shortage of raw nuts made the processors to obtain them at whatever prices they were being offered. The high prices and the severe competition for the scarce indigenous raw nuts; the difficulties in obtaining the imported raw nuts, the entry of the Kerala State Cashew Development Corporation in the field of processing and the imposition of the minimum wages and other non wage benefits in their factories, the revision of these in the later years, increased the processing cost further and brought down the profit margin. The processing cost which was less than a rupee in the sixties reached to about four to five rupees in the eighties.

The following data shows the increase in processing cost of a ton of raw nuts in Kerala in 1974, 1975 and 1978.

T A B L E - 20

4 13 1 PROCESSING COST OF RAW NUTS/TONNE IN 1974, 75, 78

ITEMS OF WORK	As on the end of 1974 Rs. ps.	After Imposition of Minimum wages in 1.9.1975 Rs. ps.	As on the end of 1978 Rs. ps.
Raw Nut Clearance Expenses.	57.00	57.00	71.87
Wages and Benefits to Workers.	695.50	1262.13	1338.75
Factory Salaries and Over-heads.	68.37	92.87	224.75
Tin container, Labh , Cartons, Strapping, cess, etc.	306.75	306.75	257.00
Administrative Over-heads.	23.75	28.75	69.25
Financial charges and depreciation.	52.50	52.50	115.00
Shipping and forwarding.	49.12	50.00	69.37
TOTAL COST	1252.99	1850.00	2145.99
COST OF PROCESSING 1 KG.	1.25	1.85	2.15

Complied data, Source - Cashew - Page 126 CPCRI.

It can be seen from the above data that the cost of processing a ton of raw nuts which was ₹ 1253/ in 1974 went up to ₹ 1850/ in 1975 soon after the minimum wages was revised. The percentage of increase in the processing cost was nearly 45% between 1974 and 1975; thereafter the increase was between 7 to 10% annually. The above mentioned data gives the cost of processing, the material cost not being included. The cost of raw nuts in 1974 was on an average rate of ₹ 3.50 per Kg. in 1975 ₹ 3.75 and in 1978 ₹ 5.80.

The rate of recovery of kernels was on an average of 24% of different grades of kernels and that of cashew nut shell liquid about 15%. Average unit value for kernels in the New York Market in 1974 was US $ 1.35 per pound, in 1975 $ 1.29 and in 1978 $ 2.08. The average unit value of CNSL in 1974 was ₹. 2.37, in 1975 ₹ 2.45 and in 1978 ₹ 6.95 per Kg.

On the basis of these we can conclude that the private processors were making huge profits in the early days and as time went on it was coming down. In the case of the public sector undertaking in Kerala, ie., K.S.C.D.C., they were making profits in the early stages, but later on started running at heavy loss.

The reasons were the shortage of raw nuts, both imported as well as indigenous the heavy liabilities in respect of payment of wages and other non-wage benefits. The rate of expenditure and profits of the KSCDC in 1977 and 1978 is given below:

T A B L E - 21

4 13 2 EXPENDITURE AND PROFITS OF THE K.S.C.D.C., 1977, 1978.

ITEMS	1977 %age	1978 %age
Cost of Materials.	50.56	67.55
Wages	32.91	21.93
MANUFACTURING COST	83.47	89.48
Packing and Selling expenses.	12.09	6.69
Interest & Banking charges.	0.86	1.84
Head Office over-heads.	2.17	1.11
TOTAL COST	98.59	99.12
Net Profit before taxation	1.41	0.88
	100.00	100.00

Source - Seventh Annual Report & Accounts, K.S.C.D.C. - Quilon.

In the early eighties, the trend of the cashew processing industry in Kerala, both in the private as well as the public sector has been showing very low margin of profit. The KSCDC even after the diversification of its lines of business reached to a stage where its losses amounted to eleven times its paid up capital. But still the private processors managed to secure profits by employing labour on a cottage process basis whereby the workers surrender in advance their claims to Minimum Wages Rates.

T A B L E - 22

4.13.3 NORMING COST LIST OF RAW CASHEW NUTS

DATA BASED ON KERALA FACTORIES (PUBLIC & PRIVATE SECTOR)
RAW MATERIAL SOURCES - INDIGENOUS ONLY - @ Rs. 7/ KG.
APPROXIMATELY - BEST QUALITY (YIELDING 32 lbs WHOLES AND 8 lbs BROKENS) RATE OF RECOVERY - 24%.

[illegible] OF EXPENDITURE		1980	% AGE OF TOTAL COST
[illegible] @ Rs 7/ per Kg Purchase Tax, Marginal expenses for surcharge, Commission on nuts procured.	7000		68.62
Incidental exp.	420		4.11
Transport to factory & handling expenses on an average @ Rs. 1.05	105	7525	1.03

ITEMS OF EXPENDITURE	1980	% AGE OF TOTAL COST
Labour - Salaries, Wages, Bonus, P.F., E.S.I., Labour Welfare, Gratuity @ R. 156.25 per 100 Kgs.	1561	15.30
Factory expenses - Rent, Registration license fee, Taxes, Electricity charges, Insurance, Fuel, Water charges, Repairs, Maintenance etc., @ R. 15/	210	2.06
Establishment expenses: Administrative over-heads, Office Rent, Lighting, Depreciation of Office equipment, Salaries, Postages, Telegrams, Cables, Telephones, Telex, etc.	140	1.36
Cost of Packing : Tin containers, Labels, Cartons, Strapping, Cess, shipping, clearing and forwarding, fumigation (Providing for loss of cartons, additional expenses, etc.).	420	4.11
Shipping and forwarding : Freight charges	280	2.74
Other contingencies excluding compensation for Unemployment	70	0.67
COST OF PROCESSING/TONNE	10206	100

Cost of Processing of

1 ton of raw nuts (Excluding interest charges)

From the above data it can be seen that the total cost of processing 1 ton of raw nuts comes to about Rs 10206/ which includes cost of raw nuts of Rs. 7000/. The balance of Rs 3206/ is the processing cost for 1 ton which works out to nearly about Rs 3.21 per Kg. The expenses for processing would be more if the amounts spent on compensation for unemployment, interest on processing cost ie., storage cost, and the interest on working capital at a minimum of 12% is taken. The loss on account of dryage at the hands of the processor @ 5% is also not taken into account.

Recovery of kernels @ 24% and CNSL @ 15% will be obtained. Nearly 240 Kgs. of different grades of kernels possessing different rates at the International Markets, average @ US $ 5.12 per Kg. and about 110 Kgs. of CNSL at an average price of $ 1.10 per Kg.

In Tamil Nadu, the cashew processing industry is of recent orgin. The processors in Kerala who failed to achieve higher profits due to the sudden changes that took place in the state were forced to start cashew processing factories in the Kanyakumari district of Tamil Nadu, adjacent to Kerala, where the wage rates were very low. The wage rates

prevailing there were only about 40-45% of the wage rates in Kerala. Material too was very cheap at that time and the rates of profit were naturally high. This was made possible not only because of the availability of raw nuts and labour at cheap rates, but also because of the non-payment of non-wage benefits like D.A., P.F., Gratuity etc., to the workers. Moreover, child labour was available on a large scale at very cheap rates in Tamil Nadu. At the time, the factories in Tamil Nadu were able to process a Kg. of raw nuts for nearly 60 paise.

But now the situation has changed, the material cost is much higher than those prevailing in Kerala. The reasons for the increase in the price of raw nuts and the willingness of the processors to buy at higher prices are because the processing capacity built up in the state is more than that of the production of raw nuts in the state. This forced them to obtain the raw nuts from any source, by any means, and at any cost. Still they were able to make more profits, due to the reason that labour was comparatively cheaper. The conditions of labour, minimum wages other non-wage benefits to the workers of the Tamil Nadu Cashew Processing Industry are on the way. Workers have started organising themselves. Eventhough, all these come

to save the labour from the exploitation of the processors, the experienced processors will make his pry for some more years.

The following data shows the processing cost of 1 ton of raw nuts in 1974 and 1980.

T A B L E - 23

4 13 4 PROCESSING COST OF 1 TON RAW NUTS IN TAMIL NADU IN 1974 AND 1980.

ITEMS OF EXPENDITURE	1974	1980
Price realised by the Producer:		
@ Rs. 3.00 + Rs. 8.00 per Kg. in 1974 & 1980 respectively (includes expenses incurred by the producer in packing, carrying, Loading and Transporting, Commission of retailer and wholesaler, expenses of the wholesaler and his margin).	3100	8000
Factory Expenses :		
Drying, Storing, Loading, Unloading, Soaking, Roasting, Shelling, Baking, Peeling, Grading etc.,	450	850
Establishment charges :		
Postage, Telegrams, Telex, Telephone, Cable, Depreciation, Supervisory, Advertisement, Correspondence, etc.	75	120
Packing charges :		
Tins containers, labels, cartons, strapping, cess, fumigation, shipping, forwarding etc.,	300	530
TOTAL COST	3925	9500

The total cost of processing a ton of raw nuts in 1974 comes to about Rs 3925/ out of which material cost alone comes to Rs 3100/, the balance of Rs 825/ is the processing cost, which works out to only about 0.82 ps./Kg. In 1980, it works out to around Rs. 1 and 2/ per Kg.

In Karnataka, eventhough the industry was started much earlier in the century, the wage rate did not increase as steeply as that in Kerala and hence the processing cost was almost stable during the early days. The quantity processed and exported was very little when compared to Kerala. Since the processing in the factories there was mechanised to a certain extent, the processing cost remained steady. The number of processing factories in Karnataka are very few when compared to Kerala and Tamil Nadu. The cost of raw nuts and labour was very low and the processors were able to make higher profits. But since of late, the prices of raw nuts are higher than that in Kerala and yet they are able to make profits more than what a processing factory makes in Kerala. A processor in Karnataka is able to pay more price for raw nuts which is compensated by the low wage rate. They were able to process raw nuts at a cost of 80 ps. to 1 Rupee per Kg. in the seventies and between Re 1 and 2/ in the early eighties.

The following data shows the increase in processing cost of 1 ton of raw nuts from 1974 to 1980.

T A B L E - 24

4 13 5 COST OF PROCESSING 1 TON OF RAW NUTS IN KARNATAKA IN 1974 AND 1980.

ITEMS OF EXPENDITURE	1974	1980
Raw nut cost.	3100.00	7870.00
Raw nut Clearance Expenses.	37.50	65.63
Wages & Benefits to Workers.	375.00	931.25
Factory Expenses :		
Rent, Registration, Licence fee, Tax, Electricity, Fuel, Water charge.	55.88	191.25
Packing Cost :		
Tin, Labels, Cartons, Strapping, Cess, fumigation, Clearing and forwarding.	291.62	301.87
Shipping & Forwarding :		
Freight charges.	40.00	63.75
Administrative Over-heads :		
Office , Lighting, Postage, Telegrams, Telephones, Cables, Telex.	12.00	65.00
Financial Charges & Depreciation :	56.25	118.75
TOTAL COST	3968.75	9607.50

It can be seen from the Consolidated and Comparative Cost Statement - Table 25 - that the material cost from the early seventies was almost the same in the three states of Kerala, Tamil Nadu and Karnataka, but there was a wide disparity in the cost of labour.

In Kerala, the labour cost for processing one tonne of raw cashew was almost about Rs. 1262/ in 1975, while at the same time it was only Rs. 450/ and Rs 375/ in Tamil Nadu and Karnataka respectively. Like in Tamil Nadu and Karnataka, in Kerala also the labour cost was low before the revision of the Minimum Wages Act in 1975. At that time it was only around Rs. 695/ per tonne. The reasons for the increase in the labour cost in Kerala is mainly because of the increased wage levels and payment of other non wage benefits to the labourers and also because of the ban on cottage processing, setting up of public sector processing units under the auspices of the Government of Kerala, and the organised bargaining power of the labourers. The increase in labour cost was sudden and very steep, that in 1980 it reached to around Rs. 1561/ per tonne.

The cost of processing in Tamil Nadu and Karnataka too increased, but it was not as much as in Kerala. In 1980, the cost of processing one tonne of raw nuts in Tamil Nadu was only Rs. 850/ while that

in Karnataka is Rs. 931/. When compared with the labour cost of Kerala there is a difference of nearly about Rs. 600/ to Rs. 700/. It is because of this fact that the processors in Kerala started opening factories in Tamil Nadu and other places where the labour cost is less.

The non availability of raw material to satisfy the needs of the processing factories in Tamil Nadu and Karnataka paved the way for increased competition among the processors for the available raw nuts and resulted in the increase in price of raw nuts. But in Kerala, even though there was a scarcity for the raw materials the prices did not increase due to the fact that the procurement and distribution of raw nuts was under the control of the K.S.C.M.F. a Government owned public sector enterprise. This led to the smuggling of the raw nuts produced in the state to other places where the prices were higher.

In Kerala, even though raw material was not costly as in Tamil Nadu and Karnataka, the cost of labour and its allied problems made the cashew business a less profitable one. In Tamil Nadu and Karnataka, although the raw materials are purchased at higher prices as can be seen from the table, they are able to make higher profits because of the savings from labour and benefits of labour. All the other expenses of the processing industry are more or less fixed in the three states.

C H A P T E R - V

CASHEW IN THE OTHER STATES.

5 1 0 CASHEW IN KARNATAKA:

Karnataka is next to Kerala in Cashew Production. The important cashew growing districts are North Kanara, South Kanara, Kolar, Shimoga, Belgaum, Dharwar and Tumkur. More than 90% of the area under cashew in Karnataka is concentrated in the two districts of North and South Kanara in the West Coast. These districts are the geographical extension of the northern district of Cannanore in Kerala. These three districts in the west coast, Cannanore, North and South Kanara account for nearly 50% of the total production of raw nuts in India. There are varying estimates about area under cashew in the state. However a rough estimate would place the figures at about 80,000 hectares. Against a total number of 600 cashew processing industries in India, Karnataka's share to the total stands at 13. The annual processing capacity of these units are approximately 30000 tonnes, but the annual rawnut production in the state is only about 12000 tonnes annually, thereby creating a gap of nearly 18000 tonnes between the production and the requirement for the processing industries. This has led to the under utilisation of the processing capacity.

The problems of production of raw nuts in Karnataka are the same as those in the other cashew producing states. In the early years, the cultivation of cashew was not seriously taken up. It was found as a stray plant on road sides, tank bunds and river banks. But recently it has attracted greater interest than before, especially in the first half of the seventies. The area under production was steadily increasing and the Government as well as the Department of Horticulture in the state came forward very much earlier, even in the second five year plan itself, with a view to bring more area under cashew cultivation. Centrally sponsored Cashew Development Schemes were organised in Karnataka during the Second Five Year Plan period for laying out demonstrations in the cultivators field, the education of cultivators regarding improved package of practices on cashew by conducting demonstrations at Government costs and for adopting new techniques of vegetative propogation to improve the quality of planting materials.

The Karnataka Cashew Development Corporation was established in 1978. It along with the Department of Horticulture and with the assistance from the World Bank started intensive and extensive cashew cultivation.

All these schemes formulated only helped in bringing more area under cultivation, but the production of raw cashew nut did not increase. This was mainly because of the large amount of damage of nuts, due to the attack of pests, mainly tea mosquitoe, the absence of adequate fertilizer application, and the non availability of genuine high yielding planting material, seeds, etc. The farmers did not pay due attention, owing chiefly to the smallness of holdings having cashew as a poor crop as also due to the fact that a majority of cashew growers are small and marginal farmers who normally find finance to be a great constraint.

In Karnataka, a large portion of the area under cashew plantation belongs to various departmental plantations. They started planting cashew in abandoned forest waste lands about 75 years ago with an idea of arresting the shifting sands on the banks of River Cauvery at Talkad in Mysore District. Large extent of hilly grounds have been covered by cashew for preventing soil erosion. The foresters planted cashew in more than 30000 hectares scattered all over the state, concentrated more in areas of north and south Kanara fetching lakhs of rupees annually as revenue by way of lease. But, Departmental Cashew Cultivation in Karnataka has tended to be viewed mainly from the angle of soil

conservation or prevention of encroachment of Government waste lands rather than treating it as a cash crop. The reason for this is that the foresters were basically not at all trained in crop improvement techniques, and the dosage and mode of application of fertilizers to Cashew Plantation of different age groups, planted in varying soil types. The foresters consider cashew fruits and nuts just as a forest bye product. The distribution of cashew tree is so uneven and scattered both in the forests and private fields.

