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**PROCESSING, PROCUREMENT AND MARKETING OF
PEPPER WITH PARTICULAR REFERENCE TO
CO-OPERATIVE SECTOR**

Thesis submitted to the
Cochin University of Science and Technology
for the Award of the Degree of
DOCTOR OF PHILOSOPHY
in Management under the Faculty of Social Sciences

By

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C E R T I F I C A T E

Certified that the thesis "Processing, Procurement and Marketing of Pepper with particular reference to Co-operative Sector" is the record of bonafide research carried out by Shri. G. Gopinatha Menon under my guidance. The thesis is worth submitting for the degree of Doctor of Philosophy in Management.




Prof. N. Ranganathan.

D E C L A R A T I O N

I declare that this thesis is the record of bonafide research carried out by me under the supervision of Prof.N.Ranganathan, Director, School of Management Studies, Cochin University of Science and Technology, Cochin-22. I further declare that this has not previously formed the basis of the award of any degree, diploma, associateship, fellowship or other similar title of recognition.

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G. GOPINATHA MENON

A C K N O W L E D G E M E N T

I have received generous help from a large number of knowledgeable persons but for which the present study would not have been possible. I place on record my sincere gratitude to all of them.

It is difficult for me to find suitable word to express my deep sense of gratitude to Professor N.Ranganathan, Dean and Director, School of Management Studies, Cochin University of Science and Technology. Sri.Ranganathan has not only been my guide but has been a constant source of inspiration through out the research programme.

I am also grateful to Sri.Vinod Rai. IAS, the then Managing Director, Kerala State Cooperative Marketing Federation who has encouraged me to take up this work. My thanks are also due to successive Managing Directors of Marketing Federation M/s.John Mathai. IAS, K.R.Rajan. IAS, V.Vijayachandran.IAS and lastly to Sri.C.T.Antony. IPS, who have been my bosses, for their valuable guidance and assistance and for providing me with relevant records and documents.

It is my pleasant duty to place on record my sincere thanks to all my colleagues right from the Marketing Manager, Spices to the sub-staff of the Federation for their unstinted cooperation and support, at every level of my research work. I am also grateful to the officials of Spices Export Promotion Council, National Agricultural Cooperative Marketing Federation, India Pepper Spices Traders Association, Export Inspection Agency, Cochin and also to the officials of export houses and trading houses, who have provided me with valuable information for my research work.

I wish to express my sincere gratitude to the ~~hundreds~~ of farmers in different places in Kerala for the valuable opportunity they have given me to share their experiences and difficulties. Some of them have extended their warm hospitality and offered me valuable assistance. I am also thankful to the Secretaries and staff of various Primary Marketing Societies and also Primary Agricultural Credit Societies for their cooperation and assistance through out the research study.

I express my thanks to the Central Plantation Crops Research Institute, Agricultural University, Mannuthy, Public Library, Ernakulam and Cochin University

of Science and Technology for extending to me all the facilities of their libraries.

My thanks are also due to the Programme Executives of the All India Radio, Trichur and Calicut and also to the officers of the Department of Agriculture, Scientist-in-Charge of Pepper Research Station, Taliparamba for their cooperation and assistance in providing me with relevant records.

Finally, I express my sincere thanks to the Staff of School of Management Studies, Cochin University of Science and Technology for their cooperation. I also thank Shri. Babu and Shri. Narayanan for their secretarial assistance.

If any more persons remain ^{un}acknowledged
^
I only plead for condonation.

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A B B R E V I A T I O N S

CFTRI	:	Central Food Technological Research Institute
CPCRI	:	Central Plantation Crops Research Institute
DCASD	:	Directorate of Cocoa, Arecanut and Spices Development
ITC	:	International Trade Centre
IPC	:	International Pepper Community
KADP	:	Kerala Agricultural Development Project
KAU	:	Kerala Agricultural University
MARKETFED	:	Kerala State Cooperative Marketing Federation Limited
KSCMF	:	Kerala State Cooperative Marketing Federation
NABARD	:	National Bank for Agriculture and Rural Development
SADU	:	Special Agricultural Development Unit
SEPC	:	Spices Export Promotion Council
RRL	:	Regional Research Laboratory
NAFED	:	National Agricultural Cooperative Marketing Federation
FOB	:	Free on Board
PCMS	:	Primary Cooperative Marketing Society
PACS	:	Primary Agricultural Credit Society
NCDC	:	National Cooperative Development Corporation.

C H A P T E R - I

1.00. Introduction:

Pepper, which is considered to have its origin in Kerala, is one of the important cash crops of the State and also one of the leading foreign exchange earners of India.

During the year 1985-'86 the total pepper exported from the country was 37,620 metric tonnes valued at 172.48 crores*. Kerala accounts for 96 per cent of the total pepper cultivation and 94 per cent of the pepper production in the Country. On an average, 32,000 metric tonnes of pepper are annually exported from India.

Though India is the original home of pepper and the country once held a monopoly of pepper production, it accounted for only 16.5 per cent of the world production during the year 1984-'85. The other major pepper producing countries in the world are Indonesia, Brazil and Malaysia. The annual production in India is 40 - 42 thousand tonnes*. But in the year 1985-'86 Indian production of pepper has touched a record high of 50,000 tonnes and in terms of percentage it accounted for 49 per cent of the world production during that year*.

*Source: The Spices Export Promotion Council.
The International Pepper Community.

The export of pepper also was a record high, at 37,620 tonnes valued at 172.48 crores then.

Though India could boast of 50 per cent of world production in 1985-'86 the productivity of pepper in India is the lowest among the pepper producing countries of the world. The average yield of pepper per hectare is 1,201 kgs. in Brazil, 1,575 kgs. in Malayasia and 515 kgs. in Indonesia. It is only a very poor 195 kgs. per hectare in India.* The main reasons for the low productivity in India are identified as the cultivation of a large number of varieties of poor genic stock, stand of senile and unproductive vines in the gardens and non-adoption of manuring, shade regulation, plant protection and soil conservation measures and inadequate extension services.

During the last two decades, pepper trade in India has undergone considerable fluctuations both in domestic consumption and export sales. The price of Indian pepper depends very much on world production, especially Brazil and Indonesia. Brazil has assumed much importance in recent years, both in pepper production and in international export market because of its proximity to U.S.A., the largest importer of pepper in the world.

*Source: The Spices Export Promotion Council.
The International Pepper Community.

A close look at the Indian pepper trade shows that the main markets for Indian pepper are U.S.S.R, U.S.A., U.K., Polland, Rumania and some other socialist countries.

The average world export of pepper is about 1,30,000 tonnes in 1984-'85.* The annual increase in world demand of pepper is estimated at 3 per cent. At this rate, by 1,990 the world demand of pepper is likely to be in the order of 1,50,000 tonnes. Since there is great potential to increase the production and also there is need to increase the foreign exchange earnings of the country, export of pepper could be raised to about 42,000 tonnes by the year 1,990. This indicates a challenging task of increasing the existing level of production of 50,000 tonnes to 60,000 tonnes by 1,990. The figure of 60,000 tonnes has been arrived at taking into consideration the domestic consumption of pepper which is likely to be 18,000 tonnes by the year 1990. Considering the present conditions of the pepper gardens, the systems of cultivation practiced, status of the pepper growers, the strategy for increasing pepper production should be based on short-term and long-term measures.

*Source: The Spices Export Promotion Council.

1.01. Need for the Study:

Since Kerala accounts for 94 per cent¹ of the total pepper production in the country, the export price of pepper is also very much depended upon the economic factors of Kerala as well. Pepper production in the State is mostly in the hands of small holders. About 41 per cent of the total holdings are less than 1 hectare in extent, and the total area of pepper is 1.02 lakh hectares. Though 80 per cent of the pepper export trade is controlled by private sector, the role of cooperative sector in pepper trade is very much important as the Kerala State Cooperative Marketing Federation is one of the largest export houses of Indian pepper. The MARKETFED, which is the other name of Kerala State Cooperative Marketing Federation, is the apex body of 77 primary marketing cooperative societies in the state and more than 1,260 primary agriculture credit societies are affiliated to it.* Because of this vast cooperative infrastructure, the MARKETFED has got an important role to play in the procurement and export market of pepper. In order to ensure a fair and remunerative price to pepper cultivators, it is very much essential that the service of cooperative banks and primary cooperative marketing

*Source: The Kerala State Co-operative Marketing Federation.

1. Ibid.

Societies make alround purchases of pepper both in season and off-season. In order to achieve the above task, the MARKETFED should assume the role of a market leader. The private trade, always with an eye on profit, will either purchase or withdraw from the field to suit their conveniences. If cooperative sector is in a position to carry a buffer stock, it can, to a certain extent withstand the speculations of the trade, as the final price of pepper is very much depended on the export price. Both Kerala State Cooperative Marketing Federation and National Agriculture Cooperative Marketing Federation together have an important role in influencing the purchasing decisions of the local primary agricultural and primay cooperative marketing societies. Because of the Governmental support and other infrastructural facilities, these two agencies under cooperative sector can come to the rescue of pepper farmers from the hardships they have to undergo in the hands of middlemen.

The presence of cooperative sector vis-a-vis private trade also provide a healthy competition for procurement and export of maximum stocks of pepper, thereby indirectly helping the trade to have a competitive price. The role of private trade in pepper is also of great importance as they are controlling about 80 per cent of the pepper

trade in the country. There are people, who prefer to have transactions with the private trade because of the flexible terms of payment, or credit facilities or even advance payment mostly made on personal contacts. It is very much essential that both cooperative sector and private trade should work side by side complementing each other without competing.

1.02. Objectives of the Study:

One important way to study the various aspects of pepper trade is to study the various aspects of pepper production, its processing and also export market. The main objectives of the study are: -

- 1) to examine the various aspects of pepper cultivation and crop management in general and with particular reference to Kerala.
- 2) to study the various aspects of pepper production, procurement and processing of pepper.
- 3) to study the various trade practices, both in terminal markets and upcountry markets.
- 4) to examine the impact of cooperative sector agencies like MARKETFED and NAFED in pepper trade and its influence on the domestic consumption and export of pepper.

- 5) to study the market segments of pepper and also to study the services rendered by primary cooperative marketing societies and primary agricultural credit societies to pepper farmers with particular reference to Kerala.
- 6) to review important policy aspects such as governmental control of export duty, various promotional aspects by Spices Export Promotion Council, other State Government regulations, and working of the International Pepper Community.
- 7) to analyse the role of Kerala State Cooperative Marketing Federation and National Agricultural Cooperative Marketing Federation and also private sector in pepper trade.
- 8) to know the emerging trends in the pepper trade and government regulatory measures.
- 9) to recommend measures for effective organization and management of pepper trade by cooperative sector and also how State Government and Central Government can assist various agencies in boosting the export trade of pepper.

1.03. Scope of the Study:

The present Study is designed to gather, record and analyse data on history of pepper, pepper production, procurement and marketing with particular reference to Kerala. The main emphasis is given to study the role of cooperative sector with regard to procurement and export efforts and also the services rendered by cooperative sector agencies under MARKETFED and NAFED to pepper trade. The scope of the Study covers the botany, methods of cultivation, fertilizer application, pest control management and other related aspects of pepper. Taking into consideration Kerala's supremacy in pepper cultivation and production, detailed study of its production, procurement, internal and export marketing with reference to Kerala has been given importance. As Kerala accounts for 96 per cent¹ of the pepper cultivation and 94 per cent of the pepper production, the present study is entirely confined to Kerala.

