

REPORT
OF
THE STUDY TEAM ON
COOPERATIVE MARKETING OF
SPECIFIED PLANTATION CROPS



XM,9(J4):51.2.N6t
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National Co-operative Development Corporation

Extension, Part II, New Delhi-16.

December, 1964

CONTENTS

					<i>Pages</i>
Chapter	I	Introductory	...	...	1—4
Chapter	II	Importance of Plantation Crops	...	...	5—51
Chapter	III	Constitution and Role of Commodity Committees	...	...	52—55
Chapter	IV	Existing Arrangement for Marketing	...	...	56—116
Chapter	V	Review of Existing Cooperatives	...	...	117—130
Chapter	VI	Conclusion and Recommendations	...	...	131—145
Annexures I—XV					I—XLVIII

CHAPTER I

INTRODUCTORY

Appointment of Study Team:

1.1 The problems of cooperative marketing and processing of plantation crops, particularly arecanut, were, inter-alia, considered at the Seminar of Southern States on Cooperative Marketing held in Mysore during May, 1962. The Seminar recommended the appointment of a Study Team to examine the problems of marketing of these commodities with a view to suggesting measures necessary for development of cooperative marketing and processing in respect of these crops.

1.2 The National Cooperative Development Corporation, in its first meeting held on 29th March, 1964, constituted a Study Team to study measures necessary for developing cooperative marketing and processing of certain plantation crops. It was decided that the Team should restrict its study to specified plantation crops only, namely; arecanut, coconut, cashewnut, cardamom, black pepper and dry ginger and that the other plantation crops such as tea, coffee and rubber, in respect of which separate marketing boards exist, need not be brought within its purview.

Composition of the Team :

1.3 The Study Team consisted of the following members :—

1. Shri S.S. Puri, I.A.S., (Chairman)
Deputy Secretary (Marketing),
Ministry of Community Development
& Cooperation (Department of
Cooperation), Govt. of India,
New Delhi.
(Now Secretary, National Cooperative
Development Corporation)
2. Shri M.L. Batra, I.A.S.,
Chief Officer, Rural Credit,
State Bank of India,
Bombay.
3. Shri S.C. Bhattacharya,
Senior Marketing Officer,
Directorate of Marketing & Inspection,
Ministry of Food & Agriculture,
Nagpur.

4. Shri P.N.T. Chary,
Deputy Chief Officer,
Agriculture Credit Department,
Reserve Bank of India,
Madras.
5. Shri K. Shamanna,
Cooperative Marketing Officer,
Indian Central Arecanut Committee,
Calicut.
6. Secretary, (Convenor)
National Cooperative Development Corporation,
New Delhi.

Consequent on Shri S. S. Puri, proceeding abroad, Shri N. P. Chatterji, Joint Secretary, Ministry of Community Development & Cooperation (Department of Cooperation) was appointed as Chairman of the Team by the Corporation in its second meeting held on 17.8.1963. Shri Puri, however, rejoined the Team from 1.8.1964 on his return from abroad.

Terms of reference :

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1.4 The terms of reference of the Team, inter-alia, were to study the existing marketing structure and methods in respect of the specified plantation crops and to suggest measures necessary for the development of cooperative marketing and processing of these crops.

Method of inquiry :

1.5 It was decided to collect information on certain points, such as (i) area and production of the crops, (ii) marketing structure, (iii) marketing agencies and practices, (iv) processing activity, (v) marketing finance, (vi) pricing pattern and also (vii) role of cooperatives in the overall marketing of these crops and the problems and difficulties encountered by them in the marketing operations. Accordingly, four sets of questionnaires were prepared. One set was sent to the State Marketing Officers of the States concerned for general information regarding the acreage, production, marketing structure and practices. The second set was sent to the Registrars of Cooperative Societies concerned for eliciting information regarding the role of cooperatives in the marketing of the crops. The third set was sent to the Primary Marketing Societies dealing in these crops for obtaining information relating to their constitution, working, marketing operations, etc.. The fourth set was sent to the Commodity Committees concerned for details relating to production, marketing, exports, role of the Committees in the marketing of the crops, etc.. The Team also decided to visit certain States, where these crops are predominantly grown, to make on the spot study and discuss problems with the growers, cooperators, Commodity Committees and the concerned State officials, etc..

The questionnaires were addressed to about 80 cooperative market-

ing societies reported to be dealing in these crops. The replies were, however, received from only 46 societies. A list of marketing societies who replied to the questionnaire is given at Annexure I. Out of the questionnaires sent to 11 State Marketing Officers and 11 Registrars of Cooperative Societies, replies were received from only 8 State Marketing Officers and 6 Registrars of Cooperative societies. A list of State Marketing Officers and Registrars of Cooperative Societies from whom the replies were received may be seen at Annexure II.

Visits :

1.6 Prior to the visit of the Team, Shri S. T. Khushalani, Deputy Director (Marketing) and Shri N. Gopalakrishnan, Research Officer of the Corporation were deputed to make on the spot study and collect preliminary data in Madras, Kerala and Mysore States, where the selected crops are predominantly grown. The Team visited the States of Mysore, Kerala, Assam and the Union Territories of Goa and Himachal Pradesh. A list of cooperative societies visited by the Team may be seen at Annexure III. During these visits, the Team held discussions with the State Ministers for Cooperation, Development Commissioners, Secretaries Incharge of Cooperation, Registrars of Cooperative Societies, Directors of Agriculture, State Marketing Officers and other concerned officers, growers and cooperators. The Team also held discussions with the officers of the Indian Central Arecanut Committee, Indian Central Coconut Committee, Indian Central Spices and Cashew Committee and the Cashew and Spices Export Promotion Councils.

Acknowledgements :

1.7 We are grateful to the State Ministers for Cooperation, Development Commissioners, Secretaries Incharge of Cooperation, Registrars of Cooperative Societies, Directors of Agriculture, State Marketing Officers, Officers of the various Commodity Committees, Export Promotion Councils and the various other officers concerned for giving us the benefit of their views on various problems and for the assistance rendered to us in connection with our visits to different places and for furnishing the requisite data, etc.. We are also thankful to the representatives of various cooperative and other institutions for providing necessary material for the purpose of this study.

1.8 In compiling this report, the data and material contained in the Marketing Survey Reports published by the Agricultural Marketing Adviser to Government of India, the Report of the Spices Enquiry Committee, the Marketing Survey Reports published by the Government of Mysore, the journals and other publications of the Commodity Committees, Export Promotion Councils and the Economics and Statistical Adviser to Government of India, Ministry of Food and Agriculture have been made use of. These contributions are thankfully acknowledged.

1.9 We are grateful to Shri Reed Rexford, Consultant on Cooperative Marketing, Cooperative League of U.S.A. for his association with the Team in its tours and also for his valuable suggestions both during the deliberations of the Team and in framing its recommendations. We also record our appreciation of the able services rendered by Shri S. T.

Khushalani, Deputy Director, and Shri N. Gopalakrishnan, Research Officer, of the Corporation, for the excellent manner in which they assisted the Team in the collection, compilation and analysis of the relevant data and drafting of this report.

CHAPTER II

IMPORTANCE OF PLANTATION CROPS

2.1 India is by far the most important producer of cardamom, cashewnut, pepper and ginger. India also occupies a premier position in regard to cultivation and production of arecanuts. More than 90 per cent of world's supply of cardamom and cashewnut emanates from this country, while ginger and pepper also account for a major share in the world's supply. These four commodities alone accounted for an export earning of nearly Rs. 30 crores during 1962-63, constituting about 12 percent of the export earnings of agricultural commodities.

2.2 The Third Plan provides for an export target of Rs. 3800 crores as against Rs. 3075 crores earned during Second Plan. The Fourth Plan envisages a still higher target of Rs. 5100 crores. As agricultural commodities account for nearly 40 percent of the annual export earnings, their production has to be stepped up considerably. The Third Plan, inter-alia, envisages increase of production as under in respect of the specified plantation crops :—

<i>Commodity</i>	<i>Unit</i>	<i>Basic level production 1960-61</i>	<i>Target of production in 1965-66</i>	<i>Percentage of increase.</i>
Cashewnut	1000 tons	73	150	105.5
Cardamom	„	2.26	2.62	15.9
Pepper	„	26	27	3.9
Arecanut	„	93	100	7.5
Coconut	Million nuts	4500	5275	17.2

2.3 Within the country, the plantation crops are of considerable importance to some of the States, particularly Kerala. The share of cash crops in total agricultural production is much higher in Kerala than in any other State in India. The total value of agricultural produce in Kerala during 1960-61 amounted to Rs. 209.28 crores and of this, plantation crops accounted for Rs. 132.19 crores. The plantation crops thus account for about two-thirds of the total agricultural output of the State. Of the total sown area, 45 per cent is under the six crops selected for the present study (viz. arecanut, coconut, cashewnut, cardamom, pepper and ginger).

The area and production of these crops in Kerala State are given below :

	Area in Hectares	Production (in Tonnes)
Arecanut	56740	46230
Coconut	476047	3248 million nuts
Cashewnut	55485	85680
Cardamom	28629	1285
Pepper	99318	24465
Ginger	12069	11424

A recent survey on the distribution of agricultural produce conducted by the Kerala State Bureau of Economic Studies in 1958-59 revealed the following percentages of cultivation of various crops among the cultivating households :—

Coconut	..	82%
Paddy	..	60%
Tapioca	..	49%
Arecanut	..	42%
Pepper	..	38%
Cashewnut	..	15%
Ginger	..	7%

The exports of the crops from Kerala to other States and foreign countries during 1961-62 are given below :—

	<i>Quantity</i>	<i>Value</i> (Rs. in lakhs)
Arecanut (Qtls)	119236	674.71
Coconut (Million Nuts)	1384.28	311.40
Copra (Qtls)	232947	429.08
Coconut oil (Lakh litres)	136.37	361.79
Cashewnut Kernels (Qtls)	418783	1701.28
Cashew shell liquid (Lakh litres)	59.53	57.41
Cardamom (Qtls)	4143	68.38
Pepper (Qtls)	268588	1009.06
Ginger (Qtls)	108929	169.79
		<u>4782.90</u>

These facts emphasise the significance of the crops in the economy of the State and the need for effective marketing arrangements of these commodities,

2.4 Mysore is the next important State where these crops are grown in considerable quantities. The area and production of these crops in the State are given below :—

	Area (In Hectares)	Production (in Tonnes)
Arecanut	32427	29500
Coconut	96573	485 Million Nuts
Cashewnut	52460	8160
Ginger	405	714
Cardamom	21235	1514
Pepper	2341	1361

The above crops occupy an important place next to cereals only in the economy of the State.

2.5 Similarly in Himachal Pradesh, ginger crop occupies significant place and accounts for sizeable share of total cropped area in the State.

2.6 Besides the above States, these crops are also grown in a few other States in sizeable quantities as under :—

Madras	(Cardamom (Arecaut (Cashewnut (Coconut
Maharashtra	(Arecanut (Cashewnut (Coconut
Andhra Pradesh	(Coconut (Cashewnut
Assam	(Arecanut (Coconut (Ginger
Orissa	(Coconut (Cashewnut
West Bengal	(Arecanut (Coconut
Goa	(Coconut (Cashewnut

2.7 With the increase in production under the Third Plan schemes, these crops will occupy most important position in the economy of the country, particularly in regard to external trade of the country.

Area, Production and Agricultural Practices

ARECANUT

2.8 Arecanut occupies a position of importance in the cultural and social life of the people of our country. Its economic importance can be appreciated from the fact that during 1962-63, the domestic production of the commodity was estimated at 97055 metric tonnes grown over an area of 117292 Hectares. In addition, 8978 tonnes valued at Rs. 34.61 lakhs were imported during the year. This shows the great demand for the commodity in the country and highlights the importance of increasing its production.

Area and Production.

2.9 Arecanut is cultivated in India mostly in Kerala, Mysore and Assam States and to some extent in West Bengal, Maharashtra, Madras, Andhra Pradesh, Orissa and Goa States, but the commercial product is widely distributed and used throughout India. The crop is generally grown in mixed orchards along with other crops such as banana, coconut, mango, jack-fruit, etc., particularly in Kerala, which is the biggest producer of arecanut. The area and production of the commodity during 1962-63 were as under :—

<i>State</i>	<i>Area in Hectares</i>	<i>Production metric tonnes.</i>
Kerala	56740	46230
Mysore	32427	29500
Assam	21968	14324
West Bengal	2198	2460
Maharashtra	2045	2836
Madras	1724	1555
Andhra Pradesh	139	150
Orissa	51	N.A.
	117292	97055

Note. In addition, it is estimated that arecanut is grown over about 1742 Hectares in Goa with an annual production of about 1000-1400 tonnes.

It will be observed that arecanut production is largely confined to the three States of Kerala, Mysore and Assam; Kerala being the largest producer among these.

Pockets of production :

Kerala

2.10 Arecanut cultivation is mainly concentrated in certain areas of States. In Kerala, which is the chief arecanut growing State in India, the

cultivation of arecanut is distributed over 3 regions, namely (i) Malabar region comprising of Palghat, Calicut and Cannanore districts, (ii) Cochin, and (iii) Travancore. In South Malabar, the cultivation of the crop is concentrated in the taluks of Ponani, Walluvanad and Ernad. In the Northern taluks of Malabar, no regular plantations exist except in certain sub-montane regions of Kottayam and Chirakal taluks. The gardens are generally of a mixed nature and are inter-cropped with plantain, and coconut trees.

2.11 In the Cochin region, arecanut cultivation is concentrated in Mukundapuram, Thalappally and Trichur taluks and is confined to the banks of rivers. Throughout the Travancore region, arecanut is grown in scattered areas either in house compounds or along the banks of rivers and paddy fields. The crop is largely concentrated in Punalur, Konni, Palai, Alwaye and Muvattupuzha. It is usually grown with coconut, palm, jack and plantain as a mixed crop in small holdings.

In the southern and central Travancore areas, arecanut crop is cultivated on hill slopes mixed with coconut, rubber and other subsidiary crops. The concentrated pure blocks of areca gardens are, however, seen in the Southern Malabar and Kasargode regions where cultivation is more organised and more intensive methods of irrigation and manuring are also practised.

2.12 Thus 95 per-cent of areca gardens in Kerala are inter-cropped with betelvines, coconut, plantains, mango, etc. and the remaining 5 per-cent only exist as pure plantations. The average size of the cultivated holdings is one to two acres.

Mysore :

2.13 In Mysore arecanut is cultivated in the three distinct regions, namely Malnad region (hill tract), the Maidan region (plains) and the coastal region. In the Malnad region, the rainfall is very high and the plantations are usually located in the valley of hills adjoining the tropical forests whereas in the Maidan region, they are found near the tanks and rivers. In the Malnad region, the crop is grown in plantations, the important growing districts being Shimoga, and Chickmagalur. In the Maidan region its cultivation is scattered and the crop is grown along with coconut, other fruit trees, etc. in mixed plantations. In the coastal region comprising of North and South Kanara Districts, the crop is confined to the interior tracts away from the coast. The three important areca growing districts of Shimoga, North Kanara & Chickmagalur account for about 57 per-cent of the total area under areca cultivation in Mysore. The size of the holdings in the Malnad tract ranges from 1 to 40 acres and in the Maidan and coastal tracts from 2½ to 15 acres.

Assam :

2.14 The important pockets of cultivation in Assam are given below :—

<i>Name of District.</i>	<i>Important pockets of areca cultivation</i>
(i) Khasi and Jaintia Hills	Shella Bazar to Muktapur belt of about 70—75 miles.

(ii) Nowgon	Jalakutty, Ghahi, Raha, Marigaon, Phulaguri, Khalaigaon, Jakhala bhandar, Nonoi to Dakinpath.
(iii) Shibsagar	Tea karea in Jorhat sub-division, Bokaghat, Golaghat sub-division, Jhanji area (Anchal), Demow, Amguri, Sonari area, Dergaon, Najira.
(iv) North Lakhimpur	Moran areas, Saikhoa, Dumduma, Khowang, Baghitre.
(v) Cachar	Patharkandi Circle, Karimganj, Kati-gora, Hailakandi, Sonai, Silchar, Lamajuar, Mirzapur, Machli, Kan-kalash, Mahaka, Nairgram, Hasonpur.
(vi) Kamrup	Nalbari, Rangiya, Kamalpur, Boko, Palashbari, Sorbhog, Patchar Kurichi, Barpeta, Tarabari, Bajali area, Barnagar, Tihu, Pathsala area.
(vii) Darrang	Dhula to Doomichaki in MangoIdai sub division, Bnidukuni, Dhekiajuli Tangla.
(viii) Goalpara	North bank of Brahmputra, Kokhrajhar, Bongaigaon, Brijni, Apahayapur, South bank Krishnai, Dudnai, Dhupdhuma, Abhayapuri, Goalpara.

2.15 Throughout Assam, the cultivation of the arecanut palm is carried on mostly in scattered holdings which may be described as home-stead gardens. Although large plantations are occasionally met with in Nowgong and Dibrugarh and also in some of the hill slopes and river banks, there is no organised cultivation and the growers do not bestow any care on planting, inter-cultivation or after-care of the crop. In all these areas, the arecanut crop is raised mostly as an un-irrigated crop depending on the monsoon rains. Nearly 90 per cent of the gardens are estimated to be mixed plantations. The average size of the cultivated holdings is one to two acres.

Maharashtra :

2.16 In Maharashtra, the cultivation of arecanut is mainly concentrated in the two coastal districts of Ratnagiri and Kolaba and also in parts of Thana district. The crop is raised under irrigated conditions mostly in plantations mixed with mango, coconut and jack. The average size of holdings is below two acres.

West Bengal :

2.17 The crop is grown mainly in the two sub-Himalayan districts of the State, namely, Cooch Bihar and Jalpaiguri. To some extent it is also grown in the districts of Midnapur and 24 Parganas. Nearly 90 per

cent of the area is inter-planted with plantains and coconuts. The average size of the cultivated holdings is below one acre. Nearly half of the arecanut crop in undivided India was grown in Bengal, but after partition of the country all the major growing areas in this State went away to Pakistan and the acreage under the crop in the present West Bengal State is very small.

Madras :-

2.18 The cultivation of this crop is confined to the lower base of the Nilgiri hills and is largely concentrated in the banks of Kallar and Coonoor rivers in the vicinity of Mettupalayam. Cultivation of arecanut is also done in Salem and Kanyakumari districts. On an average about 77 per cent of the crop is raised as pure and 23 per cent as mixed crop with fruit trees. Nearly 80 per cent of the crop is irrigated and 20 per cent is grown under rain-fed conditions. The average size of the holdings has been found to vary from 2 to 15 acres.

The district-wise figures of area under arecanut cultivation are given in Annexures IV to XI

Average yield per acre :-

2.19 The estimated average yield per acre in terms of processed arecanuts in different States in India is given below :

<i>State</i>	<i>Yield per acre</i>
	In kgs.
Assam	433.0
Mysore	380.7
Kerala	272.5
Maharashtra	559.9
West Bengal	388.2
Madras	197.8
All India	<u>339.7</u>

(Source: Report on Marketing of Arecanuts in India.)

2.20 Among the major producing States, the yield is highest in Assam with 433 kgs. per acre, followed by Mysore with 380.7 kgs. and it is the lowest in Madras with 197.8 kgs. The average yield of cured nuts is generally high in areas where the fruits are allowed to ripen fully on the trees and where only mature fruits are harvested. In Assam, Maharashtra and West Bengal, this practice is invariably followed and the outturn is, therefore, comparatively high. In Kerala, a sizeable portion of the crop is harvested in the tender and semi-ripe stage for preparing various qualities of 'kali pak'. By this process, nearly two-thirds of the original weight is lost and the yield is, therefore, comparatively low,

Development under Plan schemes :

2.21 In the Second Plan, the production of arecanut was proposed to be raised from 22,14,800 std. maunds (819476 quintals) at the beginning of 1956-57 to 27,22,000 std. maunds (1015306 quintals) at the end of 1960-61. However, by the end of the Second Plan, the production could be raised to 25,21,840 std. maunds (940646 quintals) only. In the Third Plan, it is proposed to raise the production to 27,27,924 std. maunds (1017516 quintals) as under :

	std. Mds.	Quintals
Kerala	1,368,670	510414
Mysore	874,760	326285
Assam	315,130	117544
West Bengal	58,934	21982
Maharashtra	62,740	23402
Madras	45,640	17024
Andhra Pradesh	1,250	466
Orissa	800	299
	<hr/> 2,727,924 <hr/>	<hr/> 1017516 <hr/>

Method and cost of cultivation :

2.22 The arecanut tree requires a tropical climate for its successful cultivation. It is, therefore, grown principally in the hot and humid regions of India, Pakistan, Malaya, the Philippines and East Indies. It thrives in areas of heavy rainfall and high humidity for its optimum growth. In the drier regions, the tree requires copious irrigation for its successful growth. Among the producing countries of the world, India has the maximum cultivated area under arecanuts, but the Indian production is, however, insufficient to meet internal demands and large quantities have to be imported from other countries.

2.23 Arecanut cultivation is carried out in three stages. The first stage is establishing a new garden e.g. cleaning and levelling the ground providing drains and planting banana suckers for providing shade to areca seedlings and then planting areca seedlings. Upto this stage the garden is called 'prospective garden'. The second stage is maintaining the 'non-bearing garden' for 7 to 10 years till it starts bearing fruits. After this stage, it will be a 'bearing garden'. The third stage involves maintaining the bearing garden and harvesting and processing of the produce. Thus, income from arecanut gardens is derived only at the bearing stage i.e. about 7 to 10 years after initiating operations to establish a garden.

2.24 Arecanut crop is propagated by seed either by sowing it directly in the gardens or by raising seedlings in separate nurseries and transplanting them when they are about two years old. Generally transplantation method is adopted wherever intensive cultivation is practised. The number of trees planted per acre varies from 450 to 1200. The trees begin to yield their first harvest of fruits when they are 7 to 10 years. In a year, two or three branches of fruits are harvested from each bearing

tree and each branch yields about 200 to 250 fruits weighing 3.2 to 4.9 lbs. per 100 fruits. Each tree may have a life of 60 to 100 years but its average economic life in a plantation is usually 30 years.

2.25 The cost of production per acre varies in different areas with reference to the methods of cultivation. According to a pilot survey for estimating the cost of cultivation of arecanut in Mysore, conducted by the Arecanut Committee, the average annual cost of production of arecanuts in bearing stages was estimated at about Rs. 1309 per hectare (Rs. 524 per acre) as under. This is, however, exclusive of the rent for land and the value of the labour put in by the cultivator's family.

	Rs.
Labour	774.35
Manure	227.61
Seedlings	25.82
Others	281.08
	<hr/>
Total	1308.86
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The cost of production in Kerala State reported by the state Marketing Officer is as under :—

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Upto bearing stage (1 to 8 years)

	(Rs.)
(i) Preparatory cultivation, formation of pits.	112.50
(ii) Manuring	91.00
(iii) Irrigation	120.00
(iv) After cultivation	35.00
(v) Fencing	25.00
(vi) Other charges	—
	<hr/>
	383.50 per year.
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For Annual maintenance from 8th year onwards.

(i) Manuring	200.00
(ii) After cultivation (including fencing).	60.00
(iii) Irrigation	100.00
(iv) Plant protection	30.00
(v) Harvesting	75.00
	<hr/>
	465.00 per year.
	<hr/>

Harvesting & marketing periods :

2.26 The crop is harvested when the fruits are tender or semi-ripe or when these are ripe and fully mature. The seasons for harvesting the crop in different stages of maturity in the various producing States are as indicated below :—

Season of harvesting

<i>State</i>	<i>Semi-ripe arecanuts.</i>	<i>Ripe arecanuts.</i>
Assam plains	*	March to August
Assam hills	*	November to March
Maharashtra	*	December to March
Mysore Malnad	September to January	December to March
Mysore Maidan	July to December	*
Kerala	June to November	September to March
West Bengal	*	October to January
Madras	July to December	September to March

(*Practice not widely in vogue).

It will be seen from the above that the harvesting season is early when the fruits are harvested in the tender and semi-ripe stage and it is delayed if the fruits are harvested in the ripe and mature stage.

2.27 The flow of supplies of the arecanut crop to markets generally commences after the harvest and may, therefore, be taken to correspond with the harvesting season of the crop in the different producing areas. The season for marketing of arecanuts will thus be from July to December for semi-ripe fruits and from October to April for ripe fruits.

2.28 The season for marketing of processed arecanuts, however, vary slightly depending upon the commercial types processed in different areas, as shown below :—

<i>State</i>	<i>Variety of betelnuts.</i>	<i>Marketing season</i>
Kerala	Processed from semi-ripe nuts.	From last week of July (Peak period being July to September).
Kerala	Ripe nuts.	October to April
Mysore Malnad area	Semi-ripe nuts.	November to July (Peak arrivals from January to April)
Mysore Maidan area (Tumkur)	" "	September to December
Mysore (South Kanara District)	Ripenuts	September to May

Assam (Plains)	Ripe nuts.	April to July
Assam (K & J Hills)	Ripe nuts.	January to March
Madras	Semi-ripe nuts.	July to December
	Ripe nuts.	October to March
Maharashtra	Ripe nuts.	December to April

2.29 Depending upon the degree of ripeness of the fruits at the time of harvesting, the arecanut crop produced in India may be broadly divided into two types, viz. semi-ripe and ripe. On an average, about 57 per cent of the crop produced in India consists of ripe fruits and the remaining 43 per cent consists of semi-ripe fruits. In Assam, Maharashtra and West Bengal, the total production consists mostly of ripe fruits whereas in the Southern States of Kerala, Mysore and Madras, about 40 per cent of the crop is harvested in the semi-ripe stage for preparing special qualities of cured arecanuts.

2.30 Processed arecanut produced in India consist of several commercial varieties. These are broadly distinguished by the trade as 'Kalipak' and 'Kottapak'. The 'Kalipak' varieties are prepared from tender and semi-ripe crop whereas most of the 'Kottapak' varieties are prepared mainly from ripe and fully mature crop. The main difference between these two categories is that the 'Kalipak' varieties are all boiled before drying, while 'Kottapak' varieties are mainly dried without boiling.

2.31 The important commercial types included under the 'Kalipak' varieties are locally known as 'api' or 'idi', 'hassa' or 'battu', choor, 'erassel' and 'ottavettu' while those included under the 'Kottapak' varieties are locally known as 'Chhali', 'pharcha', 'Nayampak' and 'yilon' are two qualities prepared out of tender or immature nuts. They are not boiled. Under 'Kottapak', 'Chhali' and 'pharcha' are two of the most important types of cured arecanuts produced in India accounting for nearly 37 per cent of the total production. Under 'Kalipak', main types produced in order of importance are 'Choor', 'Api' or 'idi', 'hassa' or 'battu' and 'erassel' accounting for over 40 per cent of the total production.

Marketable surplus :

2.32 Out of the total crop produced, the growers generally retain 8 to 9 per cent for seeds and domestic consumption. The average per capita consumption of arecanut in its various forms in India works out to 0.74 lb. The per capita consumption, however, varies from State to State. It is highest in Assam amounting to 6.17 lb. per head as bulk of the crop produced in the State is consumed as fresh arecanuts for chewing purposes.

The marketable surplus of arecanuts in different States is estimated as under:

Kerala	36509 M. tonnes.
Mysore	28122 " "
Assam	23106 " "
Maharashtra	2595 " "
West Bengal	1628 " "
Madras	894 " "
	<hr/>
	92854 " "

(Source : Indian Central Arecanut Committee)

Curing & Processing :

2.33 Out of the total production of arecanuts in the country, 26.8 percent is marketed as fresh arecanuts without any curing and processing. This includes 3.3 per cent semi-ripe and 23.5 per cent ripe fruits. The remaining about 73.2 per cent of the crop is marketed only after curing and processing either in the form of fermented arecanuts or as cured arecanuts. The fermented arecanuts account for 8.8 per cent of the annual crop.

2.34 The methods employed in the curing and processing of arecanuts are described below :—

Unprocessed arecanut :

Soon after harvest, a portion of the fully ripe and mature arecanuts is kept apart and preserved as whole fruits either in water or in pits for use during the off season. The practice of preserving in pits is common in Assam and West Bengal, whereas preservation in water is generally the rule in Kerala. In Khasi and Jaintia Hills of Assam also, preservation in water is generally practised. Under pit preservation, pits 3 to 5 feet deep are dug and their bottom and sides are lined with leaves of plantains and areca palm. The ripe areca fruits are separated from the bunches and after dipping in water are placed in these pits in layers. The pits are then covered with another layer of leaves and plastered with mud and made airtight. The fruits are removed after 3 or 4 months and sold as fermented nuts. In K. & J Hills of Assam, ripe fruits filled in circular bamboo baskets are immersed in big cement tanks with water and kept there from January to April whereafter they are taken out for sale. In Kerala, the fruits are kept immersed in water in large earthen-ware receptacles or shallow wells.

Commercial Processed arecanuts :

2.35 Different types of commercial processed arecanuts are prepared either from the semi-ripe or from the ripe arecanut crop. According to the methods of processing, commercial processed arecanuts (supari) may be broadly grouped into (i) unboiled (Kottapak) and (ii) boiled and coloured (Kalipak) classes. The methods of curing and processing followed in the case of each of those two varieties are as under :—

Kottapak (unboiled varieties).

(a) *Chaali* : Soon after harvest, the fruits are separated from the bunches and are allowed to dry in the sun for 40 to 45 days. When fully dried, the kernels shrink and get detached from the husk or fruit wall which can be tested by shaking the fruit. Thereafter the dried fruits are dehusked by small knives and the whole kernels separated. These are again given a final drying in the sun. The same method is adopted with slight variations in different producing areas.

2.36 In Maharashtra, the outer skin of the fruits is stripped off first from three sides and the fruits are dried. After drying, the produce is marketed with the husk and husking is done only at the time of final disposal of the stock.

2.37 In certain areas of Kerala, in order to hasten drying, a thin layer of the husk is removed from ripe fruits soon after harvest and then

dried for 7 days in the sun. By this method, the total period of preparation and curing is reduced from 40 to 15 days. In this process the produce is not fully dried and therefore, fetches a low price. The pressing need for money by the growers and curers is responsible for this imperfect practice.

2.38 Iylan and nayampak are two other unboiled types processed in Kerala. They are prepared from tender and semi ripe fruits. For preparing 'iylan', the kernels are cut breadth-wise into 4 or more circular slices and then dried, while for 'nayampak', the kernels are cut into two pieces only breadthwise. All those varieties are given sulphur fumigation.

2.39 Pharcha is another important commercial type processed in Mysore in the same way as 'Chali', except that before drying the whole fruits are cut with a knife and split lengthwise into two pieces and then dried.

2.40 Kata supari is a variety of processed arecanuts in Assam. The ripe fruits are cut lengthwise into two pieces without separating the husks. These are then dried in the sun for 3 or 4 days. Thereafter the kernels are separated and dried again for 2 to 3 days.

Kalipak (boiled and coloured varieties).

2.41 Unlike Kottapak, the Kalipak varieties are far more numerous and are prepared from tender and semi ripe arecanuts. The methods of curing and processing are also more elaborate in the case of these varieties. Although there are local variations, curing methods are generally similar and consist of such operations as separation of the fruits from the bunches soon after harvest, husking of fruits, slicing the kernels, boiling and cooking, draining, colouring, drying, etc. The important Kalipak varieties processed in various States are 'api' or 'idi', 'hassa' or 'hattu', 'Choor', 'erassel', 'ottavetu', 'podi', etc. The differences between these types and varieties are mainly in their shape and size and are brought about by the varying methods adopted in cutting and slicing the kernels.

2.42 In Kerala, for preparing 'Choor' varieties, the kernels are cut lengthwise into 6 to 8 pieces or more, whereas for 'erassel', the kernels are sliced breadthwise with 8 to 10 slices or more. In the case of ottavettu also, the kernels are cut breadthwise into two pieces only. The sliced pieces are boiled in a big copper vessel containing water. When uniformly cooked, the pieces are removed and are spread over bamboo mats for cooking and drying. The blood-red extract left over in the vessel after boiling is filled up again with water and a fresh charge of sliced and cut kernels is put in it and boiled. After they are cooked, these are also removed and dried. After the second charge has been removed from the vessel, the extract left over is transferred to a small copper container and allowed to settle. The clear supernatant liquid from it is decanted and the residue is boiled again for about 3 to 4 hours until a concentrated solution is obtained. This is locally known as 'Kali' or colouring liquid and is the natural colouring matter used in the processing of 'Kalipak' varieties.

2.43 For purposes of colouring, the cooked slices are first transferred to a wooden trough and the 'Kali' solution poured into it. After mixing them well, they are then spread over bamboo mats and dried. Preparation

of boiled varieties takes about 1 to 1½ days as against 40 to 45 days required for processing unboiled varieties.

2.44 In Mysore, the most important 'Kalipak' type is known as 'api' or 'idi'. This is also processed from semi-ripe nuts. The harvested fruits are first dried for 3 to 4 days and then after removing the husk, the whole kernels are boiled and cooked in water for about 2 to 3 hours. After cooking, the kernels are dried for 6 to 7 days. After drying, the produce is, immersed in 'Kali' liquid (locally known as 'Chogaru' for a minute or two so that all the kernels may have an uniform colour.

2.45 Other important 'Kalipak' varieties prepared in Mysore are known as 'hassa' or 'battu' and 'choor'. For these varieties, arecanut fruits are harvested when they are green and three-fourths ripe. They are husked and the kernels are removed and sliced. When cut breadthwise into two pieces they are called 'hassa' or 'battu' and when cut lengthwise into many pieces, they are called 'choor'. The sliced kernels are boiled in a mixture of water and previous years extract of 'Kali' (Chogaru) for 1½ to 3 hours and then dried for 6 to 9 days.

Curing Agencies :

2.46 In Kerala, the growers remove the husk from harvested fruits during the day and sell the raw kernels to the curers towards the evening. As these kernels are highly perishable after removal of the husk, the curers start further operations such as slicing, boiling, etc. soon after and completed by working throughout the night. But in Mysore, processing is undertaken mostly by the growers themselves. Each grower cures his own produce before sending it to the market. In Assam, curing and processing are done mainly by professional curers.

Processing Costs :

2.47 The cost of curing and processing of different types of processed arecanuts in the various States has been estimated as under :—

<i>State</i>	<i>Commercial type.</i>	<i>Cost of processing per maund.</i>
Assam	Kottapak—Gota supari	6.00
	—Kata supari	10.25
	Kalipak*—	..
Maharashtra	Kottapak—	3.00
	Kalipak*—	..
Madras	Kottapak	5.25
	Kalipak	6.00
Mysore	Kottapak—Chhali	3.00
	Kalipak—Api	6.25
	Hassa	8.00
Kerala	Kottapak—Kottadaka	5.39
	Splits	11.00
	Kalipak—Ottavettu	8.85
	Choor	8.85
	Erassel	10.50

*Not processed.

(Source : Report on the Marketing of Arecanuts in India (1962).)

COCONUT

General :—

2.48 Coconut is grown mostly in Indonesia, the Philippines, India, Ceylon, Malaya, Thailand, New Guinea and Papua, Zanzibar and Pemba, Mozambique, Mexico and Brazil. The area under coconuts in the world is 124.12 lakh acres, of which nearly 101.62 lakh acres (about 82 per cent), are in Asia. In Asia, the main coconut producing countries are Indonesia, the Philippines, India and Ceylon. India accounts for about 18 per cent of the world production of coconuts and is the third largest coconut-growing country in the world, the first and second positions being occupied by Indonesia and Philippines.

2.49 The coconut has been known in this country for centuries past. Kerala is the main producing area for coconuts and coconut is the main source of livelihood for a majority of the inhabitants in the State.

2.50 The coconut is principally cultivated for the nuts, although in some localities it is cultivated for tapping or extracting juice or toddy. The nuts are used for various purposes, such as (i) tender nuts as a refreshing drink, (ii) mature nuts for edible purposes, religious offerings, (iii) for raising seedlings, and (iv) for making copra and from it coconut oil. Coconut fibre is also used for various purposes.

Area and production :—

2.51 In India, coconut grows luxuriantly in the coastal and deltaic tracts and also in certain localities in the interior of the country where good deep soil and plentiful supply of soil moisture with proper drainage are available. No reliable statistics are available regarding the area and production of coconuts in India. The area and production were, however, estimated as under during 1959-60 on an ad hoc basis as under :—

1959-60

<i>State/Territory</i>	<i>Area Hectares</i>	<i>Production 1000 nuts.</i>	<i>Percentage of total Production</i>
Andhra Pradesh	36169	325124	7.0
Assam	810	12787	0.3
Gujarat	445	950	neg
Kerala	476047	3248000	70.7
Madras	53989	435712	9.3
Maharashtra	6737	40634	0.9
Mysore	96573	485319	10.2
Orissa	4493	46056	0.7
West Bengal	6682	22205	0.5
A & N Islands	1782	2500	0.1
Laccadive Islands.	2373	8751	0.2
Pondicherry	972	6216	0.1
Total :	687029	4634254	100.0

[Source : Report on the Marketing of Coconuts in India.]

Note :—In addition, it is estimated that coconuts are grown over about 12150 hectares in Goa with an annual production of approximately 80 million nuts.

The average annual production of nuts works out to 4572 million nuts. The production in Kerala is 70.7 per cent of the total as against the area of 69.6 per cent of the total in the country. Mysore State which has 13.7 per cent of the area produces only 10.2 per cent of the production.

2.52 Out of an average total production of 4572 million nuts, it is roughly estimated that about 158 million nuts (3.5 per cent) are plucked as tender nuts in different States as under :—

State/Territory	Production of tender nuts	
	Number 1000 nuts.	Percentage to total production in the State.
Andhra Pradesh	3219	1.0
Assam	2787	21.8
Gujarat	10	1.0
Kerala	35548	1.1
Madras	68363	16.0
Maharashtra	10971	27.0
Mysore	32543	7.0
Orissa	1629	5.0
West Bengal	2221	10.0
A & N Islands	500	20.0
Laccadive, Minicoy & Amindiv Islands.	18	0.2
Pondicherry	994	16.00
Total	158803	3.5 (All India)

[Source : Report on the Marketing of Coconuts in India]

The remaining 4413 million nuts (96.5 per cent) of the total average production are plucked as mature nuts. It may be seen from the above that the percentage of nuts plucked at tender stage is comparatively higher in Maharashtra, Assam, Madras and West Bengal.

2.53 In the main coconut producing areas of Kerala, Mysore, Madras and Andhra Pradesh, a considerable proportion of mature nuts is utilised for making copra i.e. dried coconut meat. In the East Godavari District of Andhra Pradesh, 18 per cent of the coconut is converted into copra. In Kerala, 50 per cent of the production is converted into copra. In Mysore, the main coconut producing districts of Tumkur and Hassan use about two-thirds of their crop for copra making while in South Kanara, about 55 per cent is used for making copra. In Madras State, 20 and 10 per cent respectively of the production in Tanjavur and Kanya

Kumari districts are used for copra making. About 6 million nuts (0.6 percent of total production) are estimated to be used for copra making in other States.

Pockets of Production :

2.54 The cultivation of coconuts is concentrated in the following areas :

	<i>Districts</i>
Kerala	Calicut, Alleppey, Quilon, Trivandrum, Kottayam, Cannanore, Ernakulam.
Mysore	Tumkur, Hassan, South Kanara, Chikmagalur.
Madras	Thanjavur, Kanyakumari, Coimbatore, North Arcot.
Andhra Pradesh	Srikakulam, East Godavari, West Godavari.
Maharashtra	Ratnagiri
West Bengal	24 Paraganas, Howrah, Hoogly, Midnapur.
Orissa	Puri, Cuttack.
Assam	Kamrup, Darrang, Nowgong.
Gujarat	Bhavnagar, Junagadh.

The district-wise area of coconut cultivation in the major producing states may be seen in Annexures IV to XI.

Average yield per acre :

2.55 The average yield differs widely with reference to soil conditions, number of trees per acre, the percentage of bearing trees to non-bearing trees, etc.. No correct estimates based on crop cutting surveys are available. Sample surveys in this regard are, however, being conducted by the Indian Central Coconut Committee in different States. The average number of trees per acre varies from 70 trees in Kerala to 120 trees in Orissa. In Andhra Pradesh, Madras and Mysore, the average number of trees per acre are estimated at 50 to 80, 60, 30 to 60 respectively. The average number of nuts per bearing tree is estimated at 34 in Kerala.

According to the Indian Central Coconut Committee, the average production per acre is estimated as under :

State	Average production	
	per acre (Nuts)	Per Hectare (Nuts)
Kerala	2765	9910
Madras	3275	8185
Mysore	2075	5185
Maharashtra	1313	3280
Gujarat	3909	9770
Andhra Pradesh	3638	9095
Orissa	4151	10375
West Bengal	1345	3360

Development under Plan Schemes :

2.56 India is short of coconuts by about one-third of her total requirements and copra worth about Rs. 12 crores is imported annually to meet the internal needs. A number of schemes to step up the production of coconut within the country as also to improve the quality through Research are being implemented in the various sectors under the Plan programmes with financial assistance from the Indian Central Coconut Committee and the State Government concerned. The additional production at the end of the Third Plan as a result of implementing these schemes is estimated at 774 million nuts.

Method of cultivation :

2.57 Coconut is propagated by seed. The seed nuts are collected from the mother palms and sown in seed beds. The seedlings are then transplanted. The tree attains a height of 50 to 60 feet in the case of tall variety and of about 23 to 33 feet in the case of dwarf palms. Its life period is 80 to 90 years. The trees generally commence bearing fruits seven or eight years after planting and they continue to bear upto 60 to 80 years of age, after which they cease to bear. It takes about 12 months for maturity of the nuts after pollination. There are two distinct varieties of coconuts in India viz. (i) tall and (ii) dwarf. Tall variety which is superior to dwarf is extensively grown in India. In the case of tall variety the trees are taller and the nuts bigger, while the dwarf trees are short and their nuts smaller. The quality of copra of dwarf nuts is also poor.

Cost of production :

2.58 The cost of production per acre varies from State to State depending upon the cultivation methods employed in each State. The estimated cost of production in Kerala State is given below :

KERALA

	Rs.
	Per acre
(i) Preparatory cultivation,	25.00

(ii) Seedling and planting.		60.00
(iii) Fencing		75.00
(iv) Manuring :		
1st year	15.00	
2nd year	30.00	
3rd year	45.00	
4th year	78.00	
5th year	93.00	
6th year	108.00	
7th year	175.00*	544.00
* From 7th year onwards the trees start bearing and full requirements of fertilizers mixture, etc. are to be applied.		
(v) Interculture		10.00
(vi) Inter cropping or cover cropping		20.00
(vii) Plant protection		15.00
(viii) Harvesting (from 7th year).		15.00
Cost : 1 to 7 years		754.00
From 8th year.		235.00 per year

Harvesting and marketing periods :

2.59 Coconuts are harvested 6 to 12 times in a year depending upon the yield and conditions prevailing in each region. They are sold throughout the year in all the markets, but the peak arrivals are from January to May in each year. Only ripe nuts are harvested, except a small quantity of tender nuts. Harvesting is done either by climbing the tree or with a bamboo pole with an iron hook or knife. The cost of harvesting is from Rs. 2 to 5 per 1000 nuts. A trained labourer can climb 25 to 40 trees per day.