The production of cashew in private and departmental holdings can be increased if the pest, are controlled by spraying of pesticides. Aerial spraying alone is not practicable to control tea mosquito. Hand spraying also is to be done both by the foresters and farmers to control the pest completely and effectively. The concept of correct dosage, time, and method of application of fertilizer has to be taken up by the farmers by extension efforts. The seeds and seedlings of high yielding varities should be made available. Instead of planting cashew in very poor soil, lands with better soil fertility should be taken up for future plantations so that the yield could be increased.

The gaps in the older plantations should be filled up to ensure cent per cent stand. The dead and dying trees should be replaced. Sufficient propoganda should reach the ears of the forestor, farmer and as such he should no longer treat cashew as a casual wanderer of barren and lateritic hill slopes, but a very useful and highly priced crop and they should be aware that from the cashew plant they will get nuts of international importance, shell oil for industrial purposes and liquor from the apple.

TABLE - 26

5 1 1 AREA UNDER CASHEW IN KARNATAKA (IN HECTARES)
PRIVATE, FOREST DEPARTMENT & OTHER THAN FOREST DEPT.

DISTRICT	DIVISION	AREA	AVERAGE ANNUAL PRODUCTION IN STATE
BANGALORE		235	
KOLAR		2697	
CHITRADURGA	BANGALORE	15	
TUMKUR		245	
SHIMOGA		2955	
MYSORE		210	
MANDYA		850	
COORG	MYSORE	500	
CHICKMAGALUR		855	
SOUTH KANARA		62256	
BELGAUM		985	
BIJAIPUR	BELGAUM	50	
DHARWAR		155	
NORTH KANARA		26300	
RAICHUR		20	
BELLARY	RAICHUR	15	
GULBARGA		-	
BIDAR		-	
TOTAL		98343	15000

* Source - Karnataka State Cashew Development Corporation Ltd.
- Department of Horticulture - Government of Karnataka.

5 2 0 CASHEW IN TAMIL NADU :

In Tamil Nadu the total area under cashew is estimated to be about 1 lakh hectares. More than 75% of it is in the districts of Tiruchirapalli, South Arcot, Ramanathapuram and Chingleput. Cashew cultivation in Tamil Nadu is concentrated in the plains of the Eastern peninsula, where the agro climatic conditions may be described as semi arid and tropical. The major part of the area under cashew consists of waste lands in mild undulated plains. The average yield per hectare is very poor because hardly any systematic cultivation practices were followed. Large scale plantations performances were also not satisfactory because the management of cashew plantations raised by the forest department has not been with the objective of raising the output of cashew nuts.

Though the cultivation of cashew on commercial lines was taken up much earlier, the growth of the processing industry is of recent orgin. Out of the 600 odd factories in India, Tamil Nadu alone accounts for more than 50% of the processing factories employing about 75000 labourers. Almost all these factories are located in the Kanyakumari district of Tamil Nadu, adjacent to Kerala. The reason for the sudden spurt of processing factories, was not the increased production

of nuts in Tamil Nadu, but the increased availability of raw nuts from all parts of the country, the liberal attitude of the government of Tamil Nadu and the changes that took place in Kerala at that time. Various Central and State spensored schemes for increasing the area under cashew cultivation was started in Tamil Nadu, but the production of cashew nuts did not increase as expected and the amount was confined to only about 10000 tonnes annually which is only about 10% of the total processing capacity of the processing industries in Tamil Nadu which was unscientifically built up over the years. The processing factories are now working almost with the help of the raw nuts that are smuggled out from Kerala. Identifying new areas suita-ble for cashew cultivation of scientific lines will help in increasing the production of raw nuts in the state.

TABLE - 27

5 2 1 AREA UNDER CASHEW IN TAMIL NADU IN PRIVATE AND DEPARTMENTAL PLANTATIONS (AREA IN HECTARES)

DISTRICT	AREA	AVERAGE ANNUAL PRODUCTION IN TONNES.
CHINGLEPET.	10000	
SOUTH ARCOT.	27000	
NORTH ARCOT.	300	
SALEM .	200	
DHARMAPURI.	250	
COIMBATORE.	-	
TIRUCHIA.	30870	
PUDUKOTTAI.	-	
THANJAVUR	8000	
MADURAI.	150	
RAMNAD	12000	
TIRUNELVELI.	3000	
NILGRIS.	-	
KANYAKUMARI.	3000	
TOTAL	94770	10410

* Source - "A note on Cashew Cultivation in Tamil Nadu", Department of Finance, Government of Tamil Nadu, Madras.

5 3 0 CASHEW IN ORISSA :

Cashew was introduced in Orissa as a horticulture crop in the coastal areas of Puri and Ganjam districts during the last century. The Orissa Forest Department started cashew plantations at Balkanad in Puri in 1916, over large patches where Casurina and many other trees species had failed. Cashew was found to thrive in coarse sand with poor water retentivity. The forest department planted cashew on a large scale in soil conservation plantations on the barren hill slopes in Koraput in 1956. The Forest Department also found cashew as a very useful shelter belt plantation and started plantations along the sea coast of Orissa. Along with Casurina, this forms an effective barrier against Cyclonic winds and at the same time it adds value to an otherwise unproductive plantation.

In Orissa cashew plantation can be seen either mixed with Casurina or planted in alternative strips. In this way the latter will get all the overhead light for its growth and fruit production.

Orissa is having extensive area where other remunerative crops cannot be grown. The Orissa Plantation Corporation has been set up and it has

started to operate cashew plantations in several parts of the state. Under the Orissa pilot scheme and various centrally sponsored schemes, the plantation Corporation has brought thousands of hectares of waste land under cashew cultivation. The Orissa Cashew Development Corporation was set up in 1979.

Under the World Bank aided project, a pilot scheme, covering thousands of hectares both in private and Government owned lands in the districts of Mayurbhang, Keonjhar, Balasore, Dhenkanal, Cuttack, Puri, and Ganjam in East Orissa, has been launched. In Orissa planting of Cashew was mainly for the purpose of soil conservation by the various departments. Manurial application and crop management are seldom practiced. The yield rate was poor and the forest department would annually auction the right for collection of nuts from their plantation, thereby gaining some revenue. The annual production of nuts in the state is only about 3000 tonnes. Cashew is grown in Orissa, mainly under the auspices of various public agencies and hardly at all in private holdings.

The world bank's intensive and extensive programmes of cashew cultivation in private and state owned plantations, along with the adoption of improved techniques of cultivation will result in increased cashew production and this will surely induce the growth of the factories as well as cashew based small scale industries, like decorticating factories and cashew apple processing units.

T A B L E - 28

5 3 1 AREA UNDER CASHEW IN ORISSA - PRIVATE & STATE OWNED PLANTATIONS (AREA IN HECTARES) *

DISTRICT	AREA	AVERAGE ANNUAL PRODUCTION IN TONNES
BALUKHAND.	9500	
KORAPUT.	8750	
BALASORE.	7750	
GANJAM.	6000	
SUNDERGARH.	6830	
TOTAL	38830	3199

* Source - Orissa Forest Corporation Ltd., Cuttack.

5 4 0 CASHEW IN ANDHRA PRADESH :

In Andhra Pradesh the cashew plantations are raised entirely on sandy areas along the coast mainly in Guntur, East Godavari, Vishakapatnam, and Srikakulam districts. The yield rate of cashew is very low and hardly any attention seems to be given to raising it. The stocking in many of the plantations is reported to be extremely poor and the farmers have evidently not much incentive for replanting.

The Andhra Pradesh forest development Corperation was established in 1975 and it has taken up cashew development programmes partly refinanced by the ARDC. In Andhra Pradesh the area under cashew cultivation is increasing and at present nearly about 45000 hectares of land is under cultivation and the annual production has touched 12000 tonnes.

The World Bank's intensive and extensive programmes in the private and Government owned holdings have been started in Srikakulam, Vizianagaram, Vishakapatanam, East Godavari, West Godavari, Khammam, Krishna, Prakasam, Nellore and Chittoor districts of East Andhra Pradesh. More area can be brought under cashew beeause the non-availability of waste land for cashew cultivation is

however not likely to be a problem in Andhra Pradesh. Large area on the slopes of the eastern Ghats in the Vishakapatanam and Srikakulam districts can also be utilised for cashew cultivation. The only crop which can compete with cashew in this part is Casurina.

T A B L E - 29

5 4 1 AREA UNDER CASHEW IN ANDHRA PRADESH

DISTRICT	AREA	AVERAGE ANNUAL PRODUCTION IN TONNES.
GUNTUR.	8230	
EAST GODAVARI.	4760	
WEST GODAVARI.	6210	
VISHAKAPATANAM.	8700	
SRIKAKULAM.	7900	
VIZIANAGARAM.	8500	
TOTAL	44300	12300

* Source - Andhra Pradesh Forest Development Corporation.

5 5 0 CASHEW IN MAHARASTRA :

In Maharastra, Cashew is mainly cultivated in Chadgad, Shahuwadi, Gagambawda in Kolabar district. Nearly about 20000 hectares are under cashew cultivation and the annual production is about 7000 tonnes. Eventhough considerable amount of waste lands is available in the Kolabar and Ratnagiri divisions, very little attention is given to cashew cultivation. The reason for this is the competition from mango cultivation which apparently yields an income per hectare nearly ten times as high as cashew. Government support extended to research and development in Mango cultivation, has helped to evolve a technique for growing good quality Mango trees without watering the plants in the first three to four years of cultivation. This has turned the scales further against cashew.

T A B L E - 30

5 5 1 AREA UNDER CASHEW IN MAHARASTRA (IN HECTARES)

DISTRICT	AREA	AVERAGE ANNUAL PRODUCTION IN TONNES
RATNAGIRI.		
KOLABAR.		
TOTAL	22600	7663

* Source - Department of Agriculture, Government of Maharastra.

The contribution of the states of Andhra Pradesh, Orissa and Maharastra to the total annual production is very small, which is about 6.17% of the total production in 1980, but they together account for nearly 30% of the area under cashew.

5 6 0 CASHEW IN GOA :

Cashew was introduced in Goa about 500 years ago with the main objective of preventing soil erosion. Cashew is grown mostly on the hilly slopes where other crops cannot be grown. It is a hardy crop. Till the liberation of the territory in 1961 this was a neglected crop. No proper care was taken for the improvement of the crop and consequently the production was very poor. An estimate was made by the Directorate of Land Survey based on the data available as per the Cadstral Survey conducted during 1905 - 1940 by the erstwhile Portugese Government. This estimate places area under cashewnut at 32500 hectares at the time of liberation. The area under cashew was estimated to be around 41600 hectares in 1980 of which 32513 hectares is owned by individuals and the remaining by departmental plantations.

At the time of liberation the rawnut production was nearly about 3000 tonnes and it has now shot up to nearly 8000 tonnes. This is due to the various developmental activities started since 1963. Centrally spensored schemes like package of practises and pre-phylactic control measures against pests were implemented. Demonstration plots have been established and subsidy to the cost of seedlings, inputs and labour charges were formulated.

In addition to this department of Forest has been bringing forest area under cashew cultivation.

T A B L E - 31

5 6 1 AREA UNDER CASHEW IN GOA *

DISTRICT/TALUKA	AREA (HECTARES)	AVERAGE ANNUAL PRODUCTION (TONNES)
BICHOLIM	8260	
PERNEM	8050	
SATTARI	4982	
BARDEZ	4158	
PONDA	6030	
SALCETE	1709	
TISWADI	3966	
SANGUEM	2828	
QUEPEM	1084	
CANACONA	533	
TOTAL	41600	6500

* Source - State Marketing Officer - Goa, Daman & Diu.

The harvesting season in Goa commences in March and ends by the middle of May. To facilitate harvesting and collection of fruits, pruning of the under-growth became necessary because the growers generally refrain from visiting the plots during the other periods of the year than harvesting. The pruning activity is conducted as a part of harvesting by the cashew growers. The growers undertake pruning work in December and January and complete it before the ripe cashew fruits start dropping. The harvesting is done either by plucking or collecting the dropped fruits. In Goa plucking is not in practice as the cashew apples are used for preparing cashew liquor for which only fully ripe fruits are required and so they are allowed to ripe fully in the tree itself till they drop. The dropped fruits are then collected, pooled together and the cashew apples and the seeds are separated by hand. In Goa all the harvesting work is generally done by the growers themselves along with the family members including children. Some of the growers having large holdings employ hired labourers, generally female.

The raw cashew nuts so obtained are dried in sun by the growers for a day or two in order to reduce the moisture content in the shell to improve keeping

quality. The nuts are then collected in small lots from the scattered growers and then assembled together for sale. In Goa there are no specific wholesale assembling centres where the rawnuts assembled on a large scale. The Village trade is predominant and the assembling mostly takes place in the village itself. The agencies involved and their share in the assembling of raw cashewnuts are:

1	Growers	-	40%.
2	Village Merchants	-	28%.
3	Itinerant Merchants	-	26%.
4	Wholesalers & Processing Units.	-	5%.
5	Country Processors and Others	-	1%.

It is observed that a majority of the growers in Goa are not inclined to take their produce to their market but they choose to sell it in the Village itself, preferably at home itself. This attitude of the growers is to be attributed to several factors such as indebtedness of the producers, difficulties in transportation and the age old practise of traders and processors taking ex-godown delivery. It was

also found that the growers having large marketable surplus take their produce to important market centres or sell it directly to the processors.

It is a most common feature in Goa to see the itinerant merchants visiting the producers during the seasons for the purchase of raw nuts.

In most of the cashew growing villages, one or more cashew merchants are functioning. These merchants purchase raw nuts from growers either by visiting the growers' premises or at their shops. Some of the merchants are having grocery shops and cashew business is done during the season.

A small quantity of raw nuts is assembled by country processors and they sell the kernels. The practice is common only in BARDEZ Taluk.

The wholesalers functioning in the markets of SANQUELIM, BICHOLIM and PONDA purchase rawnuts brought by the growers to the markets and also from the small village merchants and itinerant merchants who have received credits from wholesalers during the pre-harvest period.

The processors generally do not take part directly in assembling. Only a small quantity is assembled by the processors through appointed agents. However, the processors play a very important role in supplying finance to the traders for assembling and providing transportation facilities.

Co-operative Marketing Societies also deal in cashew. The marketing society at Ponda, namely THE GOA BAGYATIDAR SAHAKARI KHAREDI VIKRI SOCIETY LIMITED is the leading marketing society in Goa. In the beginning in 1965, the society was dealing only in beetlenut, but from 1967 onwards the Society started a business on cashew on a moderate scale with a view to give a better price to producers. The produce of cashew brought by the producer to the society for sale is stored in the Society's godown in the name of the producer and a pledge loan is advanced by the society and the producer sells his cashew to the society when prices are maximum. Mostly prices of cashew are fluctuating and many producers are getting the advantage of this by selling the cashew through the society.

The growers in Goa are found to be interested in disposing of their produce as soon as the harvesting is over and before commencement of the monsoon. The general method followed by the growers to store the raw nuts is in heaps at a corner of their residential houses or court yard. Some of the growers are also found to be storing nuts in gunny bags. A few growers use bamboo receptacles, (KADA) and containers.

The traders dispose of the raw nuts generally within a fortnight. They keep the nuts in cement concrete godowns either in heaps or in gunny bags.

The storage of raw nuts by processers has a vital importance as the nuts are required to be stored for a long time - say 6 to 10 months and during the rainy season when the weather is damp. The processers store the rawnuts in a well built cement concrete godown in heaps.

The growers use either gunny bags or bamboo baskets (PATLO) to transport the raw nuts from the gardens to their premises.