1.04. Research methodology:

The information for the present study was collected from both primary and secondary data. To collect details in respect of pepper cultivation, crop management, fertilizer application, pest control and also other aspects of

1. Ibid.

pepper production, pepper farmers were directly contacted by the researcher with a questionnaire. More than 1,100 farmers in all the important pepper growing districts of Kerala were interviewed. To have an adequate representation of all categories like small scale growers, medium scale growers and also large scale growers, it was decided to use stratified random sampling. Taking into consideration all factors such as availability of time, resources and the detailed number of the pepper growers it was decided to select 2 per cent of the 50,000 pepper farmers.

Personal interviews were conducted with the employees and officials of the Kerala State Cooperative Marketing Federation, National Agricultural Cooperative Marketing Federation, Spices Export Promotion Council and India Pepper and Spices Trade Association, to secure first-hand information. Effort was made to elicit the views of the senior officials including the Managing Director of the State Cooperative Marketing Federation about the various activities provided to the Primary Agricultural Credit Societies and Primary Cooperative Marketing Societies by the Federation and other aspects pertaining to the pepper trade.

To collect the details at the levels of Primary Agricultural Credit Societies and Primary Cooperative Marketing Societies, a questionnaire was developed and sent to all the agencies engaged in pepper business. The researcher himself also visited about 88 important Primary Agricultural Credit Societies and Cooperative Marketing Societies to get first-hand information about their prospects and problems, connected with the pepper business. In addition to this, farmers belonging to small scale, medium scale and large scale sectors were interviewed to collect first-hand information with regard to services they were getting from Primary Cooperative Marketing Societies and Primary Agricultural Credit Societies. Of the 1112 farmers interviewed 684 were small scale farmers with pepper holdings upto 1 hectare, 266 farmers were found to have medium scale pepper holdings ranging from 1 hectare to 3 hectares and 162 farmers were belonging to large scale sector with pepper holdings more than 3 hectares. Care was also taken to see that the leading farmers in the traditional pepper growing districts of Idukki, Kottayam, Cannanore, Wynaad were contacted for in depth interview to gather their impressions and views on the role played by various agencies working in the pepper trade. Special care was also taken to elicit their views regarding the performance of various

cooperative sector agencies at village level, taluk level, state level and national level.

The secondary data were collected from the records, annual reports and other periodical publications and also customs lists, etc. Documentary material available with Kerala State Cooperative Marketing Federation, National Agricultural Cooperative Marketing Federation, Spices Export Promotion Council, India Pepper and Spices Trade Association, Government of India documents, etc., were also collected. The researcher examined daily market reports on pepper for the past six years and also consulted annual reports of the past 15 years of Spices Export Promotion Council, India Pepper and Spices Trade Association, MARKETFED and NAFED and other related organizations which contained, export and import figures government regulations market price of pepper and related general information.

The researcher met various private traders who were operating in Cochin and also in Kattappana, Kottayam, Manandavadi, Sultan's Battery, Calicut and Cannanore, to get the details of various trade practices. Data were also collected from the commodity reviews and reports of leading newspapers like the Economic Times,

the Financial Express, the Indian Express, the Times of India, the Hindu, the Malayala Manorama, The Mathurbhumi and also reports prepared by the Farm and Home programme of All India Radio. The researcher had also referred various scientific journals of Central Plantations Crop Research Institute, Kerala Agricultural University and Pepper Research Station at Taliparamba for collecting the detailed notes on various aspects of pepper cultivation and crop management. The researcher examined various records and scientific specifications of pepper, maintained by The Directorate of Agriculture Marketing And Inspection attached to the Ministry of Commerce, Government of India and also various details and reports of International Pepper Community.

1.05. Limitations of the Study:

The Study, however is not devoid of limitations, as the researcher could meet only 2 per cent of the pepper farmers in Kerala mainly because of the non-availability of time and also lack of resources. But however, it was ensured that the 1,100 farmers interviewed, form a representative sample of the pepper farming community and the results of the Study have not been much influenced by restricting the targetted audience of farmers to 2 per cent. However, the researcher has taken pains to meet

personally 88 number of primary cooperative marketing societies and also primary agricultural credit societies out of the total 110 cooperative agencies connected with pepper procurement.

Another limitation of the study was that the researcher had to depend on the published figures as far as the markets of Brazil, Malayasia, Indonesia were concerned. As the Indian markets were concerned, all the governmental agencies, cooperative institutions and the private traders had cooperated with the researcher in providing all sales details and market information. The researcher could also get corroborated such details collected with figures available with customs and government sources so as to ensure its accuracy to a great extent.

However, the researcher could not get the procurement figures and purchase prices of pepper made by the private trade. The private trade had extended all cooperation with regard to divulging of trade practices adopted by them both in terminal markets and also export markets. As regards the export figures from private trade are concerned, the researcher got the same corroborated with export figures from customs lists and Spices Export Promotion Council sources. The pepper procurement

figures and purchase prices provided by the private trade were not fully reliable.

The data and figures available with Kerala State Cooperative Marketing Federation, Central Plantations Crop Research Institute, India Pepper Spices Trade Association and the various other reports became the principal source of information with regard to production, export and import of pepper.

The researcher also took pains to collect as much information as possible from the officials of Primary Agricultural Credit Society, Primary Cooperative Marketing Society, Kerala State Cooperative Marketing Federation, and NAFED to get the real issues affecting the price and final export price of pepper.

Another limitation of the study was that only 80 per cent of the farmers interviewed provided the details in respect of the questionnaire given to them.

Approximately 20 per cent of the farmers did not provide full particulars fearing that the disclosure might cause them problems later.

Another limitation of the Study was that the researcher could meet only 88 cooperative agencies¹ out of the 110 dealing in pepper. This was mainly because of the fact

1. Ibid.

that whenever the researcher visited the place the Chief Executive of the cooperative society might be on tour in connection with official duties. Even though the researcher had informed about his tour programmes to all societies well in advance he could not succeed in meeting 22 cooperative institutions. But this limitation had not affected the Study at all because the 88 cooperative societies the researcher personally met really formed a representative sample having representation from all the important pepper growing districts of Kerala.

1.06. The presentation of the Study:

The Study is presented in eight chapters. The introductory chapter deals with the scope and importance of the Study. It also explains the research methodology used in the Study and also limitations of the Study. Chapter-II briefly examines the aspects relating to the history of pepper and its historical importance. Chapter-III describes pepper cultivation and production as much in India and other countries. Chapter-IV analyses the Processing and Marketing of Pepper. Chapter-V examines the markets of Indian Pepper with details of exports upto 1985-'86. Chapter-VI examines the role of co-

operative agencies of **the Kerala State Cooperative Marketing Federation (MARKETFED)** and the **National Agricultural Cooperative Marketing Federation (NAFED)** in the procurement and marketing of pepper. Chapter-VII analyses the role of cooperative sector at village level, Taluk level, State level and National level in the marketing of pepper. It also deals with the prospects of cooperative sector in the procurement and export market of pepper. Chapter-VIII summarises the main findings and provides specific recommendations.

C H A P T E R - II

PEPPER: HISTORY AND ITS HISTORICAL SIGNIFICANCE

2.01. The Pepper which is renowned as 'Black Gold' is considered to have its origin in Kerala.* The word Pepper has been derived from the Sanskrit word 'Pippili' got converted into 'Peppiri' in Greek and then the word became 'Piper' in Latin. It was from Latin 'Piper' that the word Pepper originated in English.

2.02. It is assumed that Pepper had been used some 6,000 years¹ ago during the early civilization of Mesopotamia, Babylon and Assiria. All the above civilisations considered Pepper as one of the important spices and pepper was very much used by the Medical practitioners. Written records are available to prove the wide and extensive application of Pepper in the temples of Babylon, Egypt and Assiria. Some of the historians have recorded that Pepper was very much preserved along with other spices and valuables in the pyramids of Pharoos. It was mainly through the Egyptian rulers that spices from Kerala, specially pepper reached Egypt, Israel, Alexandria and neighbouring countries. Closely following the heels of Egyptian, Arabians also reached the Kerala shores for

*Source: Spices Export Promotion Council.

1. Menon, Sreedhara.A., A Survey of Kerala History.

collection of spices including pepper. The Arabians collected the spices and merchandised in places like Europe, Iran and Baluchistan. The trade expedition which involved full of risks, were undertaken then only to bring in spices and immense wealth. Records revealed that the Arabians held the monopoly of spices trade in those period. It was during the period of Pleni, a world renowned Greek historian, that the westerners studied the advantages of monsoon trade winds.* Till then the Arabians held the virtual control of navigation of spices trade.

2.03. Pleni himself had given details of Black Pepper and White Pepper. According to him one pound of White Pepper did cost 7 Dinars and Black Pepper 4 dinars in A.D.64. It could be concluded that both Greeks and Romans did evince considerable charm and fancy to Pepper. The trade between Romans and India assumed greater proportions during the first three centuries of A.D., and the main trade routes were Red Sea and surrounding by land routes. The important centres of trade then were Greece, Genoa, Egypt and Alexandria.

* Source: Menon, Sreedhara.A., A Survey of Kerala History

2.04. The world famous traveller Marcopolo had given graphic descriptions about pepper in his travelogue and he recorded that pepper enjoyed good market in eastern countries of China and Mangolia. During the period of Kublakh, a Chinese Emperor, pepper trade had reached its zenith in Mangolia and China. Marcopolo recorded that a town called 'Hong-Chow' handled as many as 10,350 pounds of pepper daily.* He also recorded that the Emperor Kublakh collected huge taxes on pepper trade. It was believed that large number of ships with 100 to 500 navigators were used for transporting pepper to China during those days.¹ All the pepper produced in Kerala could find its market in eastern and European countries. As the demand for Pepper grew, the trade concentrated in Kerala got extended to East Indies. The Arabians and Europeans had also gone in for new Pastures in order to cope up with the increased demand for the product.

2.05. There have been many instances to show the importance attached to pepper which was considered as Black Gold during the 5th Century. At the time of invasion of the city of Rome, the ruler Alaric demanded 3,000 pounds of pepper as one of the items of booty.

*Source: Spices Export Promotion Council.

1. Kerala Charitram, Kerala History Association, Cochin.

It had also been recorded that when Ciseria was invaded, each soldier was awarded two pounds of pepper as a special gift by the rulers. The average price of pepper in England during the 13th Century was one shilling.* The rulers of England insisted upon the traders to supply 10 pounds of pepper on festival times such as Christmas and Easter. During the 14th Century the price of pepper had gone upto 2 shillings per pound and some of the priests had complained that pepper was available only to the rich people.¹

2.06. It was the traders in Venice who acted as middlemen between the traders and consumers in both Arabia and Europe. These traders of Venice did control the trade of pepper and it varied according to their whims and fancies. The westerners were very much aggrieved over their erosion of gold, silver and other wealth to Asian countries and this erosion did bring both anxiety and hatred in the native European. The western rulers considered it a matter of great importance to redeem their prestige in pepper trade and also to liberate the trade from both Arabians and Venitians. The only way available for them was to find out new sea routes to carry out the trade independently. Venician

*Source: Spices Export Promotion Council.

1. Menon, Sreedhara.A., A Survey of Kerala History.

trade suffered a severe set back when Constantinople was invaded by Turks in 1453. The discovery of a new sea route via Cape of Goodhope by Berthalomio Diaz in 1481, opened up new vistas in ocean trade. The new sea route surrounding African continent opened new trade routes to India and also new markets for spices trade.

2.07. The world famous navigators of Copil ham and Vascodegama had reached Calicut and Cannanore via Lisbon, Barcelona, Neples, Cairo and Eaden. Copil ham recorded that he had seen huge stocks of pepper at Calicut. The adventures of both Copil ham and Gama were very much epoch making and changed not only the history of Asia but also of the entire world. In 1497 Vascoda Gama left Lisbon for India via Cape of Goodhope, Zansibar, Minicoy and ultimately reached Malabar Coast on the historic day of May 20, 1498.* Vasco-de-Gama could later on establish that it was the naval power which paved the way for setting up of empires. All these episodes and adventures were motivated by the lure of Black Pepper which was very much in abundance in Kerala coast.