Marketable surplus :

2.60 It is estimated that about 20 percent of the total production of coconuts in Kerala State is retained by the producers for their own use, while in Mysore and Madras States, 15 percent and 10 percent respectively are retained by the growers. In Maharashtra, about 15 percent is retained by the owners themselves. On an average about 82 percent of the total production can be reckoned as the marketable surplus which works out to 3800 million nuts.

Processing :

2.61 Mature coconuts are used mainly for four purposes viz: (a) for making copra, (b) for religious offerings, (c) for edible purpose as fresh kernels, and (d) for raising seedlings.

(i). Preparation of copra :

In the main coconut producing areas of Kerala and Mysore, a considerable proportion of mature nuts is utilised for making copra i.e. dried coconut kernel. The utilisation of coconuts for copra making in different states is indicated below :

State	Estimated production of mature nuts (1000 nuts)	Estimated average no. of nuts utilised for copra making (1000 nuts.)	Percentage of production used for copra making
Andhra Pradesh	318684	26333	8.3
Kerala	3196119	1598059	50.0
Madras	358906	34000	9.5
Mysore	432358	216179	50.0
Others	107499	6095	0.6
Total	4413566	1880666	42.6

Copra is the source of coconut oil. Copra prepared in this country may be broadly classified into two groups, viz. edible and milling. The first group comprises of high class copra which is considered fit for edible purposes, while the second includes all the remaining copra which is used for production of coconut oil. Milling copra is made in the form of cups while edible copra is made both in the form of balls and cups.

Method of preparation of copra :

2.62 For the preparation of ball copra, completely mature nuts with the husk on are stored in the shade for a period of 8 to 12 months, generally on specially constructed bamboo platforms above the ground level. To hasten the process, the nuts are sometimes heated by a slow fire set under the platform. During this period, the water inside gets absorbed in the kernel which gets separated from the shell. The nuts are then husked and the shell broken. The copra thus obtained is in the form of balls. Most of the copra in Mysore and small quantities in Kerala and Godavari districts of Andhra Pradesh is made in this manner.

2.63 Ball copra is also prepared with artificial heat. In this method, mature nuts, 12—14 months old with husk, are kept in a suitable two storeyed brick and mortar building, with wooden partitions for about 8 to 12 months and smoked by burning paddy husk, dry leaves, or coconut husks. The drying process is continued until the kernels are detached from

the shell. Smoke drying of copra is practised in Malabar area of Kerala State, whereas in Mysore and other States, sun drying is in vogue.

2.64 Cup copra is made from fresh nuts or from nuts which have been stored for shorter period. The nuts after being husked are cut into two pieces. After removing the water, the half pieces are lightly dried so that the kernels get detached from shell. The kernels are then further dried. Milling copra is made by sun drying or by kiln drying or both. Kiln drying is resorted to especially in the rainy season. For kiln drying, the crops are spread over a platform of bamboo over a fire place and subjected to the heat of a slow fire for 4 to 5 days. The cost of preparing copra from 1000 nuts is estimated at Rs. 5 in Kerala State, and Rs. 2.50 to Rs. 9 in other States.

2.65 The preparation of copra in the West coast is undertaken by cultivators, professional village copra makers and wholesale merchants. It is estimated that about 25 per cent of the copra is made by cultivators themselves and the balance either by village copra makers or by wholesale merchants in assembling markets.

2.66 The total production of edible and milling copra and the average yield of copra are indicated below :—

State	Average No. of nuts annually utilised for making copra 1000 nuts.	No. of nuts required to produce one metric tonne of copra.	Estimated production of copra (Metric Tonnes)			Average yield of copra per 1000 nuts. Kgs.
			Edible copra.	Milling copra.	Total	
Andhra Pradesh	26333	8820	2682	300	2982	113
Kerala	1598059	6850	34994	198299	233293	146
Madras	34000	7000	48	4809	4857	143
Mysore	216179	7000	29519	1364	30883	125
Others	6095	12000	457	51	508	83
Total :	1880666	6899 (average)	67700	204823	272523	

[Source : Report on Marketing of Coconuts in India.]

It may be observed that the production of milling copra is almost wholly confined to Kerala State, while the copra produced in Mysore and Andhra Pradesh is almost wholly of edible type. The production of copra in India amounts to 2,72,523 metric tonnes of which about 79 per cent is milling copra and the rest edible. About 90 per cent of the copra is produced in Kerala State,

Methods of crushing copra :

2.67 Copra is generally crushed by Chekkus, rotary mills and expellers. The chekkus are usually driven by bullocks and generally a bullock-driven chekku crushes from 36 kg. (80 lbs.) to 114 Kg. (250 lbs.) of copra per day of 10 hours.

Rotary mills may be described as power-driven chekkus with the difference that both the pestle and the mortar revolve. Rotary mills have largely replaced chekkus in the coconut producing areas. The capacity of a rotary mill usually varies from about 182 Kg. (400 lb.) to 272 Kg. (600 lb.) of copra per day of 10 hours. About 400 to 1200 grams of gum alacia is sometimes added per quintal of copra to bind the cake and facilitate the extraction of the oil.

2.68 Expellers which are being increasingly used for crushing oil seeds in India are employed for crushing copra mainly by the mills at Bombay and Calcutta. Only few of the mills in coconut producing areas are equipped with expellers. The capacity of an ordinary size expeller is usually 2 to 3 metric tonnes of copra per day of 10 hours. Baby expellers of much smaller size (75 Kg. per hour) have also recently come into use.

The number of rotary power mills and expellers engaged in copra crushing in important coconut growing States and their crushing capacity as on 1.4.1962 are given in the following table :—

State	No. of Rotary mills.	No. of Expeller mills.	Capacity per hour of 8 hours (In Qtls.)	
			Rotary	Expellers
(1)	(2)	(3)	(4)	(5)
Kerala	964	1	6228	150
Maharashtra	28	45	252	6077
Mysore	71	—	515	—
Madras	24	—	205	—
Andhra Pradesh	22	—	114	—
West Bengal	—	12	—	1019
Gujarat	—	5	—	160
Madhya Pradesh	—	1	—	80
Total	1,109	64	7,314	7,486

(Source : Indian Central Coconut Committee).

2.69 The processing of copra is done throughout the year normally, subject to availability of copra but the crushing is more in summer season i.e. January-April. Most of the mills work double shift when copra is available. The installed crushing capacity of existing mills in two shifts is 7,90,000 tonnes of copra per year. But the total copra crushed in mills

during 1961-62 was only 2,34,590 tonnes. Thus, only 30 per cent of the installed capacity is being utilised now. Most of the mills are situated in Kerala and Bombay. Whereas in Bombay, other oil seeds such as groundnut, castor-seed, etc. are also crushed in the power mills, only copra is available for the Kerala mills which is not sufficient.

2.70 The quantities of copra crushed by power mills and the coconut oil and coconut cake produced in 1959-60 in the important copra crushing States are given below :—

1959-60

State	Quantity of copra crushed (Metric tonnes)	Production of coconut oil (Metric tonnes)	Production of coconut cake (Metric tonnes)
Andhra Pradesh	438	271	163
Kerala	117623	73781	41133
Maharashtra	67146	39818	23403
Madras	2305	1419	788
Mysore	4728	2939	1630
West Bengal	2263	1392	791
Total :	194503	119620	67908

(Source : Report on Marketing of Coconuts in India).

During 1960-61 and 1961-62, the following quantities of copra were crushed :

State	1960-61		1961-62	
	Rotary	Expeller (Metric tonnes)	Rotary	Expeller
Kerala	122557	4394	148192	4947
Maharashtra	1556	68850	10906	53375
Mysore	5164	—	5815	—
Madras	3337	—	3559	—
Andhra Pradesh	1369	—	759	—
West Bengal	—	6980	—	6535
Gujarat	—	—	—	480
Madhya Pradesh	—	—	—	22
Total :	133983	80224	169231	65359

(Source : Indian Central Coconut Committee).

2.71 The yield of coconut oil from copra varies generally from 63 to 65 per cent when crushing is done by expellers, 62 to 63 per cent from rotary mills and about 58 to 60 per cent from chekkus. The average yield of oil from all copra crushed in India by different methods is estimated to be about 62 per cent. The yield of oil cake is about 35 per cent. The oil cake is mainly utilised as a cattle feed in the country and a limited quantity is exported to other countries also. The Central Food Technological Research Institutes, Mysore has, however, developed a low cost protien food using coconut cake as one of the components. Coconut oil is used for (i) edible purposes, (ii) for toilet preparations, (iii) for soap making, and (iv) to a small extent as an illuminant and lubricant in producing areas.

Coconut Husk :

2.72 Coconut husk is the raw material for the coir industry. It is available in sizeable quantities in places where there is large scale coconut cultivation. The average yield of husk per coconut is estimated at 680 grams. The most important commercial utilisation of coconut husk is for the extraction of coconut fibre or coir. The bulk of coir is prepared by retting fresh husk. The coir industry has, therefore, developed mainly in the State of Kerala, where natural retting facilities are available. The proportion of husk utilised for coir making to the total output of husks varies from 9.2 per cent in Mysore to 60 per cent in Kerala. The total quantities of husk utilised for coir making in different States are shown below :—

State	Estimated production of mature nuts (1000 nuts)	Husks utilised for coir making (1000 nuts)	Percentage of husk utilised for coir making
Kerala	3196119	1917671	60.0
Madras	358906	40270	11.2
Andhra Pradesh	318684	63737	20.0
Maharashtra	29663	2966	10.0
Mysore	432358	40000	9.2
Others	77836	5482	7.0
Total :	4413566	2070126	46.9

Processing costs

2.73 Coconuts are mostly consumed in three ways viz. (i) as edible fresh nuts, (ii) as copra for edible purposes, and (iii) as coconut oil.

For preparation of edible nuts, the nuts are husked wholly or in part according to requirements of different markets. The charges for husking vary in different areas from Rs. 2.50 to Rs. 5.56. per 1000-1500 nuts.

2.74 The cost of preparing copra includes the expenses incurred in husking, breaking open the nuts, and separating the kernels from the shell and the charges for labour involved in handling besides the cost of fuel burnt. The cost varies in different areas. The cost of preparing copra from 1000 nuts in Andhra Pradesh is estimated to be about Rs. 9.00. In Madras, the cost is reported to be Rs. 5.50 and Rs. 5.00 in Malabar area of Kerala. In Mysore, it varies from Rs. 2.50 to Rs. 3.75 per 1000 nuts. It is estimated that about 7000 nuts yield one metric tonne of copra.

2.75 The cost of crushing copra into coconut oil differs in different areas and also with reference to the method of crushing. The cost of crushing copra by 'chekku' is about Rs. 8.37 per quintal in Kanyakumari district and Rs. 11 per quintal in Thanjavur district of Madras. The cost of crushing copra by rotary mill works out to Rs. 5 per quintal in Kanyakumari district and Rs. 8.87 per quintal in Thanjavur district. In Mysore State, the cost of crushing 100 lbs. (45.4 kg) of copra into oil works out as follows :—

Sorting charges	..	Rs. 0.84 P.
(Charges for cutting copra into pieces	..	Rs. 1.87 P.
Crushing charges	..	Rs. 2.25 P.
		<hr/>
		Rs. 4.96 P.

or Rs. 10.93 P. per quintal.

The cost of crushing copra by expeller in Bombay comes to Rs. 3 to Rs. 3.50 per quintal.

The recovery of oil from dried copra is generally about 62 per cent oil and about 38 per cent oil cake.

CASHEWNUT

General :

2.76 India is the largest supplier of cashewnut kernels to the world markets. Though the cashew tree is met with in many tropical and sub-tropical parts of the world, cashewnuts are collected on a commercial scale only in India, East Africa and Brazil. By far the largest quantities are produced in India and East Africa. The entire East African crop is, however, exported to India as raw nuts and the processing and manufacture of cashew kernels are almost entirely carried out in India. India is thus the principal source of supply of cashew kernels. Over 90 per cent of the world demand is estimated to be met by the Indian industry and the small balance is contributed by other countries, mostly Brazil.

2.77 During 1961-62, the quantity of raw cashewnut imported into India was 89176 tonnes valued at Rs. 591 lakhs mostly from East Africa, while the quantity of cashew kernel exported was 40932 tonnes valued at Rs. 1,817 lakhs. Due to absence of skilled labour for processing the nuts and high labour costs, the East African countries have not been able

to process the raw nuts themselves. Attempts are, however, being made in these countries also to develop the cashew processing industry locally, in view of the growing demand for cashew kernels in the world markets.

Area and production :

2.78 With the growing demand for cashew kernels in the world markets, there is an increasing realisation of the commercial importance of this crop and efforts are being made to increase the production within the country. The Spices Enquiry Committee (1952) estimated the total area under cashew in India as 2,23,128 acres and the production at 60,100 tons.

The present area and production is estimated as under :—

	<i>Area (in Hectares)</i>	<i>Production (in Tonnes)</i>
Andhra Pradesh	11502	14484
A & N Islands	1215	6
Assam	2430	—
Bihar	2778	—
Gujarat	312	—
Kerala	55485	85680
Madhya Pradesh	208	—
Madras	58175	13260
Maharashtra	108441	4080
Mysore	52460	8160
Orissa	6294	2
Tripura	426	—
West Bengal	2141	1199
Total	310867	126871

(Source : Indian Central Spices and Cashewnut Committee).

Note : In addition, it is estimated that cashewnuts are grown over 32542 hectares in Goa with an annual production of 3500 tonnes approximately.

The area mentioned above includes the area covered by cashew under Third Plan schemes from which no production can be expected for 4-5 years.

Pockets of production :

2.79 The cultivation of cashewnut is concentrated in the following areas :-

	<i>District</i>	<i>Production (in Tonnes)</i>
Kerala	Calicut	16270
	Quilon	13942
	Trichur	13894
	Cannanore	10280
	Ernakulam	10080
	Trivandrum	7173
Madras	South Arcot	4488
	Tiruchiraplli	4080
Mysore	South Kanara	7252
	North Kanara	2178
Andhra Pradesh	Visakhapatnam	N.A.
	East Godavary	N.A.
Maharashtra	Ratnagiri	4538

The district-wise area of cashew cultivation may be seen at Annexures IV to XI.

Average yield per acre :

2.80 The actual yield per tree depends upon a variety of conditions and may vary from about one pound of dry raw cashewnuts per tree in the case of close plantations to as much as 40 to 50 pounds (18 to 23 Kgs.) per tree where only 60 to 70 trees are planted per acre. The average yield per acre in different States is, however, reported as under :—

Kerala	626 Kgs.
Madras	223 Kgs.
Mysore	342 Kgs.
Maharashtra	496 Kgs.
Assam	450 to 675 Kgs.

Development under Plan Schemes :

2.81 Besides export value of cashew, its tree is of great help in checking soil erosion and for this reason many new areas are being brought under its cultivation by the Forest and Soil Conservation departments.

There were no developmental schemes on cashewnut during the First Five Year Plan. During Second Plan, a programme for increasing the area under cashewnut by 1,88,500 acres was formulated, thereby increasing the total area to 4,66,117 acres. Incentives were given to the growers by way of crop loans @ Rs. 150 per acre and the State Governments were given subsidy upto 50 per cent of the expenditure on additional technical

staff appointed for the implementation of the schemes. But at the end of the Second Plan, the total area under cashew crop was only 2,80,531 acres. The schemes of financial assistance to growers and the State Governments were continued during the Third Plan period and a target of 8 lakhs additional acres was fixed for the plan period as under :—

Third Plan Targets

State	Non-forest		Forest		Total	
	(acres)	Hectares	(acres)	Hectares	(acres)	Hectares
Madras	10,000	4050	10,000	4050	20,000	8100
Kerala	10,000	4050	5,000	2025	15,000	6075
Maharashtra	5,00,000	202500	—	—	5,00,000	202500
Mysore	75,000	28350	20,000	8100	95,000	38475
Andhra Pradesh	6,500	2632	50,000	20250	56,500	23082
Orissa	1,00,000	40500	—	—	1,00,000	40500
Assam	5,000	2025	—	—	5,000	2025
West Bengal	5,000	2025	—	—	5,000	2025
Madhya Pradesh	500	202	—	—	500	202
A & N Islands	1,000	405	—	—	1,000	405
Tripura	2,000	810	—	—	2,000	810
TOTAL	7,15,000	287549	85,000	34425	8,00,000	321964

It is estimated that 2,38,054 additional acres have been planted with cashew trees during 1961-62 and 1962-63. With this progress, it is expected that by the end of Third Plan the total area will be 8,30,531 acres with an annual production of 1,23,500 tonnes. Since cashew trees yield only after 4 to 5 years of planting, the increase in production can be expected from the areas planted during the Third Plan only by middle of Fourth Plan.

Method of cultivation :

2.82 The cultivation of cashewnut crop is concentrated in the West Coast and East Coast of peninsular India. The cashew grows on laterite soils with a rainfall of over 120 inches as in the West Coast and does equally well on the sandy soils of East Coast where the rain fall is less than 35 inches. It is drought resistant and has an extensive root system. It is, therefore, able to establish itself even on poor and rocky soils since waste lands are generally selected for the cultivation of the crop. The tree is grown in gardens, house compounds, inter-spersed with mangoes, coconuts and arecanuts. Invariably it is planted in the corners of numerous house compounds and outlying areas which are considered unsuitable for any other crop.

2.83 The cultivation of tree is simple and does not consist of any elaborate preparatory or after cultivation operations. When grown on a plantation scale, small pits are dug at a distance of 25 to 30 ft. at the

beginning of the south-west monsoon and one or two dry cashewnut seeds (with shell) are put into each pit and covered over. The seed germinates rapidly within two weeks and develops an extensive root system. Thereafter practically no attention is paid to the crop either by way of watering, manuring or other kinds of inter-cultivation and being a very hardy plant it comes up well even under diverse conditions of soil and climate. Ordinarily, the tree grows to a height of 20 to 25 ft. in plantations. The tree generally begins to bear fruits 3 or 4 years after planting. Upto the 10th year the yield is poor but it goes on increasing and between the seventh and tenth year the maximum yields are obtained. Thereafter for about 20 years the tree yields a satisfactory crop. The average life of the cashewnut plantation is estimated to be 35 to 40 years.

2.84 As stated earlier, cashew tree requires very little attention after planting. The cost of production per acre in different States is reported to be as under :—

	<i>Kerala</i> (Rs.)	<i>Madras</i> (Rs.)	<i>Maharashtra</i> (Rs.)
<i>Cashewnut :</i>			
(i) Labour	50	70	50
(ii) Seed	—	2	1
(iii) Manure	40	35	10
(iv) Irrigation	—	70	60
(v) Plant protection, etc.	—	35	
	90	212	121

Harvesting and Marketing periods :

2.85 The cashew fruits are harvested generally in the months of March, April and May, except in Assam where it is November to December. The growers generally market the raw nuts soon after harvest i. e. March to May. Unless the nuts are well dried, they deteriorate in storage. The processing factories purchase the nuts required by them for the entire year during the harvesting season and process them throughout the year and market the kernels.

Marketable surplus :

2.86 The annual production of cashewnuts in India is estimated at 126871 tonnes. In the producing areas, green cashew kernels are used in the preparation of curries. Such consumption, which is mostly confined to the harvest months, is, however, very small.

It is, estimated that out of the estimated total production of 1.27 lakhs tonnes of raw nuts, hardly 60 to 70 thousand tonnes come to the factories for processing.

Processing :

2.87 Cashewnuts are ready for harvesting when the fleshy portion of the peduncle (commonly known as 'Cashew apple' or 'Cashew fruit') to which they are attached becomes ripe. After the fruits are picked up, the nuts are separated from the peduncles. They are then dried in the sun for a day or so. The cashew kernels of commerce are obtained by processing the raw unshelled cashew nuts in various ways, viz., roasting, shelling and peeling. Roasting is both a delicate and difficult process and unless it is properly done, the quality and recovery of kernels are adversely affected. The four methods generally employed for roasting are (1) open pan, (2) earthen wares, (3) rotary cylinders, and (4) oil baths. The first two methods are simple and cheap, but their main defects are that there is no proper arrangement for the recovery of the oil or to protect the worker against the fumes and oil escaping during the process. The rotary cylinders are an improvement over the open pans or the earthen-ware method of roasting. This system is efficient and hygienic as far as roasting is concerned, but a larger proportion of the shell oil is not recovered by this method also. The new method combining good roasting with the maximum recovery of shell oil is provided by the oil-bath system.

2.88 Under 'open pan' system, the nuts are roasted in shallow open pans over earthen ovens in small quantities of 2 to 3 lbs. at a time. Under 'Earthen-ware' roasting, earthen vessels with wide mouths and perforated bottoms are used for roasting the nuts. The process of roasting is similar to that followed in the case of open pans except that a part of the shell oil tickles down through the holes at the base and collected in iron receptacles.

2.89 A large number of processing concerns have adopted the use of rotary cylinders for roasting cashewnuts. Under this method, cylinders, made of perforated galvanised iron sheets, about 12 feet long and 3 feet in diameter, are suspended in an inclined position over big furnaces fitted with chimneys. The nuts which are fed at the upper end of the cylinder, slide down gradually as it revolves and by the time they reach the lower end, they are completely roasted. The whole process takes 1 to 2 minutes only. The shell oil, which oozes out during the process, escapes through the small perforations and is drained out into suitable receptacles. About 50 maunds (18.65 quintals) of nuts can be roasted in a day and each cylinder is operated by six men. Shells of previously treated nuts are used as fuel.

2.90 The 'oil bath' system, as its name implies, provides an oil bath consisting of cashew shell oil itself, the temperature of which is maintained about 200°C. Raw cashewnuts, which are to be roasted, are held in wire trays and passed through this hot oil bath for about a minute, during which time, due to the high temperature of the bath, the oil cells of the raw nuts burst and release the content into the oil-bath. The overflowing oil is drained and collected simultaneously. At the same time, the shells get roasted to the desired degree. One machine is able to heat about 300 to 350 maunds (or 112 to 131 quintals) of nuts in a day of 24 hours.

Shelling :

2.91 For shelling, the roasted nuts are placed one by one on a level stone and are cracked by giving a few sharp blows with light wooden mallets. The kernels are then extracted. The work of shelling, which is a

delicate process, is generally undertaken by women only in the west coast. The women are paid wages on the basis of weight of the whole kernels recovered. Nothing is paid for broken. The recovery of unpeeled kernels on the weight of nuts varies from 28 to 30 percent.

Peeling and sweating :

2.92 The kernels as extracted from the shells are covered with a brownish thin skin. To facilitate peeling of this skin, the kernels are heated in specially constructed chambers (in the case of big factories) or dried in sun. Like shelling, peeling is done by women generally. The wages are paid on the weight of kernels peeled, the broken kernels being paid for at half rates. The recovery of peeled kernels on the basis of unpeeled ones averages about 88 percent. About 20 to 25 percent of the kernels generally break in the process. The kernels are recovered as wholes, broken and splits. The peeled kernels which will be dry and brittle, are allowed to absorb some moisture by being kept in 'sweating chambers' for 2 to 3 hours to avoid breakage.

2.93 The Indian cashewnut shell comprises of 70 to 72 percent of the total weight of the raw nuts and 24 to 25 percent of the weight of the shell consists of the oil known as cashew shell liquid in commerce. Four tons of raw nuts yields one ton of kernels made up of 70 percent wholes, 20 percent pieces, 8 percent inferior grades and 2 percent rejects.

Grading :

2.94 While there is an elaborate system of grading in vogue in the case of cashew kernels, cashew nuts are not graded by the producers and generally the produce is put on the market in a mixed state containing nuts of varying sizes and quality, including undeveloped and damaged nuts.

2.95 The main factors taken into account in grading the cashew kernels are (i) size, (ii) colour, and (iii) broken. The kernels exported are graded according to the number of kernels or 'counts' per lb. e. g. 210, 240, 280, 320, 400, 500, etc. Whole kernels and broken kernels are graded separately. The standard quality is, however, 320 'counts'. In the case of kernels for internal consumption, the kernels are generally sorted out into (i) wholes, (ii) splits and butts, and (iii) small broken. As in the case of shelling and peeling, women are generally employed for grading as well. The grading is done by the processing factories.

Packing :

2.96 The cashew kernels for export are packed in new tin cans of 4 gallons (18.18) litres capacity. Each tin is filled with 25 lbs. or 11.35 Kgs. kernels. To prevent deterioration of quality, the air in the tin is exhausted and re-charged with carbondioxide before packing. The tins are then packed in wooden cases (two in each case). For internal distribution, the kernels are packed in wooden boxes, old tins and even gunny bags.

No. of processing units :

2.97 It is estimated that there are in all about 160 organised cashew processing units in India as under :—

Andhra Pradesh	3
Kerala	130
Madras	12
Maharashtra	4
Mysore	10
West Bengal	1
	160

It may be seen that a majority of the factories are located in Kerala State (130 factories consuming annually two lakh tonnes of raw nut against her production of 85680 tonnes) mainly in Quilon and Kozhikode districts. It is estimated that only 70 percent of the capacity of these units in terms of single shift working per day is utilised and the remaining 30 percent capacity is idle, even after taking into account the imported nuts processed in India. There is, however, scope for starting new processing units in Assam, West Bengal, Orissa, etc. where considerable areas have been planted recently, since it will be uneconomical to transport the raw nuts to the units in Kerala for processing.

CARDAMOM**General :**

2.98 Cardamom has been an important commodity of merchandise between India and foreign countries for many centuries. Although the crop is grown to some extent in Ceylon and Thailand, our country caters to more than 90 per cent of the total demand of cardamom in the world. Besides being the largest exporter, India forms the only source of 'true cardamoms' in the world markets. The true cardamoms, which are valued for their higher oil content and aromatic properties, are considered superior to the bigger sized cardamom grown in other tropical countries.

2.99 Cardamom has an agreeable aromatic odour and a bitter sweet, distinctive flavour. It is very largely used for flavouring and for medicinal purposes. In the Eastern countries, it is used for chewing with betel leaves and as a masticatory, while in Northern and Eastern Europe, particularly Sweden, Norway, Germany and the U.S.S.R., cardamom seeds are powdered and widely utilised for the flavouring of cakes and pastries and for other culinary purposes. In pharmaceuticals, cardamom is employed in the preparation of tinctures and for the extraction of oil.

In India's export trade, cardamom is the most important spice after pepper. 54 countries of the world import Indian cardamoms. About 75 percent of the production in India is exported.

Area and production :

2.100 The most important cardamom growing States in India are

Kerala, Mysore and Madras. The area and production of cardamom during 1961-62 were as under :

State	<i>Area</i> (Hectares)	<i>Production</i> (Tonnes)
Kerala	28629	1285
Mysore	21235	1514
Madras	6561	589
Total	56415	3388

2.101 The cultivation of cardamom is concentrated in certain areas as under :—

State	Districts	<i>Annual production</i> Tonnes
Kerala	Kottayam	1092
Mysore	Hassan	563
	Coorg	462
	Chickmagalur	441
Madras	Madurai	465

The district-wise area and production of cardamom may be seen at Annexures IV to XI.

Average yield per acre :

2.102 There are several factors which influence the yield of cardamom crop, important among these being the type grown, the age of a plantation and the climatic conditions. While Mysore type of cardamom yields on an average between 22 and 45 kg. per acre, the yield from Malabar type is 10 to 30 kg. only. Similarly, in the first year of bearing, the production is usually 9 kg. of dry capsules per acre, in the fourth year 13 to 18 kg. and in the fifth year 27 to 30 kg. per acre. The estimated average yield per acre is reported at 20 kg. for the country as a whole. The state-wise estimated average per acre is as under :—

Kerala	18 kg.
Mysore	30 kg.
Madras	43 kg.

Development under plan programmes :

2.103 Prior to the Second Five Year Plan, the area and production of cardamom in the country were estimated at 1,11,374 acres and 1462 tonnes respectively. Development work on cardamom was taken up during the last year of the Second Plan in Kerala and Mysore States. The object of the scheme was to set up nurseries, etc. to produce reliable

disease-free seedlings and no targets as such of area and production were fixed. At the end of the Second Plan, the area and production of the crop were assessed at 1,35,764 acres and 3,217 tonnes respectively.

For the Third Plan, a total provision of Rs. 15 lakhs was made for the development of cardamom in Kerala, Mysore and West Bengal with a target of 11,200 additional acres. It is anticipated that an additional area of about 7,000 acres with an additional production of 200 tonnes will be achieved by the end of the Third Plan.

Methods of cultivation :

2.104 In India, cardamom grows wild in many portions of the Western Ghats. The plant needs more than anything else, moisture, elevation and shade. The plant thrives best under conditions of an evenly distributed rainfall of about 150 to 180 cms. a year, altitude 600 to 1500 metres and temperature between 10°C to 32°C. For these reasons, cultivation is mainly concentrated in the moist evergreen forest lands of South India.

2.105 The cardamom plant is a tall and perennial rhizome, which bears at its base one or more flowering panicles. These have a comparatively short life of one to three years and new shoots arise from the bases of old ones. The fruit which follows the flowers is a small trilocular capsule containing 15—20 hard brownish black seeds having a thin mucilaginous coating.

2.106 The old practice of raising the plantation by sowing rhizomes directly is being gradually replaced by raising seedlings in a nursery and later transplanting them in the field so as to reduce the incidence of 'mosaic' disease. Seeds are sown in a seed bed from August to October in Mysore State and from February to March in the other southern areas. When seedlings are 3 to 4 months old, they are transplanted in the nursery where they remain for a period of 2 years. Later in June—July, these are transplanted in the permanent fields. The number of plants per acre is about 1200 when raised as pure crop or 300 to 500 per acre when grown as a mixed crop. During the first year of planting, the plantation needs frequent mulching and weeding. Cardamom comes into bearing in three years after planting which may be fourth or fifth year after sowing.

2.107 There are roughly three systems of cardamom cultivation practised in India ; viz., (i) the Coorg Malai or Male system ; (ii) the North Kanara system, and (iii) the Southern or Mysore system.

The Malai system is practically restricted to Coorg. It approximates to the collection of a minor forest product and is a form of shifting cultivation limited to areas of evergreen forest. Small plots-1/4-1/6 acre in area are cleared and planted with cardamom. After a lapse of about 15 years, the area is allowed to revert to jungle and new plots opened out.

Under the North Kanara system which is followed in North Kanara district, cardamom is grown as a secondary crop in arecanut or pepper gardens.

The Southern or Mysore system is the most important one accounting for about 90 percent of the total cardamom crop in India. It involves clearing of selected areas of jungle land of all under growth, thinning out the overhead shade, planting cardamom seedlings at regular distances and cultivating according to a regular schedule. This system is adopted in Travancore-Cochin area, Madras and in parts of Coorg and Mysore.

Cost of production :

2.108 The cost of production per acre in Madras State is reported to be Rs. 216 per year as under :

Labour	..	Rs. 83
Seed	..	Rs. 4
Manure	..	Rs. 24
Irrigation	..	Rs. 70
Pesticides, etc.	..	Rs. 35
		Rs. 216

Harvesting & marketing periods :

2.109 Apart from the cardamom amomum (Bara Elachi) grown in West Bengal and Assam, there are two main types of cardamom grown in South India, viz. Malabar and Mysore types. The Malabar type is cultivated chiefly in Mysore and Coorg and to a limited extent in Kerala. Its fruits are smaller than Mysore type. The Mysore type is cultivated in the larger holdings of Kerala and Anamalai and Neliampathy hills of Madras State.

The main harvesting period is September to December in the case of 'Malabar' type cardamom and November to February in respect of Mysore type.

The cardamom capsules are gathered at intervals of 30 to 40 days and the harvest is completed in 5 or 6 instalments. Fresh supplies of cardamom start coming to the markets normally by the middle of August and continue till April and sometimes even later. In important assembling markets, cardamom continues to arrive more or less throughout the year. The quantum of arrivals during November and December is, however, slightly more than during the other months.

Marketable surplus :

2.110 The total quantity retained by producers has been assessed to be not more than 500 kg., which is negligible. The entire production of about 3,388 tonnes may, therefore, be reckoned as the marketable surplus.

Preparation for market :

2.111 Preparation of cardamom for the market consists of harvesting, drying, cleaning, assorting, bleaching, etc.. These processing activities have an important bearing on the quality of cardamom.

Cardamom pods are plucked just when they are short of full ripeness. They are put to drying soon after harvesting. There are three methods

of drying cardamom, viz. (i) Sun drying, (ii) Kiln or store drying, and (iii) Gudu drying.

2.112 *Sundrying* : This method is in vogue mainly in Hassan and Chikmagalur districts of Mysore State. Fresh plucked cardamom pods are spread over barbecues and dried in sun for about 5 to 8 days. The method is simple and followed by the small growers. Sun dried cardamom loses the green colour but retain the sweet flavour. The recovery of dried cardamom is about 25 percent of green capsules as against 22 percent in the case of Kiln drying. But Sun drying has its limitations, as it cannot be practised during rainy season.

Store or Kiln drying. In this method, the cardamom pods are put in specially built air-tight drying chambers and the entire chamber is heated through a furnace underneath the chamber and a smoketight zinc pipe running through the chamber. The dried cardamom is allowed to cool down during the night and removed on the following morning. The whole process takes about 35 hours. The cardamom dried in this manner is known as 'store green' or 'kiln dried'. The cost of drying by this method comes to about 25 paise per kg.

Gudu method : This is confined mainly to Coorg district of Mysore State, where it is estimated that about 85 per cent of the cardamom is dried by this method. The principle underlying this system is the same as in kiln drying, viz. artificial drying. The only difference is that while in kiln drying, the heat is applied through radiation, in the above system, the application of heat is direct. The cardamoms are placed on mud platforms or tin sheets and heated. This method is crude and the dried cardamom lose their dark green colour.

After drying, cardamoms are gently rubbed by hand and winnowed so as to remove other plant and foreign matters. They are then assorted mainly according to their size and colour. The proportion of different grades obtained from the bulk depends not only on the climatic conditions, incidence of insects and diseases, age of the plantation, etc. but also on the general care given to the crop and precautions taken during the picking and drying.

Bleaching : Bleaching improves the colour of the outer skin of cardamom and also preserves better during storage. This method of bleaching is mostly practised at Haveri and Mangalore in Mysore State. In this process, the cardamom fruit is first soaked in water containing bleaching powder for about half an hour and sun dried. The dried capsules are put in specially built chambers and fumigated with sulphur fumes for about 12 hours. The cardamom is again sun dried. This process is also repeated more than once to obtain satisfactory colour. It is estimated that about 10 per cent of the cardamom produced are bleached and of this, about 30 per cent is estimated to be consumed within the country. The cost of bleaching comes to Rs. 2.60 per kg.

Curing and processing of cardamom are mostly done by the growers themselves. While small growers adopt sun-drying method, bigger growers adopt kiln drying method.

Grading :

2.113 Quality of cardamom is determined usually by the size, colour, form and weight of its capsule as well as the method of drying and bleaching.

As mentioned above, apart from the cardamom amomum (Bara Elachi) grown in West Bengal and Assam, there are two main types of cardamom grown in South India, viz. Malabar and Mysore types. Cardamoms are also classified into 'kiln dried' and 'sun-dried' cardamoms. Bleached cardamom, however, forms a distinct trade quality. Based on the considerations of size and the other general characteristics, cardamoms are generally marketed under several trade names. In Bodinayaknur market, cardamom capsules are sorted into six grades under the designation 'Alleppey Green' mainly depending on their size. For each grade different kinds of sieve sizes have been prescribed. Splits and seeds form different grades.

At Virdhunagar, cardamoms are mainly classified according to their places of production and size. Cardamom grown in Coorg is marketed under the designation 'Coorg' with reference to their size and extent of clipping. Bleached cardamom at Haveri and Mangalore markets is also classified into several grades under the designation of 'Fully bleached' and 'Half bleached'.

2.114 The Government of India have, with effect from 1.1.1963, introduced the scheme of compulsory quality control for the cardamom exported to other countries. The scheme is being implemented by the Spices Export Promotion Council and the Agricultural Marketing Adviser to Government of India. For purposes of export, cardamom has been classified under the following qualities :—

<i>Quality</i>	<i>No. of grades under the quality</i>
1. Alleppey green	4
2. Coorg clipped	4
3. Bleached or half bleached	3
4. Bleacheable white	4
5. Alleppey seeds.	3
6. Mangalore seeds	3

PEPPER

General :

2.115 Black pepper, which has become an article of international commerce, is produced chiefly in India and Indonesia. Trade in Indian Pepper, 'the king of spices,' is a legacy from ancient times and pepper is popularly known as 'Black gold'. Even now, the commodity holds the place of pride among the spices exported from India and is an important dollar earner. Pepper is used in almost every known condiment and in almost every processed meat or food. It is used to flavour soups, meats, sauces, gravies, salads and eggs.

2.116 The world's pepper crop in pre-war and post-war periods and the share of different countries were estimated as under by the Spices Enquiry Committee (1953).

<i>Countries</i>	<i>Pre-war (1938-39) Tons</i>	<i>Post-war (1951-52) Tons</i>	<i>Percentage of increase (+) or decrease (—) over pre-war</i>
India	18500	21500	+16
Indonesia	62000	10000	—84
Borneo, etc.	4000	2000	—50
Indo-China	4000	2000	—50
Sarawak	4000	5000	+25
Others	1000	3000	+300
Total :	93500	43500	—53

2.117 It may be seen from the above figures that the world supplies of pepper have declined considerably during the post-war period with a total fall of 53 per cent. This steep fall was due to the loss of Indonesian crop owing to large scale destruction of pepper plantations in Indonesia during the last war. India's production during the same period increased considerably so that India emerged as the main world supplier of pepper in the post-war period. This situation helped India to increase her share in world trade from 2 per cent during 1937-39 to nearly 54 per cent during 1951-53. Indonesia is, however, again emerging as an important producer and exporter of pepper as in pre-war period and her low-priced pepper seems to have regained the hold in important pepper consuming markets, especially U.S.A. India's share in world output and trade is, therefore, now only 35-40 per cent. Out of the annual production of about 26,000 tonnes in India, as much as 21,000 tonnes are exported. Pepper alone contributes nearly 47 per cent of the total export earnings of the spices group, accounting for nearly Rs. 7 to 8 crores of foreign exchange earnings.

Area and Production

2.118 The pepper plant is indigenous to the forests of Kerala and has been cultivated in India from time immortal. The large scale cultivation of the crop is mostly confined to the sub-montane tracts in and below the western ghats and covers the Kerala State and South Kanara district of Mysore. To a smaller extent, the crop is grown in other parts of Mysore and Madras. The area and production of pepper during 1962-63 were as under :—

<i>State</i>	<i>Area Hectares</i>	<i>Production Tonnes</i>
Kerala	99318	24465
Mysore	2341	1361
Madras	312	61
	<u>101971</u>	<u>25887</u>

While the area increased by 29.5 per cent in 1961-62 over the area in 1949-50, the production increased only by 3.8 per cent over the same period.

Pockets of production :

2.119 Pepper cultivation is concentrated in certain areas as under :—

<i>State</i>	<i>District</i>	<i>Annual production (Tonnes)</i>
Kerala	1. Cannanore	7294
	2. Kottayam	5254
	3. Trivandrum	3488
	4. Ernakulam	2744
	5. Kozhikode	2692
	6. Quilon	2182
	7. Alleppey	714
	8. Palghat	693
	9. Trichur	234
Mysore	1. South Kanara	871
	2. North Kanara	290
	3. Coorg	134
Madras	1. Nilgiris	10
	2. Kanyakumari	41

The district-wise area and production of pepper may be seen at Annexures IV to XI.

Average yield per acre :

2.120 The yield of pepper was found to vary from 100 to 300 lbs. per acre. The poorest yield is in Malnad area and North Kanara of Mysore where it is 100-112 lbs., while in Malabar and South Kanara, the yield is 250 to 300 lbs. per acre. The maximum average yield amounts to 350 lbs. in Travancore-Cochin area. Unlike in India, the cost of production in Indonesia is very low, as pepper is cultivated on plantation lines, with excellent nurseries and systematic planting and careful attention and organised marketing. As a result, the price of Indonesian pepper is comparatively lower.

Development under Plan Schemes :

2.121 The Third Plan envisaged increase in the area under pepper by 16,700 acres as under. The target of total production to be achieved by the end of the Third Plan was fixed at 30,000 tonnes.

<i>State</i>	<i>Increase in area (acres)</i>	<i>Achievement during 1961-62 (acres)</i>
Kerala	6000	2300
Mysore	10000	2950
Assam	500	15
West Bengal	200	Not started
	16700	5265

As the plantings undertaken during 1961-63 would come into bearing only towards the end of the Third Plan, no increase in production could be expected.

Method of cultivation :

2.122 The pepper plant, which is a climber, is grown on living trees or other supports known as 'Standards'. It is a perennial shrub which lasts in the plantations for 25 to 30 years, although in some well maintained gardens, the life of the vines has been found to be over 60 years. The soils found most suitable for the crop are the clay loams, but it is widely grown on red loams and sandy loams overlying the lateritic hill tops of western ghats. As compared to the soils of Indonesia, which consist of fertile and volcanic rock debris, the soils of the pepper tracts in India are poor and depleted and yield poorer crops. It is an unirrigated crop raised solely with the help of monsoon rains. Being a tropical plant, the crop thrives best in humid and moist climate and in regions where the average rain fall is well over 80 inches.

2.123 The propagation of the crop is done vegetatively by means of cuttings. The vine grows quickly on the 'standard' support trees which are mostly jungle trees or specially planted 'murukku' trees and covers them with its dark green foliage and forms into a bush around the 'standard' tree. Though the vine grows to a height of 30 feet or more, it is not allowed to grow beyond 20 feet in order to facilitate the picking of the pepper spikes when mature.

2.124 The vines begin to flower from the middle of July and depending upon the varieties planted, the berries become ripe for harvest from January to March. When ripe, the berries assume a beautiful orange or cherry colour. The fruits, which are small berries carried on tender spikes, begin to appear from the third year after planting. The out-turn of the crop is poor at the first harvest and goes on increasing upto the sixth year ; from the seventh year onwards full yield can be expected.

2.125 There are roughly three systems of pepper cultivation practised in India. The first system consists of clearance of jungle lands and large scale cultivation of pepper in the sub-montane tracts and lower altitudes, as in Kerala and South Kanara district of Mysore. On an average, there will be 300 to 400 'standards' (having 2 to 4 vines each) per acre.

The second system consists of growing mixed crops in the house compounds and outlying areas at the foot of hills and coastal regions. Under this system, pepper vines are grown only on existing trees such as jack, mango or even coconut and arecanut trees grown in gardens. The number of vines owned by the individual cultivators under this system is small and they are generally well cared for. The third system of cultivation is as an inter or subsidiary crop along with other plantation crops like coffee, cardamom and orange and is practised to a small extent in parts of Mysore.

Cost of production :

2.126. The cost of production of pepper per acre is estimated at Rs. 200 in the first year, Rs. 130 in the second year and Rs. 225 per year from the third year onwards in Kerala, while it is Rs. 150 per acre in Mysore as under. This is exclusive of the cost/rent of land and value of family labour put in.