The growers transport the harvested nuts by head loads, bullock carts, trucks, or pick up vans depending upon the quantity available and the distance. In PERNEM and SALCETE taluks the itinerant merchants are found using bicycles for transpertation. The transportation expenses vary according to the varied conditions of the link roads, the distance and the mode of transpertation used. The transportation from Pernem is more expensive and difficult for the local processors as the road link has been cut by the RIVER CHAPORA. The river is to be crossed at COLVALE by ferry boat which is a time consuming and expensive operation.

The traders after purchasing the nuts store them in heaps in their godown. The weighing and storing activities, are usually done by the traders themselves. In the case of wholesalers they employ hired labourers on monthly basis. In the case of processors, they buy the nuts from the producers, transport it to their courtyards for drying in the sun and then take it to their godowns where they are stored.

Several malpractices are done by different market functionaries in Goa for self advantage. The traders in Goa, use different types of weights and measures by which the seller is confused and purchasers reap undue advantage of the sellers' ignorance. To bring about a uniformity in weights and measures "THE GOA, DAMAN & DIU WEIGHTS & MEASURES ACT" has been brought into force and the metric system of weights and measures is brought into practice.

The important agency financing the raw nut trade is the processor. The wholesaler is the other agency investing finance in cashew trade. The processors either utilise their own funds or take advances from the banks. It is a general practice in the cashew trade to provide finance and advance to the suppliers. The processors provide credit to wholesalers much in advance and the wholesalers in turn transfer it to the Village and itinerant merchants and cashew growers. The wholesalers either charge interest on the advance from the debtors or effect price deduction. About nearly 25% of the growers in Goa receive advance from traders for varied reasons, the major being finance for domestic use, the immediate need for payment of rent to the landlords, and paying bid amount for obtaining liquor distilling licence.

Because of the anomalies of the market functionaries, raw cashewnut has been notified as a regulated commodity under the Maharastra Agricultural Produce Marketing (Regulation) Act 1963 as extended to this Union Territory. The Goa Agricultural Produce Market Committee established under the above Act has undertaken the regulatory activities in the whole of Goa district by issuing licenses to the cashew traders and inspecting their activities. The Market Committee has its area of operation all over Goa and has sub yards in different marketing centres.

The facilities provided for the benefit of producers and traders are spacious auction sheds for proper display and sale of produce, authorised weight and measures for correct weighing, rest houses, canteen, drinking water, lighting facilities, grading of produce for better returns, fumigation chamber for storing raw nuts by traders and price board indicating ruling prices of the day. The traders are also provided with godowns and shops on a rental basis. Weighing of the produces is done by the market committee officials in the yards on automatic weighing balance and weighing slips are issued to the producer thereby enabling him to get the correct wight of his produce. The Committee earns revenue by way of license fee, cess, and rent of shops etc.

PROCESSING OF CASHEW :

The processing of raw nuts is done by country processors and growers by crude methods. They roast or burn the shells completely in small quantities by putting the rawnuts in blazing fire. After roasting the cashew nuts are hammered by the help of a mallet till the shell splits and then the kernel is removed. The quantity so processed by the growers and country processors is around 400 tonnes annually. By this method, the shell liquid is completely lost and the breakage of kernels is more. No further process of baking and conditioning is done and so it is not suited for longer storage. Country processors retail the kernels in the market in small quantities.

The processing of cashewnut by the growers is only for personal consumption and is in a very small quantity at a time.

Processing of cashew nut on a commercial scale was established in Goa in the thirties. The first processing unit was established in 1932, second in 1933, and in 1955 three units were established, followed by two more in 1964 and 1971 and two in 1972, and the balance out of a present total of 13 in the later years.

No mechanical devices are used in Goa for the processing, excepting the device used for the roasting of nuts. The processing is done in stages like these in other states,Soaking in water, Roasting in Oil bath method. Drum Roasting, Shelling with the help of mallets, Baking for removal of the testa, peeling, conditioning and grading.

The recovery percentage of kernels vary from 20 to 23% of husked kernels and 28% unhusked kernels depending upon the quality of raw cashew nuts. Out of the kernels obtained 60 - 65% fall under wholes, and the remaining goes as splits, butts, and pieces. Goa's share in the total of cashew kernels production in India is less than 2000 tonnes and that of CNSL less than 100 mt. tonnes annually.

Grading of cashew kernels in Goa is done according to its size and shape. The wholes are divided in eleven grades, butts in four grades, splits in three grades and pieces in seven grades. The gradation in case of wholes is done in accordance with the number of kernels required for one pound weight. The best grade obtained is 180 counts followed by 210 counts and the lowest is 500 counts. The grading work is done by experienced female workers in the processing units. The grade

specification followed in Goa are generally based on the grade specifications framed by the Export Inspection Agency. Goa falls under the Bombay Zone of the Export Inspection Agency, which has a branch Office at Panaji. The Quality Inspection of the kernels to be exported by the processors of Goa, is being done by the staff of the Agency stationed at Panaji.

The processors pack the kernels immediately after the grading. The kernels for local sale are packed in polythene bags of 200 and 400 gms. For despatch to far off destinations involving large period in transit the kernels are packed in carbon-di-oxided filled tins of 25 pounds. The packed kernels are stored in specially erected chambers which are conditioned and scientifically maintained.

For the sale of cashew kernels in the market of Goa, the retail prices are fixed by the respective processors who sell it at a lower price with a margin to the retailers, wholesalers and commission agents. Out of the total quantity of kernels produced in the processing units only about 10% is sold in the local markets of Goa, 4 to 10% is exported to foreign countries and the remaining is sold in the important

markets of India. For sale in the important markets of Bombay, Ahemadabad, Belgaum, Delhi, etc. some of the processors have appointed commission agents to make negotiations with the wholesalers in the respective markets and to communicate the price to the processors. In the international markets like the USA, European countries, Middle East Countries, etc., the processors sell their produce through appointed agents in the important markets.

The distribution of cashew kernels to the retailers in Goa is done by the processors through commission agents or wholesalers. The commission agents and wholesalers contact the retailers directly and distribute it to them on door delivery basis. The margin for the retailer is fixed which ranges from 5-10%. The actual distribution to the consumer is done by these retailers who run grocery, pan shops, bars, taverns co-operative societies etc.

The CNSL and the testa are the bye products obtained. The shell is being used by the processors as fuel required for roasting, and also sold in the local markets as fuel and are purchased mainly by jaggery

manufacturers. Shell liquid is sold in the market and used as a lubricant for bullock carts and for painting country sea crafts. The testa is used as an ingredient in poultry feeds.

COST OF PROCESSING: ::

The processors employ hired labourers on monthly basis for the general activities like drying, cleaning, storing, weighing, unloading, loading, packing etc. The expenses incurred for processing, including overhead charges, packing, grading, and transportation, salary to the administrative staff and permanent labourers were increasing.

The following table shows the cost of processing 405 Kgs. of cashew in 1972.

T A B L E - 32

5 6 2 COST OF PROCESSING OF CASHEW NUTS : GROWERS FROM NARVE - TRADER OF BICHOLIM PROCESSOR AT BICHOLIM- QUANTITY 405 Kgs. 1972 - CROP

DETAILS	AMOUNT	%AGE
1. Expenses borne by the growers for transportation upto Bicholim market.	14.00	1.41

	DETAILS		AMOUNT	MARGIN
2.	Nett price realised by the growers		661.00	66.70
3.	Price paid by the trader at Bicholim @ Rs. 166.66 per quintal.	Rs. 679.00		—
4.	Expenses incurred by the trader.		4.27	0.43
	(a) Weighing, filling in bags, storing.	0.81		
	(b) Miscellaneous expenses	0.28		
	(c) Reweighing and loading in trucks.	0.81		
	(d) Market cess paid.	2.37		
		4.27		
5.	Margin of the trader.		29.48	2.97
6.	Price paid by the processor to the trader at Bicholim @ Rs. 175/ quintal.	Rs. 708.75		
7.	Expenses incurred by the processor.		2.92	0.29
	(a) 1. Transportation from Bicholim market to processing unit.	1.00		
	2. Unloading at Processing unit.	0.72		
	3. Drying of raw cashew and storing.	1.20		
		2.92		

DETAILS		TOTAL	%AGE
(b) Processing expenses of 385 Kgs. of raw cashew (20 Kgs. of raw cashew last in dryage).		115.50	11.65
(c) Packing of cashew kernels (86.6Kgs.)		50.00	5.05
8. Margin of the Processor.		113.83	11.50
9. Price realised by processor at Bicholim (ex-factory).	991.00		
(a) By sale of 86.6 Kgs. of Kernels @ Rs.11.40/Kg.	987.25		
(b) By sale of 3.75 Kgs. of CNSL @ Rs. 1/Kg.	3.75		
	991.00	991.00	100.00

Source - State Marketing Officer - Government of Goa, Daman & Diu.

T A B L E - 33

5 6 3 GROWER FROM NARVE - WHOLESALER IN SANQUELIM MARKET SUBYARD - PROCESSOR AT BICHOLIM - CONSUMER AT PANAJI - QUANTITY - 862 Kgs. - 1976 - CROP.

	DETAILS		AMOUNT	%AGE
1.	Price realised by the grower @ R.3.20 per Qtl.		2758.40	54.35
2.	Expenses incurred by the producer to prepare the produce for market.	46.70		
	(a) Packing	- R. 4.40		
	(b) Strings (SUTALI)	R. 0.50		
	(c) Hamel for carrying bags to road side.	R. 4.40		
	(d) Loading into pick up.	R. 2.20		
	(e) Transport from Narve to Sanquelim Market yard	R. 33.00		
	(f) Expenses incurred by the producer in market yard for unloading	R. 2.20		
		46.70		
3.	Wholesale price realised by the grower in assembling market ie. market yard, after deducting market cost R. 2711.70			

DETAILS		AMOUNT	MARGIN
4. Expenses incurred by the Wholesaler in assembling market.		18.05	0.22
(a) Market cess @ R. 0.35/ R.100 -	R.9.65		
(b) Reweighing.	R.1.20		
(c) Repacking.	R.6.00		
(d) Loading.	R.1.20		
	R.18.05		
5. Price realised by the wholesaler from the factory @ R.3.40 per quintal.	R. 2930.80		
6. Wholesalers Margin.		154.35	
7. Expenses incurred by the factory.			
(a) Loading.	R.1.20		
(b) Transport from Sanquelim to Bicholim @ 40 ps per bag of 75 Kg.	R.4.80		
(c) Unloading.	R.1.20		
(d) Drying & Storing of dry cashew @ R.0.25 per quintal.	R.2.16		
(e) Soaking in Water @ R.0.10/ Qtl.	R.0.86		
(f) Skilled labour for roasting @ R.6.50 per quintal including fuel.	R.56.03		
(g) Shelling @ R.8/ per quintal.	R.63.96		

DETAILS			AMOUNT	%AGE
(h) Baking after shelling @ Rs.2.50/Qtl. including heat charges.		Rs. 21.55		
(i) Peeling @ Rs.4/- per qtl.		Rs. 34.48		
(j) Grading charges @ Rs.20/ per Qtl. of Kernels (241.36 Kgs.)		Rs. 55.40		
(k) Recurring charges.		Rs.485.14		
(1) Interest on working capital @ 17.5%.	299.18			
(2) Depreciation on land & Building @ 5%.	10.95			
(3) Depreciation on machinery @ 10%.	2.61			
(4) Office expenses such as supervising, advertisement correspondence, etc.	172.40			
	485.14	731.78	731.78	14.42

DETAILS		AMOUNT	RATE
8. Recovery:			
(a) CNSL	8.62 Kgs.		
(b) Kernels:			
1. N.W.	96.55 Kgs.		
2. S.N.W.	48.27 Kgs.		
3. Splits.	38.62 Kgs.		
4. Butts.	38.62 Kgs.		
5. L.W.P.	12.07 Kgs.		
6. S.W.P.	7.23 Kgs.		
9. Amount realised by the Processor:			
(a) By sale of CNSL @ Rs.2.30/Kg.		19.83	
(b) By Sales of Kernels of Foll: Grade including S.T. @ 6%.			
1, NW in packets of 400 gms. @ Rs.90/Doz.		1810.32	
2. SNW in packets of 400 gms. @ Rs.126/doz.		1086.08	
3. Splits @ Rs.90/doz.		724.13	
4. Butts @ Rs.102/doz.		820.68	
5. LWP @ Rs. 90/doz.		226.31	
6. SWP @ Rs. 34/doz.		126.53	
		4813.88	4813.88
10. Sales Tax @ 6%.		271.41	6%

DETAILS		AMOUNT	%AGE
11. Factory Margin (R.4813.88 - 2930.80) = R. 1883.08 - 1003.19 which includes 271.41 S.T. and R. 731.78 processing exp.		879.89	17.20
12. Expenses incurred by the distributor for carrying the kernels from Bicholim to Panaji.		37.38	0.61
13. Distributors Margin at Panaji.		222.09	4.20
14. Amount realised by distributor by sale of kernels in packets of 400 gms. to consumers.			
1. N.W.	1924.40		
2. S.N.W.	1140.64		
3. Spli-ts.	761.24		
4. Butts.	856.39		
5. L.W.P.	240.14		
6. S.W.P.	131.38		
	5054.19		
(b)			
Shell oil.	19.16		
	5073.35	5073.35	100

Source - State Marketing Officer - Government of Goa, Daman and Diu.

CASHEW APPLE & LIQUOR - GOA :

The income of the cashew crop is not only earned from the raw nuts but also from its apples. The Marketing Survey in Goa reveals that out of the total income earned from a cashew plantation about 35% represents the income from cashew apple alone. The liquor industry in Goa falls under the category of cottage industries. In Goa the cashew apples are mainly used for its juice which is used in the manufacture of cashew liquor. About 5% of the cashew growers sell out the cashew apples to the distillers for the harvesting work as wages. In such cases the owner obtains raw cashewnuts and the cashew apples are taken by the distiller. It is also found that about 50% of the growers extract juice from cashew apples and sell it to the distillers. The utilisation of cashew apples to manufacture liquor was estimated to be about 63% of the total production ie. 78100 mts. in 1976 and about 70% of the total production of about 80000 mts in 1980. The utilisation of cashew apples for manufacturing liquor was 82% of the total production in pernem, 77% in Bicholim, 74% in Ponda, and 44% in Bardez taluks. A majority of the growers manufacture liquor themselves.

LIQUOR INDUSTRY IN GOA:

ESTABLISHMENT OF A DISTILLERY :

Cashew liquor in Goa is manufactured by country method of distilling the cashew distilleries are known as "Bhattis" in Goa. The Bhatti comprises of a copper couldron "Bhan", a clay pot, "Lawni", (Condensor), a pipe (specially of bamboo) and an open hearth. These equipments are arranged in a special form and the "Bhatti" is established. The copper couldron is fixed to the open hearth leaning towards the opposite direction of the mouth of the hearth. The copper couldron has a small hole at the upper half in which the pipe is fixed properly. The size of the pipe is about 2 ft. long, the other point of the pipe is fixed to the mouth of the clay pot. The clay pot is erected above ground on a stand at a distance to avoid touch of heat from the hearth. The pipe acts as a transformer of the vapour from the copper couldron to the clay pot which acts as the condenser.

NUMBER OF DISTILLERIES IN GOA :

In Goa, in almost all the cashew plots, the country stills are seen, which are generally established for the season. The number of licensed stills for the manufacture of liquor in Goa in 1971-72 was 2174 and in 1975-76 it was 1374, in 1980 - 81 it was about 1450.

VARIETIES OF CASHEW LIQUOR :

Cashew liquor is considered as a country liquor. URAQ and FENI are the two varieties of cashew liquor manufactured in Goa. Both these are categorised according to the alcoholic contents and are judged on the basis of proof litres. URAK is of 14-15° of Alcometre and FENI 18-20° of Alcometre. The Alcohol content in URAQ is about 40% and in FENI it is about 75% and remaining is water.