2.08. Pedro Alwaris Kabral, another Portugese navigator left Lisbon in 1497 with 13 ships comprising 1,200 soliders and another 1,500 mariners with the idea of

*Source: Menon, Sreedharā A., A Survey of Kerala History.

reaching Kerala coast. Though their idea was to reach Kerala, for reasons unknown, Kabral travelled towards West and landed in the Brazalian coast. From there he left for **Cape** of Goodhope and reached Malabar Coast and set up trade centres at Calicut, Cannanore and Cochin. In 1,501, he left for Portugal. With the successful voyages of both Gama and Kabral, the supremacy of Portugal in the trade and commerce reached new heights. They could put an end to the monopoly of Venitian traders in pepper trade and the centre of trade shifted from Venice to Lisbon. It was recorded that the traders in Genoa could supply as much as 15 lakh pounds of pepper to European traders, annually.*

2.09. In another new development, the round about voyage to Malabar coast via Cape of Goodhope was abandoned and a new short route to Alexandria by land and from there to Malabar cost by crossing the Arabia sea was discovered. The unprecedented demand for pepper attracted many other European countries to the pepper trade. British East India Company was established in the year 1,600, with the main idea of developing trade and commerce with Eastern countries. At that period, Portugal was virtually in control of all nations, producing pepper. The Dutch

*Source: Spices Export Promotion Council.

started assuming the control of pepper trade in South East Asia. In order to retain the monopoly of the trade, they even destroyed purposely the pepper gardens and also subjected the natives to various atrocities. With the close of the 17th Century, Dutch had assumed more power and eradicated the portugese from the Malabar coast. But this state of affairs did not last as the French settlers started encroaching new areas. For a temporary period, the monopoly of pepper trade was in the hands of the French. In 1796, the British virtually took over the control of all Dutch commercial centres and on the basis of a Treaty, the Britishers got control over India, Ceylon and Malaya. England had become the richest country in the whole world with the pepper trade, lasting for 150 years*. Very soon London city had become the nerve centre of pepper trade. A close scrutiny of history revealed that those who had come in search of pepper had assumed political power in most parts of the continent and the concept of colonialism took its origin from it.

2.10. The wealth of European countries out of pepper trade had attracted the rich traders of America to enter the trade scene. The American traders made their entry

*Source: Spices Export Promotion Council.

with all modern techniques of trade and commerce by the end of 18th century. Their targets were East Asian countries. The American traders with the assistance of trained navigators and speedy ships could obtain lion's share of pepper from Sumatra in the East Indies. They supplied pepper through various harbours of Boston, Sabon etc. and from there to various cities both in America and Europe.* The above such traders soon become millioners in Boston and Sabon. The congenial climate ably assisted by the fertile forest soil in Indonesia increased the production of pepper substantially. Indonesian group of Islands had soon become the largest producer of pepper in the whole world.

2.11. India occupied the second position in world production of pepper in those period. Kerala did account for almost the monopoly of Indian pepper and statistically accounted for 94 per cent of the Indian pepper. But the production in Kerala was very much affected. New lands were not available for extensive cultivation. This situation got further worsened due to the pest attacks of pepper cultivation in the intensified areas of pepper cultivation in Wynad, Cannanore and Palai¹. There were no attempts for rehabilitation of the lost pepper gardens in those areas.

* Source: Spices Export Promotion Council.

1. Kerala Charitram, Kerala History Association, Cochin.

Second World-war and Pepper:

2.12. The history of modern pepper commenced with the beginning of the Second World-war in 1939. Prior to this, pepper trade was mainly concentrated in Indonesia. Sumatra Island of Indonesia produced as much of 50,000 Metric tonnes of Pepper in those periods. But the international consumption of pepper was only 35,000 Metric tonnes.* This situation continued for a long period. Because of the supremacy, Indonesia could have successful trade contacts with England and the U.S.A. in pepper. There were not large fluctuations in the price of pepper in those times, and the average price of one pound pepper was only 3 cents. In other words, under the present terms of foreign exchange one tonne of pepper did cost only Rs.600 per tonne then.*

2.13. Indian pepper did not assure any trade importance during that period. India with an annual production of 10,000 Metric tonnes of pepper had only 3,000 Metric tonnes for export market. The second world war period 1939-1945 did upset the entire established practices of trade. During the war Indonesia was defeated by Japan and in an attempt to produce more food

*Source: Spices Export Promotion Council.

crops, pepper gardens were destroyed and paddy cultivation was intensified. This situation paved the way for loss of monopoly of pepper trade by Sumatra islands. The Western and European countries had no alternative other than to depend upon India for their requirements of pepper. It was indeed a welcome change for Indian pepper trade.

2.14. As stated earlier, the decline of Sumatra's pepper production had converted India as the biggest producer of pepper in the world. Cochin city became the nerve centre of pepper trade in India. The price of pepper went up very steeply. There was unprecedented demand for pepper but the production could not meet the demand. During the period 1949-50 the price of pepper reached its zenith and in New York the price quoted for one pound of pepper was 1.75 dollars which was indeed a record price.*

2.15. The new trade opportunities had opened up new vistas for pepper cultivators in Kerala and they pursued vigorous efforts for increasing the production of pepper. Though the pepper cultivators did not receive any appreciable support or encouragement from the Government the production which was 13,000 Metric tonnes in 1945 touched

*Source: Spices Export Promotion Council.
International Pepper Community.

17,000 Metric tonnes in 1950. In 1955 the production reached a level of 24,000 Metric tonnes. The same period witnessed a series of changes both in Malayasia and Indonesia. Sarewak in Malayasia, which had little cultivation of Pepper, had intensified its efforts to produce more and more pepper. The congenial climate together with intensified efforts had increased pepper production in Sarewak to 17,000 Metric tonnes in 1955. Prior to this their annual production was hardly 6,000 Metric tonnes.*

2.16. The Second World war also brought forth a welcome development with the settlement of some progressive Japanese traders in Brazil. They had considerable knowledge of pepper cultivation in Indonesia and with that knowledge they started pepper cultivation for the first time in Brazil. All these positive factors coupled with the hard work of the Japanese converted Brazil into one of the most advanced pepper producing countries in the world in a short span of time and Brazilian pepper had dominated the international market of pepper.

*Source: Spices Export Promotion Council.
International Pepper Community.

Fall in price of Pepper:

2.17. The post-war period considerably affected the pepper export and the trade got into severe strains. Pepper could no longer keep up the first position among spices in Europe. The shattered economy of European nations had created near famine conditions and even foodgrains were considered very rare in those days. During such a period, pepper which was considered a condiment had naturally lost its importance. The demand had come down, resulting in the fall of pepper price. In the post-war period the priority was mainly set on the food grains. The high price of pepper had brought its exit from the list of essential commodities and this situation had brought down the export of pepper.

2.18. One of the main reasons for the set back was the low internal consumption in the pepper producing countries. In the producing countries, pepper was mainly considered as an item of export and the trade depended upon the whims and fancies of certain European countries whose economics were completely shattered as a consequence of the Second World War. Another reason for lower export was the increased cost of pepper which was mainly consumed by the rich people then. The price of pepper was prohibitive and remained beyond the reach of the common man.

Because of these reasons the price of pepper suffered a severe set back during the period between 1950-55. But another salient feature was that the export was also getting increased together with the production of pepper.

2.19. Another phenomenon was that the quantum of production in pepper in India, Indonesia and Malayasia during the period was almost steady and as such, the price remained unchanged. Records prove that during the period 1955 to 1975 the pepper production witnessed a steady growth.* With the beginning of 1965 it was seen that the growth assumed new heights as the demand of pepper was much more than the production. Both the U.S. A. and Germany had started importing pepper in a bigger way.

A new global phenomena:

2.20. It was with the entry of Russia and other socialist countries as importers of pepper, a new chapter was opened up in pepper trade. Records showed that consumption of pepper in these countries during the post war period got accelerated by 1965. It was a matter of great importance that USSR and other socialist

*Source: International Pepper Community.

countries had purchased as many as 28,000 Metric tonnes a year and which had opened up new vistas of pepper trade*. Another important feature was that the production of pepper was very much short of its demand. Yet another point of interest was that the consumption of pepper which was very low in Afro-Asian Countries started picking up. Japan started purchasing pepper in a very big manner, from South East Asian markets. All the above factors together contributed for increased consumption of pepper which in turn had its influence in the price of pepper.

Production and consumption of pepper:

2.21. India, Malayasia, Indonesia and Brazil are the major producers and exporters of Pepper. Among the various minor producers the important countries are Madagascar and SriLanka. In addition to this, pepper is cultivated in a smaller way in Thailand, Ghana, Vietnam, Venezula, Cameroons, Congo, Nigeria and Zaira.

2.22. As stated earlier the production of pepper had increased during the past five decades. The average annual world production in 1935 was 84,000 Metric tonnes but this had come down to 39,000 Metric tonnes during Second World War period.* The reasons for the

* Source: Spices Export Promotion Council.

sharp decline was the economic upheavels and military intervention in many countries. Because of the developmental efforts undertaken by all the producing countries, the production of world pepper was again on the increase with the increased production in Brazil and Madagascar. Records indicated world production of pepper at 68,000 Metric Tonnes in 1959. The year 1981 recorded a world production of 1.54 lakh tonnes of pepper. The world production in the year 1985-86 was around 1,20,000 Metric tonnes*.

Trend in World Production of Pepper:

2.23. A study of pepper production figures kept by the Spices Export Promotion Council, reveals that India's monopoly of pepper production has been affected badly with the rise in production of pepper in Indonesia, Brazil and Malayasia. India's share of world production was 66 per cent in 1950 which got decreased to 24.70 percent in 1981. But India could regain her share of 49 per cent of world production in 1985-86 with a production of 50,000 Metric tonnes*. The Table No. 2.1. indicates the trend in world production of pepper from 1950 to 1985-86.

*Source: Spices Export Promotion Council.

TABLE No: 2.1.

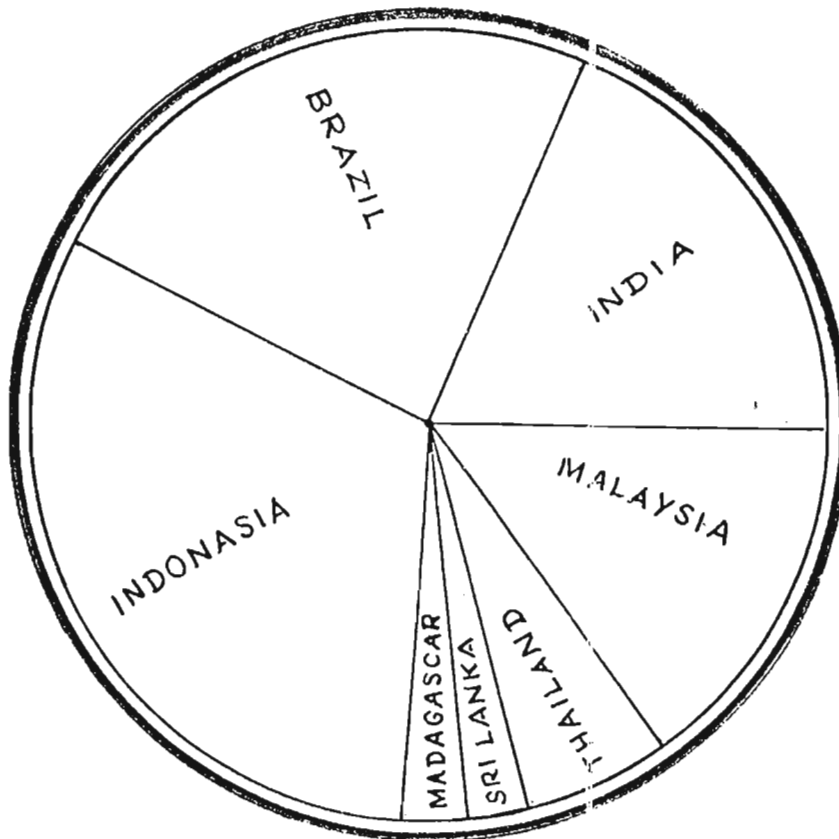
Countries	WORLD PRODUCTION OF PEPPER, COUNTRY-WISE (Quantity in '000 M.Ts)									
	1950	1960	1970	1980	1981	1982	1983	1984	1985-86	
India	30.92	28.40	34.00	38.00	38.00	38.00	42.00	30.00	50.00	
Indonesia	7.89	12.20	17.30	31.50	31.50	32.00	33.00	40.00	12.00	
Malayasia	0.32	6.80	33.30	31.80	31.50	28.70	25.00	15.00	25.00	
Brazil	0.23	4.10	10.20	40.60	46.10	36.00	25.00	30.00	25.00	
SriLanka	4.31	8.60	14.00	-	2.00	1.00	1.00	-	-	
Total including others	46.62	64.40	114.80	146.00	154.00	140.00	130.00	126.00	120.00	

Source: Year 1950 to 1984 Spices Export Promotion Council
 Year 1985-86 Economic Times 11-11-1985.