Kerala :

	<i>Ist Year</i>	<i>IInd Year</i>	<i>IIIrd Year onwards</i>
	(Rs.)	(Rs.)	(Rs.)
1. Preparatory cultivation (clearing shrubs, digging pits & planting standards).	80	70	70
2. Cutting vines and planting.	10	—	—
3. Mulching, tying vines, etc.	30	10	10
4. Two diggings.	80	—	—
5. Terracing slopes.	—	50	—
6. Lopping standards & collection of trippings.	—	—	25
7. Manuring	—	—	35
8. Inter-culture	—	—	35
9. Plant protection	—	—	20
10. Harvesting	—	—	30
Total :	200	130	225 (per year)

In Mysore the cost of production is estimated at Rs. 150 per year per acre as under :—

	<i>Rs.</i>
Labour	30
Seed	40
Manuring	40
Other charges	40
	<hr/>
	150
	<hr/>

Harvesting & Marketing periods :

2.127 The berries are harvested during January-March. The marketing season for the most part coincides with the harvesting period, viz. January-March. But, in view of the erratic fluctuations in the price, producers generally retain their produce for a better price and sell it only as a last resort when they are in need of money.

Marketable surplus :

2.128 Pepper is retained by the producers only for domestic purposes, which may not go beyond 1 per cent of the total production. Thus, 99 per cent of the total production can be reckoned as marketable surplus i. e. about 25.629 tonnes as under :—

Kerala	24221 tonnes
Mysore	1348 „
Madras	60 „
	<hr/>
	25629 tonnes
	<hr/>

Processing :

2.129 For preparation of commercial black pepper, the whole spikes with the berries, after picking from the vines, are spread on a mat or clean floor and rubbed between the hands or trampled under feet in order to separate the berries. These are then dried in the sun for 5 or 6 days. When fully dry, the outer skin becomes black in colour and shrunken in size and assumes the characteristic wrinkled appearance of the black pepper of commerce. The Indian supply consists mostly of this quality of pepper.

2.130 In Indonesia and other countries of South-East Asia, white pepper is prepared for commercial purposes. Both white and black pepper are derived from the same berries of the same pepper plant. The only difference is that in preparing white pepper, the outer black skin is removed from the berries by soaking them in water immediately after harvest and trampling them under feet later in order to remove the outer skin. India's exports of white pepper are practically insignificant, As most of the holdings are small, the producer is not very much interested in converting black into white pepper since it is not quite paying.

The average cost of harvesting (including cleaning, washing and transportation) per acre is estimated at Rs. 87.50 approximately.

Grading :

2.131 When the pepper is fully dried, the light pepper and the dust are winnowed out and the grades obtained are heavy pepper, light pepper and dust. Pepper is not graded either on the basis of size or colour. The pepper is usually garbled by the growers upto a standard called "Estate garbled pepper" in which there is tolerance of about 2 to 3 per cent of lights, sticks and stones. For purposes of export, the shipper has to regarble

the pepper and winnow it free of 'light pepper' and other foreign matter. For internal consumption, however, no such regrabbling is done.

2.132 Pepper, as in the case of other commodities, is classified into various types and varieties. They are mostly distinguished by local names. The main varieties are 'Malabar' and 'Mysore' varieties. Each of these varieties has got several types.

GINGER

General :

2.133 Ginger of commerce is the dry product prepared from the green underground stems of the plant. Although the crop is widely cultivated in the tropical countries, bulk of the annual production in these regions is consumed locally as green ginger itself or in the preserved form and only a small proportion of the crop is converted into dry ginger. Ginger has a distinctive spicy and penetrating flavour and is largely used in foreign countries in the manufacture of ginger oil, ginger essence, ginger oleoresin or gingerin, soft drinks, alcoholic beverage, ginger preserve, ginger candy, lime-ginger pickles and ginger as flavourant in some food products.

The most important producers of commercial dry ginger are India, Jamaica and Sierra Leona. China also produces large quantities of ginger, but it is mostly as green rhizomes which are used primarily for consumption in the preserved form. India is the largest producer of Ginger with an annual production of about 17000 tonnes of which about one third is exported.

2.134 India, Jamaica and Sierra Leona form the main source of supply of this spice both before and after the war. While most of the western countries such as the U.S.A., Canada, U.K. and Australia imported ginger from Sierra Leona and Jamaica, the African countries, Arabia and other Middle East countries preferred the Indian product. The preferential demand for the produce of Jamaica and Sierra Leona is attributed largely to the fact that ginger produced in these regions is cheaper in price by 20 to 30 percent and is of better quality having lesser fibre content as compared to the Indian product.

Area and production

2.135 The most important ginger growing area is Kerala. The preparation of dry ginger of commerce is also exclusively confined to this area. To a smaller extent, the crop is grown also in parts of West Bengal, Madhya Pradesh, Mysore, Himachal Pradesh and other states. Being a rain-fed crop, ginger is grown generally in areas of heavy rain-fall. It requires rich and well drained soil for its successful cultivation. It requires a warm and humid climate and considerable shade.

2.136 The area and production of ginger during 1961-62 were as under :—

1961-62

<i>State</i>	<i>Area Hectares</i>	<i>Production Tonnes</i>
Andhra Pradesh	486	306
Gujarat	365	408
Kerala	2069	11424
Madhya Pradesh	725	816
Madras	365	306
Maharashtra	161	102
Mysore	405	714
Orissa	486	408
Punjab	283	204
Rajasthan	122	306
West Bengal	932	1224
Himachal Pradesh	1376	510
Tripura	161	204
	<u>17936</u>	<u>16932</u>

There has been a reduction in the area under the crop by 18 percent in 1961-62 from the area in 1949-50, but the production, however, increased by 36 percent over the same period.

Pockets of Production

2.137 Ginger cultivation is concentrated in certain areas as under :—

<i>State</i>	<i>Districts</i>	<i>Production Tonnes</i>
Andhra Pradesh	1. Medak	179
	2. Visakhapatnam	51
	3. Hyderabad	51
Gujarat	1. Panch Mahals	192
	2. Kaira	138
	3. Ahmedabad	56
Kerala	1. Kozhikode	4030
	2. Kottayam	3203
	3. Palghat	1694
	4. Ernakulam	1254
Madhya Pradesh	1. Tikamgarh	264
	2. Cheridwara	150
	3. Dhar	53
Madras	1. Nilgiris	184
	2. Kanyakumari	112
	3. Madurai	102

<i>State</i>	<i>Districts</i>	<i>Production Tonnes</i>
Maharashtra	1. Satara	62
	2. Thana	55
Mysore	1. Shimoga	602
	2. South Kanara	81
Orissa	1. Cuttack	188
	2. Keonjhar	188
	3. Sambalpur	112
	4. Boudh Phulbani	112
Punjab	1. Simla	173
Rajasthan	1. Dungarpur	78
West Bengal	1. Darjeeling	555
	2. Birbhum	127
	3. Midnapore	117
	4. West Dinajpur	112
Himachal Pradesh	1. Sirmur	396
	2. Mahsu	62

The district-wise area and production of ginger may be seen at Annexures IV to XI.

Average yield per acre.

2.138 The yield varies in different regions with reference to the soil, method of cultivation, etc. The average yield per acre in Kerala, which is the major growing state for ginger, is estimated at 837 lbs. per acre. The all India average yield per acre was 800 lbs. during 1958-59.

Development under Plan Scheme :

2.139 No development schemes were taken up during the first two Plans for increasing the area and production of ginger. During the III Plan, however, three schemes for development of ginger were taken up as under. No specific targets of increased area or production were prescribed, except in the case of Assam scheme.

- (1) *Assam* : Coverage of an additional area of 400 acres with improved seeds.

It is, however, expected that only 200 acres would be covered by end of III Plan.

- (2) *Himachal Pradesh* : Replacement of existing local types by improved exotic types with lower fibre content and high yielding qualities.

The improved varieties have been tried in about 100 acres with an additional production of 2000 tonnes in terms of dry ginger.

- (3) *Kerala and Himachal Pradesh* : Introduction of Chinese and Rio-de-Janiero varieties on an experimental basis.

The scheme was sanctioned during 1963-64 only.

Method of cultivation

2.140 Though Ginger is a perennial plant which lasts in the field for more than a year, it is usually cultivated as an annual crop. The crop takes 9 to 10 months for maturity and every year a fresh crop is taken. The plant is propagated vegetatively by means of the underground stems called 'rhizomes'. Before planting, the field is dug up or ploughed and prepared into long and narrow beds. The beds are mainly manured with cattle manure and levelled. Seed ginger consisting of small portions of the underground stems collected from the previous crop is then planted in these beds in small pits at a distance of 6-10 inches each way. Planting is done by the end of May or the beginning of June. The plant grows to a height of 2 ft. and develops several lateral shoots in each clump. The underground stems develop and become ready for harvest by December-January. The harvesting is done by digging. Under good garden cultivation the yield of green ginger is 8-10 times of the seed rate. Ginger is an expensive crop. It requires large quantities of seed material and intensive application of manure. The cost of tillage operations, weeding and harvesting are also very heavy.

Cost of production

2.141 The cost of cultivation per acre of ginger in Kerala is estimated at Rs. 499 as under :—

	<i>Kerala</i>
	Rs.
Preparatory-cultivation.	66.00
Ploughing & bed ferry	40.00
Seeds and planting	230.00
Manuring	66.00
Mulching	25.00
Harvesting, cleaning, drying etc.	72.00
	Rs. 499.00

2.142 The main marketing season for Ginger is January to March. As ginger deteriorates in quality in storage, it is marketed immediately after curing and drying.

Marketable surplus

2.143 It is estimated that about 12 percent of the total production is retained by the producer for seeds and domestic consumption and the remaining 88 percent will be available for sale. On this basis, the marketable surplus will be about 14898 tonnes as under :—

Kerala	..	..	10053	tonnes
West Bengal	..	..	1077	„
Madhya Pradesh	..	..	718	„
Mysore	..	..	628	„
Himachal Pradesh	..	..	448	„
Other States.	..	..	1974	„
			<u>14898</u>	

Processing

2.144 After digging out, the underground stems are thoroughly washed with water to remove the loose soil and dirt. They are then kept in the sun for a day or so and then taken to the nearest village market for sale as green ginger. It is in this form the bulk of the crop is marketed in India.

For purposes of foreign export, only dry ginger is used, the preparation of which is a local craft mostly confined to Kerala. Dry ginger is prepared by peeling off the outer skin present in the green rhizomes and drying them in the sun. To facilitate peeling, the harvested produce is soaked in water and kept over night. The following morning, the produce is rubbed well between hands and after cleaning it thoroughly, it is taken out and the outer skin is scraped off with a sharpened bamboo piece and the peeled produce is again soaked in water and cleaned well. After cleaning it is taken out and thoroughly dried for about a week taking care to turn the whole lot frequently so as to ensure uniform drying. On drying, the rhizomes are again rubbed well between hands to remove any outer-skin. The dry ginger so processed is known as 'rough' or 'unbleached' ginger of commerce. Bulk of the dry ginger produced in Kerala is of this type.

2.145 Another quality of dry ginger prepared in the west coast is known as 'bleached ginger'. For bleaching, green ginger is placed in large shallow cisterns and water let in until the water level stands above the produce by about one foot. After draining the produce thoroughly, it is dipped in a solution of milk of lime. It is allowed to remain there for some time and then removed and dried. This process is repeated until the product receives a uniform coating of lime and assumes a bright colour.

The yield of dry ginger—bleached or unbleached—obtained from green ginger works out to 20 to 24 percent.

Grading

2.146 The underground stems of dry ginger develop many lateral branches and are shaped like the fingers of the hand when harvested. As there is a special preference for such hands and fingers in the foreign markets, the whole-sale merchants at the terminal markets grade the ginger into three export qualities, B, C & D consisting of three fingers, two fingers and pieces respectively. While B and C grades are exported to European countries, grade consisting of pieces is exported to other countries and also utilised for internal consumption. In internal trade, there are distinct qualities recognised according to areas of production.

CHAPTER III

CONSTITUTION AND ROLE OF COMMODITY COMMITTEES

Commodity Committees and their role:

3.1. With a view to develop production and marketing of arecanuts, coconuts, spices and cashewnuts, the Government of India, in the Ministry of Food and Agriculture, have constituted separate Commodity Committees. There are now three commodity committees covering the six selected plantation crops, viz. Indian Central Arecanut Committee, Indian Central Coconut Committee and the Indian Central Spices and Cashewnut Committee. Besides, the Ministry of Commerce have constituted a Cardamom Development and Marketing Advisory Committee and a Directorate to develop cardamom industry on sound lines.

The constitution and functions of these committees are indicated briefly in the following paragraphs.

Indian Central Arecanut Committee :

3.2. Ever since India attained independence, the Central Government have been trying to cut down imports of arecanuts to the minimum and to intensify measures for stepping up the production within the country. In order to achieve these objects, the Govt. of India constituted the Indian Central Arecanut Committee in 1949 with head-quarters at Calicut, with the following, among others, objects:—

- (i) to assist the Government of India in the improvement and development of the production and marketing of arecanut and its products and all matters incidental thereto ;
- (ii) to encourage the adoption of improved measures for the marketing of arecanuts, and fixing and adoption of grade standards;
- (iii) to give financial and technical assistance to organisations engaged in growing, curing, grading, marketing and manufacture of arecanut and its products.
- (iv) to encourage the purchase, curing, grading and marketing of arecanuts through cooperative societies or other agencies.

3.3. Since the establishment of the Committee, significant efforts have been made for the improvement and development of both production and marketing of arecanut through dissemination of scientific methods of cultivation, establishment of regulated markets and grade standards, collection and dissemination of market intelligence and particularly, organisation and development of cooperative marketing. The Committee has been taking steps to organise cooperative marketing societies

for processing and marketing of arecanuts. With a view to assist such societies, the Committee has also been extending managerial subsidies to the societies through the respective State Governments. According to the present pattern, the assistance is limited to a period of four years on a tapering basis (100, 100, 66 and 33%) and the Committee bears 50 percent of the expenditure on this account, while the remaining 50 percent is borne by the respective State Governments. The Committee has also established a separate cooperative marketing wing with a full time cooperative marketing officer to develop cooperative marketing. Due to the active encouragement extended by the Committee, cooperative marketing of arecanuts has developed considerably, particularly in Mysore State, where one third of the marketable surplus in arecanuts is handled by cooperatives. Intensified efforts are being made by the Committee to develop cooperative marketing in Kerala, Assam and West Bengal also.

Indian Central Coconut Committee:

3.4. The Indian Central Coconut Committee was constituted in February, 1945, with headquarters at Ernakulam, as a statutory body under the Indian Coconut Committee Act, 1944 for the development of the cultivation, marketing and utilisation of coconuts in India. The Committee has on it 12 representatives of coconut growers, 5 of the coconut oil industry, 9 of the Governments of the coconut growing States and 5 of the Central Government. In addition, there are 2 members from the Lok Sabha, one from Rajya Sabha. The functions of the Committee fall under the following main categories.

- (i) undertaking, assisting or encouraging agricultural, industrial and economic research;
- (ii) concerting measures for improving marketing of coconuts and coconut products;
- (iii) supplying information regarding the coconut industry to the general public, giving technical advice to growers and carrying on propaganda in the interests of the coconut industry; and
- (iv) tendering advice to the Central Government in respect of policy in matters connected with the development and improvement of the industry.

The Committee derives its income from the cess levied on copra crushed in power worked mills.

3.5. The Committee has undertaken several schemes for improving the methods of cultivation, quality of seedlings and control of coconut tree diseases and also for increasing the area of production. The Committee has also decided recently to assist coconut marketing cooperative societies with subsidies towards expenditure on managerial staff and three such societies in East Godavari District of Andhra Pradesh were given assistance under this scheme. According to this scheme, the societies which do not get assistance under the cooperative plan schemes, will be eligible for managerial assistance for 4 years on a tapering basis and the expenditure is shared by the Committee and the State Governments on 50:50 basis.

Indian Central Spices and Cashewnut Committee:

3.6. The Indian Central Spices and Cashewnut Committee was constituted by the Government of India, in the Ministry of Food and Agriculture, in 1962, with headquarters at Ernakulam, with the following, among others, objects:—

- (i) undertaking, assisting or encouraging agricultural, industrial and economic research;
- (ii) encouraging and assisting in the adoption of improved methods of cultivation so as to increase yield and improve quality;
- (iii) encouraging the curing, grading, purchasing, pooling and marketing of spices and cashewnut and their bye-products through co-operative or other agencies; undertaking enquiries and making recommendations relating to storage, transport facility, etc.;
- (iv) giving financial and technical assistance to States and organisations engaged in growing, curing, processing, grading, marketing and manufacturing of spices and cashewnut and their products; and
- (v) maintaining such institutes, farm stations, curing arrangements, ware-houses, conditioning and processing plants as may be necessary.

3.7. The Committee has on it 9 representatives of growers of spices and cashewnut, 3 Members of Parliament, 10 representatives from spices and cashew industry, 8 representatives from the spices and cashew growing State Governments and 12 members representing the various departments of Government of India and the Export Promotion Councils.

As the Committee was started only recently, no schemes for cooperative marketing of spices and cashewnut have been taken up by it so far. It is, however, expected that the Committee will soon take appropriate measures for the development of cooperative marketing of these crops.

Cardamom Development and Marketing Advisory Committee :

3.8 The Government of India, in the Ministry of International Trade, have constituted a "Cardamom Development and Marketing Advisory Committee" with a view to develop cardamom industry on sound lines and also to stabilise its economy. The main functions of the Committee are :—

- (i) promotion and extension of cardamom plantations;
- (ii) improvement of the quality of cardamom and the productivity of the estates;
- (iii) making arrangements for supply of fertilisers, and ancilliary equipment required by the industry;
- (iv) the provision of adequate financial assistance in the form of working capital and credit, etc. for measures of improvement; and
- (v) in particular, the marketing of cardamom with a view to ensuring

economic and reasonable prices to the grower and augmenting the foreign exchange earnings from exports.

3.9 A Directorate of Cardamom Development and Marketing has also been set up by the Government, with headquarters at Bangalore, to implement the accepted recommendations of the Committee. One of the functions of the Directorate is the procurement of cardamoms directly from the growers and sale thereof in the internal and export markets. In pursuance to the recommendations of the Committee, the Government of India fixed the minimum and maximum prices for various grades of cardamom at which they can be exported out of India with effect from 15th May, 1963 and cardamom was brought under Export Control Regulations. The Government also authorised the Directorate to purchase cardamom from certified growers and growers' cooperative societies as a price support measure, if and when the open market prices tend to fall below the minimum export prices by approximately Rs. 1.50 per kg. The Directorate will receive cardamom only from such of those growers and cooperative societies who have registered themselves with the Directorate. The Directorate has appointed agents in the main producing States of Kerala, Mysore and Madras for receiving and storing cardamom on its behalf. While in Mysore State, four cooperative societies dealing in cardamom have been appointed as agents, in Kerala State no cooperative society was appointed. We understand that, on the recommendation of the State Government, the Kerala State Warehousing Corporation was appointed as an agent at Vandanmedu (Kottayam district) for the purpose. In Madras State, two cooperative societies in Madurai district, one planters' association and two private firms have been appointed as agents. During the season 1963-64, the Directorate had procured about 126 tonnes of cardamom valued at Rs. 19 lakhs under the price support scheme and sold them through auctions. Apart from open auctions, the Directorate has been endeavouring to distribute the cardamom procured by it under the price support scheme through the consumers cooperatives in the country and has addressed the Registrars of all states for assistance in this regard. During 1963-64, the Directorate sold 4383 kg. of cardamom valued at Rs. 81235 to consumers cooperatives in the country. It is expected that with the active assistance of the Directorate, it would be possible for the cooperatives, before long, to market their cardamoms directly at the terminal markets both within and outside the country; thus eliminating the host of middlemen now functioning in the trade.

CHAPTER IV

EXISTING ARRANGEMENT FOR MARKETING

Types of Markets:

4.1. In commodities like arecanut, cardamom, pepper, etc. where the production is highly localised and the consumption is widespread, the marketing activities assume great economic importance. The numerous operations involved in the movement of the articles from the producers to the consumers are generally carried out in two phases. The activities connected with its movement from the producer until it reaches the first wholesale buyer constitute the first phase and is described as "assembling", while all other operations connected with its subsequent movement through different intermediaries until it reaches the consumer is described as 'distribution.' Of these two phases, assembling is of great importance, since it is at this stage that the innumerable small growers convert their small crop surpluses into cash.

4.2. Generally speaking, markets are of three types, viz. (i) primary markets known as 'hats' at the village level, which are periodical markets held weekly at fixed intervals; (ii) secondary markets known as 'mandies' or 'gunjs' which are regular wholesale markets held daily at a fixed market place and are usually situated in the district or tehsil headquarters, important trade centres and near railway stations; and (iii) terminal markets where the produce is assembled for further distribution in intra, inter-state trade and for export.

The lists of important markets for these crops in the major producing States may be seen at Annexure XII.

ARECANUT

Assembling:

4.3. Arecanut is marketed either as unhusked whole fruits or as dehusked kernels or seeds. The latter is known as cured or processed arecanut (popularly called 'betelnut'), while the former is known as 'arecanut'. Nearly one third of the arecanut crop produced in India is marketed in the form of arecanuts (unhusked whole fruits) and the remaining two thirds is marketed in the form of cured and processed arecanuts. Marketing of arecanut (whole unhusked fruits) is of commercial importance only in Kerala, Assam and West Bengal.

4.4. *Arecanut (unhusked whole fruits)*: In Kerala State, growers generally do not undertake the curing and processing of arecanuts. After harvesting, the fruits are disposed of in the nearest periodical shandies or

to the itinerant merchants-cum-curers either as semi-ripe or ripe nuts. Growers account for only 35 to 40 per cent of the produce assembled, while itinerant merchants account for nearly 50 per cent. Both growers and itinerants sell their produce to the professional curers at the assembling markets for conversion into commercial cured arecanuts. Professional curers and itinerant merchants often advance loans to the growers and collect the produce during the harvesting season.

4.5. In Assam, the assembling and distribution of arecanuts take place through periodical markets or 'hats'. In these markets, the growers themselves assemble nearly 60 per cent of the arecanuts, while the remaining 40 per cent is assembled by other agencies such as village merchants, itinerant merchants and professional curers. The periodical markets are of three kinds, viz. (i) those in the interior villages and near the gardens, (ii) those situated near urban areas, and (iii) those located near curing centres. The number of primary markets in the first category is far more numerous and bulk of the assembling and distribution of the produce take place in these markets. The entire crop arriving in these markets is assembled by the growers themselves. After harvest, they take their produce in the form of semi-ripe or ripe fruits to the nearest 'hats'.

In the second category of markets, 70-80 per cent of the quantity assembled is accounted for by itinerant merchants and the balance by the growers themselves. Even in the third category of markets, mostly the itinerant merchants operate.

4.6. As compared to Assam, the production of arecanut is comparatively small in West Bengal and it is estimated that about 92 per cent is sold entirely in the form of arecanuts, mostly as fresh nuts. The assembling is done through a large number of 'hats', where the growers themselves take the produce and sell it to the local consumers directly.

4.7. *Cured arecanuts.* In India, consumption in the form of cured and processed arecanuts is more widespread than in the form of uncured arecanuts. The marketing of cured nuts is, therefore, better organised in most of the producing States.

4.8. In Mysore, about 99.7 per cent of the harvested crop is converted into different types of commercial cured arecanuts. These consist of both unboiled and boiled and coloured varieties. Curing and processing is done mostly by the growers in this state and to a small extent by professional curers who take the gardens on lease. In the Malnad tract of the state, curing is done entirely by the growers, whereas curing by lessees is practised in the Maidan regions particularly in the districts of Hassan, Chitaldrug and Tumkur. The important assembling markets in Mysore are Mangalore Sirsi, Siddapur, Kumta, Sagar, and Shimoga. The growers generally take the cured nuts to the assembling markets themselves for sale. The share of growers in the assembling of produce has been estimated at 80-95 per cent in Siddapur, Kumta, and Shimoga markets and 50-60 per cent in Mangalore and other markets in the State.

The itinerant merchants also account for about 18 to 20 per cent of the total quantities assembled. In Mysore, cooperative marketing societies play a significant part in the marketing of arecanuts, accounting for a third of the total production in the State.

4.9. In Kerala, about 73 per cent of the total production is processed as cured arecanuts. Unlike in Mysore, the curing and processing of arecanuts is undertaken in this state by a large body of professional curers, who operate in about 200 curing centres distributed throughout the state. The important assembling and distribution markets for cured arecanuts are Palai, Ponkunnam, Alleppey, Cochin, Trichur, Calicut and Kasargode. By far the largest quantity of commercial cured arecanuts is processed by professional curers. It is estimated that about 70 to 75 per cent of the cured arecanuts produced is assembled and processed by this single agency. The remaining portion of the produce is assembled by the growers and itinerant merchants. The role of cooperatives in the assembling of cured arecanuts is very insignificant in Kerala.

4.10. In Assam, only about 10.5 per cent of the total production is converted into commercial cured arecanuts. The main assembling markets for these are Gauhati and Dhubri and to some extent Shillong. The curers account for assembling of 90 per cent of the produce. They operate mainly in Kamrup and Goalpara districts and send their produce to the wholesalers at Gauhati.

Market functionaries

4.11. The agencies engaged in the marketing of arecanuts are (i) the itinerant merchants, (ii) professional curers, (iii) brokers and commission agents, and (iv) cooperatives.

The role of each of these agencies in the marketing of the crop vary in different areas. Except in Mysore State, the role of cooperatives in the marketing of arecanuts is very insignificant at present. In Kerala and Assam, the producer generally sells the raw-nuts (unprocessed) to the curers who do the processing and sell them in secondary markets to the merchants and commission agents. In Mysore State, growers themselves generally process the nuts and sell them to the merchants and commission agents at the secondary markets and mandi centres. A considerable quantity is also sold through cooperatives in Mysore.

Regulated Markets

4.12. Arecanut has been declared as a 'Notified Commodity' in Mysore State and Malabar district of Kerala State and is sold in regulated markets in these areas through open auctions and secret tenders. The question of extending the Regulated Markets Act to other areas of Kerala for marketing of arecanut is under consideration of the state government.

Market practices

4.13. In Assam, on the scheduled market days the produce is assembled at the three types of primary markets in heaps by the various assembling agencies and individual lots are sold by open bargaining. No deductions are made either in cash or kind from the sale proceeds.

In Kerala, the arecanut crop is sold mainly in the raw form. In this form the nuts are highly perishable and the producers are often compelled to sell it to the curers at whatever price they can obtain.

4.14. In the case of cured arecanuts, the production and marketing of particular commercial types of cured arecanuts are concentrated in certain areas of Kerala. For instance, boiled and coloured varieties are processed mainly in central Kerala, while unboiled varieties are marketed in Trivandrum district and Kasargode taluq. The professional curers send their cured arecanuts to the commission agents operating at the various assembling markets for sale on consignment basis. The commission agents generally own adequate godown space and the produce of each seller is kept in separate lots and they do not usually charge any godown rent. These commission agents arrange for auction of the lot of each seller separately on fixed days of the week. The buyers, with the help of local brokers, inspect the lots and participate in the auction. The produce is sold to the highest bidder.

The produce from Kasargode area is, however, sent to the Mangalore market for sale through commission agents.

4.15. In Mysore State, Mangalore, Sirsi and Shimoga are the important markets. At the Mangalore market, the various assembling agencies send their produce to the commission agents operating at Mangalore. The commission agents conduct auction and arrange for the sale of their customers. The buyers are mostly the local merchants, who after further processing, despatch the nuts to different consuming centres. These commission agents also advance loans on the security of the produce pending their disposal. The South Kanara Agriculturists Cooperative Marketing Society, Mangalore, also handles about 20 percent of the total arrivals of arecanut at Mangalore.

In Sirsi, Shimoga and other markets also, the cured arecanuts are mostly sold through commission agents or cooperative marketing societies through auction. The auctions are conducted in the presence of the officials of the Regulated Market Committees.

Payment of sale proceeds

4.16. Though cash sales are not in vogue in many of the secondary markets, the grower-sellers are paid by the commission agents immediately after the sale is complete. The commission agent takes the risk of collecting the sale proceeds from the buyers. In some markets, a period of 10 days is allowed for payment of sale proceeds by the buyer. In Shimoga in Mysore State it was found that the sale proceeds were usually paid only after 1 to 3 months. The general practice in this market is to maintain running account for each purchaser and charge interest varying from 7 to 9 per cent per annum on outstanding amounts.

Market charges

4.17. In Kerala State, except the Malabar area, the markets for arecanuts are not regulated. The market charges varies from Rs. 1.59 at Cochin to Rs. 7.89 at Trichur as under:—

Market Charges*(Per Rs. 100)*

<i>Charges</i>	<i>Cochin</i>	<i>Alleppey</i>	<i>Calicut</i> <i>(Regulated</i> <i>Market)</i>	<i>Trichur</i>
Commission	1.50	1.50	3.00	7.25
Brokerage	0.09	1.00	0.14	—
Miscellaneous deductions	—	4.00	0.06	—
Godown charges.	—	—	—	0.29
Repacking & drying	—	—	—	0.21
Periodical turning of bags	—	—	—	0.14
Total	1.59	6.50	3.20	7.89

In all these markets commission is the biggest single item in the total assembling charges.

4.18. In Mysore State, where the markets are regulated, the market charges vary from Rs. 2.04 at Sirsi to Rs. 3.78 at Mangalore as under:—

Markets charges*(Per Rs. 100)*

<i>Charges</i>	<i>Sirsi</i>	<i>Kumta</i>	<i>Shimoga</i>	<i>Mangalore</i>
Commission	1.00	0.66	1.12	2.39 (includes all charges)
Octroi	0.06	0.06	0.19	0.06
Weighment	0.01	—	0.07	—
Cooly	0.06	0.17	0.07	—
Market cess	0.05	—	0.07	0.07
Storage	0.01	—	0.21	—
Grading	0.10	0.09	0.56	—
Packing	0.75	0.75	0.75	1.26
Other deductions:				
a. Association fund	—	0.17	—	—
b. Discount	—	1.00	—	—
Total	2.04	2.90	3.04	3.78

The above charges are fixed by the respective market committees. Except for storage, grading and packing charges, all other items of expenses are borne by the sellers. As against these charges in the regulated markets, the charges for sales through cooperative marketing societies are as under:—

	<i>Shimoga</i>	<i>Mangalore</i>	<i>Sirsi</i>
Commission	Rs. 1.56 per Rs. 100	Rs. 7.00 per qtl. (about Rs. 1 to 1.50 per Rs. 100)	1.00 per Rs. 100
Weighment	—	—	0.01 per bag
Cleaning, etc.	—	—	0.25 per qtl.

It may be seen that the market charges in respect of the produce sold through the cooperatives are considerably less.

Marketing malpractices

4.19. Most of the growers in Kerala lease their areca trees to the traders at the flowering stage under what is known as 'Pattam' system, sometimes even for 4-5 years at a time, if the grower needs larger funds. The lease amounts are always much less than the actual value of the yield and the producers are put to considerable loss under this system. In the village sales, extra nuts are taken to cover barren nuts, etc. and unauthorised and arbitrary deductions are also made on one pretext or other.

4.20. Even in Mysore State, where the markets are all regulated, the sales are not free from malpractices. In many markets, there are no common market yards for conducting the auctions and, therefore, the auctions are held in the premises of the commission agents themselves. As such auctions are held simultaneously at more than at one place, it is not possible for the Secretary of the Market Committee to be present at all such places. At Shimoga, it was found that usually the salesmen or weighmen of the Market Committee are sent to supervise the sales at the premises of the commission agents. It is likely that, in the absence of senior officers, these salesmen or weighmen may be too small to prevent malpractices such as underweighment, etc. in the face of the influential local merchants at whose places the auctions are held. Once the sales are completed, the market committee has no control over the produce. This enables the commission agents to employ dummy brokers to bid on their behalf, since commission agents are prohibited from bidding at the auctions conducted by them. These dummy brokers, in order to attract customers, bid for higher rates than market rates and later on dupe them through various methods.

Storage

4.21. Processed arecanuts had become too expensive a commodity to be stored for long either in the curing centres or in the assembling and distributing markets. Godown facilities are provided by the commission agents operating in the markets for storing the arecanuts till their sale. In addition, local cooperative societies and Regulated Market Committees, wherever functioning, have also been providing godown space for storing the arecanuts at the assembling markets. These agencies generally provide storage facilities free of charge.

Grading

4.22. There are several commercial types and varieties of processed arecanuts. It is estimated that there are over 153 such varieties recognised

by the trade. In most of the producing areas, the growers and curers do some kind of preliminary grading. They sort out the processed kernels into superior and inferior varieties depending mainly on visual examination of ripe and over mature kernels. In big assembling markets like Mangalore, Alleppey and Cochin, grading is undertaken by the wholesale merchants.

Transportation

4.23. The village merchants in Kerala, who collect the arecanuts from the producers, transport them in bullock carts or motor-lorries. In Mysore, the producers transport the produce to the assembling markets in bullock carts or motor-lorries. From the assembling markets to the consuming centres, the nuts are transported by rail or motor-trucks and also by sea in case of despatches to Bombay or Calcutta.

Inter-State Trade

4.24. The demand and per capita consumption of cured arecanuts in India during 1957-58 were estimated as under during the survey undertaken by the Directorate of Marketing and Inspection:

<i>State</i>	<i>Demand in 1000 mds.</i>	<i>Per capita consumption in lbs.</i>
(i) Major producing states.		
Assam	621.13	6.17
Kerala	284.23	1.46
Mysore	388.00	1.44
(ii) Minor producing states.		
Madras	416.30	1.02
West Bengal	224.26	0.63
Maharashtra and Gujarat	390.66	0.58
(iii) Non-producing areas.		
	1210.42	0.44
All India	3535.00	0.74

Bulk of the crop produced in Assam is consumed locally in the form of fresh arecanuts. Delhi and Nagpur are two of the most important consuming markets for cured arecanuts in India and bulk of the processed nuts are sent to these North Indian markets through a host of intermediaries.

Imports & Exports

4.25. In spite of being the largest producer of arecanuts in the world, India is in short supply in respect of this commodity to meet the internal demand. It has, therefore, been importing arecanuts from Malaya and Ceylon mostly. It is only during the last few years, after India became free, that efforts have been made to augment the local supplies and reduce

the country's dependence on foreign imports. Unlike in India, areca palm is grown in Malaya and Ceylon on a plantation scale but the crop receives scant attention from the owners. It flourishes in these areas solely on account of the high fertility of the soil and the well distributed local rainfall while in India it is irrigated and manured. The cost of production is, therefore, comparatively low in these countries. With a view to giving adequate protection to indigenous areca growers, the Government of India have been following a restrictive import policy. Thus as against the imports of arecanut valued at Rs. 285.81 lakhs during 1947-48, the imports during 1961-62 were only Rs. 45.32 lakhs (10040 tonnes of arecanuts). In order to maintain the internal price level, the central government have also been levying an import duty of Rs. 1.03 per lb. on the imported arecanuts.

Although India is a net importer of arecanuts, small quantities are also exported mostly to Malaysia and Kenya, probably for consumption of Indian residents in these countries. During 1961-62, 122.9 tonnes of the value of Rs. 8.60 lakhs were exported.

Distribution

4.26. The distribution of cured arecanuts to the consumers is made through wholesale merchants in kirana markets and the retail provision merchants and shop keepers as also by 'Panwallahs' in various cities, towns and villages. These merchants also deal with all other household articles such as food-grains, pulses, etc.

Price spread

4.27. The share of the producer in the price paid by the ultimate consumer often depends on the distance, methods of marketing and other factors. It is estimated that the producers' share is about 60 to 70 percent of the consumers' price and the balance is accounted for by the transport, etc. costs as well as the margin of the merchants at various levels.

The following typical examples were furnished by the Indian Central Arecanut Committee and State Marketing Officers:—

I.	Chali Variety	Rs.
	Producer-cum-curer, Sirsi (Mysore)/Commission agent/ wholesale agent/retailer/consumer in <i>Bombay City</i> .	
	Producer's Price (per quintal)	450
1.	Handling charges at the assembling markets.	4
2.	Cost at the assembling markets.	454
3.	Transport charges.	20
4.	Cost F.O.R. destination.	474
5.	Charge paid at destination.	4
6.	Handling and other charges.	3
7.	Wholesalers' margin.	125
8.	Cost at retailers' shop.	606
9.	Retailers' margin	60
10.	Consumers' price.	666
	Producer's share in consumers' price	68%

II.	Nayampak Variety	<i>Rs.</i>
	Wholesaler, <i>Ponkunnam</i> (Kerala)/Commission agent, Madurai/wholesaler/retailer/consumer at Madurai	
1.	Producer's Price.	450
2.	Handling and other charges at assembling centre.	—
3.	Cost at assembling Centre	450
4.	Transport and other charges.	5
5.	Cost F.O.R. at destination.	455
6.	Charges paid at destination.	8
7.	Handling and other charges.	12
8.	Wholesalers' margin.	85
9.	Cost at retailers' shop.	560
10.	Retailers' margin.	30
11.	Consumer's price.	590
	Producer's share in consumer's price.	76%

(Source: Indian Central Arecanut Committee).

III.	Arecanut (Ripe)	
	Karakulam (16 miles from Nedumangad market) to Trivandrum.	
1.	Producer's price (per 1000 nuts)	20.00
2.	Transporting, loading and unloading charges.	1.50
3.	Marketing charges.	0.10
4.	Actual price of village merchant.	21.60
5.	Profit to village merchant.	3.40
6.	Selling price of village merchant.	25.00
7.	Profit of wholesaler.	1.00
8.	Selling price of wholesaler at Nedumangad.	26.00
9.	Transport charges of the retailer to Trivandrum.	2.50
10.	Profit of retailer.	3.00
11.	Consumer's Price	31.50
	(Producer's share in Consumer's price)	63%

(Source: State Marketing Officer, Kerala)

PRICE SPREAD OF ARECANUT-DRY (SPLIT)

A cultivator sold 10 mds. of arecanut to the Marketing Society, Rajal and the society sold the quantity of through a commission agent a Calcutta.

<i>Particulars</i>	<i>Amount Rs.</i>	<i>Percentage of consumer's price</i>
1. Net price received by the producer on his farm for 10 mds, arecanuts	1383.44	76%

Details are given below:—

Value of dried split nut at Pathsala market @ Rs. 140.00 per md.-140.00

Deduct expenses for marketing by producer

(a) Transport from farm to Pathsala market @ 0.50 p. per md.	5.00		
(b) Godown rent 0.09 p. per md.	0.94		
(c) Weighing charge 0.06 p. per md.	0.62		
(d) Commission to Society-Re.1.00 per md.	10.00		
	Total	16.56	16.56 0.9%

2. *Expenses of marketing society*

Handling charge 0.06 p. per md.	0.62		
Grading and sorting charges @ 0.12 p	1.25		
Cost of bag @ Rs. 1.00 per bag	10.00		
Handling charges at the time of export @ 0.06 p per md.	0.62		
Railway freight from Pathsala to Calcutta @ Rs. 4.95 per md. by goods train	49.50		
Commission at Calcutta @ .2%	34.00		
Brokerage at Calcutta @ 0.50 p. per md.	5.00		
	Total	101.00	101.00 6%

3. *Expenses of commission agent at Calcutta.*

(a) Transport charges, loading, unloading charges and other miscellaneous charges @ Rs. 5.00 per md.	50.00	50.00	3%
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4. Margin of wholesaler or commission agent.	149.00	149.00	8.4%
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5. *Expenses of retailer.*

(a) Transport from wholesaler to his shop @ 0.12p per md.	1.25		
(b) Handling charge @ 0.6 p.	0.62		

	Total	1.87	1.87	0.1%
6. Margin of retailer.	98.12	98.12	5.6%	
7. Price paid by consumer.	1800.00			

1800.00	100%
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Producer's share in Consumer's price	76%
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(Source ; State Marketing Officer, Assam)

Trend of Prices

4.28. Arecanut prices have maintained an upward trend during the last few years and have been quite favourable to the local producers. With the gradual reduction of imports, the prices of the various forms of arecanut have increased considerably since 1948-49, in a few cases by over 200 per cent.

Market Intelligence

4.29. In the main producing states the local authorities have made arrangements through the Press or Radio for disseminating information regarding the daily and weekly prices of arecanuts. The Indian Central Arecanut Committee has also been disseminating similar information through its journals and also through the All India Radio. The Committee also collects information regarding market prices prevailing in the countries of export, viz. Ceylon, Singapore and Pakistan and publishes them in its journals together with their corresponding internal prices. The Directorate of Economics and Statistics in the Ministry of Food and Agriculture also publishes prices of cured arecanuts, but this is limited to two varieties only.

COCONUT

Assembling :

4.30 Coconuts are sold in the form of (i) tender nuts, (ii) mature nuts and (iii) copra.

Tender Nuts : As stated earlier, the percentage of sales of tender nuts is very negligible (viz. 3.5 percent) and is mostly confined to Madras, Maharashtra, West Bengal and Assam States, where 16, 27, 10 and 22 percent respectively of the total production is sold in the form of tender nuts. Producers in these areas generally sell their tender coconuts at their gardens to hawkers, itinerant dealers, retailers and merchants. The buyers transport the nuts to the neighbouring towns or markets and shandies. Besides selling at the gardens, small producers also take head loads of coconuts direct to shandies, etc. for sale to the consumers direct, but a major portion of such nuts is sold through the village merchant. In some areas round about Bombay, some producers leave the right to pluck coconuts to contractors, who collect the nuts and send them to Bombay for sale through brokers.

4.31 *Mature nuts* : The producers generally sell their produce in the form of unhusked nuts at their gardens to copra manufacturers, village merchants and wholesale merchants, either direct or through agents. Small producers near the markets dispose of their nuts in shandies or markets either direct to consumers or through commission agents. The latter practice is common in Mysore and several markets in Maharashtra. In Thanjavur district of Madras State, the growers bring their produce to the assembling centres and sell to the traders. Producers are often forced to sell their produce to copra makers and merchants from whom they may have taken advances. In Cochin, in particular, nuts for the whole year are sometimes sold in advance on the basis of prevailing coconut oil prices. Copra makers generally purchase coconuts at the gardens and unless the nuts are to be stored for making edible copra, they are usually husked on the spot. The relative importance of the different assembling

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agencies varies in different areas. For instance in Kerala, copra makers are by far the most important agencies in the assembling of coconuts, while in Ratnagiri district of Maharashtra, Commission agents are the chief assembling agents. In Thanjavur and Kanyakumari districts of Madras, much of the assembling is done by the producers themselves. In Mysore State, producers and village merchants or commission agents do most of the assembling. In Andhra Pradesh, the village merchants play an important role in the marketing of coconuts.

4.32 There are a number of assembling markets in the coconut producing areas to which producers, contractors and village merchants bring their coconuts for sale. In the West Coast, however, a considerable portion of the produce is sold directly off the gardens to copra makers and does not enter the markets at all.

Copra. Coconut growers, who make copra from nuts produced in their gardens and small village copra makers, sell their copra to village merchants or to the agents of wholesale merchants and oil millers. Big copra makers dispose of their copra to millers or wholesale merchants. Petty village merchants who collect small lots of copra sell them in bigger lots to wholesalers and millers. Wholesale merchants and oil mills in coconut producing areas often make arrangements with copra makers and village merchants for all copra made or collected by them to be brought to them.

Market functionaries.

4.33. Producers, contractors, village merchants, wholesale merchants and commission agents take part in the assembling of coconuts. The producers often sell their nuts directly to copra makers and chekku owners at the gardens and in small lots to consumers at shandies and in nearby markets and towns. Eight percent of the produce is estimated to be distributed by producers themselves in Kerala State.