PREPARATIONS FOR MANUFACTURING CASHEW LIQUOR :

METHOD OF EXTRACTING CASHEW JUICE :

In Goa, no mechanical devices are used for the extraction of juices from cashew apples. The method adopted is an age old one. The apples after collection are pooled in a specially prepared basin, locally known as KOLAMBI. The basin is either prepared with cement concrete or by carving stones. After collecting cashew apples in the Kolambi, the seeds are removed and the apples are crushed by the legs and the juice is extracted. The juice flows out of the Kolambi through a tunnel provided to the Kolambi and is collected in an earthen utensil or in tins. After the first crushing by legs, the juice is not squeezed out completely and the residue is bundled, locally known a mudi, by tying it with streng

creepers and kept under heavy stones and thus the remaining juice gets squeezed. Even by this the complete juice does not get out. However no further efforts are made to obtain the remaining juice. The residue after this is thrown away as a waste or some times used as fuel in the liquor industry. It was estimated that about 35 Kgs. of apples are required to get 1 tin of juice equal to that of 4 gallons. Approximately 2 Kgs. of apple give 1 litre of juice by the methods followed in Goa by the Cashew growers.

FERMENTATION OF THE JUICE :

The cashew juice obtained is stored in drums or clay jars for 2-3 days to get the juice fermented for better quality liquor. While in storage, natural bacteria cause fermentation of the juice. The fermentation of the juice is verified on the basis of formation of the film floating over the juice.

DISTILLING:

The process of distilling cashew liquor is based on the general principles of distillation. The copper couldron acts as a boiler in which the cashew juice

or mixture of juice and uraq is made to boil and evaporate. The vapour passes through the pipe and enters the clay pot which acts as a condensor. The clay pot is kept cool by constantly pouring water on it to enable condensing of the vapour. The liquid assembling in the clay pot after condensing is the liquor.

For manufacturing Uraq about 20 gallons of fermented juice is distilled at a time. From this 20 gallon juice, 14 to 15 litres of Uraq is obtained which contains 40% of alcohol and 60% of water. Feni is obtained by distilling Uraq mixed with fermented juice in the ratio of 1:2, which is a powerful form of cashew liquor. A mixture of 30 litres of Uraq and 60 litres of juice produce 14-15 litres of Feni which contains 75% of Alcohol and 25% of water. The recovery of Uraq and Feni from the Cashew juice is around 15% and 6.5% respectively. To get a litre of Uraq, 12 Kgs. of Cashew apples and for a litre of Feni, 30 Kgs. of apples are required. The time taken by the manufacturers in Goa for each distilling producing 15 litres of liquor varies from 3 to 5 hours. The quality and taste of the liquor differs according to the time taken for distilling. Those who are desirous of manufacturing better

quality and tastier liquor, distill it by the slow method. The liquor, obtained in a short period becomes bitter and is of a lower quality.

COST OF MANUFACTURING FENI & URAQ :

The major cost for manufacturing cashew liquor is of the labourers employed for distilling and the fuel required. Generally the fuel used consists of wooden sticks, and firewood obtained while removing the undergrowth in the cashew plots. Some of the manufacturers use fire wood purchased. The stills are generally established temporarily only during the season. All the materials required for the still are repeatedly used for several years, except the clay pot, the purchase price of which is negligible. The table below enumerates the estimated cost of manufacturing Uraq and Feni.

TABLE - 34

5 6 4 ESTIMATED COST OF MANUFACTURING 15 LITRES OF URAQ AND FENI IN 1976 AND 1980 *

ITEMS OF EXPENDITURE	URAQ				FENI			
	1976		1980		1976		1980	
	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost
Juice (Gallons)	20	22/50	20	29/25	52	58/50	52	76
Labourers (Numbers)	1	5/00	1	7/	3	15/00	3	21
Fuel (Kgs.)	40	5/40	40	16/65	120	16/20	120	50
Depreciation of stills.	-	1/50	-	4/	-	4/50	-	12
Other expenses.	-	1/25	-	3/50	-	3/75	-	10/50
		35/65		60/40		97/95		169/50

* Source - State Marketing Officer, Government of Goa, Daman & Diu.

The data on the production of cashew liquor is being collected and maintained by the exeise department regularly. In 1965 total production of Uraq was 751171 and Feni 504440 litres, in 1968 it was 640123 and 568152 litres, in 1972 it was 646612 and 516565 litres, in 1976 it was 621198 and 494370 litres and in 1980 it stood at 595147 and 490212 litres respectively. The actual quantity of production appears to be more than this, as the quantity retained by the manufacturers which will be around 10% of the total production and the quantity consumed by the manufacturers and labourers during the operation which comes to about 5% is not included in the marketable surplus. Production of cashew liquor was highest in Pernem, followed by Satari and Bicholim, and the taluks of Canacona and Salcete reach the lowest in its production.

MARKETING OF CASHEW LIQUOR:

PACKING:

The containers used for cashew liquor are China clay jars, big wooden containers, glass bottles, and plastic containers of various capacities. The glass carbois are covered with a netting of cane strips to protect the same from breakage when handling.

STORAGE:

The cashew liquor is generally stored in containers without any special arrangements. The place of storage is the residential premises of the manufacturers and the godowns in respect of the traders. It is believed that the cashew liquor with long storage improves in quality.

ASSEMBLING:

The manufacturers of cashew liquor generally sell the liquor in the assembling centres and weekly markets. The important assembling centres for cashew liquor in some of the taluks are MAPUSA, SIQLIM, CALANGUTE, PERNEM, VALPOI, BICHOLIM, SANQUELIM, PONDA, BANASTARI, SIRODA and PANAJI. The major part in assembling is played by the manufacturers. They carry the liquor to the assembling centres and sell it to the wholesalers, bars, taverns, or retailers.

MARKETING SEASON:

The peak marketing season is from April to June Cashew liquor is sold immediately after manufacturing by the distillers. Some of the manufacturers retain

the liquor for better price even upto 5-6 months. The cashew liquor actually starts arriving in the market from March and continues upto July - August.

METHOD OF SALE :

Open negotiations are generally in practice for wholesale transactions of liquor between the manufacturers and traders and among the traders. In some cases the prices are settled in advance by the purchasers while giving credit to the manufacturers/ seller.

TRANSPORTATION:

General mode of transportation used by manufacturers is buses and taxis to the nearest assembling markets. It is also being transported in bullock carts. The places where water transport is available, the produce is transported by country crafts.

FINANCE :

The liquor manufacturers who are also the cashew growers require finance for varied purposes, the main being payment of rent to the land lords and communedadas,

for obtaining manufacturing licences, and to pay the bid amount. About 25% of the distillers require finance and they obtain the same from the cashew liquor traders by pledging the liquor to be manufactured in future. In such cases some lenders charge interest which vary from 12 to 25% and some fix the price in advance which is generally far lower than the market prices. The traders and the contractors utilise their own funds or obtain the finance from commercial banks.

DISTRIBUTION :

Cashew liquor in Goa is generally sold in retail in the taverns and bars, which are licenced by the Government for sale of liquor in general. In villages mostly it is sold in taverns. In addition to these taverns and bars, cashew liquor is being sold by licenced dealers of liquor in sealed bottles.

REVENUE TO THE GOVERNMENT :

The Government of Goa, Daman & Diu earns revenue in terms of excise duty amounting to around 11-16 lakhs of Rupees every year. The revenue is

from the excise duty levied on the liquor produced, and from the licence fee for establishing stills. The Excise Duty from the cashew liquor, industry in 1964 was Rs. 292308/ in 1968 Rs. 702401/ in 1970 Rs. 1385405/ in 1974 Rs. 1680008/ in 1976 Rs. 1119002/ and in 1980 it was Rs 1200689/.

PRICES:

The price of cashewnut, cashew kernels and cashew liquor has been increasing steadily, but the share of the producer as compared to both the prices paid for raw nuts and the price paid by consumers for kernels was found to be considerably low. The growers could have realised better prices by directly selling the rawnuts to the processors. The price of Mangalore Market in Karnataka, Malvan Market in Maharastra, were higher than that of Kerala. The growers in the taluks of Salcete, Tiswadi, and Ponda realised lower prices than those of Bicholin, Satari, Bardez and Perenem Taluks. The prices of kernels in retail were also increasing and the price of kernels varies according to the price prevailing in the international markets and according to the different grades. In Goa the price of kernels, during the months of March, April

and May generally rule at a lower level, during May and June the price rises till September. During the months of November, December and January the prices rule always at a higher level.

The unit of quotation for sale of cashew liquor in wholesale is a KOLSO of 18 bottles or 3 gallons or 13.65 litres. In some places a unit called 'BULL' (a jar) is in practice. The bull is of seven Kolso's or 21 gallons capacity. In retail the unit widely used is a bottle of 750 ML. The lowest unit for retail sale is the PEG, which is about 62 ML. The 'PAY' is the other unit of quotation in retail. It is of 187 ML. The price of cashew liquor shows a continuous rise since the last 10 years. In March and June, the liquor prices rule at a lower level, during the remaining months the prices rule at a higher level.

In Goa it was found that many of the cultural operations and plant protection measures are not being undertaken excepting pruning of wild growth in the plantations, Crops suffer from the attack of pests and diseases. Therefore it is suggested

that the cashew growers in Goa should be enlightened more about the different cultural operations, use of manures and plant protection measures. Marketing of raw cashew nuts, and kernels should be streamlined. The growers and processors should come together and eliminate the present chain of middlemen. Storage facilities and financial requirements of the growers should be made available. In Goa, the CNSL percentage obtained is very low and techniques should be evolved to increase the percentage of CNSL. The liquor industry wastes considerable amount of cashew juice because of the crude ways of extraction, the use of crushers will help to obtain more juice and make the process more hygenic.

The establishment of co-operative processing and marketing societies in Goa could undertake processing of raw nuts and sell the kernels on behalf of the cashew growers. Suitable Co-operatives of Liquor Manufacturers may be organised in Goa, and the excise duty can be collected by these societies instead of through the private contractors.

5 7 0 FINANCE FOR THE CASHEW INDUSTRY :

The requirement of finance for the cashew industry can be classified into the following:

1 For production, ie. for new plantations or replantation of cashew and its maintenance;

2 For processing of raw cashew nuts, installation of machinery, factories, etc.;

3 For procurement of raw nuts, both internal as well as imports.

4 For export of cashew kernels and CNSL.

In view of the acute shortage of raw nuts due to the dwindling of imports from traditional sources, the need was felt to increase production of cashew nuts in the country to feed the starving processing units. Intensive and extensive cultivation of cashew was started. More and more area was brought under cultivation and various scientific methods of cultivation were implemented. The farmers and corporations required funds for all these developmental activities.

The existing capacities of the factories is much in excess of the present supply of raw nuts. Only about 261 factories in India are eligible to get imported raw cashewnuts, and many of the existing units have been declared as sick units in Kerala and have been taken over by the K.S.C.D.C. Hence the question of establishing of new factories in Kerala does not arise.

The processing units require facilities for procurement of raw nuts either for internal procurement or imports. This investment is normally heavy all the more since the raw material is to be purchased in a short period for the requirement of the entire year.

The exporter will require finance for the export of cashew kernels and CNSL abroad. Mostly the exports are done by the processing units themselves and they may require finance against raw materials and finished products and also for shipment of exports.

CREDIT FACILITIES FROM BANKS :

The cashew industry requires institutional credit from the early stages of procurement of raw nuts till the finished kernels are exported.

Cashew industry is one of the industries in India where the entrepreneurs' contribution is low compared to the quantum of institutional finance involved. The peak level credit requirements of the industry for the purpose of procurement, imports and exports in the country generally commences in March / April and ends in June / July every year. The estimated credit required is around Rs. 150 crores. Credit assistance extended by commercial banks to the cashew industry at different stages are :

(a) Developmental loan for the development of new plantation as well as for replantation of cashew and their maintenance.

(b) Term loans for the acquisition of fixed assets for processing units.

(c) Supply credit for imports and local procurement.

(d) Credit for processing cashew nuts.

(e) Post shipment credit.

(a) <u>Developmental Loans for Cashew Plantations</u>:

Since the supply of indigenous nuts fall very much short of the requirements of the industry

it was necessary for banks to give adequate finance to cashew plantations both in private and public sectors. Development loans for cashew are granted either for new plantations or for replanting of existing ones and their maintenance. The repayment of development loans granted on a long term basis is spread over a period of 10 to 15 years with an initial gestation period of 3 to 4 years. Such loans normally carry a margin stipulation of 20-25% on the cost of investment and are eligible for refinance from the ARDC short term production loans to be disbursed over a period of 4 - 5 years are generally allowed for preparation of land, cost of seedlings, fertilizers, etc. The cost of new planting varies from Rs. 1100 to 1900/ per hectare in the first year. Newly planted corps have to be maintained for 3 - 4 years for effective production in subsequent years, the maintenance expenses during this gestation period ranging between Rs. 300 - 600 per hectare. The total cost of raising the crop on one hectare till the end of the 6th year, normally ranges between Rs. 3200 - 3600 subsequent maintenance costs would be around Rs 500 - 600 per hectare per year. Repayment will be in a phased manner, in four annual instalments from the sixth

year onwards. Credit facilities in the nature of short term loans or hypothecation cash credits, against standing crops, are granted mainly for meeting the maintenance costs of cashew plantations. Short term loans are generally adjusted immediately after the marketing of the produce, while hypothecation limits are renewable annually before the commencement of the season.

Commercial banks, with all types of loans, participate in the Indian Cashew nut project of the World Bank for cashew production programmes in the five year period of 1980 - 1984 in 22 districts in the four states of Kerala, Karnataka, Andhra Pradesh and Orissa. In addition commercial banks have been associated with IDA supported lending through participation in ARDC sponsored schemes.

(b) Term Loans for acquisition of fixed Assets :

Banks generally consider provision of finance for setting up cashew processing units, as well as for oil extraction plants. The entire project cost for setting up of a unit of moderate size employing about 200 workers is about Rs 5 to 8 lakhs. Fixed assets generally comprise 4 - 5 worksheds, drying yards,

storage godowns, office building and the roasting and oil extraction plants. Eventhough many new units are coming up in the country, very few units are availing of the term loans for the acquisition of fixed assets, due to the fact that established processors generally meet the expenditure on this from their own resources, while only new entrepreneurs avail of bank finance. However in the case of oil extraction plants using polymerisation process, where larger capital outlay is involved, most of the firms avail of Bank finance.

(c) Procurement Credit:

The processing units require credit facilities for the procurement of raw nuts both indigenous and imported, for which they avail three or four types of facilities from the banks. They are:

(1) Supply credit for imports through third countries;

(2) Import finance:

(3) Clean packing Credit;

(4) Procurement trust facility.

1 Supply Credit:

A letter of Credit is opened at the instance of the agencies of Indian Importers operating in third countries like Singapore and Hong Kong for import of raw nuts from Africa. A 90 days bill is drawn on the Indian Importer or alternatively a back - to - back letter of credit of 90 days is opened by Banks in India in favour of the agencies. The banks in the country where the intermediary is operating discounts the bill drawn under the letter of credit and receive payment on the expiry of the period. Within the stipulated period the raw nuts are processed and exported to various destinations and the import bill is paid on the due date out of the export proceeds. Thus the cost of raw nuts is financed in a third country by way of bill finance or supply credit. This relieves the banks of the burden of import finance. It involves the burden of commission, and other charges resulting in an increase in the raw nut cost.

2 Import Finance :

Upto September 1970, import of raw nuts into India was freely allowed under the Open General Licence. Raw nut prices were pushed up or pulled

down by the big processors to serve their own ends. The outflow of foreign exchange in payment of raw nut imports was increasing year after year. Hence the Government of India in 1970 stopped the import of raw nuts under the OGL and canalised the imports through the CCI. Recently, due to the demands of the industry import of raw nuts was decanalised and placed again under the OGL and required the importer to offer 50% of the quantity imported to the CCI. The importers proceeded to open Import Letters of Credit through their banks and obtain import finance on the arrival of the carrying vessels or import bills. Before entertaining the processors' application for opening import letter of credit, the banker is required to satisfy himself that the purchase made would ultimately result in profit to the processors. The bank establish an inland letter of credit in favour of the CCI for the processors against production of necessary documents for the imported raw nuts as and when the allotment is confirmed by the CCI.