PRODUCTION OF PEPPER IN THE IMPORTANT GROWING COUNTRIES

(in Tonnes) 1985

India	-	25,000
Brazil	-	30,500
Indonesia	-	41,000
Madagascar	-	3,500
SriLanka	-	2,677
Thailand	-	7,649
Malayasia	-	19,225

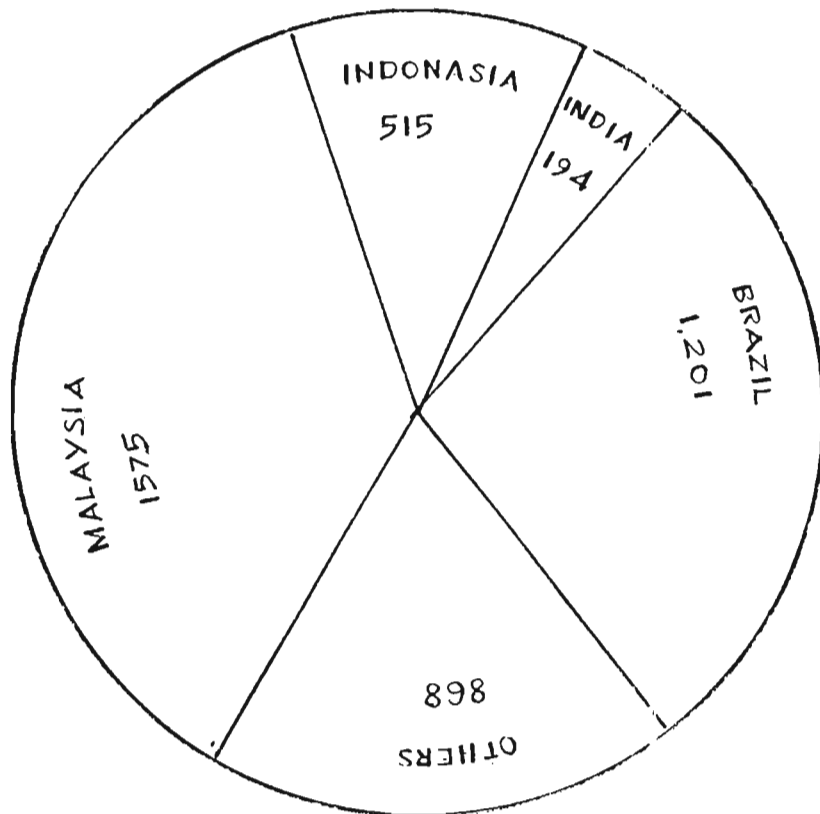


AVERAGE YIELD PER HECTARE OF PEPPER
IN THE IMPORTANT GROWING COUNTRIES

(Kg./Ha.)

1984

Brazil	-	1201
India	-	194
Indonasia	-	515
Malaysia	-	1575
Others	-	868

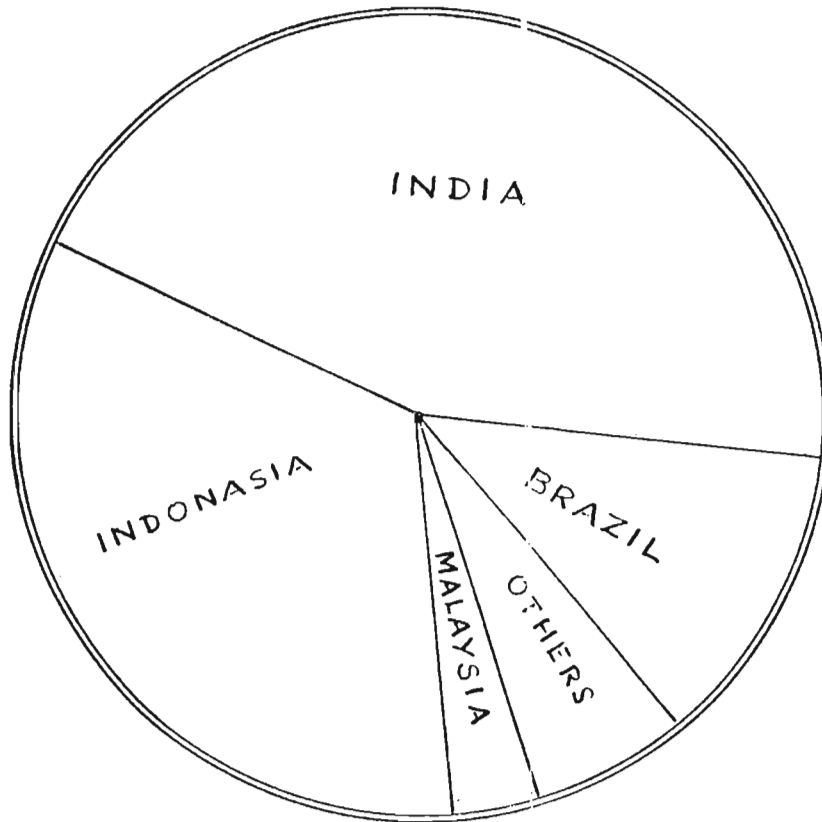


2.24. The Table indicates the study progress achieved by Brazil, Indonesia and Malaysia in Pepper production for the past 35 years. Indonesia reached a record per cent of 25.40 of world production in 1983. The pepper production in Indonesia was 33,000 Metric tonnes in 1983*. Brazil with a record production of 46,100 Metric tonnes in 1981 accounted for nearly 30 per cent of world production in 1981. But since then Brazil's share in world production was getting decreased. In 1985-86 India accounted for 49 per cent of world production of pepper followed by Brazil with 24.50 per cent. Indonesia accounted for 11.80 per cent of world production whereas Malaysia had 14 per cent share in 1985-86.

* Source: International Pepper Community.
Spices Export Promotion Council.

THE AREA OF PEPPER CULTIVATION IN THE
IMPORTANT GROWING COUNTRIES
(in hectares)
1984

Brazil	-	29,458
India	-	1,06,360
Indonasia	-	80,000
Malaysia	-	10,510
Others	-	14,216



C H A P T E R - III

CULTIVATION AND PRODUCTION OF PEPPER

3.01. Pepper Cultivation in Kerala:

It has been established that Kerala accounts for 94 per cent of the pepper production in the country. We cannot definitely speak about the origin of pepper cultivation. It is assumed that pepper would have had its origin in the western plateau of western ghats and it is a forest produce. The researcher has come across a number of harijans plucking pepper from the forests of Idukki and Wynad districts and selling them in nearby shandies. It is believed that once upon a time the entire pepper should have been confined to the forest and it would have been taken to the courtyards of houses by commercial minded farmers. The farmers would have converted pepper as a farm produce with the advent of time.

3.02. Before going into the details of pepper cultivation in Kerala, it would be of use to study the botany of pepper.

a) Family of Pepper:

Pepper is the important member of 'piperaceae' plant family. The botanical name of pepper is

'pipernigam'. Other close relatives of pepper of economic importance are betel leaf, Thippali and Valmulaku.

b) Growth of Pepper:

Pepper vines grow on supporting trees as pepper is a climbing plant. Seedlings are made by cutting branches and they are planted near the supporting trees. During the survey the researcher could observe that pepper vines spreading out in the fields without the support of climbing trees did not carry much berries. The vines climbing up the supporting tree acquire one metre length after one year. The pepper vines get matured on the completion of two years and then vines get fully covered with leaves and branches spreading out on all sides. The branches of pepper vines grow upto 50 centimetre in length and bear a number of spikes. The spikes are usually seen in the months of May - June as per field study. Pepper berries are formed in spikes.

The tender heads of pepper vines are called 'Keruthalakal' or 'Kannithalakal' locally. It is gathered that the yield of pepper in a particular vine is very much depended on the number of spikes. If there are more spikes, there will be more berries and hence a bumper yield.

c) Flowering of Berry:

Pepper vines on completion of two years become matured and start carrying spikes. Normally, berries appear in spikes around May - June. On receipt of monsoon showers pepper vines become more healthy and fresh leaves and branches emerge out. It is observed that it will take 20 - 28 days for the complete formation of a spike. It is also seen that it will take 10 to 15 days for the initial flowers to emerge out.

d) Polination:

In normal course, external polination takes place in pepper. It is studied that polination takes place with the help of rainy water, through insects in winter. During monsoon, rainy water helps polination in pepper. But during heavy rains the polination chamber gets flooded with water and polination gets lost. Though pepper flowers do not have any attractive colour or smell, insects like ants carry out polination in pepper flowers.

e) Artificial Polination:

Pepper Research Station at Taliparamba has developed a simple technique for artificial polination. Artificial polination is made possible by removal of pollens with the help of sterilized needles. It is

also stated that different practices of artificial pollinations are experimented in various countries*

f) Pepper Berries:

Once the pollination is over, flowers will grow into pepper berries. There are possibilities of having three types of pepper berries in a spike. They are known as whole berries, half pepper and peera pepper. Half pepper is a deformed variety of pepper due to improper growth of ovary after pollination. Those flowers in which pollination has taken place get converted into "peera mulaku".

It is seen that all the berries in a pepper vine do not get matured simultaneously. Similarly, it may not be possible for all the spikes in a pepper vine to acquire maturity in the same time. As per studies conducted in various pepper gardens it is seen that from the flowering stage to the final plucking of pepper, cultivator has to wait 6 to 9 months.

According to field studies and interviews with farmers, the important factors which govern the yield of pepper are identified as follows:

- 1) Number of spikes in the pepper vine
- 2) Number of pepper berries in a spike

*Source: Pepper Research Station, Taliparamba.

- 3) Weight of pepper berries
- 4) Percentage of driage .
- g) Varieties of Pepper Vines:

Important items of pepper vines are segregated into two groups, first one known as Malabar varieties and the second one Travancore varieties. The important Malabar varieties are 'Kalluvally-I', 'Uthirankotta' and 'Balankota'. The important Travancore varieties are 'Cheriyakanikkadan', 'Kuthiravali', 'Kottanadan', 'Munda' and Mundi. Most of the pepper varieties, popular among farmers have bi-sexual flowers. In other words, both the polination cavity and ovary are present in the same flower but in certain varieties there will be male and female flowers separately*. It is observed that in the varieties of 'uthirankotta' and 'mundi' only female flowers are there. The 'Pollens' in pepper flower are too small to be seen by naked eye. As per studies conducted by Central Plantation Crop Research Institute, Calicut pollens come out of the polination chamber between 12 to 2 p.m. of the day. But further studies, have indicated that this time may vary from place to place. Studies in Central Plantation Crop Research Institute

*Source: Pepper Research Station, Taliparamba.

prove that polination is very much influenced by atmospheric conditions mainly humidity and dust.