The village merchants sell the nuts collected by them to wholesale merchants and commission agents and also to consumers and retailers direct. In Kerala, 15 percent is estimated to be handled by this agency. Wholesale merchants and commission agents in producing areas, who buy coconuts at gardens and shandies, despatch them to consuming centres. This is particularly so in Andhra Pradesh.

Regulated Markets :

4.34. On the recommendation of the Indian Central Coconut Committee, the Composite Madras Government regulated the markets for coconuts at Calicut with jurisdiction over Malabar district (now in Kerala), at Rajahmundry with jurisdiction over East Godavari District (now in Andhra Pradesh) and at Mangalore with jurisdiction over South Kanara district (now in Mysore). At all these centres, though the purchase and sale of coconuts and its products are regulated, market yards have not as yet been established nor have godown facilities been provided. In Kerala State, the Malabar Market Committee is the only Market Committee which has four regulated markets functioning in Palghat district. The State Regulated Markets Act has since been extended to the districts

of Srikakulam in Andhra Pradesh, Kanyakumari in Madras and in Mysore State, all the secondary markets have been brought under regulation.

Market practices :

4.35. When the sellers themselves sell nuts, generally in small lots, the nuts are displayed for sale at the market and when the price has been settled, the requisite number of nuts is counted over to the buyer. When sales are effected through commission agents, the coconut carts arriving at the shandy are heaped on the platforms or in sheds in the markets. Each heap is auctioned by the commission agent through whom the seller decides to have his nuts sold. The buyers are usually the other commission agents of the market, although occasionally buyers from other markets also come to make purchases. The bids on behalf of outside buyers are generally made by the local commission agents for which they receive certain commission. The system of sales by auction is found in some markets, while in others, buyers give their offers openly or under cover to the commission agents. In Malabar area of Kerala State, where the marketing of coconuts is regulated, there is no established market for coconuts, but the trade is carried on in the premises of the individual traders under licence from the Market Committee. At these premises, the paid servants of the wholesaler inspect the produce that is brought in carts and offer the price and the bargain is struck by negotiation. The price is paid in full immediately after the sale.

4.36. At the Ambajipet market in East Godavari district in Andhra Pradesh, the village merchants assemble on every Saturday for striking bargains with the local exporters and after reviewing the supply and demand portion, fix up rates for a unit of 1000 nuts of different varieties and these rates more or less form the basis for the purchases at the other market centres.

In Madras State, coconuts are brought to the daily markets owned by Municipalities and weekly markets owned by District Boards. These are also marketed through commission agents or wholesale merchants in important towns. Sales are effected by direct negotiations between the producers and the wholesalers. No auction is held.

In Tumkur, Arsikere, Tiptur and Chennapatna markets of Mysore State, sales are effected by open auctions.

Copra is generally sold by the copra makers and village merchants directly to wholesalers and millers at negotiated prices.

Payment of sale proceeds :

4.37. The payment of sale proceeds is generally made immediately after the sale is completed.

Market charges :

4.38. The charges incurred by sellers or buyers in making sales or purchases through commission agents and brokers, consist of the commission or brokerage payable to the commission agent or broker and the charges paid to labourers for counting, selecting, filling into bags, etc. and

certain deductions for charities, etc., These charges vary from place to place with reference to local usage, etc.. The details of charges payable in certain assembling markets are given below :—

<i>Market</i>	<i>Particulars of charges.</i>	<i>Unit</i>	<i>Amount payable</i>
Arsikere and Tiptur (Mysore)	Commission	1100 nuts or part thereof	2% of price
	Market cess	„	25 P
	Weighment charge	„	25 P
	Octroi	„	3 P
Ambajipeta (Andhra Pradesh)	Allowance in kind	1000 nuts	10 nuts
	Rusum	„	Re.1
Calicut (Kerala)	Counting and sorting charges.	1000 nuts	Rs.2
	Loss involved in rotten nuts	„	20 nuts
Ponnani (Kerala)	Counting and sorting charges	„	Rs.2. 12
	Loss involved in rotten nuts.	„	25 nuts

Marketing Malpractices :

4.39 In many areas, the merchants take extra number of nuts to compensate for breakage, spoiled nuts, small nuts, etc. even though in practice such damaged nuts are removed. The actual number of such 'extras' varies in different markets. In Kerala 20 to 60 nuts are usually taken per 1000 while in Thanjavur district 20 to 25 extra nuts are taken. In Godavari districts of Andhra Pradesh, 20 nuts for dry and 40 to 50 nuts for wet nuts are taken as trade allowance. In Bombay, it is customary to take 1125 nuts per 1000. In Orissa, the number of extra nuts given per 1000 is 50. Besides, unripe or undersized nuts are either rejected or taken by buyers at a lower rate of price.

Storage :

4.40 Usually in the villages, coconuts are stored by the producers and village merchants in their houses. In the markets, coconuts are stored in godowns belonging to the commission agents. They are stored both in bags and loose. Mature nuts are stored mostly in the form of unhusked nuts. In Mysore, where the nuts are stored for making ball copra, the unhusked nuts are stored for 9 to 12 months on platforms built at some height from the ground.

Grading :

4.41 The main quality factor, on which a consumer assesses the nature of coconuts, is the quantity and quality of the kernel inside. The trade judges the quantity of the kernel by the size of the nut and the quality by the maturity of the nut. Grading of the coconuts is usually done as a part of counting, filling of bags, etc. and does not involve much extra cost.

4.42 Copra is broadly classified into two groups viz. edible copra and milling copra. The first group consists of copra of high quality fit for edible purposes, while the second group includes all the remaining copra used mainly for the production of oil. Edible and milling copra are again classified into different grades by the trade with reference to their quality, appearance, etc..

4.43 In view of the diversity of the standards for fixing the grades of milling copra and in order to help producers and buyers to arrive at a standard procedure, the Agricultural Marketing Adviser to Government of India, in consultation with the trade, prepared 'Standard-contract Terms' for transactions in milling copra. These were approved by the Indian Central Coconut Committee and the trade associations, etc. were requested to persuade their members to adopt them, but little progress had been made in their adoption by the trade.

Transportation :

4.44 The means of transport employed at different stages of marketing of coconuts differ from place to place. Coconuts are commonly transported from the producing centres to the assembling centres in bullock carts, lorries, etc. while from the assembling markets to the consuming markets, they are transported by lorries and by rail. Country boats are also used for the transport of coconuts in Kerala, West Bengal, Assam and Andhra Pradesh. The small producers also carry the nuts in head-loads to nearby shandies or towns.

Inter-State Trade :

4.45 The production of coconuts is concentrated in the States of Kerala, Mysore, Madras and Andhra Pradesh. These tracts retain the major portion of their coconut production for local use, for copra making or for edible purposes and despatch the rest to other parts of the country.

It is estimated that about 80 percent of the production in Kerala, is exported to other parts of India. Andhra Pradesh, Mysore and Madras also export considerable quantities of copra and coconuts to North Indian States. The entire Inter-State trade is handled now by a chain of wholesale merchants at various places.

Import and Export :

4.46 The Government of India have been encouraging exports of coconuts and its products with a view to earn foreign exchange and also to stimulate internal production.

The annual exports from India during the years 1956-63 are given in the table below :—

Year	Coconuts		Coconut oil	
	Quantity Nos.	Value Rs.	Quantity Tonnes	Value Rs.
1956-57	8140	3026	0.95	900
1957-58	10433	4231	2.95	8993
1958-59	455150	147669	2.85	16020
1959-60	635639	190649	2.00	8775
1960-61	607861	191774	12 kg	50
1961-62	241674	84545	N A	N A
1962-63	569331	193073	N A	N A

India does not export any copra now. Small quantities of coconut oil are, however, exported to neighbouring countries like Pakistan and in the Middle East.

As against the average production of 272523 tonnes of copra in the country, the average imports accounted for 94744 tonnes, i.e. about one-third of the total production in India. Thus 367267 tonnes are estimated to be consumed in India annually.

The main source of imports are as under :—

Coconuts	Copra	Coconut oil
Ceylon	Malaya (52%)	Ceylon (48%)
	Ceylon (31%)	Singapore (28%)
		Malaya (24%)

The import of coconuts, has, however, dropped down from 3.5 million nuts in 1948-49 to only 3 lakhs nuts in 1959-60 due to the restrictions imposed both by the Government of India and the Government of Ceylon. No imports of coconuts were made during 1962-63. Annually about 90,000 tonnes of milling copra is imported for conversion into coconut oil for internal consumption. No coconut oil is being imported since 1960-61. The annual imports of coconuts, copra and coconut oil since 1956-57 are given in the Table next page.

Distribution :

4.47 Producers, contractors, village merchants, wholesale merchants and commission agents who figure in the assembling of coconuts also take part in the distribution of the crop to the consumers. The producers sell the nuts to copra manufacturers and also to consumers in small lots. The

IMPORTS

Coconuts			Copra					Coconut oil in terms of a copra*	
Year	Quantity imported (1000 nuts)	Value Rs. in (1000)	Edible copra tons	Milling copra tons	Other sorts tons	Total tons	Value (Rs. in lakhs)	Quantity (Metric Tonnes)	Percentage in terms of copra
1956-57	575	53	6207	92160	35	98402	943.33	34179	25
1957-58	313	70	1675	119337	2856	123868	1206.10	22824	15
1958-59	159	19	125	96381	323	96829	1063.61	7534	7
1959-60	1	0.2	149	83433	1649	85231	1090.92	5860	6
1960-61	13	3.8	256	89729	9273	99258	1163.89	negligible	
1961-62	312	35.1	395	83414	5113	88922	942.18		
1962-63	nil	nil	528	92820	1149	94497	996.71		

*62 tons of coconut oil taken as
100 tons copra.

village merchants sell the nuts collected by them to wholesale merchants and commission agents. Wholesale merchants and commission agents in producing areas despatch the nuts to wholesalers and commission agents at the consuming centres. These in turn distribute the nuts to retailers, grocers and fruit merchants for final sale to consumers.

Price spread :

4.48 It is estimated that the producer's share in the consumer's price works out of 56 to 93 percent depending upon the distance between the producing and consuming centres and the number of times the commodity changes hands before it reaches the final consumer. The extent of variation in the price spread may be seen from the typical examples given below :—

**PRICE SPREAD IN THE MARKETING OF MATURE
COCONUTS**

	<i>Amount Rs.</i>	<i>Percentage of consumers price</i>
1	2	3
(i) From a coconut grower in a village in West Godavary district of Andhra Pradesh to Vijayawada market at a distance of 40 miles (1959-60).		
1. Price realised by the producer by selling 1000 nuts @ Rs. 140 per 1040 nuts to the village merchant (40 nuts taken as trade allowance).	134.61	56.7
2. Transport charges from the garden to the village of the merchant. 2.00	} 8.00	} 3.4
3. Dehusking charges. 2.50		
4. Transport to assembling market (Palakole) 3.50		
5. Village merchant's margin.	24.06	10.1
6. Exporters price for 1000 nuts @ Rs. 170 per 1020 nuts (20 nuts taken as trade allowance).	166.67	70.2
7. Market charges payable by exporter :		
(i) Market cess. 0.37	} 2.37	} 1.0
(ii) Loading, unloading & conveyance to godown. 2.00		

8.	Ex-godown price in the assembling market.	169.04	71.2
9.	Exporters margin @ 1 percent ad-valorem.	1.69	0.7
10.	Handling at the godown and transport at consigning market by lorry for a distance of 40 miles @ Re. 1.00 per mile for 5,000 nuts load.	8.00	3.4
11.	F.O.R. price Vijayawada at the consuming wholesale market.	178.73	75.3
12.	Consignees' transport and handling charges.	2.00	0.9
13.	Consignee's cost price ex-godown.	180.73	76.2
14.	Consignee's margin @ 1 percent ad-valorem.	1.81	0.7
15.	Retailer's cost price.	182.54	76.9
16.	Retailer's incidental charges & margin of profit. etc. 30 percent.	54.76	23.1
17.	Consumers' price.	237.30	100.0

(ii) From a producer in a village in Mysore State to Mangalore Market (Distance 50 miles) for 1000 nuts, through a co-operative society.

	<i>Rs.</i>	<i>Percent</i>
1.	Price received by the producer.	226.25 80.8
2.	Transport charges from producer's village to the nearest cooperative society, by bullock cart (Distance 10 miles).	7.50 2.7
3.	Transport charges from the branch society to Mangalore Society, by lorry (40 miles).	12.50 4.5
4.	Expenses at the society : Commission @ 6 p per 100 nuts.	3.75 1.3
5.	Sale price for the society or purchase price for the retailer.	250.00 89.3
6.	Transport charges from the society to the retail shop.	2.00 0.7

7. Retailer's margin of profit.	28.00	10.0
8. Consumer's price @ 20 p per nut.	280.00	100.00

(iii) From a coconut garden at a distance of 40 miles from Mangalore to Mangalore market for 1000 nuts.

1. Price received by the garden owner or purchase price by the village merchant.	220.00	78.5
2. Transport charges to the premises of village merchant @ 0.50 per bag (for 10 bags-10 nuts).	5.00	1.8
3. Transport charges to the premises of agent at Mangalore—30 miles by lorry @ 1.00 per bag.	10.00	3.9
4. Expenses at commission mandi @ 2 percent on the sale value.	5.00	1.8
5. Village merchant's profit.	10.00	3.6
6. Sale price of the village merchant.	250.00	89.3
7. Transport charges to retailer's shop.	2.50	0.9
8. Retailer's margin.	27.50	9.8
9. Consumer's price @ 28 p per nut.	280.00	100.0

(iv) From a coconut grower at a village site in Madras to a consuming market for 1000 nuts.

1. Price paid to the grower at the village site by the village broker.	140.00	80.00
2. Price paid by the Vadi owner to village broker.	150.00	85.7
3. Price paid by the town level agency to the Vadi owner (incorporating husking and transporting charges).	162.00	92.6
4. Price paid by the retail merchant to the town agency.	168.00	96.0
5. Price paid by consumer.	175.00	100.0

(v) From a coconut grower to a consumer in Madras State for 1000 nuts.

1. Price received by grower.	120.00	66.1
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2. Expenses incurred by village merchant:

(i) Partial husking	3.00	} 19.00	10.5
(ii) Removing bottoms	1.50		
(iii) Commission	7.50		
(iv) Transport to Commission mandi	5.00		
(v) Loss by damage	2.00		
3. Profit by village merchant.	10.00		5.5
4. Price received by village merchant.	149.00		10.5
5. Expenses incurred by commission agent :			
(i) Grading & stitching	0.50	} 12.50	6.9
(ii) Commission	9.00		
(iii) Sales tax.	3.00		
6. Price received by commission agent.	161.50		39.0
7. Expenses incurred by retailer (i) Transport.	5.00		2.7
8. Retailers' margin.	15.00		8.3
9. Price paid by consumer.	181.50		100.0

(vi) From a farm to a village at a distance of one mile and from there to Kozhikode market at a distance of 4 miles.

1. Price received by the grower for 1000 unhusked nuts.	190.00		92.9
2. Transport charges to Edakkad village.	5.00		2.4
3. Price at Edakkad village.	195.00		95.3
4. Dehusking by village merchant.	2.00		1.0
5. Transport charges from village to terminal market.	2.50		1.2
6. Margin of village merchant.	5.00		2.5
7. Sale price at Kozhikode :			
Husked nuts	187.00	} 204.50	100.0
Husk	17.50		

(vii) From a producer in village Gobakunda at a distance of 8 miles from Sakhigopal to consumer at Kharagpur.

1. Price received by the producer for 1000 coconuts.	194.00		68.8
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2.	Transport charges from Gobakunda to Sakhigopal @ Rs. 1.62 per mile.	13.00	4.6
3.	Profit of the beopari.	3.00	1.1
4.	Wholesalers' cost price at Sakhigopal	210.00	74.5
5.	Expenses incurred by the wholesaler :		
	(i) Grading charges	0.50	} 43.50 15.4
	(ii) Purchase tax 1%	2.00	
	(iii) Dehusking charges	6.00	
	(iv) Handling and incidental charges	2.50	
	(v) Cost of gunny bags @ Rs. 1.50 each for 16 bags (60 nuts per bag on an average)	24.00	
	(vi) Cartage from godown to the railway station @ Rs. 0.16 per bag.	2.50	
	(vii) Loading and other charges at the railway station @ Rs. 0.31 per bag.	5.00	
	(viii) V.P.P. and other postal charges.	1.00	
6.	Wholesaler's profit.	3.00	1.1
7.	Deduct sale proceeds of by-products (husk)	1.00	0.4
8.	Wholesale selling price.	255.50	90.6
9.	Expenses incurred upto Kharagpur :		
	(i) Railway freight for 16 bags.	12.00	} 16.50 5.8
	(ii) Incidental charges at Kharagpur	1.00	
	(iii) Transport charges from railway station to wholesalers godown at Kharagpur @ Rs. 0.19 per bag.	3.00	
	(iv) Octroi duty.	0.50	
10.	Wholesaler's profit.	3.00	1.1
11.	Retailer's cost.	275.00	97.5
12.	Expenses incurred by the retailer-transport charges from wholesaler's godowns to retailer's place @ 0.12 p per bag.	2.00	0.7
13.	Profit of the retailer.	5.00	1.8
14.	Price paid by consumer.	282.00	100.0

Trend of prices :

4.49 The trend of prices of coconuts and its by-products in Kerala State (Alleppey) for the period 1948-49 to 1959-60 is indicated below.

(Alleppey Market)

Year	Coconuts		Copra		Coconut oil	
	Price Rs. per 1000	Per- centage of 48-49 price	Price per ton Rs.	Per- centage of 48-49 price	Price per ton Rs.	Percentage of 48-49 price
1948-49	130.62	100.0	1105.45	100.0	1605.95	100.0
1951-52	194.74	147.1	1443.43	130.6	2132.54	132.8
1955-56	120.22	92.0	989.80	89.5	1367.42	85.1
1957-58	164.56	126.0	1341.17	121.3	1894.26	117.9
1959-60	191.41	146.5	1515.33	137.1	2145.68	133.6

Except during the years 1954-56, when the prices slumped as a result of large world supplies and liberal imports, the prices of coconut and its by-products have been increasing, especially after 1956-57, due to the restrictive import policy of Government.

Market intelligence.

4.50 In Kerala and other major coconut producing areas, the daily, weekly, etc. rates of coconuts in important markets are published in local newspapers and journals and also announced in the Radio.

CARDAMOM**Assembling :**

4.51 Assembling of cardamom, unlike other agricultural produce, is difficult due to inaccessibility of hills from where the produce has to be brought to the markets in the plains. The chief agencies engaged in the assembling of cardamom from the plantations to the primary markets are planters, itinerant merchants, planters associations and cooperative marketing societies. The principal assembling markets for cardamom are mostly located in Madras and Mysore States. Though Kerala is the largest cardamom producing state, almost all its production found its outlet, until 1959-60, in the assembling markets in Madras State, the principal amongst these being Bodinayakanur, Pattiveeranpatti, Thevaram, Uthamapalayam, Ponnaipuram, Kombai, Cumbum and Gudalur in Madurai district. Recently assembling markets have also come into existence at Kumily, Vandanmedu, Udumbanchola, Santhamparai, Kallar, etc. (all in Kottayam District) in Kerala State. The produce of Mysore State is mainly assembled in markets within the State, the principal assembling centres being Mercara, Saklasapur, Mangalore and Sirsi.

4.52 With the improvement in the means of transportation and communications and the setting up of planters' associations, regulated

markets and cooperative societies, the quantity of cardamom brought by the planters to the assembling centres has increased considerably. The percentage of arrivals at important assembling centres and the approximate share thereof assembled by the planters are estimated as under :—

<i>Name of the Market</i>	<i>Approximate percentage to total marketed surplus</i>	<i>Approximate percentage of arrivals assembled by planters.</i>
1. Assembling markets in in Madurai dist. (Madras).	30	60
2. Mercara, Mangalore, Sirsi & Cochin.	15	75
3. Saklaspur	20	40
4. Others	35	66
Total	100	60 (average)

It will be observed from the above that in the assembling markets in Madurai district, which handle about 30 percent of the cardamom marketed in India, about 60 per cent of the total arrivals are brought by the producers themselves. These are marketed mostly through the planters' associations, which organise regular auctions for the sale of their members' produce. With the opening of new auction centres in the cardamom growing areas in Kerala State, the share of arrivals through planters is likely to increase further. At Mercara, Mangalore, Sirsi and Cochin, about 75 percent of the total arrivals are brought by the planters themselves. At Saklaspur, however, only about 40 percent of the total arrivals are brought by the producers themselves, as a large number of these producers have small holdings and dispose of their produce to the itinerant merchants on the farm itself.

Market Functionaries :

Cardamom is assembled mostly by 'Moplas' who deal in arecanuts, lemon-grass oil and other spices as well.

Planters' associations.

4.54 In 1945, the South India Planters' Association was organised with its headquarters at Bodinayakanur and branches at Thevaram, Punnaipuram, Uthamapalayam, Kombai, Cumbum and Gudalur in Madurai district of Madras State. In 1959 this was replaced by 'Prantiya Then Ela Vyavasaigal Sangham' (Southern Regional Cardamom Planters' Association) at all the above assembling markets. These associations handle about one third of the total estimated arrivals at the markets concerned or about 10 percent of the total cardamom production in India.

In 1960-61, auction centres were set up by private agencies in Kottayam district of Kerala State. In the first year of their marketing, they are reported to have handled about 58 per cent of the total market arrivals in all the auction centres of Kerala and Madras State, amounting to about 1964 tonnes. The proximity of these private auction centres to those of planters, coupled with the restrictions imposed by the State sales-tax and agricultural income-tax authorities on the export of cardamom outside the State, are said to be the main causes for this diversion of arrivals to the private auction centres. The itinerant merchants are also patronising these centres because they have no access to auctions conducted by the planters' associations and the cooperative marketing societies.

Cooperative Marketing Societies :

4.55 There are in all 5 cooperative marketing societies engaged in the assembling of cardamom—one in Kerala, one in Madras and 3 in Mysore States. Among them the Coorg Cardamom cooperative marketing society, Mercara (Mysore State) and the Pattiveeranpatti cooperative coffee curing and industrial society (Madras State) are the important.

Commission agents :

4.56 The important markets where cardamom is sold through commission agents are Saklaspur, Mangalore and Sirsi in Mysore State, Pattiveeranpatti in Madras State and Cochin in Kerala State in addition to the recently established assembling markets in Kottayam district of Kerala State. As most of these markets are served by planters associations and cooperatives and even the itinerant merchants sell their produce direct to the wholesalers, the role of commission agents is relatively not so important now.

Wholesalers :

4.57 The main wholesale markets in the cardamom producing areas are Bodinayakanur and Virudhunagar in Madurai district of Madras State, and Mangalore, Saklaspur and Haveri in Mysore State. Other wholesale markets of minor importance are Thevaram, Kombai, Theni (Madras State) and Sirsi (Mysore State). The wholesale merchants and those engaged in the export trade make their purchase mostly from the above mentioned markets.

Regulated Markets.

4.58. Only the markets at Saklaspur and Sirsi are regulated under the Mysore Agricultural Produce Markets Act for cardamom. Saklaspur market accounts for about 45 percent of the total production of cardamom in Mysore. The Sirsi market handles only about 20,000 k.g. annually i.e. about 0.6 percent of the total Indian production. Both these markets account for about 20 percent of the total production in India.

arket practices.

4.59. As mentioned earlier, about 60 percent of the planters bring their cardamom to the assembling markets themselves. Cardamom is sold through open auction system. To enable the maximum number of bidders to participate in the auctions held at various centres, different auction days have been fixed for most of the assembling markets. Planters send their produce to the auction centres in advance of the auction days. The auctions are supervised by the Chairman/Vice-Chairman in the case of Planters' Associations, Secretary in the case of cooperative marketing societies or regulated markets and the proprietor of the firms in the case of private commission agents. The number of bidders present at a particular auction Centre depends chiefly on its importance and varies from about 5 at Mercara to about 35 at Bodinayakanur.

4.60. In the auctions organised by the Planters' Associations, a sample weighing 1 to 3 kgs of each lot put to auctions is circulated among the bidders for their visual examination. At Saklaspur, Mercara and Mangalore, where the number of bidders is small, samples are kept in one or two baskets for joint inspection of all bidders. The unit of price quotation varies from a pound (0.45 kg.) at the auction centres in Kerala and Madras States to a local maund of about 28 lb. (12.7 kgs) at Mercara, Saklaspur, Mangalore, etc. and a Bengali maund of 82.2/7 lbs (37.3 kgs.) at Sirsi.

Payment of sale proceeds.

4.61. Payment to the sellers is invariably not made on the same day except in the case of a few Planters' Associations and regulated markets. In the majority of cases it is made after about 3 days but usually not later than a week. The private auctioneers usually maintain account-currents of planters and the sale proceeds are credited to their accounts.

In case of cardamom sold to the itinerant merchants by the planters in the village, only part payment is made at the time of taking delivery, the balance being paid only after the produce is sold by them. In case the seller desires immediate payment, a discount of about 2 percent is claimed. The price offered by the itinerant dealers is also usually lower by about Rs. 10.00 per 12.7 kgs than that prevailing in the neighbouring assembling markets. These dealers dispose of their produce through the commission agents. These itinerant merchants also advance crop loans to the growers on the understanding that the produce shall be sold to them. The advances which are interest free, are adjusted at the time of taking delivery of the produce,

Market charges.

4.62. Comparative market charges payable by sellers in the marketing of cardamom through various agencies viz. planters' associations, cooperative marketing societies and in regulated and unregulated markets have been indicated in Annexure XI. The total market charges payable per Rs. 100 worth of cardamom at various assembling centres and through different agencies is summarised below :

<i>Agency</i>	<i>Total market charges payable per Rs. 100 worth cardamom Rs. p.</i>
1. Planters' Association, Bodinayakanur.	2.10
2. -do- Thevaram,	1.21
3. -do- Uthamapalayam	1.28
4. Coop. Marketing Society Pattiveeranpatti.	2.50
5. -do- -do- Mercara.	1.05
6. -do- -do- Mangalore.	0.55
7. Private commission agents at regulated market at Saklaspur.	1.97
8. -do- at regulated market of Sirsi.	1.42
9. Private commission agents at the un-regulated market at Pattiveeranpatti.	3.25
10. Private commission agents at the unregulated market at Cochin.	4.11

4.63. It will be observed from the above that marketing costs are the least in the case of sales made through cooperative marketing society at Mangalore which does not recover any market charges except commission at Re. 0.55 per cent. The Mercara cooperative society also recovers commission only at about 1 percent. The marketing costs in respect of Pattiveeranpatti cooperative society are fairly high as this society besides commission also recovers extra quantity of cardamom by way of sweepings, driage, sample, etc. The wide variation in market charges from one centre to another and between regulated and unregulated markets indicates great scope for economy, particularly with regard to charges relating to Chinthumani (sweepings), discount, samples, commission, etc.

Marketing malpractices.

4.64. The itinerant merchants, who account for about 40 percent of the total produce marketed, grant interest free crop advances to the planters before the harvest, but they more than compensate themselves

by recovering extra quantity on various pretexts such as moisture, refraction, etc. or through false weights. The price offered by them is also usually lower by about Rs. 10 per local maund (12.7 kgs) than that prevailing in the neighbouring assembling markets. They also do not pay the full proceeds of sale immediately.

4.65. At the unregulated markets at the assembling centres, heavy market charges are levied by the commission agents by way of samples, sweeping, discount, commission, etc., Even at the new auction centres opened in Kerala State, mostly the merchants from Bodinayakanur and Virudhunagar or their agents come for bidding and they can often form a ring and under-bid. Further, payments of sale proceeds are often made through post-dated cheques on up-country banks. For instance at Kallar, following the local practice, the cooperative marketing society too is forced to accept such post-dated cheques. Since the society has to pay the grower member immediately, it has to pay heavy discount charges for raising funds on such cheques from the local private bankers.

4.66. There are other undesirable practices practised by the private auctioneers such as maintaining account current, sale of produce by Hatha system (under cover system) prevalent at Mangalore, non-maintenance of proper accounts so as to evade salestax, etc. with a view to give some apparent price benefit to the planters.

Processing costs :

4.67. Cardamom pods which contain about 75 percent moisture at the time of plucking, are generally sun-dried by the growers themselves except in Pattiveeranpatti area where about 20 percent of market arrivals are dried by commission agents. The charges for sun-drying, cleaning and assorting are usually about Rs. 4.00 per 175 kgs. The cost of kiln drying comes to about Rs. 25 p per kg. In the case of bleached cardamom, the bleaching costs vary from Rs. 1.25 to Rs. 4.50 per kg depending upon the quality. But for an average quality, the cost is roughly Rs. 2.60 per kg.

Storage :

4.68. Cardamom, being a costly agricultural commodity, generally receives due care during its storage at all levels.

Storage at planters' level : After drying and assortment, cardamoms are usually stored in gunny bags on well matted floors at the producers' residence. Whereas big estate owners retain the produce for about a month or so for better prices, the small growers often dispose their produce soon after harvest.

Storage in the primary markets : In all the primary assembling centres, cardamoms are stored in gunny bags in 'pucca' structures. The duration of storage varies from 3 weeks to 3 months. Normally no storage charges are levied for storage for short periods.

Storage in wholesale assembling markets : At the wholesale assembling markets, cardamoms are packed in gunny bags and stored in damp

proof dark rooms. Normally the period of storage does not exceed one month.

Transportation :

4.69. Cardamoms are moved to various destinations either as head loads, or by trucks, railway, boats and steamers. The small growers and also the itinerant merchants carry the produce to the market in head loads, as the quantity carried each time will be small. Where buses ply, the cardamoms are carried by buses also.

Motor trucks constitute a very important means of transport, particularly from assembling centres to the consuming wholesale markets. Almost all cardamom consignments from the assembling centres in Madurai district to Bombay are sent by lorries. Even for Delhi and other North Indian Markets, cardamom are moved by road and the rail movement has been declining despite the fact that truck-rates are $1\frac{1}{2}$ times the rail freight. Thus as against 7111 quintals moved from Bodinayakanur by rail in 1955, only 3003 quintals were moved in 1959.

All exports to foreign countries except Pakistan are made by sea. The important ports of shipment are Bombay, Mangalore and Cochin handling about 55 percent, 8 percent and 15 percent of the total exports respectively.

Inter-State Trade :

4.70. It is estimated that about 1460 tonnes or 48 percent of the average annual production of the country is consumed within the country. Of this, only about 2 percent is consumed in the cardamom producing states of South India and the rest is consumed in North India. So far as State-wise consumption is concerned, broadly it is estimated as under :—

Delhi and Uttar Pradesh	17 Percent
Gujarat, Maharashtra and Madhya Pradesh	20 „
Punjab	10 „
Bengal	10 „
Andhra Pradesh	13 „
Others	30 „
	100 „

4.71 The internal demand is mainly for the store green or kiln dried cardamom which account for about 92 percent of total Indian demand, the rest being for bleached cardamom. Nearly 40 percent of total production is moved to Bombay, out of which fairly large quantities are intended for export. The bulk of the total requirements of North Indian Markets are procured during the period September to March which synchronises with the harvesting period. The peak demand is during October to December when about 50 percent of the total despatches take place.

Exports :

4.72 In India's export trade, cardamom occupies the second place among spices, the first being pepper. The following are the export figures during the last ten years :—

<i>Year</i>	<i>Quantity (Tons)</i>	<i>Value (Rs. in lakhs)</i>
1953-54	900	137
1954-55	950	163
1955-56	1050	218
1956-57	800	164
1957-58	1100	250
1958-59	1700	357
1959-60	1700	328
1960-61	2000	367
1961-62	2300	358
1962-63	2222	267

Nearly 54 countries have been importing cardamom from India, the important among these being Saudi-Arabia, Sweden, Kuwait, the USSR, Bahrein, Finland Aden, Pakistan, and West Germany as under.

	<i>Value of exports of cardamom during 52-63. (Rs. in lakhs)</i>
1. Saudi Arabia	108.50
2. Sweden.	46.32
3. Kuwait.	38.58
4. U.S.S.R.	24.93
5. Bahrein.	22.44
6. Finland.	16.05
7. Aden.	9.06
8. West Germany.	8.99
9. Pakistan.	8.44

The exports of cardamom continue throughout the year. The first five months from April to August are usually lean months, but the tempo of exports increases from September to March. Cardamom is exported

through the ports of Bombay (54.7 percent) Cochin (15.2 percent), Mangalore (7.5 percent), Tuticorin (7.7 percent) and Madras (1.8 percent).

Distribution.

4.73 The chief wholesale distributing markets of cardamom are Bombay, Delhi, Amritsar, Kanpur, Calcutta and Agra. Among these, Bombay is the most important, accounting for 40 percent of total production. The wholesale merchants at the main assembling markets at Bodinayakanur, Vir dhunagar, Mangalore, Saklaspur and Haveri, after cleaning and assorting despatch the cardamom purchased by them to the important distributing markets such as Bombay, Delhi, Amritsar, Kanpur, Calcutta for sale generally on consignment basis. At these markets, some of the big firms at Bodinayakanur, Vir dhunagar and Saklaspur have their representatives to be in constant touch with the markets and supervise the sale of their principals. To the less important markets like Nagpur, Jabalpur, Patna, Allahabad, the despatches are made against firm orders on mutually agreed prices. The retailers buy their requirements usually on outright basis in small lots.

Price Spread.

4.74. Typical examples of price spread in respect of cardamom from the producer to the consumer gathered during the marketing survey conducted by the Agricultural Marketing Adviser are given below.

Marketing cost and Margins

Example No. 1 : *Marketing costs and margins in the marketing of superior quality of cardamoms weighing 50.8 Kgs. Badinayakanur to Bombay 1960.*

Particulars	Amount		Per cent	
	Rs.	Rs.		
1	2	3	4	5
I. Net sale proceeds received by the grower		1010.62		77.9
II. Marketing costs and charges incurred by the planters.				
1. Transportation costs from plantation to Bodinayakanur.		1.16		
2. Sales commission		4.57		
3. Other charges paid to the cardamom planters' Association.				

1	2	3	4	5
(i) Contribution @ Rs. 1.23 per hectare.	5.69			
(ii) Building fund @ Rs. 0.62 nP per hectare.				
(iii) Charity @ Rs. 0.28 per 10 kg. for education				
4. Cost of free allowance given to the buyer, samples, shortages etc. (0.7 kg. for 50.8 kgs.).	13.96			
Total charges met by the planters ..		25.38		1.9
III. Cost of 50.8 kg. of superior cardamoms @ Rs. 20.39 per kg. sold at Bodinayakanaur		1036.00		79.8
IV. (a) Expenses incurred by the merchant at Bodinayakanur :				
1. Purchase tax @ 2 percent	20.72			
2. Cleaning, cartage, sorting charges, etc. @ Re. 0.26 per kg.	13.26			
3. Cost of 2 gunnies along with other packing charges	3.50			
IV. (b) Transportation and handling costs to Bombay				
1. Lorry charge from Bodinayakanur to Madras including brokers' commission	3.82			
2. Madras to Bombay by express goods train	6.32			
IV. (c) Expenses at Bombay				
<i>At the time of arrival of the produce</i>				
(i) Cartage, cleaning, weighing charges, etc. at the commission agents' shop at Bombay	1.00			
(ii) Bankers discount at Bodi ..	1.00			
(iii) Insurance charges @ 12 P. ..	1.25			
(iv) Godown charge @ 25 P. per bundle per month	0.25			

	1	2	3	4	5
(v) Interest charges for Rs. 800 (advance payment) @ 0.62 per cent per month		5.00			
<i>At the time of sale</i>					
(vi) Less discount to buyers @ 1/2 per cent		5.74			
(vii) Discount to brokers @ 1 per cent		11.49			
(viii) Commission @ 1.5 per cent ..		17.25			
(ix) Postage and telegram charges ..		1.00			
Total cost incurred by Bodi merchant..		91.60			7.1
V. Net profit of Bodi, merchant.. ..		21.18			1.6
VI. Cost price to the retailer		1148.78	88.5		
VII. Retailers' cost and margin		149.34			11.5
VIII. Consumers' price		1298.12			100.0

Example No. 2: *Marketing costs and margins in the marketing of Rabin quality of cardamoms from Bodinayakanur to Bombay weighing 50.8 Kgs; 1960*

1. Net amount received by the grower ..		927.17			76.7
II. <i>Marketing costs and charges incurred by the planter—</i>					
1. Transportation from plantation to planter's godown at Bodi		1.50			
2. Transportation from godown to auction hall		0.25			
3. Sales commission @ Re. 0.09 per kg.		4.57			
4. Subscription to the planers @ Rs. 1.85 per hectare per year (Mem- bership fee Re. 1.23 and Building fund 0.62 P.)		4.27			
5. Charity for education @ Re. 0.28 per 10 kg.		1.42			
6. Cost of free allowances and samples to the merchants		12.82			
Total charges incurred by the planter		24.83			2.0
III. Cost of 50.8 kg. of cardamoms @ Rs. 18.74 per kg. sold at Bodinayakanur		952.00	78.7		

	1	2	3	4	5
IV. Expenses incurred by the trader					
1. Bagging, stitching, unloading, etc. ..		0.31			
2. Transportation to Virudhunagar ..		1.60			
3. Purchase tax @ 2 per cent.		19.04			
4. Garbling and sizing @ 7 P. per kg. . .		3.56			
5. Cost of gunnies, coir and packing ..		3.50			
6. Transportation charges by lorry from Virudhunagar to Bombay		11.50			
7. Insurance charges @ 25 P per Rs. 100.		2.38			
8. Bankers' discount		1.00			
9. Charges incurred by Virudhanagar trader at Bombay :					
(i) Unloading		0.25			
(ii) Weighing charges		0.06			
(iii) Discount to the buyer		4.72			
(iv) Commission		14.25			
(v) Brokerage @ 1 per cent		9.52			
(vi) Godown rent		0.25			
(vii) Interest @ 9 per cent on Rs. 750 advanced by the commission agent		6.75			
(viii) Incidental charges @ 12 P. per month		3.36			
(ix) Driage @ $\frac{1}{2}$ per cent		4.76			
Total charges incurred by the trader			86.81		7.2
Cost of 50.8 kg. of cardamom at Bombay			1,038.81	85.9	
V. Wholesalers' margin			13.80		1.1
VI. Sale price of cardamom @ Rs. 20.70 per kg.			1,051.61	87.0	
VII. Retailers' costs and margin			157.74		13.0
VIII. Price paid by the consumer.			1,209.35		100.0

Example No. 3 : *Marketing costs and margins in the marketing of medium quality of cardamoms weighing 50 Kg. from Bodinayakanur to Delhi, 1961.*

I. Net sale proceeds received by the growers	742.47	63.0
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	1	2	3	4	5
II. Expenses incurred by the Planter					
1. Transportation costs from plantation to Bodinayakanur		1.25			
2. Sales commission		4.50			
3. Other charges paid to the planters association		5.60			
4. Cost of free allowance (0.7 kg.) ..		10.44			
Total charges incurred by the planter			21.79		1.9
III. Cost of 50 kg. of medium quality of cardamom @ Rs. 13.28 per kg. ..					
			764.26	64.9	
IV. Expenses incurred by the trader at Bodinayakanur :					
1. Purchase tax		15.60			
2. Cartage @ Rs. 0.37 per bag		0.37			
3. Sorting and grading @ Rs. 0.26 kg.		13.00			
4. Driage and shortage during transit (2.6 kg.)		43.55			
5. Packing charges :					
(i) Cost of a bag		1.25			
(ii) Cost of 10 parcels @ Rs. 0.40 each		4.00			
(iii) Stitching charges of the bag ..		0.06			
(iv) Stitching charges of 10 parcels ..		0.30			
(v) Cost of colouring the stitchings of the bag		0.16	5.77		
6. Loading & cartage to the station @ Rs. 0.37 per bag			0.37		
			78.76		
<i>Expenses incurred on behalf of Bodi trader at Delhi</i>					
7. Railway freight, cartage, terminal tax		13.55			
8. Telegram charges		2.20			
9. Discount to the buyer		15.81			
10. Commission		9.30			
11. Dharmada		0.58			
12. Insurance		1.16			

	1	2	3	4	5
13. Labour charges		0.31			
14. Godown rent		0.81			
15. Postage, etc.		1.09			
16. Interest		3.00			
17. Commission @ Rs. 0.50 per Rs. 100 to the Supervising Agent at Delhi ..		4.66			
18. Brokerage @ 1 per cent		9.32			
		61.79			
Total ..		61.79			
Less rebate & Rs.0.35 per bag ..		00.35			
		61.44			
		140.10			
Total charges incurred ..		140.10		11.9	
V. Margin of the Bodinayakanur trader ..		27.69		2.3	
VI. Cost paid by the buyer at Delhi ..		932.05		79.1	
VII. <i>Charges incurred on behalf of the mofussil buyers:</i>					
1. Nawan (Commission from the buyer)		18.64			
2. Gaushala @ Rs. 0.05 per Rs. 100 ..		0.47			
3. Commission paid to the buying adatia @ 1.25 per cent		11.65			
4. Cost of a bag		0.35			
5. Carriage and loading expenses ..		0.50			
6. Transportation from Delhi to neigh, bouring cities including octroi @ Rs. 5.52 per bag		5.52			
7. Sales tax @ 1 per cent		9.69			
8. Unloading charges		0.06			
		46.88			
Total charges incurred ..		46.88		4.0	
VIII. Margin of the wholesaler		31.32		2.7	
IX. Price paid by the retailers		1,010.25		85.8	
X. Expenses and margin of the retailers		167.43		14.2	
XI. Price paid by the consumer ..		1,177.68		100.0	
Example No. 4 : <i>Marketing costs and margins in the marketing of 4 packets of cardamoms weighing 14.1 Kg. each from Bodinayakanur to Calcutta, 1960.</i>					
I. Net return of the planter ..		1,118.98		75.0	

	1	2	3	4	5
II. Marketing costs and charges paid by the planters at Bodinayakanur :					
1. Cartage from plantation to auction centre		1.11			
2. Charges paid to the planters association.					
(i) Commission @ 9 nP. per kg. ..		5.08			
(ii) Contribution to Building, charity fund, membership etc.		6.32			
3. Value of free allowance in kind @ 1 per cent plus shortages in sampling etc.		15.51			
Total charges met by the planter ..			28.02		1.9
III. Cost of 56.4 kg. auctioned @ Rs. 20.34 per kg.		1,147.00		76.9	
IV. 1 Expenses incurred by the trader at Bodinayakanur:					
(i) Purchase tax @ 2 per cent		22.94			
(ii) Cartage, sorting, grading etc. ..		15.50			
(iii) Packing charges.. .. .		4.63			
2. Transportation from Bodinayakanur to Calcutta:					
(i) Lorry charges up to Madras.. ..		3.82			
(ii) Madras to Calcutta by express goods train		9.13			
(iii) Unloading, cartage, cleaning etc. at Calcutta		1.00			
3. Sales expenses at Calcutta					
(i) Charity @ 0.09 per cent		1.17			
(ii) Insurance @ 0.12 per cent		1.56			
(iii) Brokers commission @ Rs. 0.12 per 0.9 kg.		7.29			
(iv) Godown rent		0.25			
(v) Weighing charges		0.25			
(vi) Interest on money advanced ..		6.25			
(vii) Sales commission		25.28			
(viii) Post and telegram charges etc. .		1.00			
(ix) Bank charges at Bodi ..		1.25			
Total charges incurred by the merchant at Bodinayakanur ..			101.26		6.8

	1	2	3	4	5
V. Net profit of the Bodi trader			47.71		3.2
VI. Cost price to the retailer			1295.97		86.9
VII. Cost and margin of the retailer			195.40		13.1
VIII. Price paid by the consumer			1,491.37		100.0

Example No. 5: *Marketing costs and margins in the marketing of medium quality of cardamoms from Pattiveeranpatti to Madurai weighing 45.4 kg., 1958.*

I. Net amount received by the planter ..	851.10				77.4
II. Charges incurred by the itinerant merchant at Pattiveeranpatti:					
1. Cartage for 45.4 kg. from plantation to auction centre		2.10			
2. Commission @ 1 per cent		8.67			
3. Cost of samples, shortages, etc. ..		4.38			
Total Charges incurred			15.15		1.4
III. Cost of 100 lbs. (45.4 kg.) of cardamom purchased at Pattiveeranpatti @ Rs. 19.29 per kg. of medium quality (with 1 per cent free allowances)			866.25	78.8	
IV. Charges incurred by the wholesaler					
1. Purchase tax @ 2 per cent		17.33			
2. Weighing and stitching charges ..		0.25			
3. Depreciation for the gunny used ..		0.50			
4. Transportation from Pattiveeranpatti to Madurai :					
(i) Lorry charges		1.57			
(ii) Cartage		0.25			
Total charges incurred			19.90		1.8
V. Cost to the wholesaler at Madurai ..		886.15		80.6	
VI. Margin of the wholesaler			13.85		1.2
VII. Cost realised by the first wholesaler selling it to the Katchathukadai (Semi wholesaler) @ Rs. 19.84 per kg			900.00	81.8	
1. Expenses met by the second wholesaler			0.25		
2. Margin of the semi wholesaler ..			36.75		3.4
VIII. Value realised by the second wholesaler after sale to retail shops ..			937.00	85.2	
IX. Expenses incurred by the retailer:					
1. Cartage met by retailer		0.25			
2. Sales tax incurred by the retailer ..		22.00			
X. Margin of the retailer		140.75	163.00		14.8
XI. Consumers' price			1,100.00		100.0

The share of the various agencies are indicated in the summary table, on the next page

PRICE SPREAD OF CARDAMOM

Example No.	1	2	3	4	5	6	7	8	9
From :—	Badinoya kanur	Bodinaya kanur	Bodinaya kanur	Bodinaya kanur	Pattiveer anpatti	Saklespur	Saklespur	Saklespur	—
To	Bombay	Bombay	Delhi and moffusil towns.	to Calcutta	Madurai	Calcutta	Nagpur	Hyderabad	Average
Variety	Superior	Robin	Medium	—	Medium	Superior	Rashi	Rashi	of all examples
Approximate distance for the assembling centre to the con- suming centre.	2100 km.	2100 km.	3000 km.	2200 km	100 km.	2200 km.	1500 km	900 km	
Agency through which the pro- duce was sold by the producer.	Planters' Assn.	Planters' Assn.	Planters' Assn.	Planters' Assn.	Coop. Mktg Society	Itinerant merchants (through regulated markets)	Itinerant merchant (through regulated market)	Regulated market	
1. Net share of the producer at the farm.	77.9	76.7	53.0	75.0	77.4	67.6	76.3	68.3	72.8
2. Marketing expenses incurred in the assembling market i.e. market cess, toll and taxes contribution to the Planters' Association, Commission, Carting, handling, weightment, packing, garbling and beaching, storage,									

	1	2	3	4	5	6	7	8	9
charity, sweeping, discount etc.	4.8	4.5	8.6	4.8	3.0	5.5	5.0	4.7	5.1
3. Transportation charges from the whole assembling market to the consuming market.	0.8	1.1	1.6	0.9	0.2	2.0	3.0	2.2	1.5
4. Distribution cost in the consuming market i.e. handling, weighing, sales tax, brokerage, commission, storage, Insurance, Interest, charity, Muddat etc.	3.4	3.6	7.6	3.0	Neg.	4.5	4.9	1.3	3.5
5. Wholesaler's margin.	1.6	1.1	5.0	3.2	4.6	5.4	1.6	3.0	3.2
6. Retailer's cost and margin.	11.5	13.0	14.2	13.1	14.8	15.0	9.2	20.5	13.9
7. Consumers' price.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

4.75. It will be observed from the table that the producers' share in the price paid by the consumer varies from 68 percent to 77.9 percent, the average being 72.8 percent. The marketing costs at the assembling centres absorb, on an average, about 5 percent, while transport costs absorb about 1.5 percent. The distribution costs in the consuming markets account for about 3.5 percent, while the wholesalers' margin is between 2 to 5 percent. Since cardamom is a costly commodity and is sold usually in small quantities resulting in very little turnover, the retailers keep a fairly wide margin ranging from 9 to 15 percent.