3. Clean Packing Credit:

As the raw nuts are obtained from far off places, such as Orissa, Andhra Pradesh, Karnataka, Tamil Nadu, certain amount of clean procurement credit appears to be essential for the growth of the industry. Such packing credit, clean, is granted in order to meet the credit needs of the borrowers in respect of the goods in transit.

4. Procurement Trust Facility:

This is usually allowed as a sub limit under pledge account in view of the difficulties experienced by the borrowers in taking delivery of transporting and storing the raw nuts in their godowns from the allotment by the K.S.C.M.F. As soon as the raw nuts are allotted to the processors and paid for by them, they are lifted from the various drying yards in the state to their respective factories. The nuts normally take atleast a week or two to reach the factories. The processors are therefore allowed trust facility for 15 days under pledge limit during which the goods are taken into the bankers godowns.

(d) Credit for Processing of Raw Nuts:

This facility is made available to the processing units for their working capital requirements to meet the cost of raw material and processing expenses till the final produce is ready for export.

1 Packing Credit Pledge: is granted to enable the processors to store the imported and local raw nuts and also for purchase of packing material such as tin plates, hoop iron, and tin solder etc. Finished kernels are also permitted to be launched under pledge limit for short periods.

2 Packing Credit Hypothecation: is granted to enable the processors to release raw nuts for processing, payment of wages to labour, and for meeting other expenses incidental to the processing of nuts.

3 Advances against out agency receipts: under packing credit are also allowed against receipts issued by steamer agencies covering packed kernel cases despatched for ultimate shipment overseas. This facility enables the units to raise funds even

before the shipments are actually effected. Banks insist on accompaniment of certificate from Expert Inspection Agency along with the OAR for availing of finance.

4 Clean cash Credit: or secured overdraft against real property is also generally granted to facilitate processors for internal operations. This limit is operated in such a way that the balance is brought to credit at the end of the procurement season.

(e) Post Shipment Credit:-

After the shipments are made, the expert bills are tendered by the exporters and negotiated against confirmed orders under foreign banks' letter of credit. Finance under this facility is granted at concessional rates of interest. According to the latest directive of the R.B.I., both pre - shipment and post shipment credits granted to the cashew industry upto a maximum of 180 days are eligible for concessional rates of interest.

LEVEL OF FINANCE:

In determining the level of finance to exporters, the financial banks observe the following criteria:-

(1) Past performance, (2) Future Sales Projections, (3) Credit worthiness of the borrowers while taking into account the roasting capacity of the factories owned or leased out to the processors. Besides, these limits ad hoc limit are also granted to exporters during the cashew season of March / July.

INVENTORY LEVELS:

In the past when the supply base was adequate almost all the factories were working for about 9 to 10 months in the year. However, factories in Kerala now work for only about two months, while those in Tamil Nadu work for about 4 to 6 months, due to the non availability of raw nuts. From the experience of the banks, the normal requirements of financing inventory for the industry works out as follows:

1 1 1/2 to 2 months consumption of raw nuts.

2 1/2 months cost of production for processed stock.

3 1 month cost of sale for finished kernels.

4 1 to 2 months sales for post shipment credit.

SYSTEM & PROCEDURES:

1 Packing Credit - Pledge:-

The purchase of Local raw nuts - Fixation of Price:

As the prices of indigenous raw nuts very from state to state, the rates of advances for procurement and plege of raw nuts are fixed on the basis of the average quotations obtained from various markets in different states. The fixation of such price is done by a committee of banks which reviews the position at periodical intervals, particularly as and when wide fluctuations take place. As regard prices outside the state of Kerala, an average price is determined to which is added a standard allowance for drying (5%),

purchase tax (5.5%) and transporting charges (1%). The net price thus obtained is taken as the base for valuation of all local nuts purchased during the season. While the prices are thus fixed and the credit facilities are granted on agreed rates, the banks have the option to fix margins on such advances depending upon the merits of each borrower.

2 Packing Credit - Hypothecation for Processing:

The facility of hypothecation is granted for the purpose of processing the raw nuts. Usually the number of days taken for conversion of raw nuts into kernels is around 14 days. For all practical purposes the processing period is taken as 15 days, including one grace day. For availing of packing credit under hypothecation borrowers are required to submit periodical stock statements based on which drawing powers are fixed. Adequate insurance coverage is also provided. Banks generally take care to see that unduly large stocks of finished kernels are not built up.

3 Advances against Out Agency Receipts:

Sales are effected throughout the year at rates prevailing on the dates when sales are concluded, and rates differ from week to week. The number of contracts put through by client are large. The advances made on the basis of prices indicated in the individual contracts give rise to accounting problems to the banks and more so when they are to be reversed at the time of negotiation of relative export bills. Hence most banks have adopted a uniform price for different grades of kernels. Usually a three tier system of valuation of kernels (a) the wholes (b) the brokens and (c) the pieces is adopted on the basis of the New York rates prevailing just after the markets are opened during the season.

4 Finance against Unsold Kernels:-

Packing credit pledge facilities are mainly intended for storing raw nuts 'out agency' advance may also be lodged under pledge for short duration. Banks generally curb advances against unsold kernels

to discourage the speculative activities of the processors who might hold on to their stocks in anticipation of higher prices in future. The banks accept only kernels that are sold for deliveries during the subsequent months and further on the stipulation that such advances should be liquidated within a short period depending on the circumstances. The banks may stipulate that 15 - 20% of overall limit under pledge be utilised for unsold kernels provided that they are satisfied that their customers do not misuse this privilege for speculative purposes.

5 Inland Sales:

A negligible portion of finished kernels, 5% of total production is sold for internal consumption in India. Separate cash credit and documentary bills and purchased limits are granted to the borrowers to meet the upcountry sales.

OPERATIONAL DIFFICULTIES:

1 Owner's stake in the industry:

Cashew industry in general is working on a low equity base. The industry does not plough back available surplus to generate the equity capital

which would in turn provide the necessary margin for working capital. Margin on working capital is provided by the industry from outside borrowings, either from sister concerns or from partners or relatives. Apart from this, for meeting its equity demands of the banks, the partners of the processing firms mortgage their real estate, land and building at the time of peak advances, but do not get the funds into their firms or companies as equity. As a result some of the firms are working with negative working capital and with very high ratio of outside debt to net worth. Current ratio's of some of the firms are also found to be less than one. This negative working capital in the cashew processing firms causes great concern to financing banks.

2 Ad hoc or temporary Limits:

Bankers are often placed in quandary when the raw nut cost keeps increasing at an alarming rate. In a situation of using costs, the borrowers naturally look to their banks for provision of additional finance for short periods which is normally granted as ad hoc

limits. All the sanctioned limits for exporters are based on price levels obtained during the previous season or at the start of the present season and so there is certainly a need for provision of additional finance. The practice among banks is that they generally allow ad hoc limits on reasonable grounds in the form of short duration packing credits or extended packing credits to tide over the problem of rising costs. It is often found that credit budgets prepared by the branches and head offices of the banks are thrown out of gear on account of such sanction of ad hoc limits.

3 Peak level & Non Peak Level Finance:-

Cashew industry being agro based where the input and output are seasonal, the seasonal nature does not depend only on the indigenous crop, but it varies due to bunched arrival of imported raw nuts. The season of the African nuts commences in October and ends in March and the season of the local nuts is between March and July. There is therefore an inherent uncertainty associated with peak and non peak level finance. Port strikes, Port congestions, labour strikes etc. also tend to make the concept of peak level and non peak level finance inapplicable.

4 Margin Requirements:

Certain banks allow margin requirements to be met by grant of overdrafts and cash credit against securities of real property. While certain banks collect cash margin and also property security in certain proportions covering the entire limit sanctioned, few banks have the practice of obtaining margin at the time when the advance is made. The percentage of margin prescribed also differs from banks to bank. No margin is recovered on foreign bills discounted.

5 Timely Credit Decisions:-

Due to the vagaries of trade in cashew industry, such as steep increase in raw nut cost, as well as due to unforeseen circumstances such as irregular arrival or non arrival of steamers on time, workers' strike in the factories, transport bottlenecks, wild cat Port strikes, changes in the procurement policy of the state Government revision of prices, bunching of imports, import policy etc., frequent changes and enhancement in the limits allowed, under various facilities are found necessary.

Such a situation calls for quick credit decisions from the banks branch managements as well as from the Regional/Zonal Head Offices.

6 Need for trained personnel:-

In order that more and more banks take to financing of cashew trade, it may be prudent to induct personnel trained in credit appraisal and international banking, as new entrants encounter problems in monitoring the flow of credit to the industry and for assessing its need based requirements.

7 Export Credit Guarantee Cover:

The export credit and guarantee corporation limited provides cover to the entire preshipment advances made by the financing banks under whole turnover Preshipment Credit Guarantee Scheme. However the operative cash credit accounts could be covered under the guarantee scheme of the credit guarantee organisation. As regards post shipment cover, as all the shipments are covered under irrevocable letters of credit from foreign banks, financing banks do not generally rely on ECGC cover.

Exporters generally resent to the banks charging them with a premia on account of ECGC cover and they are also required to take a comprehensive risks shipment policy and pay a premium. Again for the same shipment, they are charged for a second time by the banks for post shipment guarantee cover.

SUGGESTIONS:

1 Since, the supply of raw nuts in the country is highly inadequate and the processing units work hardly for three to four months, the banks should be highly selective and quite cautious in financing the setting up of new cashew processing units in the country.

2 In view of the slump in the World Market for CNSL and as the domestic demand for the liquid is very low, care should be given chances in exploring new markets rather than financing new oil extraction plants.

3 Import credit including import trust facility, advance bills, etc., may be made eligible at concessional rates of interest in regard to bank finance.

4 In view of the short supply of raw nuts financing of inventory has to be kept as low as possible. As currently different banks have different norms for financing inventory, suitable inventory norms should be evolved both for peak and non peak level periods.

5 Margin on import letters of Credit stipulated by banks between 5 - 20% provision of higher margin on bulk imports casts a severe burden on importers. Banks may examine reducing the margin requirements in deserving cases.

6 As the equity participation of entrepreneurs is low in relation to the large funds borrowed from financial institution, the equity base of the units need to be strengthened in due course.

7 As the price of raw nuts fluctuate quite often, banks find it necessary to grant ad hoc limits. Hence it is suggested that banks, instead of fixing credit limits in terms of outlay alone may fix limits in terms of quantity of raw nuts subject to suitable overall ceiling. Such a measure

would automatically take care of enhancement of credit limits arising as a result of increase in prices.

8 As most of the cashew processing units are partnership firms or proprietorship concerns, their conversion into Corporate Units should be explored so that they may be able to strengthen their equity base.

9 Suitable cover from the Export Credit and Guarantee Corporation under post shipment guarantee may be introduced to take care of the needs of the banks, particularly for negotiating export bills tendered by exporters against confirmed orders covering letters of credit right from the time of purchase of bills till their negotiations and payment by the negotiating banks. Export Credit and Guarantee Corporation should explore the possibility of automatically recognising the limits granted by banks for pre shipment credit.

Though it is characterstic of the cashew industry that it depends heavily on outside liabilities, it may be noted to the benefit of the industry that no export bill has ever bounced back. However it would be prudent for commercial banks to ensure that there is greater financial participation by the owners of the industry. Banks may also take to financing new entrepreneurs seeking entry into the cashew export trade. Simultaneously, to tone up the internal levels of production, banks should go in for a massive financing of new plantations both in the private and public sectors.

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C H A P T E R - VI

ANALYSIS OF DATA COLLECTED AND STRATEGY FOR STABILIZING THE CASHEW INDUSTRY IN KERALA.

6 1 0 A SURVEY OF WORKERS OF THE CASHEW PROCESSING INDUSTRY IN KERALA.

To ascertain the Socio-Economic status of the workers engaged in the cashew processing industry, a sample survey was conducted in the beginning of 1983 in Quilon where the industry is concentrated. The Survey brought into sharp focus the social and economic backwardness of the cashew workers in general and the variations in the degree of such backwardness among them arising from differences in caste and community and in educational attainments. The Survey was also intended to probe into the conditions of work in the industry and the state of health of workers.

At the time of the survey about 200 registered factories and a number of cottage processing units were reported to be working at Quilon. A sample of 20 working factories, constituting about 10% was selected from the list of factories classified according to size groups. The Survey was conducted with the help of the processors, union leaders,

managers, officials and workers. The factories selected for survey were visited. Houses of the selected workers were visited to observe closely the general environment in which the workers lived and the level of their political, social and economic awareness and to record their impressions.

ECONOMIC STATUS (FAMILY SIZE, INCOME & LAND OWNED)

Majority of the workers in the cashew processing industry are socially backward and belong to the most economically backward sections.

The average family of the workers was found to consist of five to six members, with 58% of the families having a size higher than the average. The averege number of earning member per family is two.

The income earned by a single member is far below the subsistance requirements of the family. This becomes evident once we look into the factors determining the incomes of the families.

During the year which preceded the survey a worker was employed on the average for about 60-70 days which meant an annual income ranging from Rs 450-550/-. On an average there were two earning members in the family. The average family income ranged from Rs 75 - 100/ per month.

An additional factor in the determination of family income would be the employment opportunities in alternative occupations. The scope for any land - based self - employment opportunities was ruled out in the case of the majority of workers since they had hardly any land for cultivation. Moreover, employment intensive agricultural activities like cultivation of seasonal crops were relatively few in and around Quilon. Most of the female workers were skilled in mat making. Others would seek temporary employment in the match industry while some others would be engaged in other manual works in the villages and earn Rs 30-50/ per month from such alternative occupations. Of whatever income they get 99% goes for their subsistence. Only 1% is set apart for luxury and that too either for a little good cloth, or for a good feed on a festival day.

Only 8% of the workers owned on an average more than 1/2 acre of land and 80% of them were in the suburbs. 22% were landless who lived in huts, put up on others lands, or on waste lands. 70% possessed tiny plots varying in extent between 1 cent and 50 cents. It is significant that the workers belonging to poorer sections were employed in the shelling and roasting operations.

EDUCATION, AGE & CASTE :

The education status of workers is closely associated with the social background. Although the general level of illiteracy among the workers is not above the average for Kerala (35% of the workers were reported to be illiterates), 55% of the illiterate workers were engaged in the unclean operations like roasting and shelling in which the scheduled caste/tribe and other backward communities were mostly employed. The majority of the literate, 68% of those who had education up to the primary school level, 74% upto middle school level and 66% upto secondary school level were employed in clean operations like peeling and grading.

Of the total workers 44% were educated upto primary school, 15% upto middle school and 6% upto secondary school level. Thus a higher social status, which is associated with better education fetches better jobs in the processing factories. Out of the workers 94% are women, 42% of them are employed in shelling, 42% in peeling, and 10% in grading, while men are employed only in roasting (1%) heating (1%) packing and other miscellaneous work (4 %).

The age composition of workers reveal the absence of child labour in the cashew industry in Kerala. None of the male workers was below 20 years of age. 10% of the female workers belonged to the age group of 18-20 years. 85% of the workers, both Male & Female were in the age group of 20 - 50 years. Only 7% among women and 16% among men were workers above 50 years of age.

The cashew processing activities may be divided into seven categories, roasting, shelling, heating, peeling, grading, packing and other work. Roasting and shelling are difficult works and it

stains the body and clothes of the workers. The remaining operations are relatively clean. 3/4th of the workers belong to the SC/ ST; and backward communities are employed in the roasting and shelling operations. The forward castes and muslims constituted only 14% and 8% respectively of the workers engaged in these categories of work. Workers belonging to the latter communities were engaged in peeling and other clean jobs.