According to Pepper Research Station, Taliparamba, there are some 75 varieties of pepper cultivated by farmers. The researcher has come across different types of pepper vines with different qualities in the Silent Valley forest of Kerala and those varieties continue to remain as forest plants.

Though there are different varieties of pepper vines the most popular among the farmers of Kerala according to the field survey are 'Kanimunda' 'Kallu vally', 'Balankotta'. In the neighbouring States of Karnataka the popular pepper varieties are found to be 'Malligasara' and 'Dodiciya'. Some of the important varieties are discussed stating their different features.

1) Balankotta:

This variety is very popular in Malabar area, grows into medium heights and is of high yielding nature. It is seen that this variety gives yield on all years. Balankotta vine has very large leaves. In this variety, the length of spikes are comparatively longer with berries of bigger type.

2) Kalluvally:

This variety is also found very popular in Malabar area according to field study. This variety derived its name mainly on account of its power to withstand the adverse conditions of weather. This pepper vine also gives yield every year. The leaves of this pepper vine are comparatively small and dark green. The length of spikes are found varying from 7 to 9 centimetres. The spikes of Kalluvally are very much abundant with pepper berries.

3) Uthirankotta:

Though this variety is not a very high yielding one, it is found very popular in different parts of Kerala according to study. There are similarities of leaves between Kalluvally and Uthirankotta. It is seen that the length of spikes vary from 11 to 19 centimetres. Another important feature of this variety is the formation of more 'chenthalakal' from the roots. Yet another important feature of this variety is that this pepper vine carry only female flowers and hence considered as the model vine for the production of Panniyoor-I, the most famous pepper strain in the world.*

*Source: Pepper Research Station, Taliparamba.

4) Kottanadan:

This variety is very much popular in Travancore area as evidenced from the field survey. This strain is found most suitable for areas with less rain fall. This variety gives good yield in all the years and is becoming very popular in Travancore area. It is found that this variety is fast becoming popular in Pulpally in Wynad District.

5) Karimunda:

The most popular variety in Kerala is Karimunda. This strain is most cultivated in Idukki District in Udumbanchola Taluk of Idukki District. Karimunda's resistance power to overcome the adverse climatic conditions have made it quite popular with farmers of Idukki district. This strain provides bumper yield. During field survey, the length of spike in Karimunda is found varying from 6 to 12 centimetres. The berries of Karimunda are medium size and dark green in colour. Though the length of spikes of Karimunda is comparatively shorter, the number of spikes in this variety will be more than in the other varieties. The leaves of Karimunda are short in breadth and long in size with dark green colour. Another important

advantage of Karimunda, according to Central Plantation Crop Research Institute is that driage percentage is more in Karimunda than in other varieties.

6) Malligasara:

This strain is the most popular variety in North Kanara District of Karnataka. This strain is generally cultivated as an inter crop in arecanut gardens as evidenced by the survey. Malligasara also gives good yield, according to information collected from the farmers. The average length of spikes vary from 8 to 12 centimetres.

7) Dodiciya:

After Malligasara variety, dodiciya, is the next popular variety in South Kanara District. The leaves of this variety are very large in size and the length of the spikes range from 7 to 10 centimetres according to the field survey. Pepper berries of this variety are comparatively large and very much abundant in spikes.

There are more than 70 other varieties of pepper cultivated in various parts of Kerala. It is also found that most of these varieties are popular only in certain localities and some varieties are known

under different names in various places. During the interview with farmers, it is seen that names of most of the varieties are derived from the names of places or named after certain persons who have popularised those strains.

During the discussion with Central Plantation Crops Research Institute officials and scientists, it is gathered that all varieties are not suitable for all places. Certain varieties have been found giving good yield only in certain particular places. Central Plantation Crops Research Institute sources admitted that there have not been much studies conducted to locate the strains most suited to a particular place. The cultivators have to depend upon their experience and that of their predecessors in this regard. Scientists give more importance to those varieties which are disease resistant and also at the same time giving maximum yield. Central Plantation Crop Research Institute has developed some new varieties to withstand gungus disease and also drought conditions.

8) Panniyoor-I:

The first hybrid variety of pepper vine was developed at **Pepper** Research Station near Taliparamba,

after a long series of trials and research. Panniyoor-I variety is a crossbreed of 'Uthirankotta' and 'Cherianikkadan'. From field studies the Panniyoor vines are found very much healthy with large leaves. The spikes of Panniyoor have maximum length ranging from 13 to 17 centimetres. It is also observed that the spikes in these vines are very abundant, having more number of berries in a uniform pattern. From discussions with scientists and farmers, it is given to understand that Panniyoor variety gives 3 to 5 times yield than most other local varieties with proper management and scientific agricultural practices. Pepper Research Station at Ambalavayal, Wynad District has recorded an average yield of 2.5 kg. per vine.*

During interview with the farmers, the researcher have come to know some of the disadvantages of Panniyoor-I. It may not give constant yield in all the years according to certain farmers of Pulpally area in Wynad District. Another section of farmers in Sultan's Battery area have complained of poor yield in pepper gardens which have more shadow trees.

*Source: Pepper Research Station, Taliparamba.

h) Pepper Cultivation:

Pepper is a plant of humid tropics requiring adequate rain fall, warm climate for its luxuriant growth. Pepper also grows well in areas with less rain fall as evidenced from the field studies in Cannanore and Idukki Districts. Pepper thrives best on virgin soil with rich humus content as is seen in pepper gardens in Udumbanchola Taluk of Idukki District. The ideal location for pepper cultivation is a slopy land facing north and north eastern direction which helps to avoid the intensity of sun.

In Kerala 3 systems of pepper cultivation are generally practiced. The first system is undertaken on plantation scale, after acquiring the jungle on hilly slopes of high ranges in Idukki and Wynad Districts. The second system is undertaken as mixed cropping in homestead gardens. The third system is by cultivating pepper as an inter and subsidiary crop along with other plantations like coffee and cardamom. About 10 per cent of the pepper cultivation in Kerala is undertaken in this method. According to Central Plantation Crop Research Institute sources the most suitable land for pepper cultivation are those areas which receive an annual rainfall of 250 centimetres and with good

drainage facility. Scientists also give much importance to the climatic conditions, as a temperate climate is ideal for luxuriant growth of pepper.

i) It is stated earlier that pepper is allowed to grow on a supporting tree or "standard". The most known supporting tree, as evidenced from the field survey, is the locally called 'Murikku' with the botanical name 'Erythrina Indica'. The other standards used in pepper farms, are mango tree, jack fruit tree, arecanut, coconut and drum strick trees.

According to the farmers the following factors govern the choice of standards for pepper:

- 1) The surface of the standard should be of somewhat rough skin for enabling the climbing roots to support themselves.
- 2) Intermittent cutting of branches of the standard should not be harmful to the parent tree.
- 3) Standards selected should be diseased free.
- 4) The standard should be able to withstand adverse agro-climatic conditions.
- 5) The root system of the standard should not compete with that of pepper vine and the roots of standard should spread very deeply.

"Murikku" is found to be the most popular "Standard" throughout Kerala. In places like Wynad and parts of Udumbanchola and Peermedu Taluks of Idukki District silver oaks are also used as standards for pepper.

j) Preparation of Nurseries:

Once the land of cultivation is chosen, next important step is choosing of the variety to be planted. In order to ensure timely availability of seedlings, farmers are found preparing their own seedlings. Most of the farmers are found depending exclusively on their own seedlings as they can ensure quality of the seedlings. Farmers give maximum importance to the selection of mother vines. Mother vines selected should be healthy and disease resistant, capable of giving higher yields. Farmers are found selecting the mother vines during the months of September - October, when the pepper vines are in full bloom.

k) Preparation of Pit:

The size of the pit is dependent on the size of the pepper vine. Normally, farmers prepare square pits ranging from 30 centimetres to 50 centimetres. The length, breadth and depth are of same measurement. The pits are found filled with the top soil and dried farm

yard manure. The pits are prepared at the on-set of the first rain in a season. The pepper vines are planted in the pits after two to three weeks of preparation. Farmers take sufficient care in ensuring that no water gets stagnated around the pit.

1) Fertilizer Application:

For the healthy growth of pepper vines and for getting high yield, fertilizer application is of great importance. Fertilizer application is dependent on the method of pepper cultivation. If the pepper is cultivated as a single crop cultivation, then the dosage of fertilizer applied is different. Farmers also use different dosage, if pepper is planted in coffee or cardamom plantations. Again the dosage is found different if pepper is cultivated as an inter-crop in areacanut or coconut gardens. If on the other hand, pepper is grown as a crop in home-stead gardens, then again the fertilizer dosage differs. Extra dosage of fertilizer is determined on the basis of soil fertility. The fertilizer requirements of pepper are determined on the basis of plant nutrients removed from the soil.

The Studies conducted by the Pepper Research Station, Taliparamba indicate that a five year old pepper vine giving good yield require the following plant nutrients.

Nitrogen	:	100	grams*
Phosphorous	:	40	grams.
Potash	:	140	grams.

This is the standard recommendation made by the Department of Agriculture but changes are made depending on the soil analysis and fertilizer status of the soil. Farmers have opined that it is not advisable to adopt uniform fertilizer application for all pepper vines in a garden. Progressive farmers in Idukki and Wynad District are found applying fertilizer, based on soil analysis.

m) Need for Organic Manure:

Farmers have explained the importance of organic manure in ensuring the soil fertility and also the organic nature of the soil. Most of the farmers who are interviewed prepared compost yard manures themselves and applied alongwith chemical fertilizers. Pepper Research Station sources suggest that application of atleast 10 kgs. farm yard manure per vine for getting atleast 1 kg. per vine.

*Source: Pepper Research Station, Taliparamba.

n) Mode of Fertilizer Application:

Fertilizer application is made in three stages. One-third of the quantity is added during April - May and second dosage of one-third is applied during August - September. The farmers cover the fertilizer with sand and leaves in the pit. By doing so, they can minimise the leaching of fertilizers in the rainy season. The final one-third dosage of fertilizer is given in the month of October.

o) Shade Control in Pepper Gardens:

The Studies conducted by scientists in Pepper Research Station, Panniyoor prove that excessive shade during rainy season will affect the yield of pepper adversely. It is also gathered from the farmers that pepper vines planted in the shady region are found more fungus prone and afflicted with 'pollu' disease. Fungus attacks considerably affect the yield of pepper. In order to regulate the shades in pepper gardens the farmers cut the branches of standards to the required extent. The 'Karimunda' variety of pepper is shade resistant. But the Panniyoor variety is not found suitable for gardens with shade. When the pepper cultivation is taken up on a plantation scale much care is

necessary to provide maximum sun light to the pepper vines. Shade is essential to the pepper vine during summer. This is made possible by the removal of branches during rainy season. In pepper plantations the vines are not allowed to grow beyond six metres mainly with a view to provide more sun light in the lower portions of the plant. Planters are also found to be very much alert in limiting the height of the standard to seven metres. The height is limited for preventing the fall of standards during rainy season.

p) Tieing up of "Vallithalakal" or "Tender Heads"

It is found that farmers tieing pepper vines with mild twine to the standard. The commonly used material for tieing is found to be banana fibre and coir yarn. In order to avoid direct sun light falling on tender pepper vines, they are found covered with arecanut leaves during summer. Scientists in Central Plantation Crop Research Institute and Pepper Research Station, Taliparamba also suggest covering the pepper roots with soil and leaves during summer.

q) Weeeding Operations:

Farmers undertake weeding operations in pepper gardens twice a year. They also take sufficient care to

ensure that pepper roots are not damaged during weeding operations.

r) Pest and Disease of Pepper:

The most important pest disease affecting pepper is called root-wilt. The root-wilt is caused by beetle, with the zoological name 'longitarsus nigripennis'. The root-wilt is found attacking pepper vines with the on-set of monsoon when the pepper vines are in full bloom. According to the Pepper Research Station sources about 20 species of insect/ pest are known to affect pepper cultivation in Kerala. Another major disease affecting pepper is called as the quick-wilt. The quick-wilt is caused by a pest identified as 'phytophthora palmivoravar piperis'. It is estimated by the Department of Agriculture that 20 per cent of plantations in Kerala are found to have been affected by the above diseases. Though some controllable measures are there no proper solution to contain this disease has been found so far. Pepper Research Station scientists are of the opinion that a solution to this quick-wilt menace can be possible only by the evolution of resistant varieties.

s) Controllable measures against Pollu Beetles:

Pepper Research Station sources suggest that farmers may apply insecticides* by the end of July and October. The insecticide recommended for the pollu disease is any one of the four shown in Table No:

TABLE No: 3.1.