Trend of price.

4.76 The wholesale prices of cardamom prevailing at the two important assembling wholesale markets at Bodinayakanur and Saklaspur since 1950-51 are indicated below.

<i>Year</i>	<i>Markets</i>	
	Bodinayakanur	Saklaspur
	(Rs. per kg).	
1950-51	26.26	29.28
1955-56	18.52	20.53
1956-57	21.54	20.53
1957-58	20.99	19.55
1958-59	19.72	19.53
1959-60	20.58	20.90
1960-61	18.36	17.95
1961-62	14.83	N.A.

4.77. From 1955-56, the prices have been fairly steady except in 1961-62 and 1962-63, when there was a steep fall due to bumper crop and large carryover. Generally, the prices improve in August, due, it is reported to the consumers' preference for fresh arrivals. Thereafter the prices register a fall till November, which is a peak period for cardamom arrivals. Later prices improve and stay at a high level till next August. In the wholesale coming markets, the marketing season starts in September and the seasonal price fluctuations are not so marked in these markets.

Market intelligence :

4.78. The present position in regard to market intelligence regarding cardamom in the producing States is as under :—

Madras State : The weekly/daily cardamom prices, and arrivals at different assembling centres and wholesale prices prevailing in the important consuming markets as well as the weekly prices and arrivals at the assembling centres in Kerala are collected by the State Marketing Department and disseminated through journals, newspapers and Radio.

Mysore State : The wholesale prices, arrivals, etc. are collected at the assembling centres at Saklaspur, Mangalore and Sirsi by the State Marketing Department and disseminated through journals and the Radio.

Kerala State : The rates are collected by the State Marketing Department and disseminated through the Radio and newspapers.

CASHEWNUT

Assembling :

4.79 Cashewnut is produced in very small holdings, each cultivator often owning not more than a few trees. The outturn available for sale with an average farmer will be only a few pounds. The majority of these small producers do not find it worthwhile to take their produce to large assembling markets or factories for sale. A major portion of the crop is, therefore, collected by itinerant dealers, who, during the marketing season, go about from house to house in the main producing areas and collect the produce. A small quantity of the nuts is disposed of by the farmers themselves at the primary markets (shandys, etc.), mostly on barter, where also the itinerant merchants operate and collect the produce from the producers.

4.80. During the marketing season, a number of wholesale merchants and various processing factories also open their depots in important producing areas for collecting nuts direct from farms. Besides direct purchases, a large quantity of nuts assembled by petty-dealers from farms and shandys (hats) is also disposed of at such depots. Cashewnuts are brought for sale to the large assembling markets mostly by the itinerant traders. In these markets, the nuts are handled by wholesale merchants and the depots of factories.

Market functionaries.

4.81. The market functionaries in respect of cashewnut are (i) itinerant merchants, (ii) wholesale merchants/commission agents, and (iii) processing factories/exporters.

As stated earlier, the itinerant merchants collect the raw-nuts from the producers, both from the farms and at the 'hats' and bring them to the assembling markets for sale during the marketing season. In these markets, nuts are handled by the wholesale merchants who deal in other agricultural produce, either on their own account or as commission agents of processing factories. A very large proportion of the quantities purchased by merchants is passed on to the factories "after drying, etc.. This is done either direct or through brokers or the local agents of the factories concerned. Only a few merchants keep stocks for sale during the off season and such quantities usually do not exceed 5 percent of the total crop.

4.82. The production of cashewnut kernels from the west coast factories is mostly exported to foreign countries by the factories themselves or through commission agents at Bombay and the remaining quantities are distributed mainly through Bombay to other States of Northern India through the wholesale merchants and commission agents at Bombay.

The kernels produced in East coast factories are almost entirely consumed within the country.

Regulated Markets :

4.83. There are no regulated markets for marketing of cashewnut at present and much of the produce is sold at the village level only.

Market practices :

4.84. During the harvesting season, the itinerant traders or their agents collect the produce from the growers at their houses, often once a week on fixed days, paying the market rates and after deducting the advances, if any, given earlier. Most of the growers take advances from these traders against the anticipated crop. In many cases, these itinerants take the trees on outright lease from the growers even at the flowering stage for fixed sums, often much below the value of the expected produce. It is said that the producer generally prefers such lease, notwithstanding the low return, mainly for the following considerations, viz :-

- (i) want of immediate finance for his needs ;
- (ii) the cashew trees are generally grown in far off places in the forest areas or the outskirts of the village and there is likelihood of pilferage of raw nuts and it is not practicable nor economic for the producer to keep watchmen, or to pluck the nuts in such far off places and transport them, in view of the smallness of the holdings ;
- (iii) The cost of maintaining cashew trees is very small and, therefore, the grower is satisfied with whatever he gets from them.

Such lease is called 'Pattam' system. The trader, being an expert, always undervalues the crop. Because of the large number of trees involved, it is profitable for him to employ watchmen to prevent pilferage and also to pluck the nuts regularly.

4.85. The itinerant traders, in turn, sell the raw nuts to the processing factories/wholesalers at the assembling markets. The growers or the itinerants do not process the nuts but sell only the raw nuts. In the west coast, a majority of the nuts is purchased by two big processing firms viz M/s. Pierce Leslie & Co. and M/s. Thanga Kunji Musaliar & Sons through their itinerant trader-agents. These traders are paid by these processing firms, a commission of Rupee one per bag of raw nuts collected by them. These processing factories also advance moneys to the itinerant traders, who in turn advance them to the producers much before the harvesting season.

Payment of sale proceeds :

4.86. As mentioned earlier, the itinerant traders often make advances much before the harvest. The raw nuts are purchased by them at the prevailing market rates and after deducting the advances, the sale proceeds are paid immediately. The itinerants, in turn, sell the nuts to the wholesalers/processing factories and payment is made soon after delivery is effected.

Market charges :

4.87. As almost the entire production is marketed at the village level, no market charges as such are levied on the produce. The processed cashew kernels are also mostly exported or sent to wholesale distributors directly by the processing factories themselves,

Marketing malpractices :

4.88 Under the 'pattam' system of lease, the producers get only a fraction of the value of the produce. The itinerant merchants and the brokers almost dictate the price to the purchasers but very little of this benefit is passed to the producer. According to the Spices Enquiry Committee, the margin of the itinerant traders varies from 10-20 percent of the value of the produce. The prices paid by the itinerants are usually based on measures or counts instead of on weight as is the general practice in wholesale markets.

By-products

4.89 The main by-products of the cashew industry are (i) cashew apples, (ii) shells, (iii) shell oil, and (iv) peels. Excepting shell oil, the other products are only partially utilised at present.

Cashew apples : The cashew apples can be used both as a vegetable and a fruit. Their juice is particularly rich in sugar and can be boiled into syrup or used for preparing liquor or vinegar. The actual consumption of the cashew apples is, however, confined to producing areas and may not exceed 15 percent of the total production. The reasons for this are (i) due to their poor keeping quality and consequent transportation difficulties, and (ii) due to harvesting of un-ripe fruits which tastes bitter.

Shells : The shells, which form 70 to 72 percent of the weight of nuts, are used as fuel by the processing factories.

Shell oil : The oil content of shells is estimated at 15 to 30 percent by weight. The actual recovery of oil ranges from 2 percent in the case of nuts roasted in rotary cylinders to about 15 percent in the case of nuts processed in oil baths. In India, Shell oil is used mostly by fishermen as a preservative for their boats. In U.S.A. and other countries, it is used for preparation of various kinds of varnishes, elastics, insulating coatings, inks, etc.. During 1963, 8450 tonnes of shell oil valued at Rs. 104 lakhs were exported from the country.

Peels : Peels generally form about 12 percent of the weight of kernels. A major portion of peels is used as fuel, though it could, with advantage, be used as a feed for poultry.

Storage :

4.90 As stated earlier, the producers generally market the raw nuts soon after the harvest. The itinerant merchants too dispose of their stock in the primary markets during the season itself. The processing factories purchase their annual requirements and store them in their godowns.

Transportation :

4.91 The itinerant merchants or their agents collect the nuts from the producers and transport them to the assembling markets either through bullock carts or buses or lorries depending on the quantity. The process-

ing factories who purchase their requirements transport the produce in lorries, etc.. After processing the kernels are sent by sea to foreign markets and by rail road, for internal distribution.

Inter-state trade :

4.92 Due to their comparatively high prices, the consumption of cashew kernels is mostly confined to the well to do classes in cities and towns. The main source of supplies are east and west coast regions. The production from the west coast factories is distributed mainly through Bombay to other States of Northern India, particularly, Delhi, Punjab, Rajasthan and Madhya Pradesh. The kernels produced in the East coast districts are despatched to Orissa, West Bengal, Assam, Bihar and Uttar Pradesh. No reliable data is, however, available to indicate the demand or trend of internal trade.

Import & Exports :

4.93 The production of raw cashew nuts in India is far short of the capacity of the existing processing factories in the country, with the result, substantial quantities of raw nuts are imported from East Africa. These raw nuts are processed into kernels in the local factories and exported.

The following quantities of raw nuts were imported mostly from Mozambique, Tanganika and Kenya during the period 1958-62.

	Quantity Tonnes.	Value Rs. in lakhs.
1958	122247	N.A.
1959	91763	606.90
1960	99631	823.00
1961	127202	935.41
1962	131108	775.24

Bulk of the cashew kernels processed in India is exported to the foreign markets. Over 60 percent of the kernels are exported to U.S.A. which is our largest consumer. The exports during the years 1957-62 were as under :—

	Quantity Tonnes.	Value Rs. in lakhs
1957	34576	1473.06
1958	39672	1547.02
1959	38172	1518.26
1960	39436	1846.61
1961	41191	1870.62
1962	46436	1851.51

It may be seen that cashew kernels alone earn a foreign exchange of over Rs. 18 crores annually.

Distribution :

4.94 The main distributing markets for cashew kernels in India are Bombay, Calcutta, Kanpur, Delhi, Indore, Nagpur, Ahmedabad, Belgaum, Hyderabad and Bangalore. Wholesale merchants, who deal in other dry fruits, spices and other articles in these markets, obtain their requirements generally direct from the factories. The retail distribution is carried out mainly by provision merchants, fruit-sellers, restaurants, hotels, coffee-Houses and Sweet-meat shops. Generally retail prices are 10 to 25 percent higher than the wholesale ones.

Price spreads :

4.95 The price spread between the producers and consumers prices in three typical cases in Kerala, Madras and Maharashtra States (as furnished by the State Marketing Officers) are furnished below :—

KERALA

(c) Cashew (raw). (1 Quintal.)

Price at the garden at Kilikavoor or the purchasing price of village merchants. Rs. 35.00

Transporting charges to the godowns of the wholesaler at Quilon. 2.00

Profit of the village merchant. 3.00

Selling price of the village merchant or purchasing price of wholesaler. 40.00

Profit of the wholesaler. 2.00

Other expenditures like gunnies, etc., 1.00

Selling price of wholesaler or the purchasing price of factory owners. 43.00

i.e. the producer gets Rs. 35/- per quintal of raw cashew, while the factory pays Rs. 43 per quintal.

(Source : State Marketing Officer, Kerala.)

MADRAS

- | | |
|---|-------------------------------|
| 1. Price paid to producer for raw nuts | Rs. 50.00 per 75 Kg. of nuts. |
| 2. Transporting charges from village to Panruty | Rs. 1.00 ,, |
| 3. Commission for broker paid by merchant | Rs. 0.25 ,, |

4. Grading charges (including processing)	Rs. 10.25	Kg.
5. Weighment charges	Rs. 0.25	„
Cost price for wholesaler	Total Rs. 61.75	„
1. Cost price for wholesaler	Rs. 61.75	„
2. Salestax	Rs. 0.50	„
3. Wholesaler's profit	Rs. 0.40	„
4. Transport charges from one godown to another	Rs. 0.12	„
5. Retailer's profit	Rs. 0.75	„
Retailers sale price for 75 Kg. of nuts or 16.5 Kg. of kernels	Rs. 63.52	
Consumers rate per Kg. of Kernel	Rs. 3.85	

(Source : State Marketing Officer, Madras.)

MAHARASHTRA

Sale of cashew kernel at Bombay market by the Cooperative Cashew Processing Factory at Vengurla (October 1962)

Particulars	Amount	Percentage	Percentage
1	2	3	4
(1) Consumer Retail market			
Sale price of 4150 lbs. @ Rs. 3.00 per lb.	12450	100	
(i) Expenses of hamali, transport, godown rent, insurance, interest, establishment, expenditure etc.	2364.93	19	
(ii) Margin of profit	1576.62	12.66	
Total	3941.55	31.66	31.66

(2) Wholesale market

(i) Sale of 83 cases of 50 lbs. each i.e. Rs. 2.05 p. per lb.	8508.45
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	1	2	3	4
(ii) Freight for 83 cases @ Rs. 1.50 each		124.50	1.00	
(iii) Town duty @ Rs. 6.25 per case		518.75	4.17	
(iv) Stamping @ Rs. 10 p. per case		8.30	.07	
(v) Other charges @ 0.15 p. per case		12.45	0.10	
Selling charges :				
(i) Commission @ 1.50 percent		127.62	1.03	
(ii) Vatav @ 1.50 percent		127.62	1.03	
(iii) Hamali 0.31 p. per case		25.73	0.21	
(iv) Insurance on value @ 0.25 p. per Rs. 100		21.27	0.17	
(v) Extra 6 p. per case		4.98	.05	
(vi) Postage		2.00		
(vii) Godown rent @ 0.50 p. per case		42.25	0.33	
		1015.47	8.16	8.16
3. Expenses at Vengurla				
(i) Processing cost @ Rs. 12.10 p. per bag for 109 bags		1318.90		
(ii) Hamali for loading etc.		5.19		
		1324.09	10.63	
(iii) Margin of profit earned		282.89	2.27	
		1606.98	12.90	12.90
(iv) Purchase of produce from the producers @ Rs. 54.00 per bag of 75 Kgs. for 109 bags.		5886.00	47.28	47.28

Note (A) Retail prices as those of Bombay Market.

(B) Seed prices are those at which seeds were purchased by a Co-operative Processing Factory at Vengurla.

(Source : State Marketing Officer, Maharashtra)

Trend of price :

4.96 The average value of cashew nut kernels exported from the the country during the period from 1958-59 to 1962-63 are as under :—

	Average value per quintal Rs.
1958-59	386.50
1959-60	413.80
1960-61	433.50
1961-62	435.20
1962-63	398.70
Average	413.50

(Source : Marketing News letter (February, 1964)
published by A.M.A.)

It may be seen from the above that there have been no wide fluctuations in the export prices of cashewnut kernels.

Market intelligence :

4.97 Unlike in the case of other plantation crops, there are no arrangements at present for dissemination of market intelligence to the cashew producers. The various export journals, etc. are only of help to the traders.

Grading :

4.98 Cashew raw nuts are not graded either at the village or secondary markets. Cashew kernel alone is graded by the processing factories according to different grades recognised by the trade. The kernels are sorted as wholes and splits and then according to different counts per pound. The producer do not, therefore, derive any benefit by such grading.

PEPPER**Assembling :**

4.99 The large scale cultivation of pepper is mainly confined to the Kerala State. To a certain extent, the crop is grown in parts of Madras and Mysore also. The main assembling markets are at Alleppey, Cochin, Calicut and Tellichery in Kerala State. While production of pepper is concentrated in the foot-hills of the ghats, the markets are on the coastal towns located within 50 to 100 miles of the producing areas. As stated earlier, the producers themselves dry the pepper and clean them before bringing them to the market. In the interior markets situated within a

radius of 3 to 10 miles from the producing villages, pepper is sold in small lots of 5 to 10 lbs. It is generally carried to the market by the producers themselves and sold to village merchants on cash basis. Big producers, however, take their produce direct to the assembling markets. When the village merchant assembles a sizeable quantity, he takes the pepper to the assembling (secondary) markets for delivery to the wholesalers.

Market functionaries :

4.100. The market functionaries in respect of pepper are mainly (i) the village or itinerant merchants at the primary market, (ii) wholesale merchants at secondary markets, (iii) commission agents at terminal markets, and (iv) exporters at terminal markets.

The village merchants purchase pepper from the producers and sell to the wholesalers, who in turn, sell to the exporters through commission agents.

Regulated markets :

4.101. There are no regulated markets for pepper in Kerala State; while in Mysore State, the markets at Sirsi, Siddapur and Sagar only are regulated markets for pepper.

Market practices :

4.102. In the interior primary markets, the producers bring small head-loads of 5 to 10 lbs. and sell to the village merchants who buy the whole lot on payment of cash. When a sizeable quantity is assembled, the village merchant transports it to the secondary markets like Palai, Kottayam, etc., for sale to the wholesalers. The wholesaler in turn sells the produce to the exporters at the terminal markets at Alleppey and Cochin, through commission agents located in these markets. These commission agents keep the produce in their godowns and arrange sales to the exporters. They charge a commission of 5 paise per .kg. i.e. about 2 percent. All sales of pepper are made for cash only.

In Mysore State, pepper is sold in open auction in the regulated markets through commission agents or cooperative societies.

Payment of sale proceeds :

4.103. The village merchants buy pepper from the producers on payment of cash. The wholesalers in turn pay cash to the village merchants soon after the sale. There is no delay in payment of sale proceeds even at the terminal markets.

Market charges :

4.104. In Kerala, no market charges as such are levied in respect of trade in pepper. The commission agents, however, charge commission of about 2 per cent on sales at the terminal markets. The charges for transportation, labour, etc. are met by the merchants from their margin in the price.

In the regulated markets in Mysore State, however, the following charges are levied.

	(Rs.)			
	<i>Shimoga</i>	<i>Sagar</i>	<i>Sirsi and Siddapur</i>	<i>Mangalore</i>
Market cess per bag	0.13	0.25	0.20	—
Hamali charges, weighment charges.	0.09	0.09	0.25 (per qtl.)	—
Commission (per Rs. 100).	1.56	1.56	1.00	2 to 2.50
Godown charges per bag.	0.06	0.06	0.01½	—
Stacking per bag	—	—	0.01	—
Cleaning charges	—	—	0.15 (per qtl.)	—

Marketing malpractices :

4.105 At the villages, although no market charges are levied in Kerala, deductions for charity, loss of weight, allowances for quality, etc. are invariably made by the village merchants. The units of weight adopted in the village transactions are not also uniform. In the village markets, the unit of sale is 10.5 kg. called 'Tulam'. In secondary markets, the unit is 'Tulam' for small lots and 'Candy' of 315 kg. for bigger lots, while at the terminal markets, it is a 'Candy' of 307.5 kgs.. The unit for export, etc. is 300 kg.. Thus there is a difference of 15 kg. which is retained by the merchants at secondary and terminal markets. At the assembling markets, besides commission, other marketing charges payable by the seller are for brokerage, weighment and charity.

Processing costs :

4.106 The method of processing of pepper is very easy and does not involve much expenditure. The producers themselves process the pepper which requires only drying and cleaning.

Storage :

4.107 Pepper is generally immune to the attack of insects. Storage of pepper takes place at many stages, viz. at farm, assembling centre, terminal market, etc.. Since the quantity produced by each producer will necessarily be less, it is normally stored in bags or in pots. In markets and ports, pepper is stored in gunny bags in well ventilated godowns free from dampness, as the presence of moisture induces mould formation and consequent insect infestation,

Transportation :

4.108 Pepper is transported by the producer to the village market by head-loads and sometimes it is sent along with other commodities by bullock carts or lorries. From the village markets to the assembling markets, pepper is carried in bullock-carts or lorries. When it has to be sent to the terminal markets, pepper is sent by railway or lorries and also through coastal steamers from Alleppey and Cochin.

Inter-State Trade :

4.109 The bulk of the pepper grown in India is exported to foreign countries. Thus, as against the total production of about 25800 tonnes, as much as 21600 tonnes were exported during 1961-62. Thus only about 4200 tonnes were retained for internal consumption. The Spices Enquiry Committee estimated that the internal consumption of pepper in various parts of the country was 5,000 tons in 1951-52 against the pre-war utilisation of 9,000 tons as under :

<i>State</i>	<i>Pre-war utilisation (Tons)</i>	<i>Post-war (1951-52) utilisation (Tons)</i>
Madras	1640	800
Mysore	200	100
Bombay	320	600
Madhya Pradesh	150	100
Delhi and Punjab	335	800
Uttar Pradesh	800	600
West Bengal	3430	1000
Assam	600	300
Orissa	150	100
Others	1380	600
Total	9000	5000

It may be seen that about 50 percent of the internal consumption is accounted for by the States of West Bengal, Madras, Delhi and Punjab. The main source of supply in all internal markets is Kerala State and bulk of the produce is despatched from Alleppey and Cochin markets. Calcutta is a main distributing centre for the northern States, while quantities moved to Bombay are mostly for re-exports to foreign markets. The internal trade is at present largely in the hands of private trade.

Export :

4.110 As already stated, pepper is the most important dollar earning spice crop of India. The following are the export figures of pepper during the last five years.

<i>Year</i>	<i>Quantity (Tonnes)</i>	<i>Value (Rs. in lakhs)</i>
1958-59	11655	245.92
1959-60	20659	817.40
1960-61	17202	849.66
1961-62	21620	807.70
1962-63	20868	657.06

Pepper alone accounted for 47 percent of the total export earnings from all spices during 1962-63. U.S.A. is the world's largest consumer of pepper ; out of the estimated world consumption of 59,100 tons for 1960, as much as 17,000 tons or nearly 30 percent were consumed in U.S.A. During 1961-62, 8,961 tonnes of Indian pepper (i.e 42 percent of total exports) valued at Rs. 326.70 lakhs were exported to U.S.A. while 2,781 tonnes valued at Rs. 120.70 lakhs were exported to U.S.S.R. While India's share in pepper exports of various countries to U.S.A. (in terms of value) during 1957 to 1959 was 38, 21 and 19 percent respectively, Indonesia's share increased from 39 percent in 1957 to 67 and 78 percent in 1958 and 1959 respectively. The stiff competition from Indonesia seems to be due to her comparative low price, though Indian pepper is considered superior to other black pepper in the world market.

Distribution :

4.111 While pepper for export is handled mostly by the exporters at Alleppey and Cochin, distribution for internal markets is undertaken by a host of wholesale distributors and retailers at various consuming centres.

Price spread :

4.112 It has been estimated by the State Marketing Officer, Kerala that there is a price spread of Rs. 50 per quintal of pepper between the price of pepper at the Nedumangad secondary market and the price paid by the exporter at the terminal market at Alleppey as under :—

	<i>Rs.</i>
1. Price of one quintal of pepper in Nedumangad market paid to the producer or seller.	250.00
2. Transport charges to the godowns and drying charges.	15.00
3. Weighing and bagging charges.	0.50

	<i>Rs.</i>
4. Lorry transport charges to Alleppey.	5.00
5. Commission charges.	5.00
6. Other expenditure at port.	2.00
7. Profit of wholesaler.	22.50
	<hr/>
Selling price of wholesaler to the exporter at Alleppey.	.00.00
	<hr/>

The details of price spread between the village market and the secondary market are not available. It was, however, informed that in terms of price there is not much difference except for the margin to cover transport costs, profit for the village trader, etc. but that the producer is deprived in other forms like extra quantity for driage, discount for dust, lights, etc. and also false weights.

Trend of prices :

4.113 One of the major problems facing the spices cultivator is the unsteady price prevalent for his product. The internal and external prices of major spices like black pepper, cardamom and dry ginger have been indicating an unsteady trend. The prices have shown erratic and unpredictable fluctuations, with the result the grower is kept guessing whether to augment production or restrict cultivation of the crops. The following figures will show the price trend in respect of pepper in the major producing State of Kerala for the past few years.

<i>Year</i>	<i>(Unit : Rs. per Metric Tonne) Cost of Black pepper.</i>
1951-52	11150
1952-53	10710
1953-54	6360
1954-55	3590
1955-56	3590
1956-57	2140
1957-58	1900
1958-59	1980
1959-60	4240
1960-61	4250
1961-62	3330

Market intelligence :

4.114 In Kerala and Mysore, which are the main pepper producing States, market intelligence is disseminated by the State Marketing departments through Radio, newspapers, etc. so that the producers and others may know the rates prevailing at the terminal markets.

DRY GINGER

Assembling :

4.115 The most important ginger growing area in India is the Kerala State and the preparation of dry ginger, which enters commerce, is also mostly confined to this area. Ginger is also grown to a large extent in Himachal Pradesh, Assam and West Bengal, but in these States, ginger is sold in its green form mostly due to lack of drying facilities. The main assembling markets for dry ginger are Alleppey, Cochin and Calicut in Kerala State. The arrivals at Alleppey, which are mostly the produce of Palai and Ponkunnam, while the produce arriving at Cochin is mostly obtained from neighbouring areas. The produce of Malabar district is assembled at Calicut. The arrivals in these markets take place mainly during the months of January to March which is the main marketing season for the crop. As the produce cannot be stored for long, it is exported immediately, depending on the demand and availability of shipping space.

4.116 The agencies engaged in the marketing of pepper carry on the trade in ginger also. After converting the green ginger into commercial dry product, the producers themselves carry small lots to the interior markets and make outright sale to the village merchants. When sufficient quantities are accumulated, these village merchants transport them to the assembling markets and sell to the commission agents from whom the shippers and exporters buy and export. These assembling markets also function as distribution markets. In Himachal Pradesh, green ginger is collected by the mule-owner-cum-traders.

4.117 In Himachal Pradesh and Assam, however, a major portion of the crop is sold as green ginger only due to lack of drying facilities. Transport from the interior hilly villages to the assembling markets is another problem in these States and as such large quantities are consumed by the producers themselves in the green form.

Market functionaries :

4.118 The market functionaries in respect of ginger are the village merchants, commission agents and the wholesalers/exporters. The village merchants, after accumulating sufficient stocks, take the produce to the commission agents at the assembling markets. The ginger trade is mostly in the hands of the commission agents. The wholesalers/exporters buy ginger from the commission agents and export. The exports of dry ginger to the overseas markets take place through the ports of Bombay and Madras, mostly from the Bombay port. In Himachal Pradesh, the mule owners cum traders collect the green ginger from the producers in interior areas and bring it to the assembling markets for sale.

Regulated markets :

4.119 There are no regulated markets for ginger.

Market practices :

4.120 The producers generally make an outright sale to the village merchants who take the stocks to the commission agents. The commission

agents at the assembling markets store in their godowns, free of charge, the stocks brought by the village merchants. They advance loans to the village merchants upto 75 percent of the market value of the produce at interest ranging from 9 to 12 percent. In addition, they make other deductions from the final sale proceeds on account of (i) discount on sale, (ii) commission, (iii) brokerage, (iv) charity, and (v) miscellaneous expenses. The Spices Enquiry Committee estimated that these deductions worked out to nearly 20 percent of the market value of the produce. The village merchants thus realise 80 percent of the value of the market price. The incidental expenses on transporting the produce to the assembling markets are generally borne by the villager merchants, but in actual practice they indirectly realise the same from the producers by manipulating weights, unauthorised deductions on account of dust, refraction, etc.. The produce changes hands atleast 3 or 4 times before reaching the consumer and with each change the margin to the producers is reduced.

Payment of proceeds :

4.121 After converting the green ginger into dry product, the producers carry small lots to the interior markets and make outright sales to the village merchants. The village merchants in turn sell the produce through the commission agents at the assembling markets, who often advance them loans upto 75 percent of the value of the produce pending final sale of their produce. The produce is finally sold to the wholesalers/exporters.

Market charges :

4.122 The village merchants usually deduct about 4 to 6 percent of the weight of the produce on account of dust, refraction etc. before purchasing from the producers. Besides this, they also manipulate the weights. At the assembling markets, the Spices Enquiry Committee estimated that the deductions made by commission agents on account of commission, discount, brokerage, charity, etc. worked out to nearly 20 percent of the market value of the produce.

Marketing malpractices :

4.123 As stated earlier, manipulation of weights, unauthorised deductions on account of dust, etc. at the village level and the exorbitant commission, brokerage, etc. charges levied by the commission agents at assembling markets are the main malpractices in ginger trade.

Processing units :

4.124 The processing of ginger in Kerala is done mostly by the producers themselves, as no elaborate machinery or material are required and the processing consists mostly of sun-drying and to some extent bleaching. But in Himachal Pradesh, Assam and West Bengal, where also ginger is grown in abundance, because of the inclement weather there, it is not possible to process ginger through sun-drying. No mechanical aids to facilitate drying are available. As a result, a major portion of the produce is consumed locally in raw form by the producers themselves, since transport is another bottleneck in these parts, because of the inaccessible hilly areas, where ginger is mostly grown.

Storage :

4.125 Green ginger cannot be kept for long and, therefore, it is sold soon after harvest. Even dry ginger deteriorates in storage in 5 to 6 months. The producers, as a rule, sell the produce soon after harvest and drying. It is only the wholesalers/exporters who store the ginger for a few months before export. However, as recommended by the Spices Enquiry Committee, if improved methods of storage and preservation could be found to improve the keeping quality of ginger, it will go a long way in helping the producer to retain his produce for a better price.

Transportation

4.126. While in Kerala, transportation does not create any difficulties in view of the road facilities, etc. available even in the interior areas, the transportation poses a big bottleneck in the case of marketing of ginger in Himachal Pradesh, Assam and West Bengal. In these States, ginger is grown mostly in hilly areas which are often inaccessible. The only transport available is mules, which every producer cannot command. The mule owners themselves are often traders and purchase green ginger at very low prices.

Inter-State trade :

4.127 While a major portion of the dry ginger produced in Kerala is exported to foreign countries, green ginger is consumed internally within the country either within the producing State or in neighbouring States. Thus green ginger from Himachal Pradesh is exported to Uttar Pradesh, Delhi and Punjab, while Assam ginger is sent to West Bengal. In view of its quick deteriorating quality, green ginger requires quick movement. At present the entire inter-state trade is in the hands of commission agents and wholesalers.

Exports :

4.128 The following quantities of dry ginger were exported to other countries during the years 1957-63 :—

<i>Year</i>	<i>Quantity (Tonnes)</i>	<i>Value (Rs. in Lakhs)</i>
1957	9755	119.00
1958	5635	51.00
1959	3650	52.00
1960-61	5577	87.32
1961-62	7808	111.95
1962-63	6087	120.24

The main importing countries are :—

<i>Name of country</i>	<i>Value of ginger imported in 1961-62—(Rs. in lakhs)</i>
Aden	26.53
U.S.A.	15.56
Saudi Arabia	12.53
Sudan	8.17
U.K.	7.86

Trend of prices :

4.129 The price of ginger is subject to violent fluctuations as may be seen from the following table of prices in Kerala in the years 1951-52 to 1961-62 :

	<i>Rs. per Metric tonne</i>
1951-52	2850
1952-53	1530
1953-54	1640
1954-55	2800
1955-56	3100
1956-57	1500
1957-58	810
1958-59	960
1959-60	1580
1960-61	1360
1961-62	1560

In addition, there are wide fluctuations in prices between different parts of the year. The peak marketing season is usually a period of depressed prices. More than any other factor, stability in the market price of this crop is a determining factor in extending the cultivation and production of this crop. But in view of such erratic fluctuations, the growers are often uncertain of the price they would get for their produce and are generally disinclined to increase the production.

Price spread :

4.130 It has been estimated by the State Marketing Officer, Kerala, that there is a price spread of as much as Rs. 30 per quintal of ginger sold in a market very near the place of production in Kerala as may be seen from the following example,

Raw ginger (one quintal)

Farmers price at Panachimod market.	Rs. 125.00
Transport charges to Trivandrum (18 miles distance).	Rs. 3.00
Market charges and other expenditure.	Rs. 1.50
Profit of wholesaler	Rs. 10.00
Selling price of wholesaler.	Rs. 139.50
Profit of retailer	Rs. 15.50
Consumers price.	Rs. 155.00

GOA

4.131 Goa is a territory of small land owners. Few proprietors have land in large holdings and even their holdings are mostly fragmented. The entire rural population of Goa is settled in the 438 hamlets (250 villages) of 11 talukas. The land under the control of 'communicades' is stated to be 60 percent of the cultivable area including current fallows. The cultivators who are mostly tenants take the land on lease from 'communicades' usually for a period of 6 years, the lease amount being determined by auction. The chief agricultural products of commercial importance are paddy, coconuts, cashewnuts, arecanuts, mangoes and pine apples. The area under cultivation in Goa including pastures, grazing land, etc. is 3.19 lakh acres (1.27 hectares), of which 1.69 lakh (0.67 lakh hectares) are under food crops, mainly paddy and the remaining area is under cashewnuts, coconuts, arecanuts, sugar-cane, banana, jack-fruit, mango and vegetables. There is another 2.28 lakh acres (0.91 lakh hectares) of land which is reported to be lying fallow and can be brought under cultivation.

4.132 *Coconuts* : Coconut trees are extensively grown all over Goa. The annual production is estimated between 60-80 million nuts and the average bearing per tree is about 20 nuts. The total area under coconuts is estimated at 40,000 acres (16000 hectares). The regular export trade of coconut and copra suffered a serious setback during the period of economic blockade which resulted in growing neglect of coconut cultivation. Thus, as against the exports of coconuts and its products worth Rs. 18 lakhs during 1954, the exports during 1961 were only worth Rs. 345. This trade has, however, been rehabilitated after the merger due to the reopening of vast Indian markets. The programme of regeneration and replacement is, however, reported to be not keeping pace with the fast expanding demand. Further to avoid pilferage, which is reported to be on the increase, very often premature nuts are harvested resulting in deterioration of quality.

4.133 The itinerant traders and village merchants are the primary collecting agents for coconuts. They normally advance small amounts to growers by way of loans and adjust the same in the sale prices. Traders operating on a larger scale collect nuts from these merchants and sell them to the copra making units or to wholesalers catering to the home and export markets. The retailers purchase the nuts from these merchants and sell them in the regular markets or sell them from door to door. A recent

survey undertaken by the Directorate of Marketing and Inspection Government of India revealed that the margin of profit between the wholesaler and retailers prices alone was about 25 per cent. Added to this is the itinerant traders' or village merchants margin. The producer is thus left with only a small share. Coconut fibre and shells are also being largely used as fuel. There is thus considerable scope for cooperative marketing of coconuts.

4.134. *Cashewnuts* : Cashew trees abound almost all over Goa. It is estimated that nearly 80350 acres (32140 hectares) of land is covered with cashew trees, with an annual production of about 3428 to 3714 tonnes. 12 million litres of distilled liquors are also produced from the juice of cashew apples. The average yield per tree is estimated at 4 lbs. (2 kgs.) per tree. The nuts are normally given to the land owner and the cashew apples are left with the peasants.

4.135. There are six private cashew processing factories working in Goa, but the local production falls short of their requirements. Prior to the merger, these units used to import cashewnuts from Mozambique. However, after the merger, Portuguese authorities have not allowed export of the nuts from Mozambique to Goa, with the result the processing units are faced with an acute shortage of raw material. Goa exports cashew kernels worth about Rs. 30 lakhs annually.

4.136. The method of collection and distribution of cashewnuts is almost identical to that of rice or coconuts. In the villages, petty merchants or shopkeepers collect cashewnuts from the producers or land-owners. The nuts so collected are bought by bigger merchants who in turn sell them to the wholesalers or cashew factories. The wholesalers enter into supply contracts with the factories for supply of the nuts. There are only about 6 wholesale merchants for cashewnuts in Goa. These wholesalers and big merchants finance the assembling agents or primary merchants to enable them to get the requisite quantities of cashewnuts. The unit of sale at the village level is the local maund of about 32 lbs. but in actual practice, it was stated, the traders collect 34 to 40 lbs. per maund by using wooden measures, etc.. It is also learnt that the producers who receive advances from these traders, have not only to sell their cashewnuts to them at lower rates but also to pay a commission at Rs. 4 per candy (640 lbs.). There is thus considerable scope for cooperative marketing and processing of the crop.

4.137. *Areca nut* : Areca nut is another crop of commercial importance, but in recent years, its production has considerably declined due to the incidence of 'koleroga' disease. The crop is estimated to cover an area of 4300 acres (1720 hectares) with an annual production of about 1000 to 1400 tonnes. Areca nut trade, like other commodities, is conducted through a host of middlemen.

4.138. *Pepper* : Pepper was once a commodity of considerable importance, but due to growing neglect, it has practically gone into oblivion in recent years.

4.139. *Cooperative Marketing* : There was no cooperative activity in Goa prior to the merger. It was only in November, 1962 that the cooperative department was organised in the territory under a Registrar of

Cooperative Societies. As on 30.6. 63, 58 cooperative societies have been organised, of which 37 are service cooperatives, 6 consumer societies, 11 industrial societies and 4 fishermen societies. No cooperative marketing or processing societies were, however, organised. The Directorate of Marketing and Inspection, Government of India, which conducted a marketing survey of the territory, recommended, inter-alia, the organisation of cooperative marketing and processing societies for coconuts and cashew-nuts, so that even from the beginning cooperative credit may be linked with marketing. The Registrar of Goa informed the Team that the question of organising cooperative marketing/processing societies was also under the consideration of the Administration and that, to begin with, service cooperatives were being organised.

CHAPTER V

REVIEW OF EXISTING COOPERATIVES

5.1 From information received so far, there are 78 cooperative marketing societies dealing in arecanut, coconut, cardamom, cashewnut, repper and ginger either exclusively or along with other crops in the main producing areas as under:—

No. of societies exclusively dealing in

<i>State</i>	<i>Areca nut</i>	<i>Coco- nut</i>	<i>Carda- mom</i>	<i>Cashew nut</i>	<i>Pe- pper</i>	<i>Gin- ger</i>	<i>No. of socs. dealing in these & other crops</i>	<i>Total</i>
Kerala	11	17	2	2	3	1	7	43
Mysore	9	2	4	2	—	—	—	18
Madras	1	—	—	—	—	—	2	3
Maharashtra	5	—	—	1	—	—	—	6
Andhra Pradesh	—	3	—	—	—	—	—	3
Orissa	—	1	—	—	—	—	—	1
West Bengal	—	—	—	1	—	—	—	1
Assam	—	—	—	—	—	—	3	3
Total	26	23	6	6	3	1	13	78

A considerable number of these societies have not, however, been undertaking actual marketing of the crops, but have been granting pledge loans only, while a few societies are dormant. In Kerala and also in Mysore, the producers grow a variety of crops in the same field. Hence the marketing societies, though many of them are single commodity societies in name, are, in actual practice, dealing in more than one commodity.