HEALTH:

In the Survey, workers were classified into those keeping good health, indifferent health and poor health. Only 10% of the workers were reported to be in good health. Of the total, 66% were reported to be in poor health. 24% were in to in-di-fferent health. Those belonging to categories of indifferent and poor health were further probed to understand the nature of their ailments and the period for which they have had them. Nearly one half of these workers were reported to have lung diseases of the remaining, a large proportion

suffered from diseases, of the uterus. Since many of the women engaged in shelling complaint of uterus diseases it needs to be investigated whether there is any connection between their squatting position during shelling operations and such ailment. Two thirds of the workers who had complaints about their health conditions had been suffering for more than two years. Most of the male cashew workers consume alcoholic drinks and about 40% of them are addicted to them. Smoking is common among them.

WORKERS' OPINION ABOUT :

1 EMPLOYERS / PROCESSORS:

The workers' opinion about the employers are that they indulge in wrong recording of output weighed, creating bad blood among workers by bribing a few, underpayment of wages, etc., The employer who is socially and politically powerful easily gets away with whatever he does to the workers. The employer keeps his accounts and official records with great care and to the satisfaction of the inspecting official. However

he conceals more than he reveals of the real state of affairs. Though aware of the various malpractices resorted to by the employer the workers are incapable of resisting them and are often afraid even to disclose these practices for fear of loss of their jobs.

2 TRADE UNIONS :

Almost all the workers belong to one union or other, but even 1% of the respondents did not have a good word to say about these unions. Trade unions were criticised for their failure in ventilating the grievances of the workers and helping in the amelioration of their conditions.

3 EMPLOYEES STATE INSURANCE :

All the respondents had severe criticism against the ESI and the doctors were blamed for the callousness and consequent deprivation of the workers' legitimate medical facilities. Most of the workers were not only aware of the different family planning

devices but also adopted them. However a few entertained some fears about the consequences of sterilization; for instance, a few workers who had undergone sterilization seemed to entertain suspicion that some of their ailments were on account of the operation. Some workers hesitate to undergo the operation because of their beliefs and fear of adverse consequences.

6 2 0 A SURVEY OF THE CASHEW INDUSTRY AND THE SOCIO-ECONOMIC POSITION OF THE WORKERS IN TAMIL NADU AND KARNATAKA.

Unlike the cashew industry in Kerala the cashew industries in Karnataka and Tamil Nadu are not well organised and because of the illiteracy and difficulties in communicating, the survey conducted in person is not much highly appreciable. The organisation of the factories in Tamil Nadu is very simple and the survey shows that 90% of the processors are from Kerala, these who have processing units and export kernels from Kerala. The industry in Tamil Nadu is of recent origin and the workers are not aware of their own rights and how they are beneficial to the processors. The well experienced processors started cashew factories in Tamil Nadu not for the development of the industry but to exploit the illiterate workers and earn more profits. All these 'Factories' are mere sheds which are constructed at a very small cost and which are not upto the specifications of the Factories Act. All sorts of malpractises are widely prevalent in the industry there and no fringe benefits holiday wages and maternity benefits are paid to the workers.

About 95% of the workers engaged in the processing are the natives. 90% of the highly skilled, supervisory staff, and office staff are from Kerala. 80% of the labour force are women folk and 20% of the work force are children below the age of 16. The working hours are long and go upto 9 to 11 hrs./day.

Literacy is almost nil and only about 3% of the workers know to read and write. Their social and economic condition is very deplorable. Very few of the workers own land. About 20% of them live in waste lands, and a sizable percentage are wanderers; and alternative source of jobs and income is not at all a problem for them. Family planning, education, medical care are all beyond their scope of thinking. Most of these workers belong to backward classes.

The opinion of the workers about the employers are that they are their saviours and they have no complaints about them. About 99% of the workers are not serious about being organised. The meagre salary they get is just enough to satisfy their barest daily needs.

The survey has brought out that the workers engaged in Cashew Processing in all the three states belong to one of the most socially and economically backward sections of the society. Among the workers in all the three states, the cashew workers in Kerala although they are socially backward are better than those of the other two states, Karnataka comes next, followed by Tamil Nadu. But in the case of working days, Karnataka and Tamil Nadu enjoy the maximum number of working days while in Kerala it is very low. The conditions of work prevailing in most of the factories in the three states were appalling. Most of the work sheds, especially those in which women are engaged in shelling did not have even proper ventilation. The structures were old and dilapidated, Canteen, Lavatory, Sanitation, Creaches, were not provided.

There is no technical training given to the workers and efficiency of the cashew labour is poor due to racial qualities, social, political and climatic conditions. Workers are recruited through a class of intermediaries known as Jobbers, Maisteries, or contractors by paying commission.

The general level of their education is low. Their health is generally poor. They often suffer from one ailment or another. Alternative occupations are almost non-existant. They own nothing but a few cents of land in which they have their huts. On the whole innumerable social and economic disabilities cripple them to a state of perpetual misery.

6 3 0 STRATEGY FOR STABILIZING THE CASHEW INDUSTRY IN KERALA.

Cashew is one of the few versatile tree crops that offer considerable potential for foreign exchange earnings and employment generation. Inspite of this, the attention given to its production, processing and marketing, both by public and private sectors has been far from satisfactory. This has resulted in a virtual crisis and reached a state of complete alienation of the cashew industry. There is no lack of understanding of the problems facing this industry.

In order to stabilize the industry in Kerala and to bring back to the industry its pristine glory of the late sixties, a concerted action by the Central Government, State Government, Processors, Workers and Persons representing the different interests in cashew is necessary. Their assurance of participation on the following programmes will be highly appreciated.

CREATION OF A NATIONAL AUTHORITY ON CASHEW :

Considering the magnitude of problems facing the industry, starting from the production of raw nuts to the processing and ultimate experts, it is evident that the cashew industry has no right leadership which can authoritatively implement the decisions taken and advise the Government on various policy matters on a national basis for its betterment. We will not be able to regain our past glory if the multitude of private and public agencies continue to deal with the production, processing, and marketing problems in isolation. In order to remove the existing constraints both at national and international plains , the creation of a central agency, it is immaterial whether we call this agency a board, a corporation, an authority or something else, is imperative. It is very important that it comes into existence as early as possible, for the coordinated development of the industry. Such a board or agency, like the Cardamom Board, with its own departments to look after the different sides of the industry or development, can bring in greater help to the Indian Cashew Industry and exports. In addition to the usual programmes

and plans of a national board, the Cashew Board can solve the following problems.

At present the granting of licenses for the setting up of processing units rests with the various State Government's irrespective of the fact that the indigenous production is not at all sufficient to satisfy the needs of the licenced processing units for a month. The various State Government other then Kerala are issuing fresh licences for starting processing units. The Kerala Government has stopped issuing fresh licences since 1973. This reckless method of issuing of licences by the other states without proper raw nut production planning has affected the cashew processing industry. This licensing policy has not helped the industry as a whole and has brought about a serious set back to the Kerala Processing Units.

In order to stabilize the industry in Kerala and for a healtheir growth of the industry, the proposed cashew board should take over the authority of issuing licences from the State

Government's and envisage a policy whereby fresh licenses will be issued only in accordance with the indigenous production in the states. For a healthair growth of the industry, the board should, with the consent of the processors and workers, fix a base year and all those factories which were in existence before that base year should be deemed eligible for raw nuts collected in a pool from the various parts of the country. The labour strength of each factory should be taken into consideration. The board should issue further fresh licences only if the indigenous production exceeds the present processing capacity.

The Head Quarters of the Cashew Board should be situated in Kerala, since Kerala is a major producer, processor and exporter of cashew as well as because it is the only state in which the cashew industry is facing a crisis. If the Head Quarters is in Kerala, it will be able to solve the existing problems and also the problems that might arise in the future. In addition, the Kerala Government should consider setting up of a competent agency for the best interests of its

economy to look into the problems of the export oriented industries and to advise it as well as the Central Government, processors and workers, as to what action should be taken in future.

Until a single agency which can effectively direct and control the various aspects of cashew industry comes into existence, it may be suicidal if ad-hoc changes are made on purchasing, distribution, processing and marketing of raw nut and kernels.

HEALTHY COMPETITION OF PRIVATE & PUBLIC SECTORS:

Since its inception in the early thirties the cashew industry has been facing competition in one field or the other. Firstly the private processors were competing with each other for setting up of the industry in Kerala for the export of kernels and to obtain more profit. They were competing right from the start, for the import of raw nuts from the East African Countries and in the export of kernels to European Countries.

The expansion of more markets and the increased earnings from the kernels made the processors to compete further. The decrease in the National and International production pushed the processors to further competition and subsequently they were forced to start all sorts of evil practices. In this context various Government agencies came forward to save the industry from the depression it was facing and thereafter the competition got a different face and it then became between the processors and the Government. The experienced private processors joined together to compete with all the Government activities. The experience which the private processors acquired and their powerful association were all along torpedoing the activities of the Central and State Governments. The processors association which is economically and politically powerful, challenged all the policies and legal enactments of the Government which might have saved the industry and the workers.

The decanalisation policy of the CCI, the monopoly procurement operation of the KSCMF, and the implementation of the Minimum Wages and other Non-wage benefits for the workers by the KSCDC were all challenged by the private processors in various levels of court. In almost all the legal battles the verdict was in their favour and in places where they failed, they immediately found alternative measures to make sure that they received their profits. This industry will not survive long if the unhealthy competition between the public and private sector goes on.

In order to avoid the unhealthy competition between the private and the public sector the total elimination of the private sector industries by Nationalisation is not practical in a democratic set up like ours and at the same time it is not a healthy proposition, since the private sector has been more efficient than the public sector, eventhough it curbs concentration of the economic and political power. Competition between the private and public sector should be for the best interest of the Nation, the industry and as well as the workers.

An alternative is, the setting up of a genuine partnership between private parties and the Government with equal sharing of capital and responsibility. But there is a slight danger of Government representatives wanting to consult at every stage, the department officials and the ministers in charge, thereby delaying decisions. This can be eliminated if either the Government representative or the private entrepreneur is entrusted with the decision making authority. In such an organisation of private partnership inefficiency, bureaucracy, corruption and stagnation can be avoided. But if things go wrong, the private entrepreneur will blame the Government representative who in turn will try to put the blame on the shoulders of the private party.

What we require is not so much a formal joint sector as a reformed and even more efficient private sector, operating under the broad vigilance of the Government and growing and effective public sector. In the running of public sector units, the assistance of private entrepre-neurs should be

mobilized. What is standing in the way of this being done is a lot of suspicion on the part of the Government regarding the benafides of the private entrepreneurs. There are a lot of able and honest entrepreneurs who are ready to make their services available to the Government on a honorary basis.

As regards the regulation of the private sector, the trouble in the country is not lack of legislative authority, but unwillingness and incapacity to administer the laws. A sense of trusteeship should prevail in the private sector management, which must also make profits on the basis of efficiency, rather than monopolystic and unfair practices. Thereby both private benefit and public good can be harmonised.

TRADE UNIONISM:

Cashew workers are not really united according to the work or trade they perform. They are divided and sub divided by political parties and they are not disciplined. Absentism, moving

from one job to another is very common. The main reason for the situation is illiteracy. Industrial progress of the country as well as the cost of production depends not only upon the nature of technology and capital used but also upon the efficiency of labour. Efficiency of the cashew workers can be improved by way of giving security of jobs, providing them sickness and accident benefits, incentives for hard work, shorter working hours with proper intervals for mid day meals, providing meals at concessional rates, fair wages, clean surroundings, providing educational facilities, adequate sanitation and hospital facilities. All these will help to raise the physical and mental fitness of the workers.

Organising social security schemes to protect cashew workers and their families from illness, industrial accidents, and unemployment and providing housing facilities will make the labourers work harder.

By resorting to strikes and other measures the industrial workers can attempt to realise whatever they want to achieve. It is only on their

co-operation, that the planned programmes of rapid industrialisation depends. Their refusal to co-operate will lead to a colapse of the economy. It is for this reason that their complaints, and difficulties should be removed as early as possible and they should be kept happy and contented. The majority of the cashew workers are illiterate and hence do not understand the problems which affect them or the industry in which they are working. Workers are not capable of organising themselves or in managing their unions and this is one of the reasons why the leadership of cashew labour has passed on to the politician. Labour unions should be for the workmen and not enemical to the interests of the public. They should not think it necessary to accomplish the complete overthrow or liquidation of the business class. Trade Unions should develop an understanding between labour and capital. [26] At the same time a strong trade union movement is necessary both for safeguarding the interests of labour and for realising the targets of production and for replacing the industrial autocracy with industrial democracy.

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26. John Mitchell.

POLITICAL PARTIES:

The greatest need of the day is that the political parties should keep away from the trade unions of cashew workers and the trade unions should be free from politics. They should confine their activities to the betterment of the working class in the national interest.

OUTSIDE LEADERSHIP:

Now the leaders of the trade unions of the cashew industry are outsiders with different political interests. The outside leadership should be limited to 10%.

WORKERS' RESPONSIBILITY:

The unions should make every worker understand fully, first his duties and responsibilities and then his rights and privileges.

ONE UNION IN ONE ESTABLISHMENT:

This will remove rivalry among many unions and help the workers to achieve their objective or to organise category wise.

TECHNICAL EXPERTS:

Trade unions should have on their staff a number of technical experts who have studied and understood the techniques and other implications of the industry, so that when the unions put forward their demands, they are favoured by almost all sections of the society.

Workers should be educated and informed about the trade union activities of other places. Cashew workers were formerly recruited by maisteries/labour union leaders. They should be recruited through labour officers in charge of a labour bureau or through the employment exchanges.

Whatever the truth of the analysis, time has come for all parties to get together and to advise proper measures for increasing the productivity of labour and to bring down the cost of production.

LABOUR CO-PARTNERSHIP :

Cashew workers should be offered the opportunity to take initiative to concentrate in

the decision making process and to share responsibility.

Participation gives employees a sense of belonging and an opportunity to use their talents in their tasks. This enhances their interest in the work and gives them an opportunity to suggest measures designed to improve quality, productivity and working arrangements.

The scope of the participation depends to the range of managerial functions in which workers take part. Managerial functions concerned with the control of the enterprise may be distinguished from those concerned with its operation. By the degree of the participation we mean how far workers influence managerial decisions, on a scale extending from complete unilateral control by management at one end to complete unilateral control by workers at the other. What is meant by the extent of the participation is the proportion of workers taking part; this can vary widely from a few workers

to the whole work force. Indirect participation through representatives involves less participation by individuals than that possible in direct participation.

Participation may take various forms. In ascending participation, the workers may be given an opportunity to influence managerial decisions at higher levels through their elected representatives to work councils or boards of the enterprises. In discending participation they may be given more power to plan and make decisions about their own works.[27]

Labour co-partnership creates mutual understanding and co-operation between the processors and employees and improves industrial relations. It is a lasting solution to industrial conflicts. But for the effective participation, trade unions, workers and the management, should contribute effectively and consider themselves as members of an industrial family and work beyond their narrow selfish interests.

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27 - J.M. CLERC - Workers Participation in Management : Some preliminary considerations.

INCREASE THE EFFECIENCY OF PRODUCTION AND BRING DOWN THE COST OF CULTIVATION AND PROCESSING :

In order to stabilize the cashew industry in Kerala and to withstand the competition from other nuts as well as the cashew kernels from other countries, the Indian kernel price should be either lowered or atleast brought on par with the prices of kernels of other countries and on par with the prices of other competing nuts like almonds, Hazle nuts, etc., This can only be achieved by increasing the production of raw nuts and reducing the cost of cultivation and processing. There is hardly any organisation in India to advise the producers as well as the processors and the Government, how to reduce the cost of cultivation and processing. In order to bring down the price of kernels, all costs of labour, material and the overheads have to be controlled.

Since cost of material takes a major portion of the cost of processing of kernels, any saving in the material cost will help to bring down the cost of processing. Increased availability of raw

materials will bring down the cost of raw nuts. For this the raw nut production in the state has to be increased. To step up the indigenous production in the state, various plans were laid down by the state Government and their departments, various agencies of the central Government with the aid of the World Bank. The intensive and extensive cultivation programmes with the implementation of research on high yielding selections, hybrids, plant protection measures, crop management etc., will surely help in increasing the production which would result in the free availability of raw nuts at cheap rates and on the whole it would help in stabilizing the industry in the state.