Recommended dosage of various insecticides in Pepper Gardens

Sl.No.	Insecticides	Quantity of insecticides to be added in 10 litres of water
1.	Thiodan 35 EC	15 milli-litres
2.	Ekalux 25 EC	20 milli-litres
3.	Metacid 25 EC	10 milli-litres
4.	Tamaron 400 SC	10 milli-litres

One of the above four insecticides is to be applied periodically in order to control pollu beetles.

t) Stemborrer Attack:

The pepper vines are also found affected by an insect called 'stemborrer'. Stemborrer attacks are commonly seen in the districts of Trivandrum and Quilon

*Source: Pepper Research Station, Taliparamba.
Package of Practices, Kerala Agricultural University.

during the period August - September. Department of Agriculture, suggests combination of insecticides containing 15 milli-litres of Aldrine (30 per cent) and 10 grams Benzene Hexa Chlorine (50 per cent) in one litre of water, for application to the vines. As a precautionary measure, the Department suggests application of 40 grams of Sevin (50 per cent) in 10 litres of water. Pepper Research Station sources also recommend 15 milli-litres of 'Rogor' diluted in 10 litres of water for application on pepper vines.

u) Yellowing of leaves:

The pepper vines are also found affected by a disease known as yellowing of leaves as evidenced during the field survey. The yellowing will start appearing normally during October and finally fully visible during the months of March - April. This disease brings in the gradual loss of leaves, root-system and also of the pepper vines. One of the main causative factors for yellowing of leaves is a fungus called "Nematods". A research undertaken by Pepper Research Station, Taliparamba has proved that yellowing is caused by the inadequacy of both potash and phosphorous. Yellowing disease can be controlled by the application of a fungicide called 'Agallol^{*}' (30 per cent)

*Source: Pepper Research Station, Taliparamba.

in the soil. Pepper Research Station recommends to add 2.5 litres of fungicide for any area of 10 square metres and the fungicide is to be added to the soil at two stages, once in May - June and the other in August - September.

It is also found that application of neem cake, an organic manure, can effectively control nematods. Department of Agriculture also recommends, balanced use of chemical fertilizers along with neem cake as a safe measure against yellowing disease.

3.03. Pepper Development Programme under the Kerala Agricultural Development Programme

The World Bank assisted Kerala Agricultural Development Programme commenced implementation during 1977-'78, schemes for the development of coconut and pepper and for the establishment of a seed garden complex at Mundery, in Malappuram district. Both the programmes are implemented by the Special Agricultural Development Units (SADU). Under this programme it is planned to rehabilitate 10,000 hectares of pepper areas in Cannanore, Kottayam and Idukki districts and 20 units have been started in 1977-'78. Since the farmers' acceptance to this special agricultural development

unit programme is very encouraging the Kerala Government also has sanctioned another 15 units to cover another 7,500 hectares during December 1981. Thus a total of 17,500 hectares are proposed to be rehabilitated under this programme till 1986.

The activities of this programme broadly include:

- 1) Replanting of 50 per cent vines with superior types
- 2) Application of both fertilizers to both the existing and new planned vines
- 3) Adoption of plant protection measures to both the existing and new planned vines.
- 4) Improvement of cultivation practices in general and
- 5) Special arrangements for providing institutional credit for farmers.

The credit requirements of the farmers are mainly given as term loan. The long term credit sanctioned by bank is disbursed to farmers in instalments according to necessity. From the SADU, Directorate, Trivandrum, the progress made under the above programme during VIth plan period (1978 to 1985) is shown in Table No: 3.2.

Table No: 3.2.
of
Distribution/Loans under SADU Scheme
of KADP to Farmers till 31--3--1985*

Particulars	No.	Area (Ha)	Amount (Rs. in lakhs)
Loan recommended	20785	18910	1585.10
Loan sanctioned	18773	16957	1368.55
Loan disbursed	18483	16743	1124.07

It is gathered from the Directorate that the World Bank has permitted extension of the programme upto March 1986. The progress made during the year 1985-'86 is shown in Table No: 3.3.

Table No: 3.3.
of
Distribution/Loans under SADU Scheme^{*}
of KADP to Farmers during 1985-1986.

Particulars	No.	Area (Ha)	Amount (Rs. in Lakhs)
Loan recommended	2935	2725	270.45
Loan sanctioned	2832	2682	258.37
Loan disbursed	2919	2739	180.82

*Source: Special Agricultural Development Unit,
Trivandrum.

For replanting of the vines, root cutting of the hybrid pepper, Panniyur-I, and other traditional varieties like Karimunda, Kalluvally and Kottanadan are used. During the sixth plan period, SADU has supplied 26-11 lakhs of pepper cuttings and during 1985-'86 1.75 lakhs of cuttings to the farmers under this project. It is a matter of gratification that SADU rehabilitated 19,482 hectares of pepper during the period. This is from a total area of 1.02 lakhs hectares under pepper in the State. Judged from the achievement of SADU, it is evident that there is further scope for replicating the same programme in other areas.

Names of the 35 SADU units for pepper are shown in Table No:3.4.

Table No: 3.4.

District-wise Distribution of SADU Units
in Kerala.

CANNANORE:

- | | | |
|----------------|----------------|------------------|
| 1. Bendadke | 2. Vayakkara | 3. Eruvasey |
| 4. Mattannur | 5. Maloth | 6. Karthikapuram |
| 7. East Elleri | 8. Panathady | 9. Payyavoor |
| 10. Aralam | 11. Ayyankunnu | 12. Kottiyoor |
| 13. Kanichar | | |

WYNAD

- | | | |
|-----------------|----------------|--------------|
| 14. Panamaram | 15. Vellamunda | 16. Pulpally |
| 17. Ambalavayal | 18. Kalpetta | 19. Vemum |
| 20. Edavaka | 21. Thariode | |

KCZHIKODE

22. Thiruvambady

IDUKKI

- | | | |
|--------------------|------------------|---------------------|
| 23. Vellathooval-I | 24. Vazhathope | 25. Vellathooval.II |
| 26. Kattappana | 27. Ayyappancoil | 28. Upputhara |
| 29. Konnathady | 30. Nedumkandam | 31. Mariapuram |
| 32. Kumali | 33. Kochara | |

KOTTAYAM

- | | |
|---------------|-----------------|
| 34. Ponkunnam | 35. Nedumkunnam |
|---------------|-----------------|

3.04. The Important Areas of Pepper Cultivation:

As shown in Chart No.3.01, the important centres of pepper cultivation are the districts of Cannanore, Wynad, Idukki, Kottayam, Kozhikode and Trivandrum, The Table No:3.6. gives the extent of pepper cultivation in Kerala.

3.05. Area and Production of Pepper in Kerala:

It is seen that Kerala accounts of 96 per cent of the area and 94 per cent of production of Pepper.

The area, production and productivity of pepper in Kerala have not shown any remarkable improvement in the past several years as evident from the Table No.3.5.

Table No.3.5.

Year-wise Distribution of Area under Cultivation, Production and Average Yield in Kerala from 1970-'71 to 1985-'86.

Year	Area ('000 Ha.)	Production ('000 M.Ts.)	Average Yield (kg. per Ha.)
1970-71	119.96	26.16	218
1971-72	118.63	26.16	221
1972-73	119.80	26.19	219
1973-74	121.72	28.70	236
1974-75	121.92	28.18	231
1975-76	111.93	25.57	229
1976-77	112.40	25.50	227
1977-78	104.70	21.10	202
1978-79	84.60	21.50	254
1979-80	110.72	27.70	250
1980-81	109.29	29.49	269
1981-82	111.02	29.23	263
1982-83	110.44	26.61	241
1983-84	107.35	22.71	212
1984-85	106.56	20.64	194
1985-86	103.66	23.76	229

Source: Spices Export Promotion Council, Directorate of Agriculture, Government of Kerala, Trivandrum.

Here it would be worthwhile to have a look at the Indian pepper production scene.

3.06. Area and Production of Pepper in Major
Pepper growing States in India:

Pepper is grown in India mostly in the States of Kerala, Karnataka and Tamilnadu and to a small extent in the States of Maharashtra, Andhra Pradesh, and the Union Territories of Goa and Pondicherry. The estimated area and production of pepper during 1984-'85 were as shown in Table No:3.6.

Table No.3.6.

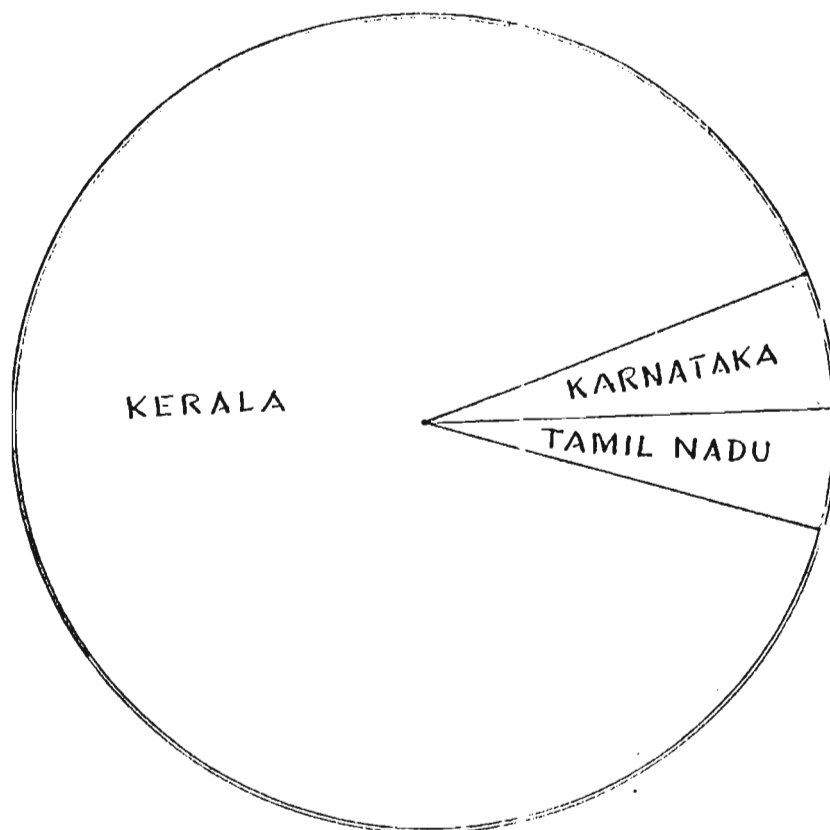
Area under Cultivation and Production of
Pepper in three important States in India
during 1984-'85.