Location and area of operation of marketing societies

5.2 Out of the 78 societies mentioned above, information could be collected in respect of 46 societies only. Of these 46 societies, 30 were located in primary markets, 10 in secondary markets while the remaining

2 in terminal markets, 4 were not located at market centres. The area of operations of these societies are mostly confined to a revenue taluk or a compact producing area. While the main producing areas have been covered by these societies, a majority of the societies, however, are not located at mandi centres, which is necessary, if they are to function effectively in the assembling markets.

Membership of societies coverage

5.3 Out of the 46 societies, and 13 societies had a membership of over 1,000, 5 between 500 to 1,000, 15 between 251 to 500, 8 between 100 to 250 while the remaining 5 societies had below 100 members as on 30th June, 1962. The effective coverage of villages with actual membership was as under:—

<i>Percentage of villages in the area of operation covered with actual membership</i>	No. of Societies					
	Total	Kerala	Mysore	Madras	Maharashtra	Assam
25% and below	11	6	3	—	2	—
26 to 50%	3	2	—	—	—	1
51 to 75%	7	4	2	1	—	—
76% and above	22	14	4	2	1	1
Information not available.	3	2	—	—	—	1

As regards affiliation of agricultural credit societies in the area with these societies, it was found that only 9 societies had over 76 per cent of the village credit societies affiliated with them as may be seen from the following table:—

<i>Percentage of agricultural credit societies in the area affiliated</i>	No. of societies					
	Total	Kerala	Mysore	Madras	Maharashtra	Assam
25% and below	18	10	3	2	3	—
26 to 50%	9	8	1	—	—	—
51 to 75%	5	4	1	—	—	—
76% and above	9	3	2	1	—	3
Information not available.	5	3	2	—	—	—

It may be seen that 13 societies had a membership of over 1,000 growers, while 20 societies had over 250 members. So far as individual membership is concerned, the position is encouraging in respect of some of the societies. But in regard to affiliation of village credit societies, the position, however, is not satisfactory, in that, as many as 27 societies out of 46 had covered less than 50 percent of the credit societies in their area.

Out of the 46 societies, 37 societies were affiliated to the State, co-operating marketing Society, 34 to the District Cooperative Central Banks.

Management

5.4 In Kerala State, in a majority of the societies, it was found that the number of directors representing individual members is far greater than the number representing affiliated credit societies. This is apparently due to the fact that the major share of business of these institutions is accounted for by individual grower members than by affiliated societies. Another feature in Kerala is that out of about 10-12 Directors in each society, as many as three are Government nominees, while on an average two are nominees of the Apex Cooperative Marketing Society and the District Cooperative Central Bank. In Mysore and Assam States also, it was found that invariably provision has been made for 2 to 3 Government nominated directors in each society besides a nominee of the central financing agency. In Madras State, out of the three societies dealing in the crops, the management of one society has been superceded and a special officer was appointed by the department, while in the second society out of 16 directors, 2 are Government nominees, 2 are representatives of affiliated societies and the remaining 12 represent the individual members. The third society has no provision for representation to affiliated societies, but it is dormant now.

5.5 In many of the societies in Madras and Kerala States, there is a specific provision in the by-laws prohibiting the election of traders to the Board of Directors. There is, however, no bar to such persons becoming members of such societies. In fact, the by-laws of many of these societies provide for admission of merchants, etc. as nominal members without voting rights, so that disputes with them could be referred for arbitration under the Cooperative Societies Act without resorting to civil courts. In Mysore and Assam, no provision has been made in many of the societies from whom information was received, for excluding traders from being elected to the management. The Government of India have been emphasizing the need for such a provision time and again so as to prevent mismanagement of the societies by traders for their selfish ends. It is, therefore, necessary that a provision be made in the by-laws of these societies to exclude traders from their management.

Share Capital

5.6. Of the 46 societies from which information was received, only 13 societies had a share capital of over Rs. 40,000. State-wise analysis of the position is given below:—

As on 30-6-1962
No. of Societies with share capital of

<i>State</i>	<i>Rs. 20000 & below</i>	<i>Rs. 20001 to 40000</i>	<i>Rs. 40001 to 1 lakh</i>	<i>Above Rs. 1 lakh</i>
Kerala	3	19	5	1
Mysore	2	2	2	3
Madras	—	2	—	1
Maharashtra	1	1	1	—
Assam	—	3	—	—
Total :	6	27	8	5

The State Governments have contributed to the share capital of 36 of these societies as on 30.6.1962 as under:—

As on 30.6.1962
No. of societies with Govt. share capital contribution of

<i>State</i>	<i>Nil</i>	<i>Rs. 10000 & below</i>	<i>Rs. 10001 to 25000</i>	<i>Above Rs. 25000</i>
Kerala	2	18	7	1
Mysore	5	—	2	2
Madras	1	2	—	—
Maharashtra	2	—	—	1
Assam	—	—	3	—
Total:	10	20	12	4

5.7 It may thus be seen that the State Governments have already contributed to the share capital of most of these societies with a view to strengthen them, but the quantum of assistance was Rs. 10,000 and below in respect of 20 societies and no assistance was given to 10 societies. In Kerala, out of the total share capital of Rs. 6.65 lakhs of these societies, Government contribution accounted for Rs. 3.21 lakhs, whereas in Mysore, out of the total share capital of Rs. 9.85 lakhs, Government contribution was Rs. 1.27 lakhs only. Similarly in Madras, out of the total share capital of Rs. 4.04 lakhs, Government contribution was Rs. 20,000 only, while in Maharashtra, Government contribution accounted for Rs. 30,000 out of the total of Rs. 93,800. It was, however, informed by the Registrar of Cooperative

Societies, Kerala that the State Government have contributed Rs. 25,000 to the share capital of many of these societies recently.

Borrowings

5.8 The cooperative marketing societies obtain bulk of their marketing finance normally from the cooperative financing agencies and also from the State Bank of India in the form of clean and pledge loans. Out of the 46 societies which furnished the details, only one society in Kerala, viz., the Manjeri Producers' Cum Consumers' Cooperative Marketing Society, Ltd., had obtained pledge loans direct from the State Bank of India on the pledge of raw cashewnuts. The other societies had not obtained any loan from the State Bank of India for some reason or other. The State Bank of India normally advances loans on the pledge of produce or clean loans on the guarantee of the local State Governments or the Cooperative Central Banks. The general practice is to route the State Bank of India finance through cooperative financing agencies.

5.9. As regards finance from the cooperative financing agencies, out of the 46 societies, 26 societies had obtained loans from the cooperative central banks, while the remaining 20 societies did not obtain any loans from the banks. In many cases, particularly in Kerala, the banks advance upto 25 times the share holding by the marketing society in the bank. This is too low a limit, especially when the societies have to advance to their members upto 100 times their share-holding. In view of this limit, societies have to invest large amounts in the shares of central banks, which could otherwise be utilised to finance their marketing operations. Another difficulty experienced by these societies is that whereas central banks allow only upto 50 to 60 percent of the value of produce as pledge loans, the societies have to advance upto 75 percent to their members. As a result, the societies experience considerable hardship in finding adequate finance to meet their members' demands, particularly as their own funds are meagre.

5.10. In Mysore and Kerala also, many of the marketing societies are forced to grant production loans to their members, as the local credit societies are often not in a position to advance such loans. Particularly as several of these crops require heavy amounts for production finance, the village societies in many places may not be able to finance the growers under existing conditions. At present the central banks do not grant production loans to marketing societies, and the marketing societies have, therefore, to grant such loans from their own funds, which again are totally inadequate. The societies are not, therefore, able to meet the requirements of all their members and consequently a large number of the growers resort to private traders for such advances and get bound to sell their produce to them.

5.11. Besides the above difficulties, many of the marketing cooperatives are not able to obtain finance from central banks for making outright purchases. Marketing societies, particularly, those dealing in cashewnut and coconut, have to make outright purchases, as these commodities take a long time for processing and sale. Adequate funds by way of cash credit accommodation will be necessary for this purpose with a view to expand the marketing activities of these societies.

5.12. The financial accommodation provided by the central cooperative banks to marketing societies is given below:—

1961-62

(Rs. in lakhs)

<i>Name of Central Coop. Bank</i>	<i>No. of socs. to whom advan- ced</i>	<i>Amount Pledge loans</i>	<i>advanced Cash credit</i>
Malabar Central Coop Bank	6	9.37	4.50
Quilon Central Coop. Bank	2	2.00	0.85
Cannanore Central Coop. Bank	5	6.44	Nil
Ernakulam Central Coop. Bank	Nil	Nil	Nil
Kottayam Central Coop. Bank	1	1.83	Nil

It may be seen that in five districts, only 14 marketing cooperatives were advanced accommodation of only Rs. 19.64 lakhs as pledge loans and Rs. 5.35 lakhs as cash credit, which is too meagre for handling plantation crops. At Kallar, (Kerala State), we found that the Cardamom Marketing Society was not granted any clean loan by the central cooperative bank and the society, in turn could not grant crop loans to its members and there were no village credit societies either. As a result, the members, especially small growers, had to resort to the private traders for advances. In Mysore too, the central banks do not generally grant crop loans to marketing societies for arecanut, etc., and the societies usually advance production loans mostly from their own funds.

Cooperative Marketing

5.13. In the commodities under study, which are mostly dominated by small producers, the problems of marketing become more complicated than those of production, particularly when their consumption is spread over wide areas. The producers are not generally well organised and they fall an easy prey to exploitation by a number of intermediaries who operate in the marketing and distribution of these crops. The need for organising the marketing of these crops on a cooperative basis, which would eliminate the superficial links and minimise marketing costs, is, therefore, obvious.

5.14. Except in Mysore and also Madras States, where the cooperatives have made a good impact in the marketing of arecanuts and cardamom, the role of the cooperatives in the marketing of the crops under study in other States, particularly in Kerala and Assam, has been very insignificant.

5.15. From the information received in respect of 46 societies, it was found that the cooperatives marketed the selected commodities in different States as follows during 1961-62.

(Rs. in lakhs)

State	Arecanut		Coconut		Cardamom	
	No. of socs	Value of sales	No. of socs	Value of sales	No. of socs	Value of sales
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Kerala	11	27.93	6	5.01	1	7.72
Mysore	9	438.37	4	11.75	5	34.64
Madras	1	8.56	—	—	1	11.70
Maharashtra	5	7.71	—	—	1	3.69
Assam	1	0.27	—	—	—	—
Total	27	482.84	10	16.76	8	47.75

(Rs. in lakhs)

State	Cashewnut		Pepper		Ginger	
	No. of socs	Value of sales	No. of socs	Value of sales	No. of socs	Value of sales
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Kerala	2	1.47	6	14.43	1	0.64
Mysore	1	0.62	6	7.03	—	—
Madras	—	—	—	—	—	—
Maharashtra	1	3.89	—	—	—	—
Assam	—	—	—	—	—	—
Total	4	5.98	12	21.46	1	0.64

5.16. It may be seen that the cooperatives in Mysore accounted for the sale of arecanuts worth Rs. 4.38 crores covering nearly a third of the total marketable surplus in the State. The share of cooperatives in the major producing state of Kerala was, however, only Rs. 27.93 lakhs, which represents a very insignificant part of the total marketable surplus of the State. In Madras, the only society at Mettupalayam marketed arecanuts valued at Rs. 8.56 lakhs which formed about 45 percent of the total arrivals to the market. Five Societies in Maharashtra have also sold arecanuts worth Rs. 7.71 lakhs, while one society in Assam, which was started in 1962-63, sold arecanut worth Rs. 27,570.

5.17. In respect of marketing of cardamom also, the cooperatives in Mysore and Madras have made considerable progress. Five societies in Mysore have handled cardamom worth Rs. 34.64 lakhs while one society each in Madras and Kerala marketed cardamom valued at Rs. 11.70 lakhs and Rs. 7.72 lakhs respectively.

5.18 As regards coconut, though a number of societies have been organised in Kerala for marketing of coconuts, the volume of business handled by them is insignificant. From information received, only 6 societies handle coconuts worth Rs. 5.01 lakhs. In Mysore, 4 cooperatives marketed coconut worth Rs. 11.75 lakhs. The role of cooperatives in other areas is insignificant.

5.19. The share of cooperatives in the marketing of pepper, cashewnut and ginger in the major producing State of Kerala has also been insignificant. Six, two and one societies have marketed pepper, cashewnut and ginger worth Rs. 14.43, 1.47 and 0.64 lakhs respectively in Kerala.

5.20. In this connection considerable progress has been made by the following cooperative marketing societies in respect of the marketing of these crops.

(Rs. in lakhs)

Areca nut	Membership	Share capital	Sales	Percentage of market arrivals covered
<i>Mysore</i>				
1. South Kanara Agriculturists C.M.S., Ltd., Mangalore	7283	1.36	216.34 +4.14 (other commodities)	30
2. Malnad Area C.M.S., Ltd., Shimoga.	2544	1.26	67.77	17
3. Sirsi Thotgars Coop. Sales Soc. Ltd., Sirsi	2259	4.47	117.30	35
4. Kumta Coop. Areca Sales Soc. Ltd., Kumta	1133	0.44	31.07	40
<i>Kerala</i>				
1. Kasargode Tq. Agriculturists C.M.S.Ltd., Nirchal	1224	0.55	25.17	N.A
<i>Madras</i>				
1. Mettupalayam C.M.S. Ltd.,	531	0.54	8.56	45

Cardamom*Mysore*

Coorg Cardamom Growers C.M.S.	2208	2.10	30.37	60
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Madras

Pattiveeranpatti Coop. Coffee Curing and Indtl, Soc., Ltd.	1366	3.77	11.70	35
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Case studies of these societies may be seen at Annexure XII.

5.21. Unlike the cooperatives in Mysore State, many of the Areca marketing societies in Kerala advance only pledge loans to their members and very few undertake actual marketing operations. The terminal markets for areca grown in Kerala are outside the State. The few cooperatives which undertake marketing do not have contacts with such markets and are, therefore, forced to sell their produce to the local traders and commission agents. Some societies in North Kerala, namely at Neerchal in Kasargode taluk and Mattanur in Tellicherry taluk sell their produce through the South Kanara Cooperative Marketing Society at Mangalore in Mysore State which is a terminal market.

5.22. Even in Mysore State, the marketing societies sell their arecanuts through local auctions at which mostly the local brokers bid and purchase. These brokers in turn arranges despatch of the produce to up-country wholesale merchants. Even the South Kanara Agriculturists Cooperative Marketing Society at Mangalore, which handles arecanuts worth over Rs.2 crores annually covering over 40 per cent of the total production in the district, sells its produce through local auctions at Mangalore only. The purchasers at these auctions are mostly brokers or agents of up-country wholesale merchants. These brokers and agents despatch the produce to their principals, mostly the wholesale merchants in Bombay, who in turn distribute it to up-country markets at Delhi, Kanpur, etc. through a chain of middle men. Similarly at Shimoga and Sirsi, the cooperatives dispose of their produce locally. Even the Coorg Cardamom Growers Cooperative Marketing Society at Mercara disposes its produce through local auctions in which it may be significant to mention only about 5 to 10 brokers or agents participate.

In the absence of effective sales organisations at consuming centres, where the traders are well organised these societies are finding it difficult to market their produce directly at the consuming markets.

5.23. The Mysore State Arecanut Cooperative Marketing Federation, Shimoga, has, however, made a beginning in this regard by opening sales depots at Bombay and Madras. The following sales were made at these depots during 1962-63:—

<i>Depot</i>	<i>Name of society which consigned</i>	<i>Commodity</i>	<i>Quantity qtls</i>	<i>Value Rs.</i>
Madras	Malnad Areca C.M.S., Shimoga	Arecanut	206	1,52,617
Bombay	South Kanara Agriculturists C.M.S., Mangalore	Arecanut	295	1,65,429
"	Sirsi Totgars' Coop. Sale Society	Arecanut	392	2,53,239
"	Coorg Cardamom Growers C.M.S., Mercara	Cardamom	N.A	78,850
			Total	6,50,135

The Federation charges a commission of 3½ percent on sale proceeds for such sales and all charges at Bombay are borne by the Federation. The total sales effected by these branches during 1962-63 were Rs. 6,50,135. Except the above 4 societies, the other societies have not been marketing their produce through the Federation and even the produce marketed by the above societies is very negligible.

5.24. The Mettupalayam cooperative marketing society of Madras State has also made a beginning to sell its arecanuts directly at Delhi. During 1961-62, the society sold 1478 mds. of arecanut worth Rs. 3,31,1100 at Delhi. As the Delhi Market is controlled by the 'Kirana Committee', the society has to incur an expenditure of Rs. 21.94 per 75 kg.

It will be advantageous if the Areca Marketing Federation could open depots at all important consuming centres with adequate staff so that the produce of all the societies could be marketed through these depots.

5.25. As regards ginger, though Kerala is the major ginger producing State, no efforts were made to develop cooperative marketing of ginger. Even the single ginger marketing society at Monipally has not handled ginger for the last two years. We were informed that the society is not able to get any pledge loans against ginger as the State Bank of India and the cooperative central bank do not grant advances against ginger, since it is highly perishable, with wide fluctuations in prices. Further, since the ginger prices fluctuate erratically, the society completely ceased marketing of ginger and is now dealing in arecanut to a small extent. There is considerable scope for developing cooperative marketing of ginger in Kerala. In Himachal Pradesh, a beginning has been made recently for marketing of ginger through cooperatives, but the societies are handicapped due to lack of transport facilities to transport the produce from interior hilly areas to the market and also in the absence of scientific methods for drying ginger as sun-drying is not feasible in Himachal Pradesh due to the climatic conditions. Cooperatives in the other producing areas have not handled ginger to any great extent.

5.26. Though there is considerable scope for marketing of pepper through cooperatives, especially as it requires no processing, the actual share of cooperatives in this regard in the major producing state of Kerala is insignificant and there is considerable scope for development.

Processing

5.27. *Cashewnut*. Marketing of cashewnut is done only after processing. According to information available, only 3 cooperatives are undertaking processing of cashewnuts one each in Kerala, Mysore and Maharashtra State.

In Kerala, the Manjeri Producer-cum-Consumer Cooperative Marketing Society, Ltd., in Calicut district has been undertaking processing of cashewnut since 1960-61 besides undertaking distribution of foodgrains, sugar, etc. The society has installed a cashew processing unit at Manjeri with a capacity of 50 bags of 75 kg. of raw nuts per day. The society does not get the raw nuts direct from the growers but it advances money to petty traders during the season for getting the nuts from the growers and pays these traders a commission of Re. 1 per bag in the same way as other private factories do. It was stated that the society is not able to collect the nuts direct from the producers as the quantity now handled is small and it would involve heavy cost to employ men for collection from the remote and scattered areas. The society processes the nuts through drum roasting method. The processed nuts are sold by the society to traders at Bangalore and Coimbatore against firm orders. A beginning has been made to supply the nuts to the State Cooperative Marketing Societies of Gujarat and Maharashtra.

The society started cashew processing since 1960-61 but it incurred losses consecutively for 3 years (Rs. 10816 in 1960-61, Rs. 8805 in 1961-62 and Rs. 8329 in 1962-63), due, it was stated, to wide fluctuations in prices since the society makes outright purchases from the traders. The society, however, made good these losses through its other trading activities. During the year 1962-63, the society marketed processed cashew kernels worth Rs. 1,42,140. Though the present capacity of the unit is 50 bags per day, only 8 bags per day are now being processed for want of funds. The main season for purchase of raw cashewnuts is February to April and, therefore, the entire 15,000 bags required for an year of 300 working days have to be purchased and stored during these 3 months. For this purpose a sum of Rs. 9 lakhs would be required (@ Rs. 62 per bag) but the society is unable to obtain the necessary funds for the purpose. It was represented by the society that if at least an initial working capital of Rs. 4 lakhs are provided, it would be possible to work the unit to its full capacity, since the balance of funds could be obtained through pledge of stocks. It is desirable that the full capacity of the unit should be utilised and arrangements made for collection of the nuts directly from the growers through village cooperatives instead of through traders.

5.28. In Mysore, the Karwar cashew processing coop. society Ltd., at Ankola, which was started on 9-4-63, has taken a private factory on lease and processes the nuts through drum roasting methods. The society has 30 grower members and 30 sympathiser members. It employs Harijan women of the area for processing the nuts and the society, it was learnt, proposes to admit the workers also as members. The Society, however,

had constructed its own factory very recently with a capacity to process 25 quintals of raw cashewnuts per day. But at present only 10 qtls are processed per day employing about 100 workers.

5.29. In Maharashtra, processing of cashewnuts is undertaken by the Vengurla Cooperative Cashew Processing Society in Ratnagiri district. The society was started in 1959 and has a membership of 55 growers and 249 nominal members and a share capital of Rs. 63,973 (including state contribution of Rs. 30,000). During 1961-62, the society marketed processed kernels worth Rs. 3.89 lakhs. It may, however, be significant to note that of this, the share of member's produce was only Rs. 20,000 since the remaining quantity was received from non-members. It is desirable that the society should endeavour to enrol all producers as members.

5.30. *Coconut*. Even in Kerala, only 4 cooperatives have undertaken processing of coconuts and the quantity processed by them is very insignificant to the total production. In Kerala, the growers do not generally prepare copra but market as coconuts only. The copra makers and traders make copra usually. The coconut marketing societies, if they are to function effectively, will have to undertake preparation of copra and coconut oil from it.

The processing societies purchase, on outright basis, coconuts from the village service cooperatives, which collect the nuts from their members in repayment of loans granted to them. The processing societies also receive the nuts from their grower-members, but they are generally taken on agency basis.

Inter-State Trade

5.31. As already stated, most of the cooperatives have been disposing of their produce in local markets only and very few societies had undertaken inter-state trade. The volume of inter-state trade handled by the cooperatives during 1961-62 was as under:—

(Rs. in lakhs)

State	Arecanut		Cashewnut		Cardamom		Pepper	
	No. of socs	Value	No. of socs	Value	No. of socs	Value	No. of socs	Value
Kerala	5	17.30	—	—	—	—	2	0.19
Mysore	3	44.99	—	—	1	0.04	—	—
Madras	1	3.31	—	—	—	—	—	—
Maharashtra	—	—	1	0.61	—	—	—	—
Total	9	65.60	1	0.61	1	0.04	2	0.19

Export

5.32. The marketing cooperatives have not so far been able to directly export the crops under study to foreign markets. The export of these commodities is now in the hands of private trade, mostly at Cochin and Bombay.

Production loans

5.33. As many of the village credit societies are not in a position to advance production credit for these plantation crops in view of the heavy amounts involved, the marketing societies are forced to grant production loans to their producer members so as to prevent them from resorting to private traders for such advances. Of the 46 societies for which information has been received, 16 societies have advanced such loans to the extent of Rs. 22.32 lakhs to 2155 members as under:

1961—62			
<i>State</i>	<i>No. of Socs advancing</i>	<i>No. of members to whom advanced</i>	<i>Amount Advanced Rs. in lakhs.</i>
Kerala	14	1320	7.23
Mysore	1	214	1.82
Madras	1	621	13.27
Total	16	2155	22.32

The State Cooperative departments, have, however, been discouraging the practice of marketing societies issuing such production loans. Further for want of adequate funds, many of these societies were not able to advance production loans to their members, since the cooperative central banks do not grant them loans for the purpose.

Pledge finance

5.34. Of the 46 societies reported, 31 societies have advanced loans on the pledge of members' produce to the extent of Rs. 154.58 lakhs as under during 1961-62:—

(Rs. in lakhs)

<i>State</i>	<i>Arecanut</i>		<i>Coconut</i>		<i>Cardamom</i>	
	<i>No. of socs</i>	<i>Amount</i>	<i>No. of socs</i>	<i>Amount</i>	<i>No. of socs</i>	<i>Amount</i>
Kerala	6	11.22	5	0.41	1	0.31
Mysore	5	102.97	1	10.10	1	14.84
Madras	1	4.58	—	—	1	0.55
Maharashtra	1	5.14	—	—	—	—
Assam	—	—	—	—	—	—
Total:	13	123.91	6	10.51	3	15.70

<i>State</i>	<i>Cashewnut</i>		<i>Pepper</i>		<i>Ginger</i>	
	<i>No. of socs</i>	<i>Amount</i>	<i>No. of socs</i>	<i>Amount</i>	<i>No. of socs.</i>	<i>Amount</i>
Kerala	—	—	7	4.22	1	0.05
Mysore	—	—	1	0.19	—	—
Madras	—	—	—	—	—	—
Maharashtra	—	—	—	—	—	—
Assam	—	—	—	—	—	—
	—	—	8	4.41	1	0.05

Most of the societies generally advance to the members about 60 to 70 percent of the value of the produce brought by them for marketing as pledge loans recoverable with interest from the sale proceeds.

Linking of credit with marketing

5.35. The linking of credit with marketing in respect of these societies has been insignificant. Of the 46 societies reported, only 5 societies made a beginning and recovered loans of credit societies to the extent of Rs. 1,20,570 in respect of 134 members only.

Storage

5.36. Out of 46 societies from which information has been received, 29 societies were given Government assistance for construction of godowns. Only 7 societies (4 in Kerala, and one each in Mysore, Madras and Maharashtra States) did not have godowns, while the remaining 39 societies had their own godowns.

Managerial personnel

5.37. A large number of the marketing societies do not have Managers trained in 'Cooperative Marketing.' Of the 46 societies reported, only 14 had trained managers and the remaining 32 were not trained nor had they any previous business experience.

CHAPTER VI

CONCLUSIONS AND RECOMMENDATIONS

Need for cooperative marketing of plantation crops

6.1. The six plantation crops with which the Study Team is concerned, viz., arecanut, coconut, cardamom, cashewnut, pepper and ginger, occupy a significant place in the economy of the country. In this connection, we have given details of the relevant facts and figures in Chapter II of this report. Briefly, however, it may be recapitulated that India is the largest producer of arecanut in the world. Same is the position in regard to cardamom and cashewnut. More than 90 percent of the world's supply of these commodities emanates from this country. India is also the largest supplier of ginger and pepper in the world market. In earning foreign exchange, these crops play a valuable part. Four of them, viz., cardamom, cashewnut, pepper and ginger account for exports of the value of nearly Rs. 30 crores. One or more of these crops are also important from the point of view of the internal economy of the States mentioned below :—

Kerala	..	Arecanut, Coconut Cardamom, Cashewnut, Pepper, Ginger.
Mysore -	..	Arecanut, Coconut, Cardamom, Cashewnut, Pepper.
Madras	..	Arecanut, Coconut, Cardamom, Cashewnut.
Maharashtra	..	Arecanut, Coconut, Cashewnut.
Andhra Pradesh	..	Coconut, Cashewnut.
Assam	..	Arecanut, Coconut, Ginger.
Orissa	..	Coconut, Cashewnut.
Himachal Pradesh	..	Ginger.
Goa	..	Coconut, Cashewnut.

6.2. In Chapter IV, we have referred to certain studies conducted by the Directorate of Marketing and Inspection, Ministry of Food and Agri-

culture, Government of India, regarding the price spread in relation to some of these crops. These studies show that there is considerable scope for enhancing the producer's share in the ultimate consumer's price. It is, therefore, necessary, that the internal marketing of these crops should be organised increasingly on a cooperative basis. There is also need for the cooperatives to enter the field of export so that, to the extent possible, the benefit of prices in the export market can percolate to the primary producer. This should lead to a double benefit, viz. increased return to the grower and increased incentive for larger production.

Targets of cooperative marketing operations

6.3. According to available information, it is estimated that the total value of marketed surplus of the specified plantation crops is nearly Rs. 180 crores. Of these, the value of produce cooperatively marketed is about Rs. 7.28 crores. In other words, only about 3 percent of the produce is handled on cooperative basis. This is the position taking all the crops in the aggregate. The performance is much poorer in regard to coconut, where, out of an estimated marketed surplus of Rs. 94 crores, only about Rs. 50 lakhs worth of coconut is sold by cooperative organisations. On the other hand, the position is quite satisfactory in regard to arecanut, where nearly 12½ per cent of the total marketed surplus is routed through cooperatives.

6.4. Keeping in view the present level of operations and the need for development of cooperative marketing of these crops, we suggest that the objective should be that, in the final year of the Fourth Plan, the total value of produce to be cooperatively marketed should be raised to nearly Rs. 18 crores. In other words, there should be an increase of nearly 2½ times. The details are given below:—

<i>Crop</i>	<i>Estimated marketed surplus</i>	<i>Present position</i>	<i>Target for final year of 4th Plan</i>
Arecanut	60 crores	6.01 crores	13.00 crores
Coconut	70 crores	0.50 crore	2.00 crores
Cardamom	5.5 crores	0.48 crore	1.50 crores
Cashewnut	36 crores	0.06 crore	0.50 crores
Ginger	1.5 crores	0.01 crore	0.10 crores
Pepper	6.5 crores	0.22 crore	1.00 crore
Total	179.5 crores	7.28 crores	18.10 crores

6.5. We are aware of the fact that, even with the attainment of the above target, the total share of cooperatives in marketing of these crops will be only about 10 percent. Even so, we deliberately refrain from suggesting a higher target for a number of considerations. In the first place, we would like to point out that cashewnut, one of the crops dealt with here, is, in some areas, grown wild and does not belong to individual farmers. Hence, cooperative marketing of this crop in such areas will necessarily continue to be inhibited. In the second place, even the attainment of the target mentioned above will call for considerable effort. In regard to arecanut, we have suggested doubling of the present size of operations, while for other crops, the target suggested by us involves several times increase over the present operations.

6.6. Having broadly indicated the targets, we now proceed to consider the measures that are necessary for accomplishing the target. These measures have to be adopted in an integrated manner if their impact is to be felt. The measures that we are proposing cover different aspects, such as organisation, administration and finance.

Organisation and location of primary marketing societies

6.7. At present, there are 78 cooperative marketing societies dealing in these specified crops. Their statewise and commodity-wise break-up is as follows:—

State.	Areca-nut.	Coco-nut.	Carda-mom.	Cashew nut.	Pepper	Gin-ger.	No. of socys. dealing in these and other crops	Total
Kerala	11	17	2	2	3	1	7	43
Mysore	9	2	4	2	—	—	1	18
Maharashtra	5	—	—	1	—	—	—	6
Madras	1	—	—	—	—	—	2	3
Andhra Pradesh	—	3	—	—	—	—	—	3
Orissa	—	1	—	—	—	—	—	1
West Bengal	—	—	—	1	—	—	—	1
Assam	—	—	—	—	—	—	3	3
Total : :	26	23	6	6	3	1	13	78

6.8 So far as Kerala and Mysore are concerned, the main areas of production have already been covered by existing marketing societies. Hence for these two States we do not recommend organisation of additional marketing societies for these crops. In these States, the task ahead is to activate the existing societies. This is specially relevant to Kerala, as the production of specified crops is spread over the entire State. There are 53 important markets where these crops are assembled. Out of these markets, only 26 markets are covered by societies which are effectively handling these crops. There is, thus, need for activating 27 more marketing societies so that all important market centres are adequately covered in terms of institutional arrangements. Similarly, in Mysore State, while the total number of markets concerned with plantation crops is 34, only 18 marketing societies are handling these crops. It will, therefore, be necessary to activate 16 more existing marketing societies to start handling these crops.

6.9 While in Kerala and Mysore, the future emphasis should be on enlargement of business activities of existing marketing societies, in the States of Assam, Andhra Pradesh, Orissa and the Union Territory of Goa, there are certain areas where specified plantation crops are grown on a large scale, but which are not at present covered by any marketing cooperatives. In such areas, there is obviously need for organisation of new marketing societies for handling of plantation crops. The minimum programme of new societies that we would suggest in this regard is 5 marketing societies each in the States of Assam, Orissa and Andhra Pradesh and 2 in Goa. This programme may be included in the Fourth Five-Year Plan of these States/Union Territory.

Membership

6.10 As usual, the membership of primary marketing societies dealing in the plantation crops is open to village cooperative societies. However, in actual practice, the affiliation of village societies to marketing societies is far from satisfactory. Out of 46 marketing societies, which replied to the questionnaire of the Study Team, only 14 societies had enrolled 50 percent of the village societies located within the area of operation. In 18 marketing societies, the membership of the village societies was less than 25 percent of the total number. We consider that there is need for a very early action to ensure that every primary agricultural credit society, located within the area of operation of a plantation crop marketing society, is affiliated to the latter. This is particularly necessary in Kerala where village cooperatives have a vital role to play in acting as collecting agents of a marketing society. Incidentally, the affiliation of village cooperatives to a marketing society will also help to strengthen the capital base of a marketing society and facilitate linking of credit with marketing operations.

6.11 As regards the enrolment of individual growers as members of primary marketing societies, we observe that the prevalent approach is rather diverse in different States. In Mysore, the individual growers' membership is sizeable. On the other hand, the current official policy in Kerala is to discourage such membership. We consider that, for a variety of reasons, it is desirable and necessary to aim at enrolling a sizeable number of individual growers directly as members of primary marketing societies dealing in plantation crops. Firstly, such an approach

can be calculated to help in mustering the necessary share capital required by the marketing cooperatives. If the membership of marketing cooperatives is confined to village societies, the share capital that will be collected from such societies is perforce limited. Secondly, enrolment of substantial number of individual growers can help the marketing societies to develop a direct and intimate contact with the actual problems faced by producers in the disposal of their crop. On the other hand, if the representatives of village societies alone constitute the board of management of a marketing society, it is not unlikely that it is composed of persons, none of whom market their produce through the society—a situation which is hardly conducive to the growth of cooperative marketing.

6.12 While, for considerations mentioned above, we stress the need for enrolling substantial number of producers directly as members of marketing societies, we would also like to caution against snags in such an approach. Care should be taken to see that traders, masquerading as producers, do not infiltrate into the societies. The byelaws prescribing qualifications for individual membership of marketing societies should be carefully worded and implemented. It should also be ensured that a producer seeking direct membership of a marketing society takes shares of a certain minimum value. Finally, in the board of directors of marketing societies, a certain minimum representation may be assured for representatives of affiliated village societies. Similar representation may also be provided to individual grower members. It might be helpful if a certain number of seats on the board of management are left to be filled in depending on how the marketing society obtains its business turnover. In areas, where bulk of the produce handled by a marketing society is routed through village cooperatives, the latter's representatives may fill the remaining seats. In other cases, where bulk, if not the whole, of the produce comes to the marketing society through individual producers, the latter should be entitled to occupy the remaining seats on the board of management.

Share capital of primary marketing societies

6.13 Of the 46 societies from which information was received by the Study Team, 6 societies had a share capital below Rs. 20,000, 27 between Rs. 20,000 and Rs. 40,000, 8 between Rs. 40,000 and Rs. one lakh and only 5 with Rs. one lakh and above. State-wise analysis of the position is given below :—

No. of societies with share capital of :

<i>State</i>	<i>Rs. 20,000 & below</i>	<i>Rs. 20,001 to 40,000</i>	<i>Rs. 40,001 to Rs. 1 lakh</i>	<i>Above Rs. 1 lakh</i>
Kerala	3	19	5	1
Mysore	2	2	2	3
Madras	—	2	—	1
Maharashtra	1	1	1	—
Assam	—	3	—	—
TOTAL	6	27	8	5

The marketing of plantation crops involves heavy financial investment in view of the higher prices of these commodities. It may be seen from the above table that as many as 33 societies out of 46 had share capital of less than Rs. 40,000. This weak financial condition is the one major factor, limiting the effective operation of these societies.

6.14 For strengthening the share capital of marketing co-operatives dealing in plantation crops, it is necessary that, in the first instance, concerted measures are taken to raise additional share capital from members. We have already made recommendations about the enrolment of a larger number of village societies and individual producers. Such enrolment should help to enlarge the capital base. The marketing cooperatives may also adopt other measures such as linking of the volume of pledge loans with share holdings.

6.15 As regards government contribution to share capital of marketing societies, the position as reported to the Study Team in respect of 46 marketing societies, dealing in plantation crops, was as follows :—

No. of societies with Government share capital contribution of :				
<i>State</i>	<i>Nil</i>	<i>Rs. 10,000 and below</i>	<i>Rs. 10,001 to Rs. 25,000</i>	<i>Above Rs. 25,000</i>
Kerala	2	18	7	1
Mysore	5	—	2	2
Madras	1	2	—	—
Maharashtra	2	—	—	1
Assam	—	—	3	—
TOTAL	10	20	12	4

It will be seen from the above table that, in quite a few societies, the amount of contribution made by Government was less than Rs. 25,000, which is the normal level of government contribution to a primary marketing society. According to the policy approved by the National Co-operative Development and Warehousing Board, it was open to Kerala Government to contribute to the share capital equal to two times the share capital raised by the marketing societies from its own members. However, in actual practice, the amount of share capital, contributed by the Government of Kerala was only half of the share capital raised from their own members. It is only recently that the Kerala Government has, in several cases, made additional contribution to the share capital.

6.16 Co-operative marketing societies dealing in plantation crops invariably require large working capital, if they are to handle a sizeable volume of business. For this purpose, the capital base of these societies needs considerable strengthening. Hence, apart from the additional share capital, which the societies should raise in pursuance of our recommendations under paragraph 6.14, it is necessary that Government contribution to the share capital of these societies should also be made on a more liberal basis. We recommend that in respect of these societies, the level of government contribution to share capital should, in effect, be in the

ratio of 2 : 1, i. e. for every Rs. 1,000 raised by a marketing society from its own members, it should be eligible for a Government contribution of Rs. 2,000. To begin with, the members' share-capital need not be paid up fully, but it may be subscribed within a period of two years.

Superstructure of cooperative marketing

6.17. As already mentioned in previous chapters, the bulk of the specified plantation crops enters into inter-state and international trade. The production of these crops is concentrated in southern states whereas they are mostly consumed in foreign countries and the northern states of India. The co-operatives cannot handle these crops effectively and benefit the producers to any appreciable extent, unless and until they have access to such consuming markets. However, it is not possible for the primary marketing societies to undertake inter-state or export trade. This can be done effectively only by higher level organisations. With their present pre-occupation in the distribution of supplies and their anticipated role in the marketing of foodgrains, it is unlikely that the existing apex marketing societies, with the exception of Kerala, can effectively market the plantation crops. In view of this, we feel that it will be necessary to have a separate organisation at All-India level to undertake inter-state trade and export of these commodities. The apex and the primary marketing societies concerned handling these crops in the various States can join the All India Federation.

6.18. At present a marketing federation, namely, the Mysore State Arecanut Co-operative Marketing Federation, exists with Headquarters at Shimoga. The area of operation of this federation includes the States of Mysore, Kerala, Madras and Maharashtra. Recently, the federation has been permitted to extend its area of operation to the entire country. This federation has made a beginning in marketing of arecanut and cardamom by opening sales depots at Bombay and Madras, with the intention of expanding to other consuming centres in the future. At present, however, very few marketing societies are availing themselves of the services offered by the federation. One of the major problems faced by this new organisation is its weak financial position. As a result, it is unable to make the necessary outright purchases of stocks or make advances to the primary societies pending sale of the produce. Another serious problem is the inadequate managerial staff with the federation.

6.19. We propose that the following financial assistance be provided to the All India Federation of Plantation Crops to undertake the marketing and export of these crops effectively. The federation will have to open at least 5 branches, one at Cochin, which is the main exporting centre, and the remaining four at Bombay, Madras, Delhi and Calcutta, which are the main consuming terminal markets in respect of these crops.

- | | | |
|---|--------|-----------------|
| (i) Government share capital contribution | ... | Rs. 10.00 lakhs |
| (ii) Managerial subsidy over a period of 3 to 5 years for the staff at Head-Office and branches | ... .. | Rs. 1.00 lakh |

(iii) Loan and subsidy for construction of godowns and office building ...	... Rs. 1.50 lakhs
(iv) Subsidy for hiring of godowns at Head Office and branches over a period of 2 to 3 years ...	... Rs. 0.50 lakh
Total ...	... Rs. 13.00 lakhs

Marketing Finance

6.20. Both in Kerala and in Mysore, the State Governments have assisted the marketing co-operatives to obtain finance from the State Bank of India indirectly. This finance has been provided through co-operative banking structure against State Government guarantee. The amount of limits, recently sanctioned by the State Bank in favour of Mysore, are of the order of Rs. 5 crores, while the limit for Kerala is Rs. 60 lakhs. Since marketing co-operatives, dealing in plantation crops, will need substantial working finance, it is suggested that marketing co-operatives may be enabled to obtain this finance, and for this purpose, wherever necessary, the State Governments concerned may consider helping the co-operatives by coming forward with requisite guarantees in favour of the State Bank of India. In suitable cases, where marketing co-operatives with large operations have come up, these might be encouraged to approach the State Bank of India for direct finance.

6.21. At present, in Kerala, in respect of clean accommodation provided to marketing co-operatives by central cooperative banks, it is required that the marketing cooperatives must hold shares equivalent to 10 percent of the amount of clean accommodation. We consider that this condition leads to marketing societies locking up an unduly large proportion of their own funds in the shares of central co-operative banks. We would suggest that this may be reconsidered. In this connection, we invite attention to the following recommendation made by the Conference of Registrars of Cooperative Societies and State Ministers of Cooperation held at Lucknow in April, 1963 :—

“The conditions, governing investment by co-operative marketing and processing societies in the shares of central co-operative banks, should be suitably reviewed, so that marketing co-operatives are enabled to retain a substantial part of their share capital for investment in their own business.”

6.22. It is observed that in some of the successful arecanut marketing societies in Mysore, a substantial part of the working capital is derived from deposits from members and non-members of these societies. The total deposits held by 4 arecanut societies in Mysore is of the order of Rs. 21.5 lakhs. Even though attraction of deposits is the primary function of cooperative credit institutions, we are of the view that, taking into account the large needs of working capital by plantation crops marketing societies, it should be worthwhile for such societies to mobilise such deposits to the extent possible. These deposits should be used for current business and, under no circumstances, they should be locked up in fixed assets.

Marketing practices

6.23. Grading of specified plantation crops is particularly important in view of the price differentials between different grades and also the consumers' demand for quality. Current practice is that selective grading is done by wholesalers and exporters at the terminal markets. By and large, the actual producers have no opportunity to benefit from such grading arrangements. We recommend that increasingly marketing co-operatives should take to grading practices. A beginning may be made with regard to larger growers marketing sizeable quantities and in due course smaller growers may be educated into the need for adoption of improved market practices, including grading of produce. For development of grading, the concerned co-operatives may be enabled to make use of the subsidies available for appointment of grading staff and procurement of grading equipment under the co-operative development plan.

6.24. The specified plantation crops, particularly in Kerala State, are grown either in homestead gardens or in farms. In view of the small marketable surplus, an individual grower invariably sells away his produce at the village itself. In order to bring such growers within the fold of co-operative marketing structure, it is necessary for marketing co-operatives, at the initial stages, to come forward and be prepared to make outright purchases of the produce of such growers. In this connection, the Government of India have recently formulated a scheme for outright purchases of agricultural produce, under which assistance from Government would be available towards meeting losses arising out of such transactions. We would suggest that this scheme should be effectively exploited for development of co-operative marketing of plantation crops, particularly in Kerala and Mysore States.

Transport

6.25. The present pattern of financial assistance to marketing co-operatives makes funds available for purchase of transport vehicles. Co-operatives marketing plantation crops should assess their transport needs and avail themselves of the assistance given under this programme.