Labour is an equally important factor in determining the cost of processing. It is one of the deciding factors for the present crisis of the cashew industry in Kerala. The wages and other non-wage benefits payable to labour were increasing steeply all these years. The expenses incurred for the processing by way of wages can be saved with the introduction of mechanical processing. But the processing of cashew in Kerala is a highly labour

intensive industry. Machinery is used only in roasting and in the extraction of cashew nut shell liquid. Cashew industry in Kerala has ever the years not witnessed any appreciable level of mechanisation in the processing of cashew nuts. The introduction of mechanisation has been hampered in Kerala on account of the opposition of labour towards even a semblance of mechanisation.

However with the introduction of mechanical processing, due to non-availability of adequate and skilled labour, the East African Countries showed rapid strides towards cashew processing. The Brazilian Industries have adopted semi-mechanisation processes. They have been able to control the labour cost and hence they are able to quote lesser prices in the international markets.

If mechanisation of all the operations in the processing of cashew is introduced, we will be able to bring down the cost of cashew kernels by about 20 to 30%. But with the introduction of mechanisation nearly about 90% of the present working force of the cashew industry will be thrown out of

their jobs and this would automatically result in severe unrest. But mechanisation could be achieved with the co-operation of the workers. The Government should take adequate measures to provide alternative employment for these workers in other industries, large and small scale, in the public or corporate sector. So that the interests of the workers would be safeguarded and at the same time will save the cashew industry. Even if mechanisation requires little more capital investment, it would be profitable in the long run. Mechanisation, in addition to savings in labour cost, brings additional income by way of extraction of more CNSL. It also reduces the heat and acrid fumes, avoids air pollution and safeguards the health of the workers which otherwise is a hazard to the workers. Another alternative to bring down the production cost of cashew by way of savings from wages is by paying a bare minimum wages to the workers. This is a difficult proposition because, in a situation when the workers are demanding more wages, the idea of receiving minimum wages is out of the question by them. But if they accept this proposition then the workers will be paid in addition to the minimum wages a certain percentage of profit as bonus according to the profit the industry makes.

Material cost could be further reduced if a concerted action is taken by the growers, officials and the public in all the levels of production. At present more than 10% of raw material cost is accounted by clearing forwarding and transporting charges. This is because of the fact that the factories are concentrated in the Southern part of the state where as the major cashew producing areas are in the northern parts. In order to save from transporting charges, cheaper methods of transporting will have to be resorted to or some factories will have to be shifted to the raw nut producing areas. Decentralisation brings a balanced growth of the industry and the economy.

Cashew being a seasonal crop, the processors have to procure the nuts and store them. This results in a heavy block of capital and productivity. Large amounts as warehousing costs and loss in dryage are to be spent. This unnecessary expenses add to the cost of processing. If different varieties of cashew ie., the early and late varieties, like the spring wheat and Winter Wheat are produced,

storage could be avoided. The loss of weight of raw nuts and infestation because of storing could be eliminated if the factory uses first the materials purchased first.

An organisation should be set up in the state to control the cost of raw materials and all other expenses of processing industry. A combined demand and supply schedule is used to project future cost of materials and future prices of the kernels based on past prices and quantities sold. It should formulate methods of efficient material selection by choosing adequate quality for production after considering the availability of needed grades and sizes, efficient handling, storage of materials and issue of materials on scientific lines. Waste of materials should be minimised for eventual optimal use of the material. The control of harvesting charges and cost of supervision of plantations, handling and transporting by the grower to the wholesaler should also be minimised.

Planning required for cost control includes, job specifications, to ensure having the type and number of workers needed, efficient use of workers

and materials as well as the use of standardised pay scale, to ensure payment comparable to skill required. The fringe benefits are an expanding cost area as labour seeks increased and non taxable benefits in addition to increased salaries. The cost of fringe benefits have been estimated at as much as 25% of cost of labour, at an average cost of about 15%. The area of fringe benefits offers considerable room for application of cost reduction methods Labour Strikes affect the cost of production, increases labour cost, affects marketing and pricing, capital investment return, etc., This should also be controlled. Factories can also reduce the labour cost with mechanisation because less human intense operation and the more skilled workers that are needed require considerably fewer supervisors. Bonus payment and their cost can be eliminated. Productivity is controlled by the equipment and no difficulty comes about shift work.

Industrialisation has created new cost areas in addition to material and labour costs. These indirect material and labour cost includes overheads in the cost of each unit of production as a basis for pricing. Reduction in overhead costs is necessary

to make a higher profit. The area of overhead cost is a particularly important area for cost reduction, as overhead cost will become a large proportion of total production cost as mechanisation expands, charges on electricity, gas, water, telephone, supplies and mail services used should also be controlled.

Identification of potential customers for the kernels, consumer preference, and habits have to be studied. Advertisement compaigns will help in boosting sales in the International markets, but some techniques have to be evolved to reduce sales cost.

The organisation has to examine and evaluate the competitors' products to determine what cost reductions have been made and how they can be applied to our product. As cashew business becomes involved in International trade a greater importance is attached to cost effects in International Law. Discriminating trade restrictions, including taxes

on imports from one country, exchange control etc., should be regulated. Control and reduction in the packing cost, container size and material used will help in reducing the overhead costs.

WAGE PARITY:

The wage level in Kerala is nearly three times higher than that in Kanyakumari District in Tamil Nadu and double that in Karnataka. This disparity in wage levels prompted the industry to migrate to Kanyakumari district and other neighbouring states. In our present set up it would be difficult for us to sustain the cashew industry for long. Either it would gradually decline as is happening in the case of coir and Handloom or Wages will have to attain parity with that of the neighbouring states. Since the prospect of attaining wage parity with the neighbouring states is highly unwelcome, the Government of Kerala will have to pursue a realistic policy with a long term perspective. The main objectives of such a policy will be the maintenance of maximum employment at remunerative wages. The Government should also persuade the industrialistis to diversify in such

a way to absorb those thrown out of employment if the industry migrates to other states on account of lower wages.

In order to stabilize the industry in Kerala, what is necessary is not to bring about different policies of procurement and allotment of raw nuts, but to bring about a parity in the wage levels and advise the labour on the whole to be less militant and reasonable. Further, the state should give every possible assistance to improve the competitiveness of the industry by improving labour productivity on one hand and eliminating speculative intermediary profits on the other.

It is very essential to bring about a standardisation of wages for similar types of work in the cashew industries in all the states. The wide disparities in wages and Dearness Allowances in the industry in different states encourages migration of workers to places where the wages and Dearness Allowances are high and the industry to places where the wages and Dearness Allowances are low.

Over and above industrial unrest and disput/ depend on wage differentials to a considerable extent. The problem of wage differentials, further, present a problem of equal pay for equal work. It does not mean equal pay for all classes of workers. It implies that there should be equal pay for the same job in all the states, equal pay for equal effort and sacrifice, equal pay for equal product and equal pay for equal value to the processors.

BYE PRODUCTS:

CASHEW NUT SHELL LIQUID:

C.N.S.L. is traditionally obtained as a bye product during the isolation of the kernel and it is a valuable raw material for a number of polymer based industries like, paints, varnishes, resins, industrial and decorative laminates, brake linings, and rubber compounding resins. It is also used as a surface coating in a sea going crafts to prevent corretion of wood. The chief importers are the USA, the UK & JAPAN and India was the sole exporter till the early sixties, after

which the East African Countries entered the field of Cashew processing. Although India was the Chief Exporter of CNSL, our exports were around only about 10000 tonnes annually.

The CNSL is extracted by roasting the raw nuts in hot CNSL bath, solvent extraction, expeller extraction and kiln method. The raw cashew nut contains about 28% by weight of CNSL of which 15-20% can be extracted on an annual average processing of 1.5 lakh metric tonnes of raw nuts. The potential for production of CNSL is about 27000 - 30000 metric tonnes. The prevalent system of extraction is not at all perfect. Because of the fluctuating demand and price the processors are not interested to invest in research and development to perfect the system of CNSL extraction or the quality without causing damage to the kernels. No research has been so far done from the part of the Government for the effective use of CNSL. Being the largest producer and exporter of kernels and CNSL, the Government has to come forward for a concertion of the CNSL exporting countries for the fixation of fair prices

and regular demand. The internal consumption of CNSL is limited and in order to step up the internal consumption, research organisations have to come forward to help the people for its application in various levels.

CNSL and its derivatives can be used as external decorative lacquer for biscuit tin, wooden furniture and fire retardent paints by reacting it with hexamine, titanium dioxide, sodium silicate, brass and mica powder at different temperatures. It can also be used in the preparation of anti oxidants, lubricants, bactericides, fungicides, disinfectants, insecticides, pesticides, herbicides, drugs, etc., CNSL resins can be used for protecting the thatched roofs. Rice husk boards prepared from CNSL residue based resin as binders are useful for false roofing as insulating panels and for acoustic purposes.

A variety of ancillary products of great industrial utility such as metal salts, nitrogen compounds etc., are obtained through chemical treatment of CNSL. Hence viable ancillary industries may be set up to make commercial use of these important

bye products of the cashew industry. The residual oilcake remaining after the extraction of CNSL, now generally used as fuel in factories, can be used in the manufacture of plastic and container board.

CASHEW APPLE BEVERAGES - SOFT DRINKS :

CLARIFIED CASHEW APPLE JUICE :

The cashew juice can be extracted from cut fruits in a screw type juice extractor by pressing in a basket press or preferably by a combination of the two operations. The astringent and acrid principles are removed. After filteration the brix of the juice is raised to 15° and acidity to 0.4% by addition of sugar and citric acid. The juice is then boiled and preserved. The clarified apple juice can be blended with 10% lime juice, ginger extract, 25% of mango pulp or with equal parts of pineapple juice would give a good palatable product.

CASHEW APPLE SYRUP:

The juice from cashew apple can be made into syrup, by steaming it accompanied by stirring and then strained through thick cloth. Appropriate quantity of sugar can be added along with the preservatives, like the preparation of various other syrups. The syrup can be used after dilution and also can form a base of carbonate beverage.

CASHOLA:

This is a ready to serve carbonated beverage which can be obtained from clarified cashew apple juice. This is prepared by dilution of the syrup with three volumes of water.

CAGUDA:

This is the most popular cashew drink in South Brazil. Apple juice is bottled as such without any adhesives. It is mixed either with water or combined with milk and sugar.

CAJUINA:

This is prepared by pasteurising the apple juice.

CAJU APERATIVO:

This can be obtained by mixing the apple juice with sugar cane brandy.

CAJUVITA:

This can be obtained by the addition of vitamins to the apple juice.

CASHEW APPLE JUICE CONCENTRATE:

The clear and cloudy juices yield good quality concentrates for use in the preparation of aerated drinks if it is heated upto 50-55°C. A golden syrup rich in nutrients, can also be prepared on commercial lines.

CASHEW APPLE VINEGAR:

The brix of the cashew apple juice when raised to 12°, and then pasteurised, cooled and inoculated with a pure strain of yeast for alcoholic fermentation would yield alcoholic ferment. This ferment if mixed with mother vinegar and passed through a column filled with corn cobs would give cashew apple vinegar. The vinegar prepared should be filtered and pasteurised. This vinegar will have more acidity when compared with other commercial variety of vinegar.

CASHEW APPLE CANDY AND JAM:

The preparation of cashew apple candy can be done after curing the ripe and undamaged cashew apple in brine solution starting with 2% concentration and increasing them to 10% and then steaming it for 10-15 minutes. This process takes five to six days.

The preparation of cashew apple and mixed jam is done by treating the fruits in 2% common salt solution for three days followed by steaming

for 10-15 minutes. Sugar equal to the weight of the fruit, citric acid, should be added towards the end of the cooling process. Mixed fruit jams are prepared by mixing the cashew apple pulp with equal quantity of banana pulp or pineapple pulp.

CANNING OF CASHEW APPLE:

Firm fruit suitable for canning is first pealed by treatment in boiling sodium hydroxide solution, followed by a rinsing in water, after steaming and cooling and draining. It is then cut into halves length wise and after trimming of the undesirable portions, it is canned in 40° brix syrup. A good quality salad pack can be obtained by mixing pineapple ring segments with cashew apples in equal proportions. Canned curried vegetables from raw green fruit in combination with potatoes, or potatoes and tomatoes, with or without tamarind are also possible.

CASHEW APPLE CHUTNEY AND PICKLES:

Cashew apple chutney can be prepared from fruits treated in 2% brine for jam, followed by washing and steaming for 5-7 minutes.

Raw green fruit is steamed, washed and kept in 10% brine for a week. It can then be pickled in the usual way as half fruits after trimming off the undesirable end portions.

Cashew apple products as preserves, juice, and wine can be commercially produced and marketed. This can be started as cottage industries. Bottled apples can also be marketed. This can be done, when the peduncle is small, the nuts are removed and the peduncle introduced in the bottles and allowed to grow. When fully matured the apples can be separated from the main branch and the bottle can be filled with sugar cane brandy. This will attract the attention of tourists. The peduncle is dried and powdered into a meal which can be used as a bait for catching fish. It can also be used as animal feed.

Production of hard boards can be possible from the waste crushings of the cashew apple.

In Brazil, from the cashew apple, the following preserves are widely produced and marketed:-

1 Stewed apple in syrup (DOCE EM CALDA).

2 The typical sweet having a consistency of thick jam (DOCE).

3 Cooled pulp formed into balls and coated with sugar (CAJU CRISTALIZADO).

4 Cooked and partially dried apples in syrup (CAJU AMEIXA).

5 Jelly.

CASHEW FLOUR & KERNEL OIL:

From the lower grade kernels, protein rich cashew flour and high quality edible kernel oil can be produced and marketed.

ALCOHOLIC BEVERAGES:

In India, thousands of tonnes of cashew apples are wasted, especially in Kerala. Only in Goa, complete use of it is made in the manufacture of alcoholic beverages. The secret of making CAJU - FENNI lies with Goan ingenuinity backed by expertise and experience extending over several years, the Goan has mastered the art and know-how of manufacturing good Fenni. The juice of cashew apple is collected in VATS which when allowed to stay is acted upon by the bacteria present in the apple causing fermentation. The fermented juice is distilled in pot stills to give ARRACK which on further distillation produces FENNI. It is further matured in wooden barrels to give 'Finenesse' to the product. Fenni is derived from the word FENNO in KONKINI language which means FROTH. In Tanzania a product called KONIAGI akin to GIN is made.

Detail study of the manufacture and marketing of cashew Fenni, the licensing system, and the collection of revenue etc. are mentioned in the Chapter CASHEW IN GOA.

Goan Government is collecting nearly about Rs. 11-16 lakhs every year by way of revenue from Excise Duty levied on the liquor produced and from licence fee received for establishing stills. In Kerala every year nearly 6 to 8 lakh tonnes of cashew apple produced is being wasted. If the Government of Kerala, through any Corporation or any other agency issue licences to the growers to establish stills, like those in Goa, the people would get a good drink at cheaper rates and the Government would get a sizeable revenue by way of Excise Duty as well as Licence Fee for establishing stills. The cashew liquor produced can be distributed through the licensed liquor and arrack shops.

In Kerala, it is more possible than Goa, to establish distilleries for the production of Fenni on Modern Scientific lines. The cashew apple juice should be extracted from good fruits by mechanical and hygenic methods, filtered, pasteurised and cooled, inoculated with a strain of pure yeast and after fermentation under close observation and distillation in a sophisticated

plant, the obnoxious smell and stringent taste could be eliminated. Systematic maturation can give it a mellowed taste to meet the requirements of the foreign markets.

The free mobility and universal acceptability of the liquor can prompt more entrepreneurs to enter the production field under more hygenic methods. The proper tackling of the import duty and levies in the foreign countries can open up a vast export market which will serve multiple purposes.

(a) It will bring maximum apples into the industry which otherwise is a national waste.

(b) Turn out to be a foreign exchange earner from a natural bye product.

(c) Serve as the best media of incentive to the grower for further expansion of cashew cultivation and those having waste lands to take up cultivation.