State	Area ('000 Ha.)	Production ('000 M.Ts.)
Kerala	102.09	19.38
Karnataka	2.61	0.67
Tamilnadu	1.85	0.59
T o t a l	106.55	20.64

Source: Spices Export Promotion Council
Directorate of Agriculture, Kerala,
Karnataka and Tamilnadu.

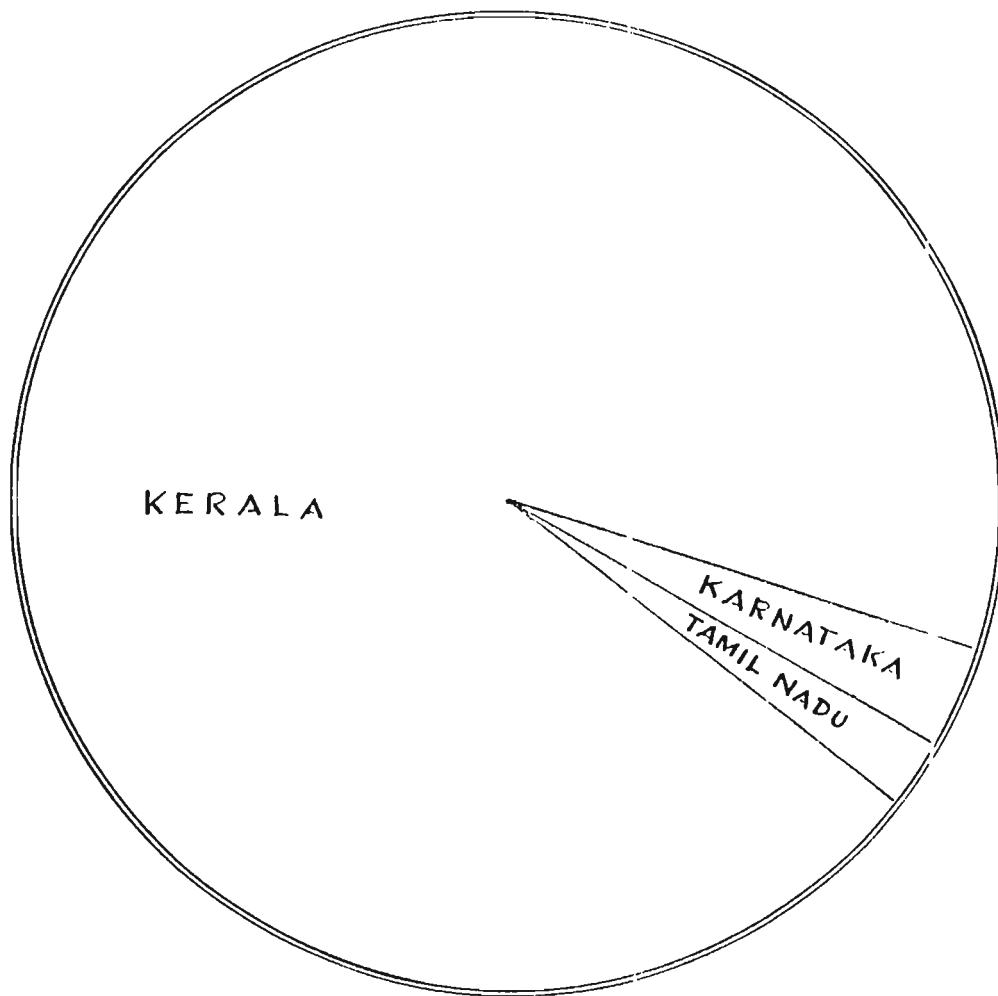
PRODUCTION OF PEPPER IN INDIA
(In metric tonnes)
1984

Kerala	-	19.38
Karnataka	-	0.67
Tamil Nadu	-	0.59



AGRICULTURAL AREA OF PEPPER IN INDIA
(in 1000 hectares)
1984

Kerala - 102.09
Karnataka - 2.61
Tamil Nadu - 1.85



3.07. Though there were substantial area expansion, enhancement of production, and increased productivity in respect of other cash crops like rubber, coconut, arecanut in Kerala, the area of production and productivity per pepper vine were almost static according to Government sources. This was mainly on account of the fact that there were no comprehensive development programmes implemented for pepper here. Another reason attributed to the poor attention paid to the crop was the highly fluctuating pepper prices in the past. Under such circumstances, the pepper growers who were mostly small and marginal farmers could not be in a position for making stable investments on pepper cultivation out of their meagre income.

3.08. A comparison of pepper production in India with that of world production was made. During the year 1984-'85 it was found that Indian production accounted for only 16.5 per cent of the world production as shown on Table No.3.7. But in 1985-'86 Indian share in world production of pepper has gone upto 49 per cent due to poor crops in Brazil and Indonesia. It is seen that the production of pepper in 1985-'86 was a record figure because of the favourable agro-climatic conditions in Kerala together with the unprecedented price for pepper.

Table No: 3.7.

Comparison of World Production of Pepper with India's production during the period 1973-'74 to 1985-'86

Year	World Production ('000 M.Ts.)	Indian Production	
		Quantity ('000 M.Ts.)	% of World production
1973-74	106.83	28.70	26.90
1974-75	117.33	28.18	24.00
1975-76	118.60	25.67	21.60
1976-77	121.07	25.50	21.10
1977-78	114.37	21.10	18.40
1978-79	128.16	21.50	16.80
1979-80	126.29	27.70	21.90
1980-81	138.58	29.49	21.30
1981-82	142.96	29.23	20.40
1982-83	138.71	26.61	19.20
1983-84	114.71	22.71	19.80
1984-85	125.15	20.64	16.50
1985-86	102.00	50.00	49.00

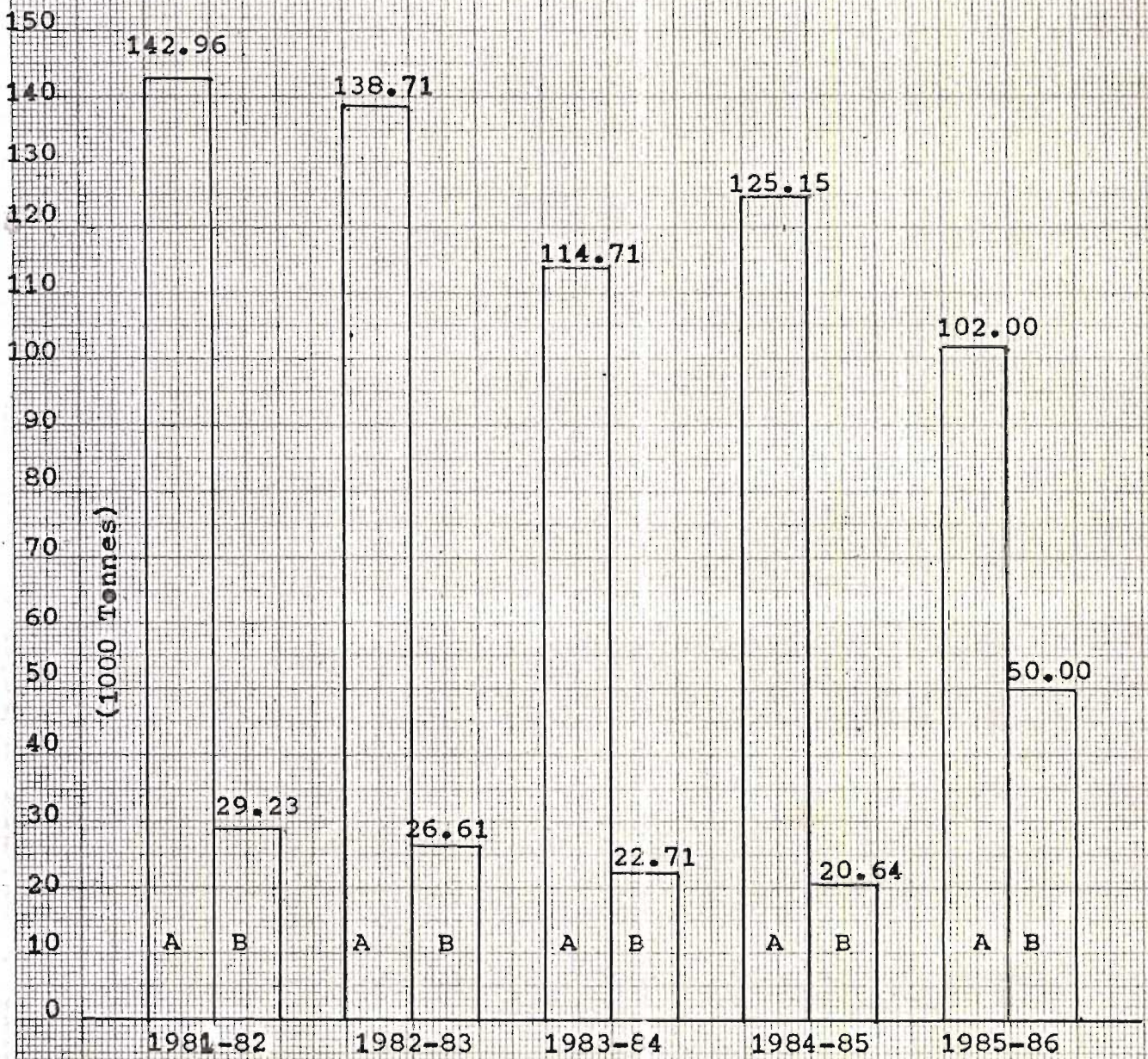
3.09. Besides India, pepper is now grown in Indonesia, Malaysia, Brazil, Madagascar, SriLanka, Thailand etc. The area, the production and average yield per hectare of pepper in the important growing countries during 1984 are as shown in Table No.3.8.

*Source: Spices Export Promotion Council,
Department of Agriculture & Co-operation,
Ministry of Agriculture, Government of India.