6.26. There are, however, some peculiar transportation problems in respect of certain plantation crops, an example of which is seen in the marketing of ginger. In the state of Himachal Pradesh, ginger is being transported from production centres in the interior to assembling centres on mules. The mule owners function as traders making outright purchases from growers and occupy a key position in the marketing structure. In order to establish direct contact with growers, it will be necessary for marketing co-operatives to provide mule transport as a part of their marketing service. We would, therefore, recommend that the marketing co-operatives in Himachal Pradesh and other States with similar conditions be given assistance for purchase of mules. This assistance may be given at 75 per cent as loan and 25 per cent as subsidy.

6.27. Another transport problem, graphically illustrated in the marketing of ginger, involves export to other states. For example, ginger

grown in Himachal Pradesh is exported to the States of Uttar Pradesh and Punjab by motor trucks. Co-operatives have experienced great difficulties in obtaining permits for operating their own lorries in such inter-state commerce. We would, therefore, recommend that State Governments take necessary steps to enable the co-operatives to obtain inter-state permits for transportation of ginger and other affected crops.

Processing

6.28. With regard to some of the crops with which we are concerned here, processing forms an essential stage in marketing. However, at present, co-operative processing of these crops is insignificant in terms of any impact in the interest of the producer. For example, in Kerala only 4 co-operative marketing societies undertake processing of coconut. Similarly, only one society each in Kerala and Mysore are undertaking processing of cashewnut. We consider that, in the Fourth Five Year Plan, the programme should include establishment of 5 coconut processing units in Kerala, 2 coconut processing units in Mysore and one cashewnut processing unit in Goa. Their location should be determined in the concerned States, taking into account the areas of production, the arrivals of marketable surplus, etc. We suggest that, based on available experience, model blue-prints of viable processing units in respect of the specified crops may be got prepared by the National Co-operative Development Corporation.

Integration of credit with marketing.

6.29. So far as effective linking of operations of marketing societies with that of credit societies is concerned, the progress made so far has been almost insignificant and the value of production loans advanced by credit societies recovered through marketing cooperatives continues to be negligible. Out of 46 societies, which responded to the questionnaire issued by the Study Team, only 5 marketing societies recovered credit of the order of Rs. 1,20,570. There is, however, a practice in the marketing of coconuts in Kerala State, called the 'Kettu Thengu' system, which offers some promise of improved linking of credit with marketing. Under this system, village credit societies advance production credit and perform certain production services such as harvesting of coconuts and dehusking. The coconuts are gathered, transported and sold to the marketing or processing societies. The sale price between the village society and the marketing or processing society is negotiated on the basis of current market price. One instalment of production loan is then deducted from the sale proceeds of the individual member by the village society. We recommend that such practice, with suitable modifications, may be extended to other crops also.

6.30. While, as indicated above, the link between the co-operative marketing institutions and co-operative credit institutions, dealing in plantation crops is rather feeble, integration between credit and marketing functions have taken place in Mysore and some areas of Kerala State, whereby marketing co-operatives dealing in arecanut and cardamom have developed a tradition of catering to the credit needs of their grower members. Under this system, marketing co-operatives advance loans to their members on the basis of 50 percent of the estimated value of the

yield of their crop or the average value of the produce delivered by the member to the society during the last three years. The members are required to sell their produce to the society and the loans advanced are recovered from sale proceeds. To avoid double loaning, the member is required to produce a certificate from the concerned village society, to the effect that he has not borrowed from the society for the same purpose. The following are the details of the loan operations of the 29 arecanut marketing societies located in Mysore, Kerala, Madras and Maharashtra.

	(Rs. in lakhs)	
	1962-63	1963-64
Loans advanced	... 167.68	209.91
Loans recovered	... 181.98	190.84

6.31. Historically speaking, the above practice has been in vogue for more than a decade or so. This practice appears to have helped the marketing co-operatives to attract the loyalty of members and develop a large volume of business. At the same time, the practice has provided an effective link between credit and marketing operations. During our visit to the States, it was represented to us by various officials and non-officials, connected with these societies that discontinuance of this practice is bound to hamper their business. In one marketing society, we observed that an attempt towards reducing the loaning operations of the society had resulted in considerable decline in its marketing business. We recognise that credit requirements of growers should normally be met by the primary credit societies. However, in view of the circumstances mentioned above, we are of the view that there are valid reasons for allowing the plantation crop marketing societies to continue their present practice, subject to certain safeguards. We may point out that this question was considered earlier in November, 1955 by the Conference on Marketing and Co-operation convened by the Ministry of Food and Agriculture. The Conference indicated the broad approach as follows :—

“Although, as a general rule, production credit should not be provided by the marketing societies, the State Governments may, for special reasons, permit the marketing societies to advance production credit to members.”

We consider that any attempt to divest plantation crop marketing co-operatives of their functions in the field of credit is likely to disrupt their marketing operations. We have noticed that in some cases, where under pressure, the concerned marketing co-operatives were required to give up this function, they have in fact continued to undertake it under the facade of a rural bank. We are constrained to point out that particularly in the matter of plantation crops, the production requirements, specially of the medium and the bigger growers, can be quite sizeable. In such cases, it may not perhaps be feasible or appropriate to load the village co-operative with the responsibility of providing large production credit to bigger producers, who may consequently take away a sizeable portion of their loanable resources. The following observations.

The following observations of late V. L. Mehta* in this regard are highly relevant :—

“If co-operative credit is to serve all types of agricultural producers, the requirements of large holders also have to be met. Sometimes, the credit needs of these individual holders, who are found in almost every rural community, exceed those of all the medium and small holders put together. In such circumstances, it is worth considering whether these needs may not be dealt with separately.”

6.32. In view of what we have stated above, it is our considered opinion that it should be permissible for selected marketing and processing co-operatives concerned with plantation crops to meet the larger credit needs of these producers, who are directly their members. This should be particularly so in the case of those societies which have historically undertaken such an activity. This, however, should be continued subject to certain precautions and safeguards. For instance, we would suggest that in the case of existing members, such loans should be permissible only in favour of those, who consistently sold their produce through the society in the preceding two years. The amount of loan may be a certain percentage of the value of produce sold. In the case of new individual producer members, the amount of loan may be related to the proportion of their anticipated sale through the marketing society. Care should also be taken to see that such producers do not borrow from village co-operatives. We may also add that, to the extent to which it is considered permissible for these marketing co-operatives to undertake provision of credit directly to their grower members, these co-operatives should be treated by central banks at par with primary agricultural credit societies for loan facilities and they should be eligible for flow of concessional finance provided by the Reserve Bank of India.

Institutional and departmental personnel

6.33 According to the information received by the Study Team from 46 marketing societies, only 14 societies have managers with training in cooperative marketing and previous business experience. In other words, a very substantial percentage of the marketing co-operatives surveyed by the Study Team did not appear to have suitable managerial personnel. This is a rather disturbing situation and it is perhaps one of the reasons why in some of the areas, co-operative marketing of plantation crops has not made much headway. While in the long run this problem may have to be tackled by institution of suitable managerial cadres, we would suggest that a small pool of suitably trained managerial personnel may be built up and their services loaned out to societies on deputation. This cell may, with advantage, be located in the All India Federation of Co-operative Plantation Crop Marketing Societies/Apex Marketing Societies.

6.34 Recently, the National Co-operative Development Corporation has sanctioned a scheme for establishment of promotional and assessment cells in apex marketing societies. We would suggest that, in Kerala and Mysore, the requirements of plantation crops should be specifically taken note of, while appointing experts to such cells.

*Article on 'Reorganisation of Credit' by late Shri V. L. Mehta, published in the Maharashtra Cooperative Quarterly-July, 1964.

6.35. With regard to departmental set up, we are constrained to note that in Kerala, the departmental personnel available for co-operative marketing is almost negligible. There is only one Assistant Registrar, (Marketing), at the Headquarters of the Registrar and there are no senior officers of the rank of Joint Registrar attending to this work at the Headquarters. Similarly, there is no personnel dealing with the subject at the lower level. We would suggest that the co-operative departments, particularly in Kerala, should be suitably strengthened in this regard.

Regulation of markets.

6.36 Many of the malpractices prevalent in the marketing of these crops can be eliminated by regulation of markets. In Kerala State, except in the Malabar area, which was originally a part of Madras State, the Regulation of Markets Act is not applicable. We would suggest that necessary legislation should be enacted to regulate the markets dealing with these crops.

6.37 In Mysore State, the Regulated Markets Act is in force and all the six specified crops have been declared as notified commodities. In spite of the enforcement of this Act, there are a number of malpractices in the marketing of arecanut, e.g. (i) the brokers put up dummy purchasers and purchase the stock in collusion to the disadvantage of the producer ; (ii) there are no centralised market yards in the regulated markets and sales take place at the shops of the licenced brokers ; (iii) the stocks are not lifted immediately after the sale and in some instances, the traders, who purchase in auctions, do not lift them due to fall in prices, etc. There is no provision in the Regulated Markets Act to penalise such defaulters. In the absence of a provision for demanding a sizeable proportion of the sale value of the produce purchased as earnest money, it creates difficulties for the cooperatives working as licenced agents. We would, therefore, urge that necessary measures be taken to remove such defects from the Act and provision made to check any of such malpractices.

Role of Commodity Committees

6.38 At present, Government of India, in the Ministry of Food and Agriculture, have set up various promotional agencies, namely (1) The Indian Central Arecanut Committee, (2) Indian Central Coconut Committee, and (3) The Indian Central Spices and Cashewnut Committee, for the development of production and marketing of these crops. An Advisory Board and a Directorate have also been constituted by the Government of India, in the Ministry of Commerce, for looking after the marketing of cardamom. Though development of internal marketing is also one of the important functions assigned to these commodity committees, it is observed that, with the exception of the Indian Central Arecanut Committee, very little attempt has been made in this line by the other two Committees.

6.39 The Indian Central Arecanut Committee has, however, taken positive interest in the production and development of marketing of arecanuts and systematic efforts are being made in the development of co-operative marketing. As already pointed out, the Indian Central Arecanut Committee has a separate marketing wing at its secretariat in charge of the co-operative marketing officer, who has been assigned duties

and responsibilities of developing marketing of this commodity, particularly on co-operative lines. We recognise that, along with increasing the production of these commodities, an organised marketing structure is also very necessary, which will indirectly provide incentives to the farmers for increasing production. We, therefore, strongly recommend that the other two Commodity Committees should also organise marketing wings at their secretariats to take up such promotional activities for development of co-operative marketing in their respective fields.

Estimate of State aid to co-operatives

6.40. In the foregoing paragraphs, we have suggested State-aid to the plantation crop marketing co-operatives under various heads. We estimate that the approximate cost in implementing these recommendations will be Rs. 170 lakhs as under :

	<i>(Rs. in lakhs).</i>	
1. Assistance to the All India Federation of Plantation Crops :		
(i) Government share capital contribution	10.000	
(ii) Managerial subsidy.	1.000	
(iii) For construction of godowns and office building		
	Loan	1.125
	Subsidy.	0.375
(iv) Subsidy for hiring godowns	0.500	13.00
2. Assistance to primary marketing societies :		
(i) Government share capital contribution to:		
(a) 17 new societies at Rs. 1 lakh each.	17.000	
(b) 104 existing societies at Rs. 75,000 each.	78.000	
(ii) Managerial subsidy		
(a) to 25 new marketing/processing societies @ Rs. 10,000 each:	2.500	
(b) to 104 existing societies additional subsidy @ Rs. 5,000 each	5.200	102.70
3. Assistance to processing units :		
(i) Government share capital contribution for 8 new processing units @ Rs. 2 lakhs each	16.000	16 00

4. Assistance for purchase of transport vehicles/ animals :			
(i) Loan for purchase of trucks to about 30 marketing/processing societies @ Rs. 50,000 each.	15.000		
(ii) Loan and subsidy for purchase of mules to about 5 societies @ Rs. 3,000 each			
Loan	0.112		
Subsidy	0.038	15.15	
5. Government contribution to the Price Fluc- tuation Fund of marketing/processing socie- ties @ 2% on outright purchases of about Rs. 9 crores.	18.000	18.00	
6. Subsidy for maintaining a pool of managerial personnel in Apex Marketing Societies.	5.000	5.00	
	Total		<u>169.85</u>

ANNEXURE I.

List of Cooperative marketing societies which replied to the questionnaire issued by the Study Team.

Kerala :

1. Karthikappally Taluk Marketing Cooperative Society, Ltd., Haripad (Alleppey District).
2. Mavelikkara Taluk Coconut Marketing and Processing Cooperative Society, Ltd., Mavelikkara (Alleppey District).
3. Trivandrum District Coconut Processing and Marketing Cooperative Society, Ltd., Kadakkavoor (Trivandrum District).
4. Nileshwar Coconut Growers' Cooperative Marketing Society, Ltd., (Cannanore District).
5. Cannanore Taluk Coconut Marketing Cooperative Society, Ltd., (Cannanore District).
6. Badagara Taluk Primary Cooperative Marketing Society, Ltd., Kakkattil (Kozhikode District).
7. Chavara Coconut Processing and Marketing Cooperative Society, Ltd., Chavara (Quilon District).
8. Perinad Coconut Processing and Marketing Cooperative Society, Ltd., Perinad (Quilon District).
9. Quilon Coconut Processing and Marketing Cooperative Society, Ltd., (Quilon District).
10. Sasthamcotta Coconut Processing and Marketing Cooperative Society, Ltd., Patharam (Quilon District).
11. Trivandrum District Arecanut Marketing Cooperative Society, Ltd., Nedumangad.
12. Trichur Taluk Arecanut Marketing Cooperative Society, Ltd., Trichur.
13. Talappilly Taluk Arecaut Curing and Marketing Cooperative Society, Ltd., Pazhanji (Trichur District).
14. Tirur Taluk Arecanut Marketing Cooperative Society, Ltd., Thalakatathur (Kozhikode District).
15. Monipally Ginger Marketing Cooperative Society, Ltd., Monipally (Kottayam District).
16. Kallar Cardamom Producing and Marketing Cooperative Society, Ltd., Vattiar (Kottayam District).
17. Manjeri P. C. C. Marketing Cooperative Society, Ltd., Manjeri (Kozhikode District).
18. Palai Marketing Cooperative Society, Ltd., Palai, (Kottayam District).
19. Ponkunnam Marketing Cooperative Society, Ltd., Ponkunnam (Kottayam District).
20. Kasargode Agriculturists' Cooperative Marketing Society, Ltd., Neerchal (Cannanore District).

21. Kottacherry Cooperative Marketing Society, Ltd., Kanhangad (Cannanore District).
22. Taliparamba Cooperative Arecanut Marketing Cooperative Society, Ltd., Taliparamba (Cannanore District).
23. North Malabar District Cooperative Supply and Marketing Society, Ltd., Calicut.
24. Quilandy Taluk Arecanut Marketing Cooperative Society, Ltd., Perambra, (Kozhikode District).
25. Tellicherry Taluk Arecanut Marketing Cooperative Society, Ltd., Mattanur (Cannanore District).
26. Perinthalmanna Cooperative Marketing Society, Ltd., Perinthalmanna (Palghat District).
27. Mannarghat Cooperative Marketing Society, Ltd., (Palghat District).

Mysore :

1. Mysore State Arecanut Cooperative Marketing Federation, Ltd., Shimoga.
2. South Kanara Agriculturists Cooperative Marketing Society, Ltd., Mangalore.
3. Malnad Areca Marketing Cooperative Society, Ltd., Shimoga.
4. Sirsi Thotgars Cooperative Sale Society, Ltd., Sirsi, North Kanara.
5. Kumta Cooperative Arecanut Sales Society, Ltd., Kumta, (North Kanara District).
6. Tumkur District Areca Marketing Cooperative Society, Ltd., Tumkur.
7. Arsikere Coconut and Copra Cooperative Marketing Society, Ltd., Arsikere, (Hasan District).
8. Arakalgud Taluq Agricultural Produce Cooperative Marketing Society, Ltd., Arakalgud, (Hasan District).
9. Arsikere Taluq Agricultural Produce Cooperative Marketing Society, Ltd., Arsikere, (Hasan District).
10. Shimoga Taluk Agricultural Produce Cooperative Marketing Society, Ltd., Shimoga.

Madras :

1. The Mettupalayam Cooperative Marketing Society, Ltd., (Coimbatore District).
2. The Pattiveeranpatti Cooperative Coffee Curing Industrial Society, Ltd., (Madurai District).
3. Kadambuliur Cashewnut Marketing Society, Ltd., (South Arcot District).

Maharashtra :

1. Murud Vibhag Sahakari Supari Karidi Vikri Sangh, Ltd., Murud, (Kolaba District).

2. Konshi Vividh Karyakari Sahakari Society, Ltd., Konshi, (Ratnagiri District).
3. Vengurla Cooperative Cashew Processing Society, Ltd., Vengurla, (Ratnagiri District).

Assam :

1. The Sonai Marketing Cooperative Society, Ltd., P.O. Sonaimirikh, (District Cachar).
2. Lakhipur Marketing Cooperative Society, Ltd., P.O. Tarinigonj Bajar, (District Cachar).
3. Kolasib Regional Marketing Cooperative Society, Ltd., P.O. Kolasib, (Mizo District).

ANNEXURE II

List of State Marketing Officers and Registrars of Cooperative Societies who furnished replies to the questionnaire issued by the Study Team.

State Marketing Officers.

1. State Marketing Officer, Madras.
2. Chief Marketing Officer, Mysore.
3. Agricultural Marketing Officer, Kerala.
4. Agricultural Marketing Officer, Assam.
5. State Marketing Officer, Andhra Pradesh.
6. Additional Director of Agriculture, (Marketing), West Bengal.
7. Chief Marketing Officer, Maharashtra.
8. Director of Agriculture, Goa.

Registrars of Cooperative Societies :

1. Registrar of Cooperative Societies, Madras.
2. Registrar of Cooperative Societies, Mysore.
3. Registrar of Cooperative Societies, Kerala.
4. Registrar of Cooperative Societies, Orissa.
5. Registrar of Cooperative Societies, West Bengal.
6. Registrar of Cooperative Societies, Goa.

ANNEXURE III.

Names of the Cooperative Institutions visited by the Study team.

Mysore

1. Mysore State Arecanut Cooperative Marketing Federation, Shimoga.
2. Malnad Arecanut Cooperative Marketing Society, Shimoga.
3. South Kanara Agriculturists Cooperative Marketing Society, Mangalore.
4. Saklashpur Taluk Cooperative Marketing Society, Saklashpur.
5. Arsikere Coconut Cooperative Marketing Society.
6. Tiptur Coconut Cooperative Marketing Society.
7. Sirsi Totgars Cooperative Sale Society, Sirsi.
8. " " " Siddapur Branch.
9. Karwar Cashew Processing Cooperative Society.
10. Coorg Cardamom Growers Cooperative Society, Mercara.

Kerala

1. Manjeri P.C.C. Marketing Society.
2. Kerala State Cooperative Marketing Federation, Calicut.
3. North Malabar District Cooperative Supply and Marketing Society, Calicut.
4. Tirur Taluk Areca Cooperative Marketing Society.
5. Trichur Taluk Cooperative Marketing Society.
6. Cardamum Producing and Marketing Cooperative Society, Kallar.
7. Spices Cooperative Marketing Society, Vandanmedu.
8. Ponkunnam Cooperative Marketing Society, Ponkunnam.
9. Palai Cooperative Marketing Society.
10. Chavara Coconut Cooperative Marketing & Processing Society.
11. Trichur District Cooperative Central Bank.
12. Kerala State Cooperative Bank, Ltd., Trivandrum.
13. Kerala State Central Cooperative Land Mortgage Bank, Ltd., Trivandrum.
14. District Cooperative Central Bank, Calicut.

Assam

- (i) Assam Cooperative Apex Marketing Society, Ltd., Gauhati.
- (ii) Bojali Primary Marketing Society, Bojali.
- (iii) Naya Banglow Primary Marketing Society, Naya Banglow.
- (iv) Assam Cooperative Apex Bank, Ltd.
- (v) Assam Cooperative Central Land Mortgage Bank, Ltd.

Himachal Pradesh

- (i) Himachal Pradesh Cooperative Marketing Federation, Simla.
- (ii) Tehsil Cooperative Union, Paonta.
- (iii) Himachal Pradesh State Cooperative Bank, Simla.

ANNEXURE

KERALA—

District-wise area and production of the

Name of District	Arecanut*		(1959—60) Coconut@		Cashewnut**	
	Area	Production.	Area	Production.	Area	Production.
	Acres	Tons	Acres	Million nuts	Acres	Tons
Trivandrum ..	6587		139245	385	11333	7033
Quilon ..	13281		149153	412	22024	13668
Alleppey ..			183429	508	7294	4527
Kottayam ..	14687		145829	403	5563	3452
Ernakulam ..	15747	46692	106289	294	16081	9980
Trichur ..			86385	239	21949	13622
Palghat ..	22336		45003	124	8031	4984
Calicut ..	48882		242273	670	25702	15951
Canannore ..	24400		119485	330	16245	10080
Total for the State	145920		1217091	3365	134222	83297

Source :

* Indian Central Arecanut Committee.

@ Indian Central Coconut Committee.

** State Marketing Officer, Kerala.

IV.

1961-62

specified plantation crops

Cardamom**		Pepper**		Ginger**	
Area	Production	Area	Production	Area	Production
Acres	Tons	Acres	Tons	Acres	Tons
—	—	20845	3580	250	88
—	—	13045	2180	379	223
—	—	4330	720	150	82
60104	1071	34790	5420	8997	3122
2574	47	16875	2760	2883	1216
—	—	1710	290	199	143
4422	78	8456	680	4773	1663
2633	47	39695	3190	10875	4150
956	17	106733	7780	1156	399
70689	1260	246500	26600	29662	11086

ANNEXURE

MYSORE—

District-wise area and production of the

Name of the Districts	(1959-60)					
	Arecanut*		Coconut@		Cashewnut**	
	Area	Production.	Area	Production.	Area	Production.
	Acres	Tons	Acres	Million nuts.	Acres	Tons
Bangalore ..	742	93	7485	14	281	52
Kolar ..	227	53	743	1	514	175
Tumkur ..	4736	1277	66521	87	62	16
Mysore ..	1312	235	12379	22	4	2
Mandya ..	698	77	11324	34	—	—
Hassan ..	2832	361	51773	99	—	—
Shimoga ..	16043	5659	572	—	60	23
Chickmagalur ..	11874	3797	19973	53	64	17
Chitaldurg ..	4683	753	24605	58	53	14
Bellary ..	—	—	705	2	14	4
Dharwar ..	241	47	396	1	—	—
Belgaum ..	—	—	—	—	22	13
North Kanara ..	16440	8459	11811	41	1777	2136
Bidar ..	—	—	—	—	—	—
Raichur ..	—	—	—	—	—	—
Gulbarga ..	—	—	332	—	—	—
S. Kanara ..	14980	6238	29832	82	12121	7110
Coorg ..	658	369	—	—	813	241
Bijapur ..	—	—	—	—	—	—
Total ..	75466	27418	238451	494	15785	9803

Source :

- * Indian Central Arecanut Committee.
- @ Indian Central Coconut Committee.
- ** State Marketing Officer, Mysore.

V.

1961-62

specified plantation crops

Cardamom **		Pepper **		Ginger **	
Area	Production	Area	Production	Area	Production
Acres	Tons	Acres	Tons	Acres	Tons
—	—	—	—	81	30
—	—	—	—	26	34
—	—	—	—	—	—
—	—	—	—	—	—
20963	552	30	5	—	—
75	2	250	6	490	1755
11805	432	77	4	15	68
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	13	33
—	—	—	—	1	3
868	34	2273	158	1	3
—	—	—	—	120	116
—	—	—	—	—	—
3	Negligible	—	—	—	—
912	11	2360	963	2102	1987
17805	453	1364	25	25	44
—	—	—	—	—	—
52431	1484	6354	1161	2874	4073

ANNEXURE

MADRAS STATE—

District-wise area and production of the

Name of District	Arecanut *		@ Coconut (1959—60)		** Cardamom	
	Area in Acres	Production in tons	Area in Acres	Production in Million nuts	Area in Acres	Production in tons
Chingleput ..	—	—	9440	28	—	—
South Arcot ..	2	—	2972	9	—	—
North Arcot ..	—	—	10482	32	—	—
Coimbatore ..	1715	620	11828	35	2769	60
Salem ..	1180	274	9882	30	390	—
Tiruchirapalli ..	3	—	7493	22	—	—
Thanjavoor ..	40	10	36591	146	—	—
Madurai ..	410	102	9077	27	10730	456
Ramnad ..	—	—	6991	21	—	—
Tirunelveli ..	490	183	5407	16	2070	50
The Nilgiris ..	—	—	8	—	240	10
Kanyakumari ..	600	162	22468	68	—	—
State ..	4440	1351	1,32,639	434	16199	586

Source :

* Indian Central Arecanut Committee.

@ Indian Central Coconut Committee.

** State Marketing Officer, Madras.

VI.

1961-62

specified plantation crops.

Cashewnut **		Black Pepper **		Ginger **	
Area in Acres	Production in tons	Area in Acres	Production in tons	Area in Acres	Production in tons
—	—	—	—	—	—
38945	4400	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
24000	4000	—	—	—	—
13308	1800	—	—	—	—
—	—	—	—	30	15
—	—	—	—	—	—
—	—	—	—	—	—
—	—	183	73	546	273
7392	1650	360	143	320	160
83645	11850	543	216	896	448

ANNEXURE
MAHARASHTRA—
District-wise area and production of the

District	ARECANUT *		COCONUT @	
	Area acres	Production (Tons)	Area acres	Production (1000 nuts)
Bombay Dist. ..	—	—	} 1132	} 1580
Thana ..	—	—		
Kolaba ..	1264	707	1883	3585
Ratnagiri ..	3705	2125	16532	20503
Satara ..	—	—	—	—
Aurangabad ..	—	—	—	—
Bhadra ..	—	—	—	—
Alibag ..	—	—	—	—
Kolhapur ..	105 †	4 †	2	—
Total	5074	2836	19549	25668

Source :

- * Indian Central Arecanut Committee.
- @ Indian Central Coconut Committee.
- † Other districts.

VII.

1961-62

specified plantation crops.

GINGER **		CASHEWNUT **	
Area acres	Production (Tons)	Area acres	Production (Tons)
—	—	—	—
52	194	—	—
—	—	—	—
—	—	8900	4450
330	1232	—	—
73	272	—	—
59	220	—	—
—	—	50	25
—	—	800	400
514	1918	9750	4875

Source :

** State Marketing Officer, Maharashtra.

ANNEXURE

ASSAM—

District-wise area and production

District	ARECANUT *		COCONUT @	
	Area acres	Production in Tonnes	Area acres	Production. (0.00 nuts)
Goalpara ..	6377	966	250	500
Kamrup ..	6961	1196	2500	5000
Darrang ..	7318	2644	1100	2200
Nowgong ..	3814	935	1200	2400
Sibsagar ..	5292	2029	400	800
Lakhim Pur ..	6004	1790	200	400
Cachar ..	2927	1875	300	600
K & J Hills ..	13024	2889	—	—
Garo Hills ..	—	—	—	—
Mikir Hills ..	—	—	50	100
Mizo Hills ..	—	—	—	—
Total ..	51717	14324	6000	12000

Source :

* Indian Central Arecanut Committee.

@ State Marketing Officer, Assam.

VIII.

1961-62

of the specified plantation crops.

CASHEWNUT @		PEPPER @		GINGER @	
Area acres	Production lbs.	Area acres	Production lbs.	Area acres	Production lbs.
N.A.	—	—	—	—	—
N.A.	—	—	—	300	4500
N.A.	—	70	240	—	—
N.A.	—	—	—	—	—
N.A.	—	—	—	—	—
N.A.	—	—	—	—	—
5	200	—	—	—	—
N.A.	—	500	1500	700	10500
1850	5500	400	540	2095	31425
2320	3000	58	70	450	6750
N.A.	—	—	—	2200	33000
4175	8700	1030	2350	6745	86175

ANNEXURE IX.
WEST-BENGAL 1961-62
District-wise area and production of the specified plantation crops.

Name of District	Arecanut †		@Coconuts		@Cashewnut		@Ginger	
	Area	Production	Area	Production	Area	Production	Area	Production
	Acres	Tonnes	Acres	Tonnes	Acres	Tonnes	Acres	Tonnes
Calcutta	13	9	—	—	—	—	—	—
24 Parganas	800	328	7800	31200	—	—	—	—
Nadia	12	4	—	—	—	—	—	—
Murshidabad	24	—	—	—	—	—	—	—
Burdwan	18	4	—	—	—	—	130	240
Birbhum	1	—	—	—	—	—	232	470
Bankura	1	—	—	—	—	—	—	—
Midnapore	280	78	—	—	1841	988	175	390
Hooghly	61	17	957	5250	—	—	—	—
Howrah	89	81	6385	46850	—	—	—	—
Jalpaiguri	1,838	652	110	98	—	—	50	75
Darjeeling	28	14	—	—	—	—	930	2585
Malda	18	40	—	—	—	—	—	—
West Dinajpur	78	54	—	—	—	—	298	298
Cooch Behar	2171	1179	110	96	—	—	27	18
Purulia	—	—	—	—	—	—	33	50
Total	5432	2460	15362	83494	1841	988	1875	4126

Source : † Indian Central Arecanut Committee. @ State Marketing Officer, West Bengal.

ANNEXURE X.
ANDHRA PRADESH—1961-62.
District-wise area and production of the specified plantation crops.

Name of District	‡ Arecanut		1959-60 Coconut		@ Cashewnut	
	Area	Production	Area	Production	Area	Production
	Acres	Tons	Acres	1000 nuts	Acres	Tons
Srikakulam	1	—	13548	36580	6642	2214
Visakhapatnam	—	—	3169	10775	4231	1910
East Godavary	—	—	52908	211632	9937	3312
West Godavary	—	—	11018	38563	3936	—
Krishna	—	—	633	1266	92	—
Guntur	—	—	459	286	1301	4500
Nellore	—	—	217	325	982	258
Kurnool	—	—	82	246	21	—
Anantapur	425	92	358	537	19	—
Cuddapah	—	—	91	91	—	—
Chittoor	—	—	1884	5652	84	—
Telengana region	—	—	37	37	365	—
Total	426	92	84104	305990	27610	11694

xvii

Source :—‡ Indian Central Arecanut Committee.
 @ State Marketing Officer, Andhra Pradesh.

† Indian Central Coconut Committee.

ANNEXURE

Other States—

District-wise area and production of the

<u>HIMACHAL PRADESH</u>				<u>ORISSA</u>			
Name of district	Ginger		Production Tonnes	Name of district	Coconuts @		Production 1000 nuts.
	Area Acres				Area Acres		
Mahasu ..	331		237	Balasore ..	239		81
Mandi ..	2		1	Cuttack ..	2610		6000
Sirmur ..	2919		414	Puri ..	7500		31050
Chamba ..	—		—	Koraput ..	22		45
Bilaspur ..	118		42	Ganjam ..	685		8870
Kinnaur ..	—		—	Dhenkanal ..	38		10
Total ..	3370		694	Total ..	11094		46056

Source :

@ Indian Central Coconut Committee.

XI.

1961-62

specified plantation crops.

<u>GUJARAT</u>				<u>GOA</u>			
Name of district	Coconuts @		Name of district (Mahal)	Coco-nut †	Areca nut †	Cashew-nut †	
	Area Acres	Pro-duction 1000 nuts		Area	Area	Area	
				Hectares	Hectares	Hectares	
Kaira ..	6	—	Bardes ..	2471	2	5835	
Junagadh	350	504	Bicholim ..	1140	227	2445	
Amreli ..	51	184	Satari ..	398	327	4982	
Bhavnagar	545	2296	Ponda ..	1671	875	2621	
Surat ..	9	—	Goa ..	1474	21	3966	
Kutch ..	215	1613	Mormugao ..	1256	63	279	
			Salcete ..	4590	—	1430	
			Quepem ..	1436	23	1085	
			Sanguem ..	2533	109	2828	
			Canacona ..	541	70	1085	
			Pernem ..	1076	4	3512	
Total ..	1176	4597					

Source :

@ Indian Central
Coconut Committee.

† Director of Agriculture, Goa.
No Production survey was made.
The above figures are estimated.

ANNEXURE XII.

List of important Markets for the crops in the major producing States.

KERALA

Name of Market	Estimated Annual arrivals	Name of Market	Estimated Annual arrivals
<i>Coconuts.</i>		14. Palghat	280 Million nuts.
1. Pettah (Trivandrum)	25 Million nuts.	15. Vattankulam	250 "
2. Varkala	45 "	16. Ponnani	200 "
3. Kadakkavoor	55 "	17. Perambra	500 "
4. Karunagappally	20 "	18. Thalakkadathur	650 "
5. Ochira	18 "	19. Kasargode	300 "
6. Quilon	35 "	20. Baliapatam	250 "
7. Kottarakkara	15 "	21. Tellicherry	250 "
8. Alleppey	30 "	Pepper	
9. Mavelikara	45 "	1. Panachamood	70 Tonnes.
10. Kayamkulam	55 "	2. Kattakada	80 "
11. Sherthala	50 "	3. Nedumangad	970 "
12. Vaikom	35 "	4. Kottarakkara	120 "
13. Changanacherry	28 "	5. Punalur	250 "
14. Paravoor	35 "	6. Konni	180 "
15. Thodupuzha	15 "	7. Parakode	70 "
16. Thottapuram (Cranganore)	40 "	8. Alleppey	@ 12700 "
17. Vadanappali	25 "	9. Thiruvalla	250 "
18. Ponnani	45 "	10. Kottayam	780 "
19. Kozhikode	95 "	11. Palai	1200 "
20. Tirur	80 "	12. Cochin	@ 2500 "
21. Badagara	65 "	13. Alwaye	1000 "
22. Beypore	70 "	14. Thodupuzha	750 "
23. Cannanore	35 "	15. Moovattupuzha	800 "
24. Baliapatam	70 "	16. Kozhikode	@ 2300 "
25. Tellicherry	30 "	17. Tellicherry	2200 "
Arecanut.		18. Kanjangad	1500 "
1. Nedumangad	150 "	19. Kasaragode	850 "
2. Palode	170 "	20. Cannanore	1400 "
3. Quilon	175 "	Ginger Raw.	
4. Kottarakkara	100 "	1. Punalur	50 "
5. Konni	125 "	2. Parakode	70 "
6. Parakode	80 "	3. Alleppey (dry)	@ 786 "
7. Palai	180 "	4. Kottayam	270 "
8. Kayamkulam	140 "	5. Changanacherry	300 "
9. Paravoor	190 "	6. Palai	800 "
10. Moovattupuzha	200 "	7. Cochin (dry)	@ 4711 "
11. Thodupuzha	220 "	8. Perumbavoor	250 "
12. Trichur	250 "	9. Thodupuzha	480 "
13. Vadanappally	200 "	10. Alwaye	300 "
		11. Kozhikode (dry)	@ 2392 "
		12. Tellicherry	350 "

Cashew (raw nuts).

1. Nedumangad	107 Tonnes.	Kottayam	District	63
2. Kottarakkara	2500 "	Trichur	"	146
3. Trichur	373 "	Kozhikode	"	111
4. Alwaye	1434 "	Palghat	"	92
5. Kozhikode	561 "	Cannanore	"	49
		Ernakulam	"	75
		Alleppey	"	34
		Quilon	"	226
		Total	"	878 ‡

N.B. @ It includes the despatches from other assembling markets as they are the chief exporting centres.

‡ This includes about 60% of primary regular markets and 40% secondary markets and shandies.

II. Total number of markets in the State (District wise).

Trivandrum District 82

(Source : State Marketing Officer, Kerala).

ANNEXURE XII.

Name of Market	Estimated annual arrivals			
	Arecanut Quintals	Coconut 1000 nuts	Pepper Qtls.	Cardamom Qtls.
Mysore :				
1. Bangalore	.. —	31035	—	—
2. Mysore	.. —	785	—	—
3. Tumkur	.. 9021	3148	—	—
4. Sira	.. 1613	386	—	—
5. Tiptur	.. —	6010	—	—
6. Tiruvekere	.. —	300	—	—
7. Kunigal	.. 84	640	—	—
8. Challakere	.. —	895	—	—
9. Hosadurga	.. —	478	—	—
10. Hiriyur	.. 700	344	—	—
11. Mangalore	.. 155367	524	—	—
12. Arsikere	.. —	23451	—	—
13. Hassan	.. —	3753	—	—
14. Kadur	.. 600	104	—	—
15. Mandya	.. —	722	—	—
16. Madhugiri	.. 7074	—	—	—
17. Shimoga	.. 66640	—	119	—
18. Sagar	.. 47144	—	620	—
19. K. R. Nagar	.. 94	—	—	—
20. Sirsi	.. 768907	—	5373	390
21. Saklasapur	.. —	—	—	7700
22. Nanjangud	}	N. A.		
23. Chicknayakanahalli				
24. Chitra Durga				
25. Channapatna				
26. Kumta				
27. Chamarajanagar				
28. Gubbi				

(Note :—All the above markets are Regulated Markets.)

Name of Market		Estimated Annual arrivals
Madras :		
<i>Coconut</i>		<i>1000 nuts</i>
1. Coimbatore	.. ..	104
2. Madurai	.. ..	20000
3. Shencottah	.. ..	5000
4. Tirunelveli	.. ..	2000
5. Nagarcoil	.. ..	N. A.
6. Vedachary	.. ..	20000
7. Thoduvatti	.. ..	12500
8. Karungal Chanthai	.. ..	15000
9. Kumbakonam	.. ..	10000
10. Tanjavoor	.. ..	15000
11. Abiramapattinam*	.. ..	40000
12. Muthupet*	.. ..	30000
13. Koradachery	.. ..	25000
14. Trichirapalli	.. ..	20000
15. Lalgudi	.. ..	5000
16. Musuri	.. ..	5000
17. Vaniambadi	.. ..	5329
18. Ambur	.. ..	3861
19. Gudiyatham	.. ..	1528
20. Vellore	.. ..	160
21. Wandawash	.. ..	50
22. Madras City	.. ..	8000
23. Kanchipuram	.. ..	1200
*Regulated Markets.		
<i>Cardamom</i>		<i>Quintals</i>
1. Coimbatore	.. ..	190
2. Bodinaicknur	.. ..	15819
3. Pattiveeranpatti	.. ..	1914
4. Virdhunagar	.. ..	5423
<i>Arecanut</i>		
1. Shencottah	.. ..	200 lakh nuts.
2. Tenkasi	.. ..	100 „ „
3. Nagarcoil	.. ..	180 „ „
4. Vedachery	.. ..	100 „ „
5. Thoduvatti	.. ..	100 „ „

Name of Market		Estimated Annual arrivals
<i>Ginger</i>		
1. Coimbatore	.. ..	500 to 1000 Qtls.
<i>Pepper</i>		
1. Coimbatore	.. ..	900 to 1200 Qtls.
<i>Cashewnuts</i>		
1. Coimbatore	.. ..	770 Quintals.
2. Gandarvakottai	.. ..	120000 ..
3. Panruti	.. ..	8000 ..
4. Jayakondam	.. ..	} 12000 ..
5. Andimadam	.. ..
6. Thoduvatti	.. ..	3600 ..
7. Monday market	.. ..	3000 ..
8. Kalliakkuvillai	.. ..	3000 ..
9. Pettaichantai	.. ..	2200 ..

(Source : State Marketing Officer, Madras.)

Maharashtra

(1) Coconuts

Vengurla	.. ..	6 lakhs nuts.
Sawantwadi	.. ..	15
Revdanda	.. ..	16

(2) Arecanut

Vengurla	.. ..	19 tons.
Sawantwadi	.. ..	56 ..
Dapoli	.. ..	336 ..
Murud	.. ..	336 ..
Shrivardhan	.. ..	97 ..

(3) Cashewnuts

Sawantwadi	.. ..	10000 bags of 75 Kg.
Vengurla	.. ..	15000
Malvan	.. ..	15000

Name of Market	Estimated Annual arrivals
(4) <i>Ginger</i>	
Bombay	18250 bags of 60 Kg.
Poona	6000 ,, 70 ,,
Aurangabad	1100 ,, 50 ,,

(Source : State Marketing Officer, Maharashtra).

Assam

(1) <i>Areca nut</i>	
Gauhati	2500 tones
Rangiya	1000 ,,
Nalbari	2500 ,,
Cherra	1000 ,,
Shillong	2050 ,,
Nakachari	80 ,,
Tinsukia	100 ,,
Sealtic	60 ,,
Bhanga	400 ,,
Kaligara	200 ,,
Silchar	400 ,,
Nowgong	1500 ,,
Roha	500 ,,
(2) <i>Coconut</i>	
Gauhati	10000 nuts.
Rangiya	20000 ,,
Nalbari	20000 ,,
(3) <i>Ginger</i>	
Gauhati	75 tones.
Shillong	750 ,,
Tinsukia	100 ,,
Sonai	200 ,,
Kaligora	100 ,,
Silchar	400 ,,

(Source : State Marketing Officer, Assam).

ANNEXURE

Market charges payable by sellers per Rs. 100.00 worth of

Items	Planters' Association		
	Bodinaya- kanpur	Theva- ram	Uthama- palayam
	Rs. P.	Rs. P.	Rs. P.
1. Commission	0.45	0.35	—
2. Subscription of Planters' Association	0.42	0.14	0.56
3. <i>Chinthamani</i> (falling cardamom or sweepings)	0.01	0.50	0.50
4. Samples	0.22	0.22	0.22
5. Discount for moisture, refraction, etc.	1.00	—	—
6. Octroi	—	—	—
7. Market cess	—	—	—
8. Weighment	—	—	—
9. Hamali	—	—	—
10. Drying, cleaning and assorting	—	—	—
11. Sticking	—	—	—
12. Godown rent per month	—	—	—
13. Sales tax	—	—	—
Total	2.10	1.21	1.28

XIII—A.

cardamom at different important assembling markets.

Cooperative Marketing Societies			Regulated markets		Unregulated markets	
Patti-veeran-patti	Mercara	Mangalore	Saklespur	Sirsi	Patti-veeran-patti	Cochin
Rs. P.	Rs. P.	Rs. P.	Rs. P.	Rs. P.	Rs. P.	Rs. P.
1.00	1.00	0.55	1.56	1.00	2.00*	1.00
—	—	—	—	—	—	—
0.25	—	—	0.01	—	—	—
0.25	—	—	—	—	0.25	1.00
1.00	—	—	—	—	1.00	—
—	0.05	—	0.05	0.10	—	—
—	—	—	0.25	0.10	—	—
—	—	—	0.05	0.05	—	—
—	—	—	0.05	0.01	—	—
0.65@	—	—	—	—	0.65	—
—	—	—	—	0.01	—	—
—	—	—	—	0.15	—	0.11
—	—	—	—	—	—	2.00 †
2.50	1.05	0.55	1.97	1.42	3.25	4.11

* In case of withdrawals, commission varying from 1 to 2 per cent is charged.

@ Drying, cleaning and assorting charges are incurred only when such service is rendered.

† Sales tax is payable by the seller in Kerala State and a purchase tax of 2 per cent is payable by the purchaser in Madras State.

Note.—1. For calculation purposes the average yield of 22 kg. per hectare has been taken because the subscription is collected on the basis of the members' holdings i.e. per hectare per year. The average price has been taken @ Rs. 20 per kg.

2. *Chinthamani* and Samples are per lot, the lot usually consists of 100 lbs (45.4 kg.).