(d) The expansion in cashew cultivation will make up the acute shortage of nuts now felt by the cashew nut processing factories in Kerala.

In the matter of tackling the duties and levies by the foreign countries, it has to be impressed upon them that as still now they do not have any home production of cashew liquor, there is no necessity of imposing heavy import duty to protect the domestic production and that such imposing of heavy import duty will only deprive their people from enjoying a unique liquor. The product is such a unique item and with such special features, passable through any chemical analysis, that all can take up its promotion with full confidence provided strict quality control is enforced.

PRODUCTS FROM BARK, STEM AND LEAVES:

The wood of cashew is fairly hard and has a density of 500 Kg/cubic metre. In Latin America it is referred to as WHITE MAHOGANY. In addition to its popular use as firewood for charcoal, as

wheel hubs, york, etc., the pulp from the wood is used to fabricate corrugated and hard board boxes. These boxes are collapsible, but are strong enough to compete with conventional packing wooden cases. The Ash is rich in potassium and so used for applying as a manure to crop plants. Since cashew wood is able to withstand sea water, it is used in building fishing boats and also in fabricating containers usually required for transhipment of poly vinyl acetate emulsions. The wood can be used effectively for the manufacture of furniture, false ceilings, interior decorations etc., since they are less attacked by Death Watch Beetle. For arresting low concentrations of hydrogen Sulphade, Iron oxide, impregnated cashew woods can be used. The bark contains an acrid sap of thick brown resin which becomes black on exposure to air. This is used as an indelible ink in marking and printing lines and cottons. It can also be used as varnish, as preservative for fish nets and as flux to solder metals.

The stem yields amber coloured gum which is partly soluble in water. The main portion will swell into a jelly like mass. This can be used in book binding as cardol - one of the components - acts as a vesicant and has got insect repellant properties.

The leaves and branches are used by tribals as an antiseptic post - parturition bath additive. The young leaves and shoots can be used as salads.

MEDICINAL USES:

There are many medicinal uses of the plant. The Kernels possess aphrodisiac qualities. Apple is eaten as a remedy for scurvy. Cashew syrup is a good remedy for coughs and cold. Cashew apple juice is said to be effective in treating syphilis. The root infusion is an excellent purgative. Old cashew liquor in small doses cures stomach ache. Fenni has laxative properties. Cardol and anacardic acid possess powerful rubefacient and vesicant properties. The oil obtained from the shell by Maceration in Spirit is applied to cure cracks on the sole of the feet.

Keeping all these in view, the central and state governments, various organisations, and all those engaged in the industry should come forward to examine the prospects and establish industries for making use of the bye products of the cashew industry. This will help in stabilising the industry in Kerala in an other way to a reasonable extent.

MARKETING AND PRICING:

The marketing and pricing of raw cashew nuts, cashew kernels and its bye products is a very important task to be taken up for stabilising the cashew industry in Kerala. The canalisation of imports and the institution of monopoly procurement have relatively freed the industry from the clutches of speculative operators. But, it is a fact that in a federal set up like ours, it will be difficult for it to sustain the industry for long, unless the growers are ensured of a fair price for the produce. However the price of raw nuts should be above the parity price of the grower and below the parity price of the

processor/exporter. When fixing the market price of raw nuts, due consideration should be given to the cost of cultivation and the parity price of the processing unit. The price of raw nuts fixed should be remunerative, based on the cost of production and the rates for kernels prevailing in the international markets. Price stabilization and price support have a salutory effect on the efficiency of the marketing system. The industry will not survive for long on the artificial stimuli of controls and subsidies which will result in huge losses to the exchequer. In order to feed the industry with raw nuts, imports from all available sources should be tapped and canalised so that competition does not push up prices in producing countries. Monopoly procurement of raw nuts should be ended or procurement of raw nuts should be strengthened and made more commercial. Other agencies should also be allowed to enter the market. All restrictions on the movement of raw nuts should be removed so that the cashew grower will get the best price for his produce, and it is evident that the availability of raw nuts within

the country for processing is not merely dependent on the measures to increase the output but also on the arrangements for marketing and through that the price received by the growers. In the sphere of marketing, the role of the methods adopted for the primary collection of nuts seems to be crucial. Incentives for increasing the output should go along with attempts at devising a more remunerative system of collection of nuts from the cashew gardens.

Marketing of cashew is a very dynamic, complicated and challenging function of the cashew business. The present marketing system of cashew kernels and its bye products are not much on scientific lines. Indian export of cashew kernels has traditionally been in unroasted kernels in bulk packing. The major consuming countries themselves, roast, salt and market the blanched nuts in consumer packs. India could have and can export roasted and salted nuts in consumer packs at much cheaper rates to the consuming countries, if there is no heavy duty tariffs levied for consumer packs. At present, most of the consuming countries have fairly heavy duty tariffs for consumer packs while raw cashew

kernels in blanched form enjoy duty free entry or attract only nominal duty. The export of roasted and salted kernels in small consumer packs is subject to very high duties, presumably to protect the salting industry in the importing countries. Sophisticated packing materials to meet the latest standards of packing are also not available in India.

Cashew is mostly used as a snack food and as an accompaniment for drinks. Broken grades of cashew are used in the manufacture of biscuits, pasteries, chocolates, mazipane, etc. The use of cashew grades varies according to the taste of the people of the consuming countries. Cashew is also roasted and marketed in packs as one of the nuts in mixed nut bags. Depending upon the price of cashew and of other competing nuts, the quantity that goes into the mixed nut bags varies.

In order to impart greater health to the industry attention has to be given to the following points.

1 In the present world economic climate, the movements in the exchange rates of different currencies show violent and frequest fluctuations since expert trade

in cashew is generally trading forward, it may be prudent for the exporters to secure adequate forward cover for all their export transactions to guard themselves against possible adverse movements in the exchange rates. They should be advised to avail the necessary guarantee cover from the Export Credit and Guarantee Corporation.

2 Because of the fast changing demands in the consuming countries, dependence on a single country is not quite healthy and there should be a measure of greater diversification, country wise. The Export Credit and Guarantee Corporation may like to consider fixing differential rates for exports to various countries depending on their political climate and the inherent strength of the economy.

3 It may be worthwhile to explore the possibilities of finding new markets abroad.

4 Steps should be taken to stabilize the international price of kernels because severe competition from other tree nuts like almonds will take place.

5 Adequate research for a better and more profitable use of CNSL may be undertaken and new markets should be found out for CNSL and other bye products of cashew.

6 Exporters of cashew kernels are eligible for importing packing materials at 10% of FOB value of exports. However in the case of roasted and salted cashew kernels in consumer packs, this benefit is limited to only 7 1/2%. Hence it would be better if the same benefit, as is applicable to cashew kernels in bulk, is also extended to those in consumer packs.

7 The large requirements of tin plates for the cashew industry for the manufacture of tin containers used in cashew exports are largely met from imports which attract heavy import duties. Considering the export earnings and potential of the industry and the already stiff competition faced by it in the marketing of cashew in International Markets, the Government may consider allowing the cashew exporters to import tin plates under the duty exemption scheme.

For the future prospects of marketing, there should be some new inventions as regards the packing material used and size of the packs. Packs varying from 50 gms. onwards should be introduced. Uses of cashew as an ingredient for various dishes have to be found and its application and advantages should be made known to the public. It should be served in the internal and external flights of our airlines and we should also enter into agreements with major airways corporations for the supply of roasted and salted cashew kernels. It should also be made available in steamers and duty free shops at the harbours and Air Ports. It should also be included in the menu of lunch and dinners in group of Star Hotels of Private and Public Sector Enterprises, Hospitals represent outstanding growth markets because of the consumers willingness to spend whatever is necessary for the betterment of their health. It should be marketed through super markets and chain stores. It should also be entertained through the Indian Embassys in Foreign Countries.

MARKETING FOR TOMORROW:

Competitive analysis of the present product line and capability of developing new products and markets, pricing strategies and tactics, including

under pricing capabilities, advertising and sales promotion abilities, skill in doing business with the distribution channels and expertise in marketing research, testing and marketing systems should be formulated for the effective marketing of cashew. Against the background of the technological advancements in the processing industries in other countries, intensifying competition for the resources from other countries, as well as from other nuts, increasingly fragmented and discriminating customer markets, and massive and disruptive changes in distribution markets, the Indian Cashew Industry has to rely now more heavily on marketing than at any other time.

The Government has to set up an association of experts in marketing and formulate a marketing strategy. The experts should analyse the resource market for the availability of raw materials, its price, and the consumption market, to forecast the future size of the potential consumer markets and to attempt to identify the future needs and buying behaviour of the markets and to identify the most likely moves that major competitors will make and the impact they will create. They should specify the plan of marketing

to control all the marketing activities, and spell out strategies and programmes that will be used. The plan involves the appropriate use of marketing variables, identifying specific requirements, channels of distribution, market development, market segmentation, product differentiation, broadening the lines of the product, concentric diversification of products, product guarantee, product quality, selective distribution, identification of the growth trends and success requirements of various markets, research and development of different taste combinations, finding new classes of customers, attracting new class of customers by adding new products, concentration on upper and upper middle class, (cashew being a luxurious item) where and how to be displayed, brand substitution, multi brands, marketing in new forms, flavours and colours, packaging, labelling and brand names. They should also specify the prices applicable, since monopoly pricing is non existant, a systematic approach to pricing should be formulated, it should either be demand oriented or cost oriented pricing. They should also built a Market Information System.

TERMS OF EXPORT CONTRACT:

The terms of export contracts vary from one country to another, but by and large standard terms and conditions applicable to export sales of agricultural products apply to cashew kernles also. USA, one of the earliest and most important markets for Indian kernels and the importers in USA introduced their standard contracts for purchases from all sellers. This contract has remained in use all through the history of India's export trade in cashew kernels with USA. The U.S. standard contract provides for buyers establishing letters of credit for 95% value of goods in favour of sellers enabling them to draw the 95% value against shipping documents. The US agents of exporters collect the undrawn balance of 5% from the buyers after the arrival of the goods and acceptance of quality by the buyers, retain 2 1/2% for their commission and remit the balance to the shippers. In the case of USSR, 98% of the value is drawn by the sellers against shipping documents and only 2% is to be collected subsequently. In the case of most of the other countries, the contracts provide for payment of the full invoice value of the goods shipped by the buyers against shipping documents.

The withholding of 5% by USA, and 2% by USSR buyers until the arrival of the goods and acceptance was a relic of the earlier days when the standards of quality were not fully uniform as at present and the buyers insisted on some protection in the event of there being any quality claim on the consignment.

If a Government agency exports the kernels, protection of the quality will be guaranteed and the agency can alter the terms of payment to enable the shippers to draw for 100% value soon after the shipment and it can also enter into long terms contracts with foreign buyers. The expert contracts entered into with foreign buyers should be scrupulously adhered to in order to foster confidence between the buyers and sellers.

QUALITY CONTROL :

The introduction of Quality Control and Pre shipment Inspection by the Cashew Export Promotion Council and later by the Export Inspection Agency

went a long way in infusing confidence in the minds of the buyers located in various parts of the world, as to the quality of the product and has helped India's Export Promotion Efforts. Since of late, the efficiency of the Pre shipment Inspection has come in for sharp criticism by some overseas buyers. If a Government agency exports the kernels produced in the country, the foreign buyers will be more confident to buy the kernels as well as the officials in the Export Inspection Agency will be more responsible about the quality of the product exported or else the Export Inspection Agency should ensure indisputable quality standards.

The workers should be allowed to participate in Quality Control Circles like in Japan. This will provide them an opportunity to suggest measures designed to improve quality.

RESEARCH ON CASHEW :

The research on cashew was started very early, and the Indian Council of Agricultural Research sanctioned projects for the improvement of cashew started in the early seventies with an object to

develop the total management for improving the yield of cashew per unit area. The researches carried on so far have been on measures to improve the cashew production in the state, and this has brought improved results. To a certain extent these research agencies transfer the available known technology to the fields both by departmental agencies and through community efforts. Since all the departments which have been carrying out research programmes have been agricultural bound departments, no research has been carried out so far on the problems of processing, marketing and financing of the cashew industry. The Kerala Government has to take the initiative to set up an agency where research can be conducted for the better utilisation of the factors of production. In order to give adequate research support for the development of the production as well as the industry on a whole, it is necessary to establish a National Cashew Research Centre with adequate number of Regional Centres for intensifying research in the commodity.

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C H A P T E R - VII

CONCLUSION AND RECOMMENDATIONS:

The cashew industry in India is completely a labour intensive industry. Almost the entire cashew kernels produced in India is exported. The industry is of considerable importance to the economy as a source of foreign exchange, employment and income to the farmers. This industry which was in a comfortable position during the seventies had to pass through various exigencies during this decade, the main crisis being acute shortage of raw nuts, both from traditional sources as well as from the indigenous production of the country. The processing units which used to work continuously round the year are working for two to three months. For the rest of the period the workers have to do casual work to earn their livelihood.

The exploited workers in Kerala moved for the essentials of a tolerable life and to wrest many a concession from the cashew industrialists. The Kerala worker went ahead much to the discomforture of the industrialists of Kerala. In most of the states excepting Kerala, even the Minimum Wages

Act has not been implemented with the result that the workers are poorly paid. The wage differentials in such places and the absence of organised working class movement and the orientation towards maximum profits prompted the processors to migrate the industry to Tamil Nadu and other neighbouring States. To make matters worse, the industrialists are now going for low profit area reduction by the elimination of production, factories, etc., where the profits fall below a pre-determined level. Money from the sale of such operations may be reinvested in more profitable areas. The human problems resulting from the migration of the industry from Kerala, its traditional home is tremendous. The social and economic, not to say the political implications of over one lakh workers being thrown out of employment can well be assessed. The repercussions of the collapse of the industry are felt far and wide. Not knowing where the next morsel of food will come from, the hapless workers are literally on the street, ready to take up any work that comes their way. The workers cannot survive on the occasional doles and sympathy from the Government.

The imperative need of the time is the production of more cashew nuts within the country, which will not only provide income to the farmers who cultivate but also generate employment to the labourers who are employed in the processing units and gain valuable foreign exchange for the country. To achieve these objectives, the Government introduced various schemes including the World Bank aided project. It has also introduced a scheme of subsidy to encourage commercial cultivation of cashew. In Kerala Cashew is not under the Land Ceiling Act, whereas rubber, coir and cardamom are exempted from the purview of land ceiling. Due to this reason large scale area expansion is unlikely in the private sector. One of the quick ways of bringing the available private lands under cashew cultivation is either to exempt the crop from land ceiling (at least for a period of 25 years) ensuring that such areas will continue to be outside land ceiling.

In the years to come, the imported cashew from traditional as well as non traditional sources will be negligible. The traditional sources have

already developed their own processing units and non-traditional sources are also likely to go in for the establishment of processing units in the near future. In view of the above, the banks in our country have to finance the development of cashew plantations and export of cashew.

The techniques of processing should be modernised and streamlined. Labourers should understand the problems and cooperate with the processors, standardisation of wages should be implemented. All expenses should be controlled and cost of production has to be minimized so that the price of Indian kernels may be brought on par with the price of kernels from other countries. Diversification of markets and improvements in the packaging material and methods, more profitable uses of the bye products, especially CNSL, Juice and Liquor, should be organised.

There is at present no single organisation which can give complete and comprehensive information about cashew as such. The multitude of organisations often work without coordination and at cross purposes.

The Cashew Export Promotion Council is concerned entirely with Export Promotion, the Directorate of Cashew Development is concerned only with plan programmes of development of cashew cultivation, the Export Inspection Agency looks after the Quality Control of this commodity and the Cashew Corporation of India Limited was the canalising agency for the import of raw nuts.

Cashew being a very valuable export earner, it is most essential that a coordinated and balanced view of this commodity be taken, because only then the relative importance of the different aspects of development and promotion can be seen in the proper perspective. The proposed Cashew Board with its own departments to look after the different sides of the industry or development can bring in better health to the Indian Cashew Industry and Exports. By the late eighties, the cashew industry may have a period of spring from the present decade of autumn.

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