ANNEXURE

Market charges in cash and kind payable by sellers at

Items	Planters' Association		
	Bodinaya- kanur	Thevaram	Uthama- palayam
	Rs. P.	Rs. P.	Rs. P.
1. Commission	0.09 per kg.	0.07 per kg.	
2. Subscription of the Pla- ters' Association (per hectare per year).	1.85	0.62	2.47
3. <i>Chinthamani</i> (falling cardamom or sweepings).	5 kg. per auction	225 gm. per lot	225 gm. per lot
4. Samples	100 gm. per lot of 45.4 kg.	100 gm. per lot of 45.4 kg.	100 gm. per lot of 45.4 kg.
5. Discount for moisture, refraction, etc.	1 per cent	—	—
6. Octroi	—	—	—
7. Market cess	—	—	—
8. Weighment	—	—	—
9. Hamali	—	—	—
10. Drying, cleaning and assorting.	—	—	—
11. Stitching	—	—	—
12. Godown rent	—	—	—
13. Sales tax	—	—	—

XIII-B.

different important assembling markets.

Cooperative Marketing Societies			Private commission agents at Regulated markets		Private commission agents at unregulated markets		
Pattiveeranpatti	Mer-cara	Mangalore	Saklespur	Sirsi	Pattiveeranpatti	Sangam, Mangalore	Cochin
Rs. P.	Rs. P.	Rs. P.	Rs. P.	Rs. P.	Rs. P.	Rs. P.	Rs. P.
1 per cent	1 per cent	1.40 per 12.8 kg.	1.56 per cent	1 per cent	2 per cent*	0.11 per kg.	1 per cent
—	—	—	—	—	—	—	—
113 gm. per lot	—	—	0.01 per cent	—	—	—	—
113 gm. per lot	—	—	—	—	113 gm. per lot	—	57 gm. charged @ 12 P. from each prospective buyers.
1 per cent	—	—	—	—	1 per cent	—	—
—	0.01 per kg.	—	0.01 per kg.	0.02 per kg.	—	—	—
—	—	—	0.05 per kg.	0.20 per 10 kg. or part thereof	—	—	—
—	—	—	0.01 per kg.	0.01 per kg.	—	—	—
—	—	—	0.01 per kg.	0.25 per quintal	—	—	—
0.13 per kg.	—	—	—	—	—	—	—
—	—	—	—	0.01 per bag	0.13	—	—
—	—	—	—	—	3 P. per kg. per month for first 4 months, subsequently 6 P. per kg. per month	—	2.22 per quintal per month.
—	—	—	—	—	—	—	2 per cent

* Private auctioneers charge commission on withdrawals of lots from the bid varying from 1 to 2 per cent but planters associations do not.

Chinthamani in the case of private commission agents at Pattiveeranpatti is reported to be auctioned in the last auction and credited *pro rata* to the growers' account.

ANNEXURE XIV

Case Studies of Successful Plantation Crops Marketing Coop. Societies.

I. MYSORE STATE ARECANUT COOPERATIVE MARKETING FEDERATION, LTD., SHIMOGA (MYSORE STATE).

This Federation was started on 30.1.1958 to co-ordinate the activities of the primary areca marketing cooperative societies in Mysore State. In pursuance of the recommendations of the Seminar of Southern States on Cooperative marketing held at Mysore in May, 1962, the area of operations of the Federation has been extended to the neighbouring States of Madras, Kerala and Maharashtra in August, 1963 so as to enable the cooperatives in these States to utilise the services of the Federation. The main objects of the Federation are (i) to arrange for sale of arecanut, cardamom, pepper and allied garden produce through branches/depots, etc. at consuming terminal markets, (ii) to advance loans to member societies on the goods pledged to it, (iii) to undertake processing activities, and (iv) to undertake export. Membership is open to societies which deal in arecanut. Traders and commission agents are also eligible to join the Federation as 'B' class members without voting rights. The authorised share capital of the Federation is Rs. 2 lakhs consisting of 1000 shares of Rs. 100 each and 1000 redeemable shares of Rs. 100 each to be subscribed by State Government. As on 31.12.1963, there were 7 society members and 12 'B' class members with a paid up share capital of Rs. 37,100 (Rs. 35,300 from societies and Rs. 1800 from 'B' class members). The Federation has not received any contribution from the State Govt. towards share capital though there is provision for such contribution upto Rs. 1 lakh in its bylaws.

The Board of Management of the Federation consists of 10 members—6 representing the affiliated societies, 2 State Govt. nominees and a nominee each from the Indian Central Arecanut Committee and the Mysore State Apex Cooperative Bank, Ltd. The Federation has no Secretary or Manager or any other staff in its head office and is located in the premises of the Malnad Areca Marketing Society, Ltd., Shimoga. The Secretary of the Malnad Areca Marketing Cooperative Society, Ltd., Shimoga is working as part-time Secretary of the Federation. The only staff appointed by the Federation is a Sales Manager at Madras on a salary of Rs. 150/- p. m. The Federation has also appointed an Agent at Bombay who is paid commission at 1% on sale, subject to a minimum of Rs. 200/- p. m., besides a fixed amount of Rs. 290/- p. m. towards godown rent, conveyance charges, etc. The Federation opened a depot at Madras in September, 1959 and another at Bombay in February, 1961. Under a scheme of assistance approved by the Indian Central Arecanut Committee, the cost of maintaining the two branches at Bombay and Madras was shared by the Arecanut Committee, the Mysore State Govt. and the Federation in the proportion of 2:1:1 for a period of 3 years from 1958. The scheme has since expired and the Federation has been finding it difficult to secure suitable godowns and staff for want of adequate funds.

In spite of the lack of funds and staff, the Federation has made a beginning in arranging sale of arecanut of member-societies through its depots at Bombay and Madras. The Federation sold arecanuts/cardam-

mom worth Rs. 4,97,522 at Bombay and arecanuts worth Rs. 1,52,617 at Madras as under :—

Depot	Name of Society which consigned the stock.	Commodity	Value of sales	
			(Rs.) 1962—63	(Rs.) Jan. to Dec., 63.
Bombay	South Kanara Agriculturists C.M.S., Ltd., Mangalore.	Arecanut	1,65,440	76,000
	Sirsi Totgars Coop. Sale Society, Ltd.	Arecanut	2,53,232	36,000
	Coorg Cardamom Growers C.M.S., Ltd., Mercara.	Cardamom	78,850	88,198
		Total :	4,97,522	2,00,198
Madras	Malnad Areca C.M.S., Ltd., Shimoga.	Arecanut	1,52,617	77,042
	Total Madras and Bombay depots.		6,50,139	2,77,240

Though the sales effected by the Federation are small, the existence of the sales depots at Bombay and Madras, which are the important terminal markets, seem to have had some effect on the price trends in the assembling markets. According to the present arrangements, the marketing societies send their stocks to the Federation's depots on consignment basis for sale at rates not lower than those fixed by the societies. In view of the time taken in disposal of the stocks through these depots, many of the marketing societies, which market these crops as agents mostly, are, it was stated, reluctant to consign their produce to these depots, as their grower members will not wait for the sale proceeds for such long periods.

II. THE SOUTH KANARA AGRICULTURISTS COOPERATIVE MARKETING SOCIETY, LTD., MANGALORE. (MYSORE STATE)

This society which mainly deals in plantation crops was registered on 18-10-1919 with its area of operation extending to the district of South Kanara. There are 7 more taluka marketing societies in this district, but they all deal in other agricultural produce only. This society was organised mainly with the object of developing the cooperative marketing of members garden produce like arecanut, pepper and cardamom. But arecanut constitutes the main item handled by the society which accounts

for 90% of its total business. Other commodities marketed by the society are pepper, cardamom, coconuts, copra, cashewnut, plantains, etc. The society is located at Mangalore, which is a regulated market, and where the entire production of arecanuts, cashewnuts, cardamom and black pepper is brought for final sale.

2. There are 689 villages in the area of operation, of which 447 are covered by membership. There are 430 agricultural credit societies in the area, out of which 124 are affiliated to this society. The details of membership of the society as on 30-6-63 is given below :—

Societies	124
Producer members	7139
Nominal members.....	20
	<hr/>
Total	7283
	<hr/>

3. The paid up share capital of the society as on 30-6-63 was Rs. 1,36,462 which was entirely contributed by members. The membership and share capital as on 30-6-64 were 7887 and Rs. 1,63,887 respectively. The societies accumulated reserve and other funds amount to Rs. 5,23,295. Further, deposits to a tune of Rs. 5,20,861 were also collected (Rs. 4,46,806 from members and Rs. 74,055 from non-members). Thus the society has built up good reserves and it runs its business mostly on its owned capital and deposits. The society finds stringency for funds only during 3 or 4 months of peak season, when it resorts to borrowings from the central cooperative bank. During 1961-62 the society borrowed Rs. 33,23,764 to meet the growing needs of business. Besides the central financing agency, the society is affiliated to the District Marketing Society, Apex Marketing Society and the Mysore State Arecanut Cooperative Marketing Society.

4. The strength of the Board of Management is 15, consisting of 7 representatives from affiliated societies, 7 from individual members and 1 from the Central Cooperative Bank. It has a full time Secretary to look after the day-to-day working. It has a total staff of 36 members including Accountant, Store keepers, Branch Supervisors and the average monthly establishment expenses come to about Rs. 7,000/-.

5. The society advances only pledge loans to its members at headquarters and at collecting depôts to the extent of 70% of the market value of the produce pledged by them at an interest of 6½%. The pledge loans advanced during 1963-64 amounted to Rs. 1,09,65,679 as against Rs. 71,78,146 advanced during 1962-63.

6. The society handles 50% of the total production of arecanut in the district and 33% of the total arrivals to the market. The society has opened 49 branches spread over the producing centres of the district to pool the members' produce and to arrange for transferring the same to the Head Office at Mangalore for marketing. 26 of these branches are entrusted to local village cooperative societies. These branches are paid a commission of Re. 1/- per 50 kg. of arecanut consigned to the Head Office. Besides these branches, 75 village societies consign arecanut

of their members to this society for marketing. These societies, which act only as agents of the marketing society, are paid a commission of Rs. 1.37 per kg. of arecanuts consigned. While making payment for the produce consigned by village societies, dues to the Central Bank are recovered and paid by the marketing society to the bank. The value of produce marketed through this method during 1962-63 amounted to Rs. 73,47,656. The quantity and value of sales effected by the society during 1963-64 were as given below:—

Name of commodity	Quantity (in qtls)	Value (Rs.)
(a) Arecanut	.. 44,717	2,50,66,838
(b) Pepper	.. 660	} N.A.
(c) Cardamom	.. 242	
(d) Cashewnut	.. 943	
(e) Coconuts	.. 16,576 (nuts)	
(f) Plantains	.. 39,17,042	
(g) Ripe Arecanuts	.. 70,120	
		2,50,66,838

The society consigned 295 quintals of graded arecanuts to the sales depot of the Mysore State Arecanut Cooperative Marketing Society at Bombay and recovered Rs. 1,72,000. The society handles the members' produce as agents only. The produce is sold through open auctions at Mangalore at which the brokers and agents of up-country merchants bid and purchase.

7. The society not only undertakes collection of produce through branches and village societies but also collects members indents for consumer articles and supplies them. Further the society also supplies agricultural requisites to its members. The total value of agricultural requisites and consumer articles supplied by the society during 1962-63 and 1963-64 amounted to Rs. 3,70,479 and Rs. 4,51,387 respectively.

8. The society has been earning sizeable profits and the profits earned during the last three years were as under:—

	Rs.
1961-62	56,600
1962-63	1,10,074
1963-64	76,870

9. The society owns three trucks for transporting the produce of members from collection centres to the Head Office and also to supply members, requirements of consumer goods, etc. It has received Government assistance of Rs. 35,000 for the purchase of a truck.

10. The society has got adequate arrangements for storage with 3 owned godowns of a capacity of 3000 quintals and 3 hired godowns of a capacity of 6000 quintals.

III. THE MALNAD ARECA MARKETING COOPERATIVE SOCIETY, LIMITED, SHIMOGA (MYSORE STATE)

The society was started on 1-12-1939 with headquarters at Shimoga, which is an assembling market for arecanut. Its area of operations extends to the districts of Shimoga and Chickmagalur. The main business of the society is the sale of arecanut of its members. Out of the 2573 villages in its area of operations, the society has membership from 1275 villages. The society has three branches and 15 collection centres. Out of 467 agricultural credit societies in the area, only 14 societies were affiliated to the marketing society. The membership and share capital of the society as on 30-6-1963 were as under :—

	Membership Nos.	Share Capital Rs.
(i) Agricultural credit societies ..	14	1210
(ii) Individuals	2530	1,36,470
(iii) Government	1	—
	2545	1,37,680

The society was not given any Government share capital contribution. The Board of Management of the society consists of 18 members—15 elected, 2 ex-officio and one nominee of the central bank. The Deputy Commissioner, Shimoga is the ex-officio President of the society, while the Deputy Registrar of Cooperative Societies, Mysore is the ex-officio Vice-President.

The Reserve and other funds amount to Rs. 9,19,393 as under :

Reserve Fund	Rs. 3,59,624
Bad debt reserve	Rs. 1,12,265
Interest reserve	Rs. 29,493
Depreciation fund	Rs. 79,490
Furniture fund	Rs. 10,000
Price Fluctuation Fund ..	Rs. 42,265
Building Fund	Rs. 2,86,256
	Rs. 9,19,393

As on 31-12-63, the society had invested a sum of Rs. 3,90,370 outside its business as under :—

From Reserve Fund :

Fixed deposit in Apex Bank	7,000
Fixed deposit in Central Bank	85,000
National Saving certificates	88,000
State Development loan	76,595
Debentures of Central Land Mortgage Bank	19,800
	2,76,395

From Bad debt Reserve :

Debentures of Central Land Mortgage Bank	25,000	
National Saving Certificates	12,000	
Fixed deposit in Apex Bank	25,000	
		62,000

Other Investments :

Shares in Central Bank	37,500	
Shares in Central Warehousing Corporation	4,000	
Shares in State Areca Federation	10,000	
Shares in Cooperative Printing Press	250	
Shares in Apex Marketing Society	100	
Shares in State Housing Corporation	100	
Shares in Fruit Canning Society	25	
		51,975
		Total .. 3,90,370

It may thus be seen that a sum of Rs. 3.90 lakhs has been invested outside the business of the society, while the society had to borrow Rs. 5.42 lakhs from the Central Bank, with interest at Rs. 5% per annum. The society has invested Rs. 3.75 lakhs in its building. It was given a government loan of Rs. 1,50,000 for construction of its building and a sum of Rs. 90,000 was already repaid as on 31-12-1963.

As on 31-12-63, the society had deposits amounting to Rs. 7,83,830. The central bank has provided a cash credit accommodation of Rs. 10 lakhs and during the period upto 31-12-1963, the society had drawn Rs. 5.42 lakhs against this limit.

There is no provision in the bye-laws of the society for issue of production loans to growers, but the Society has been providing such loans to its grower members with the permission of the Registrar, as such loans are provided by local merchants and the village credit societies are not in a position to advance the loans. The central bank also does not issue production loans for arecanut. The production loans are issued at Rs. 300 per acre or 50% of the average produce sold through the society during the preceding 3 years, whichever is less, subject to a maximum of Rs. 2,000 per member. The loans are issued from society's own funds. The society obtains agreements from the members before issuing the loans, undertaking repayment of the loans in kind. The society also issues pledge loans at 60% of the market value of the produce. The following production and pledge loans were issued during the year 1963-64:—

	Amount Advanced Rs.	Amount Recovered Rs.
Production loans ..	3,21,130	2,99,078
Pledge loans ..	38,65,809	36,13,026

The society has 15 collection depots (including 8 village cooperatives) in the interior regions and 3 branches, which collect the produce

from the members, provide necessary advances and also distribute fertilisers, spraying equipment and domestic requirements. During the years 1962-63 and 1963-64, the society received 10858 quintals and 14204 quintals of arecanut respectively from its members representing 17 and 20 percent of the total arrivals in the market in the respective years. It sold 11751 quintals valued at Rs. 66,31,575 and 11,678 quintals valued at Rs. 58,73,256 respectively during 1962-63 and 1963-64. The society also sold 198 quintals of graded arecanuts valued at Rs. 1.72 lakhs through the Madras Sales depot of the State Areca Federation. The society has been selected as one of the grading centres for split boiled arecanuts under the experimental grading scheme.

In addition to sale of arecanuts, the society had also distributed chemicals, cattle feed, etc. valued at Rs. 3,62,392 during 1962-63.

There is a Regulated Market Committee at Shimoga. All sales of arecanut are made in the premises of the society, through open auctions in the presence of an officer of the Market Committee. Usually, local brokers bid and purchase the stock. The society, however, actually consigns the stocks to up-country merchants mentioned by the brokers quoting the broker's name and receive payment direct from such merchants, the broker being paid a commission by the society, which is included in the cost. According to local custom, all sales to purchasers are made on credit only and the society is also forced to follow the same procedure. The price is received only after 1 to 3 months. A running account is maintained for each purchaser and interest is charged @ Rs. 7 to 9% p.a. for payments made after three weeks. As much as Rs. 6.50 lakhs was due from merchants as on 31.12.63 towards credit sales allowed, of which Rs. 29,726 was overdue.

The society mostly sells the arecanuts on agency basis only and outright purchases are very rarely made. The society charges only a commission of Re. 1.06% on sale of arecanuts and no other charges for godown rent, hamali, etc. are levied, as against a commission of Re. 1.56%, 6 p. per bag for weighment 9 p. per bag for hamali charges and 19 p. per bag towards godown charges levied by private merchants.

The arecanuts of Shimoga area are despatched to Andhra Pradesh, Madras, and other parts of Mysore State. For want of proper marketing arrangements at these consuming centres, the society is forced to sell its produce in local auctions through brokers.

In spite of the low rates of commission and other charges and other benefits extended by the society, it has been reported, that only about 20% of the produce is brought by the growers to the society for various reasons such as to evade agricultural income tax, communal affinity with the commission agents, who belong to the same community as the growers, etc.

During the years 1962-63 and 1963-64, the society earned a net profit of Rs. 108000 and Rs. 60058 respectively.

IV. THE SIRSI TOTGARS COOPERATIVE SALE SOCIETY, LTD. SIRSI (MYSORE STATE)

1. This is one of the three marketing societies dealing mainly in arecanut in the North Kanara District, the others being Siddapur and Kumta Societies. The society was registered on 21.9.1923, with its area of operation extending to Sirsi, Siddapur and Yellapur taluks. In order to cater to the credit and marketing needs of the areca grower-members of Siddapur and Yellapur taluks, which are important areca growing area of the district, the society has opened two collecting and sales branches at Siddapur and Yellapur.

2. There are 565 villages in the area of operation out of which grower members of the society come from about 430 villages. As on 30.6.63, the individual members on the rolls of the society were 2222. There are 57 village credit societies in the area out of which 36 societies have taken membership in this society.

3. The paid up share capital of the society as on 30.6.63 was Rs. 4,47,270; as shown under :

	(Rs.)
Individual members	3,64,910
Agricultural credit societies	7,360
Government contribution	75,000
	<hr style="border-top: 1px solid black;"/>
	4,47,270
	<hr style="border-top: 3px double black;"/>

The membership and share capital as on 30.6.1964 were 2348 and Rs. 5,04,820 respectively. The accumulated reserve and other funds of the society amount to Rs. 5,69,059. Further, it has collected deposits to an extent of Rs. 7,18,250 (Rs. 3,30,780 from members and Rs. 3,87,470 from non-members). It has also been sanctioned pledge loan of Rs. 15,00,000 by the Central bank. The society is affiliated, apart from the central financing agency, to the Apex Marketing Society and the Mysore State Co-operative Arecanut Marketing Federation.

4. The strength of the Board of Management is 12, of whom 6 represent agricultural cooperatives, 2 represent individuals, 3 are nominees of Government and one from cooperative central bank. The society has a full time Manager lent from the Cooperative department. It has also got a Secretary and two branch Secretaries to look after the day-to-day working. The society has a total staff of 44 members in its head office as well as branches.

5. Previously, the society was advancing crop loans to its members, and the loans outstanding as on 30.6.62 amounted to Rs. 1,19,992. It has now stopped advancing crop loans and is only making recoveries of the amount outstanding. During the years 1962-63 and 1963-64, the society advanced Rs. 14,40,352 and Rs. 11,88,000 respectively as pledge loans to its members. These pledge loans are advanced upto 75% of the market value of the produce pledged, at an interest of 9%.

6. The society's main business is in arecanut, the other produce handled being pepper and cardamom. 90% of the marketable surplus in the area comes to the market for sale, and only 10% being sold at the village level itself. Out of 2222 individual members, about 2100 members sell their produce through the society. About 5% of the growers of Shimoga who are not the members of the society also bring their produce to this society. Service cooperatives act as collecting agents of this society for collection of marketable surplus on commission basis. The sales are conducted mostly by open auction and also through the Mysore State Arecanut Co-operative Marketing Federation to some extent. The society undertakes marketing mostly as agents of members. The following are the details of sales effected by the society as agents as its Head Office and branches during 1961-62 and 1962-63.

		1961-62		1962-63	
Place	Commodity	Quantity (in qtls.)	Value (Rs.)	Quantity (in qtls.)	Value (Rs.)
Sirsi (H.O.)	Arecanut	16785		18,757	} 87,05,850
	Pepper	872	76,77,357	1,581	
	Cardamom	25		47	
Siddapur	Arecanut	5,077		4,870	} 22,40,259
	Pepper	515	22,74,311	452	
	Cardamom	30		28	
Yellapur	Arecanut	1,157		1,711	} 7,83,532
	Pepper	28	5,52,232	42	
	Cardamom	52		1	
		1,05,03,900		1,17,29,641	

During 1963-64, the society received 31,239 quintals of arecanut which formed about 59% of the total arrivals in the market and sold 27,021 quintals worth Rs. 1.21 crores.

The details of outright purchases made by the society in areca and pepper and the sales effected during 1961-62 and 1962-63 were as under :

	1961-62	1962-63
Purchases	Rs. 10,63,765	11,33,208
Sales	Rs. 8,80,662	11,98,587

As a cushion against possible losses arising out of these outright purchases, the society sets apart every year 5% of its net profits towards a price fluctuation fund. The accumulated amount under this account stood at Rs. 31,600 as on 31-6-1963.

The society also entered inter-state trade in arecanut and consigned graded arecanuts to the Bombay sales depot of the Mysore State Arecanut Cooperative Marketing Society valued at Rs. 60,180 and Rs. 2.42 lakhs during the years 1961-62 and 1962-63 respectively.

During 1962-63, the society also undertook outright purchases of paddy and supplied to the affiliated societies and other consumers stores in the district and earned a profit of Rs. 13,688. It has also taken up supply of manures, pesticides, other consumer articles like Sugar, Kerosene etc. and effected sales amounting to Rs. 16.55 lakhs in 1963-64. It has also started a medical stores and effected sales of Rs. 1,06,325.

The profits earned by the society during the last three years were as under :—

	Rs.
1961-62	1,11,230
1962-63	84,944
1963-64	86,999

8. The society received Government assistance of Rs. 1,11,250 for construction of godowns. The construction work of the office building and godowns at an estimated cost of Rs. 5 lakhs is under progress. Already 6 godowns are nearing completion. At present 9 godowns with a capacity of 40,000 maunds are hired. The society also owns a truck purchased from Government assistance of Rs. 32,500 provided for the purpose. It also owns a van which is generally used for transportation of members produce to the society.

9. By the end of 1964, the society hopes to instal a rice huller plant costing Rs. 95,000 with the Govt. assistance received for the purpose. The society has been selected as one of the grading centres under the experimental grading scheme sponsored by the Indian Central Arecanut Committee. The society also proposes to instal a manure mixing plant in the near future.

V. THE KUMTA COOPERATIVE ARECANUT SALE SOCIETY, LTD., KUMTA. (MYSORE STATE)

1. This society was registered on 30-10-1922, with a membership of 106 and share capital of less than Rs. 1000 with the chief object of arranging for the sale of members produce viz Arecanut and Pepper. Its area of operation extends to Kumta, Honavar, Ankola, Bhatkal-Supa and part of Yellapur Taluk consisting of more than 200 villages.

2. By the end of 1961-62, the society's membership stood at 1070 out of which 997 were producer members, 46 nominal members and 27 were agricultural credit societies. As on 30-6-64, there were 1343 members.

3. The share capital of the society was Rs. 56843 as on 30-6-1964. Out of this Govt. contribution constitutes Rs. 20,000, the balance being individuals' and societies' contribution. The reserve and others funds of the society account for Rs. 87,617. The society has been able to carry on its business with its owned funds and does not find the need for

borrowings. It is however affiliated to the Central Cooperative Bank, Apex Marketing Society and Arecanut Marketing Federation. The society has also taken membership in N.K.D. Cooperative Printing Society, Kumta, Cooperative Tile Factory, Kasargod, Kanara Boat Building and Marine Transport Society, Karwar, and Dairy Milk Supply Society, Kumta.

4. The Board of Management consists of 14 members, of whom 8 are representatives of individual members, 3 are representatives of societies and 3 are Govt. nominees. The society has a full time Secretary who has experience in business line.

5. The society advances pledge loans to its members upto 60% of the market value of the produce pledged by them at an interest of 6½%. During the year 1963-64 it has advanced Rs. 1.70 lakhs as pledge loans.

6. The society's business accounts for about 35% of the total sales of arecanut in the Kumta market. The society sold 10248 quintals of arecanut valued at Rs. 46.78 lakhs during 1963-64. The society also handled small quantities of coconut and pepper of its members.

The society also undertook the distribution of agricultural requisites and during the 1963-64 it had distributed agricultural requisites worth Rs. 27.810. The society has earned a profit of Rs. 35137 during 1963-64.

7. The society is constructing a godown of 2000 mds. capacity with Government assistance of Rs. 20,000 received for the purpose. For the present, it has a hired godown with a capacity of 1500 mds.

VI. THE KASARGOD AGRICULTURISTS COOPERATIVE MARKETING SOCIETY, LTD., NIRCHAL. (KERALA STATE).

1. The society was registered on 14-1-1958 with its area of operation confined to Kasargod Taluk consisting of 79 villages. The society was organised mainly for the benefit of arecanut growers, who are mostly owner cultivators holding 15 to 20 acres of areca gardens. Prior to the States Reorganisation in 1956, Kasargod Taluk formed part of South Kanara district and was included in the area of operation of the S. K. Agriculturists Coop. Marketing Society, Ltd., Mangalore.

2. Of the 79 villages in the area, the society draws its membership from 46 villages, while members from about 40 villages market their produce through the society. As on 30-6-64, there were 1391 grower members on the rolls of the society. Besides, 10 out of 34 villages societies in the area have also taken membership in this society.

3. The paid up share capital of the society as on 30-6-64 amounts to Rs. 90,325 of which the members, contribution alone accounts for Rs. 80,325, the balance of Rs. 10,000 being Govt. contribution. The society has been able to collect sizeable amount of deposits to an extent of Rs. 3.20 lakhs. The society was sanctioned a cash credit limit of Rs. 30,000 by the Central Co-operative Bank at an interest of 7%. In addition, it

also receives pledge loan from the Central bank and during 1962-63, an amount of Rs. 3,18,000 was drawn under this account. But it has been stated that the financial accommodation provided by the Central bank is inadequate even to handle 10% of the produce. Apart from the Co-operative Central Bank, the society is also affiliated to the Apex Co-operative Marketing Society.

4. Though 10 village societies are affiliated to this society, no representation is given to them on the Board of Management which consists of 13 members, 8 representing individual members, 3 nominees of Govt. and 1 nominee each from Cooperative Central Bank and the Apex Marketing Society. The society has a full time Secretary who is on deputation from the Co-operative Dept.

5. The agricultural credit Societies functioning in the area provide only short-term finance ranging from Rs. 500 to Rs. 1000 per member for general agricultural purposes and this does not cater to the full needs of the areca growers. Thus most of these areca growers depend on other sources for their production finance. This society, therefore, advances crop loans based on 50% of the estimated crop of the member subject to a maximum of Rs. 3000 on mortgage and Rs. 1000 on surety, and obtains an agreement from the member to bring the produce to the society. Two directors of the society estimate the value of the crop for this purpose and the crop loans are always recovered in kind as per agreement. During, the year 1963-64 the society advanced Rs. 1,88,237 under this head.

6. The society also advances pledge loans to its members upto 75% of the value of the commodity pledged at an interest of $7\frac{1}{2}\%$. During the year 1963-64, it has advanced pledge loans to an extent of Rs. 16,56,545.

7. The society deals mainly in arecanut, besides pepper, cashew-nut, coconuts and plantains. It handles about 15% of the local production of arecanut. It has appointed 12 grower members and cooperative societies as collecting agents for arecanut. The society undertakes marketing of arecanut only as agents and no outright purchases are made. Arecanut sales are generally made at Mangalore through the S. K. Agriculturists Cooperative Marketing Society. The society sold during 1963-64, 4533 quintals of arecanut worth Rs. 26,93,846 through the S. K. Agriculturists Cooperative Marketing Society, Mangalore. Further, the society also undertook the distribution of agricultural requisites amounting to Rs. 1,81,195 in 1963-64. During the year 1963-64 the society earned a profit Rs. 12,256.

8. The society's own godown is under construction for which it has received Government assistance of Rs. 25,000. At present it has hired a godown with a capacity of 5000 bags.

VII. THE METTUPALAYAM COOPERATIVE MARKETING SOCIETY, LTD., METTUPALAYUM. (MADRAS STATE)

1. The society, which was registered on 12-7-1942 in the name of Mettupalayam Cooperative Stores, has been subsequently reorganised

into a marketing society with a view to affording necessary credit and marketing facilities to the growers in the area. Arecanut cultivation in Madras state is now mainly confined to the foothills of Nilgiris on the outskirts of Mettupalayam town in Coimbatore district., though scattered holdings are also there in Salem and Kanyakumari districts. The area of operation of the society is confined to Avinashi taluk.

2. As on 30-6-64, the society had 773 individual members on its rolls as against 528 as on 30-6-1963.

3. The paid up share capital of the society as on 30-6-64 amounted to Rs. 68,610, out of which the Govt. contribution accounted for Rs. 10,000. The society accumulated reserve and other funds to a tune of Rs. 3,13,979 and also collected deposits from members and non-members to an extent of Rs. 39,000. The society enjoys a cash credit limit of Rs. 1,00,000 sanctioned by the Cooperative Central Bank. During 1962-63, the society borrowed clean loan to an extent of Rs. 1,75,000 from the Cooperative Central Bank to augment its working capital needs. Besides the cooperative central bank, the society is affiliated to the District and Apex Marketing Societies also.

4. The total strength of the Board of Management is 16, of which societies representatives are 2, individual members representatives are 12, and Government nominees are 2. The society has a full-time paid Manager, who is on deputation from the Cooperative department. The total members of the establishment of the society is 10 including cashier, sales agent, etc.

5. The society advances pledge loans to its members upto 70% of the produce pledged at an interest of 6¼%. During the year 1963-64, it has advanced Rs. 4,32,006 as pledge loans to its members. The individual maximum borrowing power is Rs. 15,000 and it is proposed to enhance it to Rs. 20,000.

6. There is no mandi in the area of operation, but two private traders also operate in arecanut. The Society, therefore, opened its sales depot at Delhi with financial assistance of Rs. 39,080 from the Indian Central Arecanut Committee and the State Government. This sales depot proved very beneficial to the arecanut growing members of the society. Further, the Indian Central Arecanut Committee and the Government of Madras have sanctioned a total sum of Rs. 19,109 to the society for opening another sales depot at Kolhapur in Maharashtra State, which is also an important terminal market for arecanuts. The depot was opened on 1-2-1964. The society handled about 30% of total arrivals of arecanut in the market during 1963-64. The arecanut sales effected by the society as agents during the last two years are as given below :—

	Quantity ----- Quintals.	Value (Rs.)	Percentage to total arrivals in the market
1962-63	1580	8,56,444	45%
1963-64	1233	8,22,827	30%

The entire sales of arecanut were effected through its depot at Delhi.

The society also distributes agricultural requisites to its members. During the years 1962-63 and 1963-64, it has distributed agricultural requisites worth Rs. 3,95,000 and Rs. 6,51,509 respectively. The society has earned a profit of Rs. 10,164 and Rs. 13,775 respectively during the last two years.

7. The society owns 3 godowns of a total capacity of 20,000 bags. It has also hired a godown of 500 bags capacity.

8. The society has been selected as a grading centre under the experimental grading scheme sponsored by the Indian Central Arecanut Committee and the State Government.

VIII. THE COORG CARDAMOM GROWERS' COOPERATIVE MARKETING SOCIETY, LTD., MERCARA. (MYSORE STATE)

1. This Society was registered on 16-7-39 with its area of operation extending to the whole of Coorg district, mainly with the object of catering to the credit needs of its members for acquiring and developing cardamom gardens and arrange for the marketing of the product. The total acreage under cultivation of cardamom in the area is about 16,000 acres, out of which about 12,000 acres are under Coorg Bold Variety and 4000 acres are under Coorg Hill Variety. 50% of the Cardamom growing land was leased by Government for 21 years and the rest of the land is directly under the cultivation of the owner growers. The holdings of majority of members varies from 5 to 50 acres, and about 50% of the members are holding less than 5 acres only.

2. There are about 5000 cardamom growers in the area and about 3500 of them have joined this society. There are 297 villages in the area of operation and the members of the society are drawn from 120 villages. Besides these grower members, 31 agricultural credit societies also have taken membership in the society, as against 176 societies in the area of operation. 12 of these village societies also act as collection agents for this society at a commission of $\frac{1}{2}$ %.

3. The authorised capital of the society is Rs. 5 lakhs, the value of a share being Rs. 10/-. As on 30-6-63, the paid up share capital stood at Rs. 2,57,424, out of which members' contribution alone accounted for Rs. 2,02,424, while the Government contribution was Rs. 55,000. Further, the society has accumulated reserve and other funds to the extent of Rs. 1,12,855. The society collects 0.25 P. per kg. from the members out of the sale proceeds towards a Thrift fund. The total amount so collected stood at Rs. 2,01,323 as on 30-6-63. These deposits are repayable after 5 years with interest @ $4\frac{1}{2}$ %. The society has drawn Rs. 7,95,000/- as pledge loan, Rs. 9,89,000 as short-term loan, Rs. 1,33,172 as cash credit and Rs. 10,60,800 as crop finance loans from the Central Bank during 1962-63. Apart from the central financing agency, the society is affiliated to the

Apex Marketing Society and also the Mysore State Arecanut Cooperative Marketing Federation.

4. The Board of Management consists of 18 members—10 representing individual members, 1 each from societies and the central financing agency and 6 nominees of Government. It is expected that from next year there would not be Government nominees on the Board in view of the State Government's decision to stop such nominations in case of societies where Govt. share capital contribution is less than 50% of the total paid up capital. The Society has a fulltime paid Secretary, who is on deputation from the Cooperative department, and who is specially trained in Cooperative marketing. In addition, the Society has a Manager with business experience.

5. The society advances crop loans to its members in cases where the credit societies are not in a position to advance such loans. As is the case of credit societies in the area, this society advances crop loans at 40% of the value of the estimated crop at an interest of 7%. Loans are granted on the basis of estimated value of crop as assessed by the regional director concerned and after taking into account the value of crops sold through the society during the preceding three years and also after taking 'No due' certificates from concerned village cooperatives. During 1962-63 the society advanced crop loans to the extent of Rs. 10,59,218/- to about 800 members. By rendering this crop loan assistance, the society has been able to market about 60% of the cardamom grown in the district, because the society recovers 90% of these loans in kind. These crop loans are given upto a maximum of Rs. 10,000/- per member normally and Rs. 15,000 in a few cases. The society also advances loans on the pledge of cardamom upto the extent of 60% of the market value of the produce pledged at an interest of 9%. During 1962-63, the society advanced Rs. 8,56,000 as pledge loans to about 2,200 members. Further, the society also advances medium-term loans to the members for purchasing cardamom gardens, repayable in four annual instalments.

6. The bylaws of the society prohibit outright purchases and as such its entire business constitutes only as agents of its members. The quantity and value of cardamom marketed during 1960-61 and 1961-62 are given hereunder.

1960-61		1961-62	
Quantity (In mds)	Value (In Rs.)	Quantity (In mds)	Value (In Rs.)
15,200	32,12,100	20,350	30,36,675

The method of sale is generally by open auctions every week and the traders from Mangalore, Haveri, Saklaspur and Bodinayaknur are informed about the auction before hand. Usually about 10 traders attend the auctions. There are no private auctioneers in Coorg. The members are charged a commission of 1½% on the sales effected by the society and payment of proceeds to members is made normally within a week after sale. For the benefit of members of Somwarpet taluk, the society has opened a sales branch at Saklaspur in 1956. During 1961-62 the society also undertook inter-state trade in cardamom valued at Rs. 2,25,000-

through cooperative agencies. The society has also made a beginning in export trade and it has already exported 1500 Kg. of cardamom to Sweden.

7. In addition to provision of credit facilities and marketing facilities, the society also supplies agricultural requisites to its members. During 1962-63, the society supplied fertilizers to a tune of Rs. 87,032. The society has been working on profit during 1960-61 with Rs. 8753 and during 1961-62 with Rs. 13,683.

8. The society constructed its own godown with a capacity of 5000 mds. with Government assistance of Rs. 30,000. It has a jeep with trailer for transporting members, produce from villages to the society.

9. The society has been appointed as an agent of the Directorate of Cardamom Marketing and Development, Bangalore for purchase of cardamom from growers under the price support schemes of Government of India. The society delivered 7500 kg. of cardamom after grading under the scheme upto 30-11-1963.

10. The society has purchased land and buildings at a cost of Rs. 40,000 and has also constructed a godown-cum-office at a cost of Rs. 1,20,000. It collects volentary contributons at 0.25 p. per maund of cardamom pledged by members towards the building fund.

**IX. THE PATTIVEERANPATTI COOPERATIVE COFFEE CURING AND INDUSTRIAL SOCIETY, LTD., PATTIVEERANPATTI.
(MADRAS STATE)**

1. Though this Society was registered in 1940 with the chief object of developing coffee, cardamom, and cotton industries amongst members, the society's main business has been marketing of cardamom only. The area of operation extends to the five taluks of Kodaikanal, Dindigul, Palni, Nilakottai and Periyakulam.

2. The bylaws of the society prohibit admission of societies as members and as such the membership of the society consists of agricultural producer members and nominal members only. Its membership as on 30-6-62 was 1366.

3. The paid up share capital as on 30-6-62 was Rs. 3,77,107, the bulk of which being contribution from members. The details of share capital are as below :

	Rs.
Individual members	3,67,070
Nominal Members	37
Government	10,000
	<hr/>
	3,77,107

The reserve and other funds amount to Rs. 59,400 and deposits are to a tune of Rs. 15,439. The bulk of the working capital of the society is found by way of borrowings from the central financing agency. During the year 1961-62, the Central Cooperative Bank sanctioned a clean loan of Rs. 12,61,984 and pledge loan of Rs. 1,50,000. The society is affiliated to the District and Apex Marketing Societies apart from the Central Co-operative bank.

4. The Board of Management of the society is at present under supersession and it is managed by a special officer of the rank of a Deputy Registrar of the Cooperative department. The total staff strength of the society is 39, including clerks, attendants, etc.

5. The society advances production loans as well as pledge loans to its members. Pledge loans are advanced upto 60% of the market value of the produce (cardamom) pledged at an interest of 6 $\frac{1}{4}$ %. During 1961-62 production loans were advanced to 621 members amounting to Rs. 13,26,618. The amount of pledge loans advanced during this period is Rs. 54,619.

6. Sales are effected by open auction. No outright purchases are made and the society only markets as agents of the members. The sales of cardamom effected during the last two years are as under :

	1960-61	1961-62
Quantity (In mds.)	7,290	7,200
Value (Rs.)	15,15,191	11,69,924

The society also undertook distribution of agricultural requisites, the value of requisites thus distributed being Rs. 96,778 during 1961-62. During 1961-62, the society earned a profit of Rs. 54,403.

7. The society received Government assistance of Rs. 30,000 for construction of godown. It owns 27 godowns with a total capacity of 1,12,500 mds.

ANNEXURE XV.

Comparative statement showing the progress of co-operative marketing of arecanuts during 1962-63 and 1963-64 in the States of Kerala, Mysore, Madras, Maharashtra, Assam and West Bengal.

Details.	Kerala		Mysore		Madras	
	1962-63	1963-64	1962-63	1963-64	1962-63	1963-64
1. Number of Societies ..	11	11	9	9	1	1
2. Membership ..	8,280	8,930	14,636	15,807	531	773
3. Share capital (Rs.) ..	3,30,323	4,29,129	900,491	1,043,226	53,555	68,610
4. Loans issued (Rs.) ..	23,74,335	29,02,069	1,32,86,379	1,70,81,214	4,79,240	4,32,006
5. Loans recovered (Rs.) ..	23,78,849	26,35,601	1,44,73,479	1,53,95,075	6,84,283	4,64,121
6. Arecanut received (Quintals)	6,884	8,011	77,584	1,09,216	1,440	1,238
7. Arecanuts sold (Quintals) ..	7,218	7,251	82,005	96,545	1,580	1,233
8. Sale proceeds (Rs.) ..	27,92,615	32,66,029	4,38,37,098	5,53,25,535	8,56,444	8,22,827
9. Other activities (Rs.) ..	2,60,384	2,74,353	13,62,331	26,55,558	3,95,178	6,51,509
10. Net profit (Rs.) ..	20,072	30,399	3,35,669	2,66,991	10,164	13,775

(Source : Annual Report of the Marketing Section of the Indian Central Arecanut Committee—1963-64.)

ANNEXURE XV.—(Contd.)

Comparative statement showing the progress of co-operative marketing of arecanuts during 1962-63 and 1963-64 in the States of Kerala, Mysore, Madras, Maharashtra, Assam and West Bengal.

Details.	Maharashtra		Assam		West Bengal		Total.	
	1962-63	1963-64	1962-63	1963-64	1962-63	1963-64	1962-63	1963-64
1. Number of Societies ..	5	5	1	1	2	2	29	29
2. Membership ..	1,295	1,202	497	497	—	1,509	26,748	28,181
3. Share capital (Rs.) ..	1,22,085	1,21,550	26,460	26,460	—	61,125	14,94,039	17,22,600
4. Loans issued (Rs.) ..	6,19,209	5,75,541	—	—	—	—	1,67,68,310	2,09,90,830
5. Loans recovered (Rs.) ..	6,46,632	5,89,602	—	—	—	—	1,81,97,728	1,90,84,399
6. Arecanut received (Quintals)	1,640	1,565	—	—	—	—	87,636	1,19,994
7. Arecanuts sold (Quintals)..	1,806	1,699	—	—	—	—	92,666	1,06,728
8. Sale proceeds (Rs.) ..	7,70,693	7,41,870	—	—	—	—	4,82,84,420	6,01,56,261
9. Other activities (Rs.) ..	1,13,057	5,610	—	—	—	—	23,67,709	35,87,030
10. Net profit (Rs.) ..	18,669	11,255	—	—	—	—	3,88,574	3,22,420

(Source : Annual Report of the Marketing Section of the Indian Central Arecanut Committee—1963-64.)