PRODUCTION OF PEPPER IN INDIA AND THE WORLD

A - World Production

B - India's Production



INDIA'S SHARE IN WORLD PRODUCTION IN PEPPER

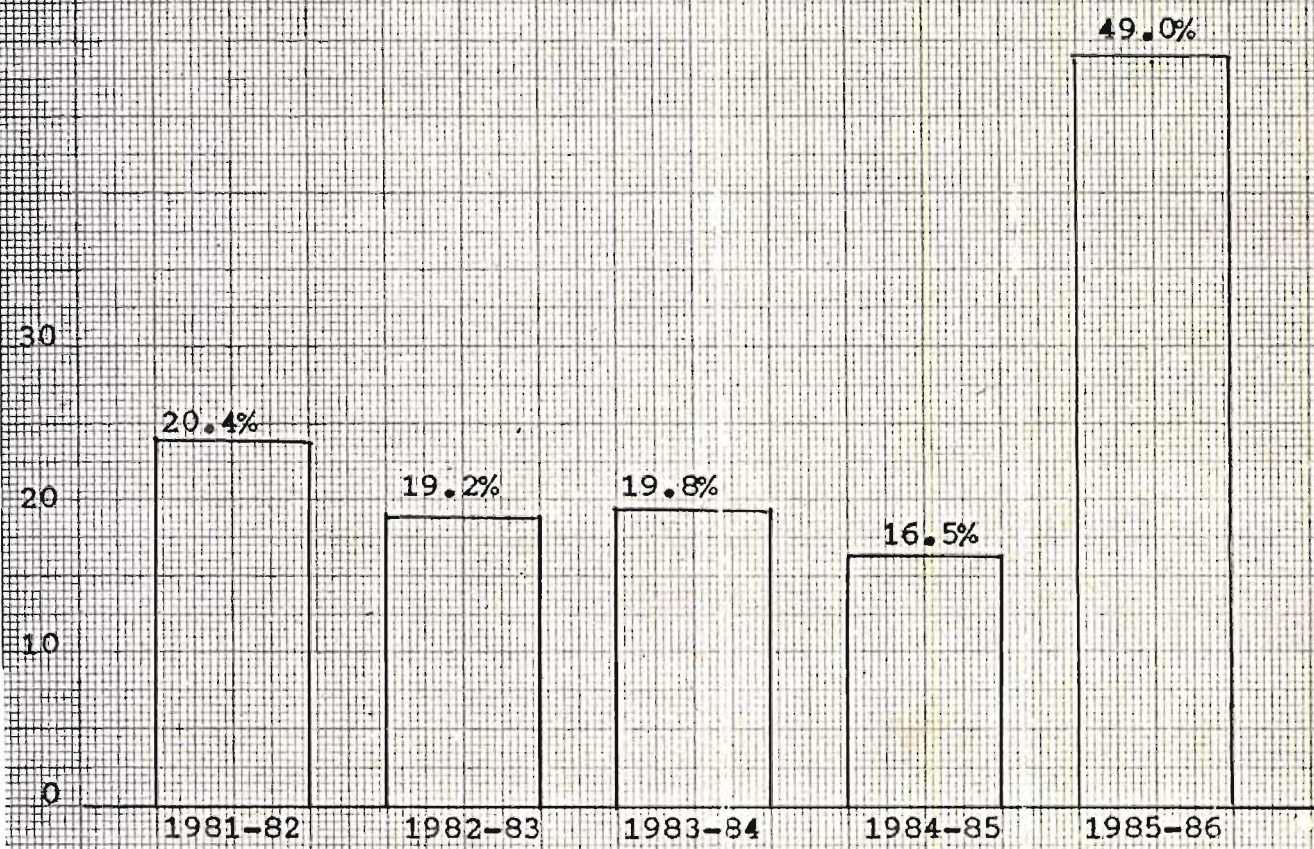


Table No: 3.8.

Country-wise Distribution of Area,
Production and Average yield of pepper
per hectare in the year 1984.

Country	Area (in Ha.)	Production (in M.Ts.)	Average Yield (kg/Ha.)
Brazil	29,458	35,382	1201
India	1,06,560	20,640	194
Indonesia	80,000	41,236	515
Malayasia	10,510	16,561	1575
Others	14,216	12,334	868
Total	2,40,744	1,26,153	

Source: Spices Export Promotion Council,
Department of Agriculture & Co-operation,
Ministry of Agriculture, Government of India.

3.10. The area under pepper cultivation in Kerala is 1,03,660 hectares during 1985-86 which is about 96 per cent of the total area of the crop in the country¹. The production of pepper in the State is estimated to be 23,760 Metric tonnes, in the same period which is above 95 per cent of the total production in the country².

3.11. According to the Department of Agriculture, pepper contributes about Rs.31.91 crores to the state income and this represents 2.48 per cent of the agriculture income of the State during 1981-'82. The area

1. Ibid.

2. Ibid.

under the crop has steadily come down from 1,21,300 hectares in 1969-'70 to 1,03,660 hectares in 1985-'86, according to the Economic Review, State Planning Board 1986.

3.12. The India's average yield of 194 kg/Ha. is the lowest as compared to 1,575 kg/Ha. in Malayasia, 1,201 kg/Ha. in Brazil and 515 kg/Ha. in Indonesia. The main reasons for the low productivity in India are identified as the cultivation of a large number of varieties of poor genetic stock, stand of senile and unproductive vines, and non adoption of proper manuring, shade regulations, plant protection and soil conservation measures and inadequate extension services.

3.13. Pepper is found mostly grown as intercrop, the average number of vines per Ha. amounting to 560 only. It was found that only 50 per cent of the above vines, gave yield below economic level owing to senility, poor genetic trait, unscientific intercropping etc. Rejuvenating the existing gardens by replacement of the poor yielders with high yielding varieties and scientific management alone could enhance the yield to not less than one kg/vine, from the present yield of 450-500 gm/vine as per the studies conducted by pepper research station at Taliparamba. Since

there is heavy pressure on cultivable land in Kerala, it is suggested that the productivity per pepper vine should be increased as no new land is available for cultivation. It is also suggested to extend pepper cultivation in the western ghat areas of Tamilnadu, Karnataka, Goa and parts of Maharashtra.

3.14. During the field study it is found that there is immense scope for cultivating pepper as an intercrop in coconut and arecanut gardens, particularly in Kerala. Shade trees in the coffee plantations in Kerala, Karnataka and Tamilnadu are also found to give excellent support for growing pepper. Therefore, it is suggested that this system of crop growing has to be extended.

3.15. The Department of Agriculture, Kerala has made some progress by supplying 20 lakhs of newly produced hybrid variety of Panniyur-I, but the performance of which is not found very satisfactory under shady plantation especially when it is grown as an intercrop. Therefore, there is need for production of planting materials of other varieties also through rapid multiplication methods.

3.16. Considering the present conditions of the pepper gardens, existing systems of cultivation practice, the dearth of land for monocropping and the economic status of the pepper growers, the strategy for increasing pepper production should be based on short-term and long-term measures. The principle short-term measures for increasing production are identified as the following:

- 1) Adoption of proper manuring
- 2) Adoption of plant protection measures, particularly Control of Wilt diseases and pollu beetle and
- 3) Adoption of improved crop management.

According to research results from pepper research station, it is found that proper manuring alone has increased the yield of pepper by 66 per cent and control of quick wilt diseases and pollu beetle attack by 30 to 40 per cent. Pepper growers, being small and marginal farmers, some incentives have to be given so as to induce than to take up scientific manuring and plant protection measures.

3.17. The long-term measures for increasing pepper production are:

- 1) Replanting and gap filling in the existing gardens.

- 2) Adoption of recommended package of practices and soil conservation measures in the gardens.
- 3) Extending pepper cultivation as monocrop wherever suitable areas are available and as an intercrop in coconut/arecanut gardens, coffee plantations and homestead gardens.
- 4) Large scale production and distribution of rooted cuttings of high yield varieties through rapid multiplication methods.
- 5) Field demonstrations of high yielding varieties and scientific methods of crop raising, and
- 6) Publicity and propaganda to popularise the low cost technology among farmers.

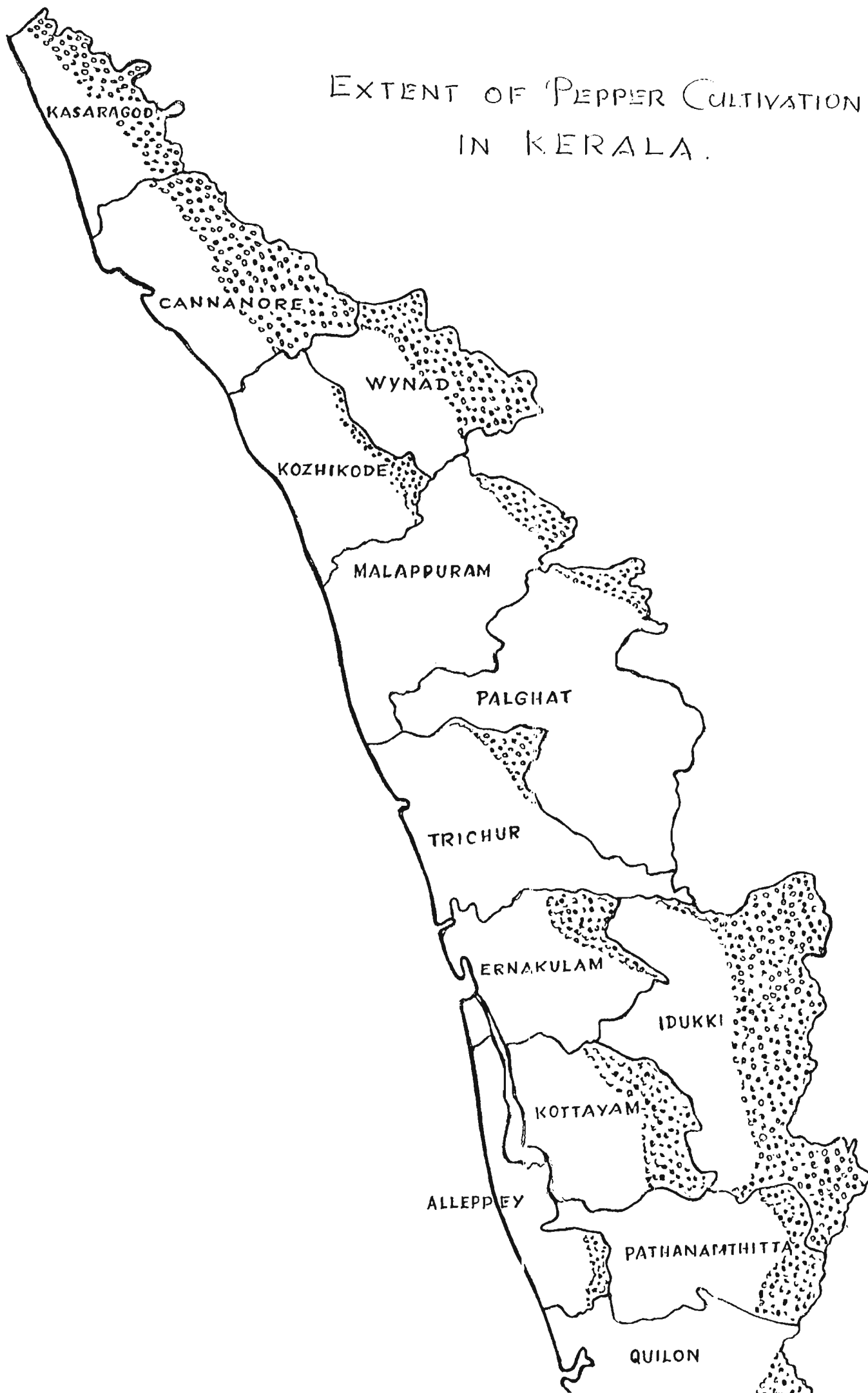
TABLE No: 3.9.

DISTRICTWISE AREA OF PEPPER CULTIVATION IN KERALA
IN 1984-'85

Sl. No.	District	Area in Hectares
1.	Trivandrum	5004
2.	Quilon	7515
3.	Pathanamthitta	4270
4.	Alleppey	3644
5.	Kottayam	11762
6.	Idukki	12182
7.	Ernakulam	6191
8.	Trichur	3780
9.	Palghat	1665
10.	Malappuram	4069
11.	Kozhikode	13354
12.	Wynad	8258
13.	Cannanore	23501
T o t a l		105195

Source: Directorate of Agriculture, Trivandrum.

EXTENT OF PEPPER CULTIVATION
IN KERALA.



C H A P T E R - IV

PROCESSING AND MARKETING OF PEPPER

4.01. Harvesting of Berries:

In the normal agro-climatic conditions, most of the spikes in a pepper vine will be of the same age. If the berries in most of the spikes are partly ripe, the entire produce can be harvested. This is the common practice among pepper cultivators. If the berries are allowed to ripen fully some of the ripened ones are likely to fall down from the spikes. Also the berries may be eaten away by the birds.

The harvested berries are collected in gunny bags. The man who plucks the berries tie a bag around his waist for collecting the berries. The pepper berries collected are then transferred to gunny bags or bamboo baskets placed on the ground in the pepper garden. The harvested pepper is normally heaped in a dark room for 2 to 3 days.

4.02. Processing of Berries:

The processing of pepper, commences with the removal of berries from the spikes. This is made

possible with the help of hands and legs. As there is ample sun light during the harvesting period November to February, the pepper berries can be dried out well in the sun light. Ripened pepper berries contain around 70 per cent of water. On proper driage, the water content gets reduced to 11 per cent of its weight. It is noticed that the skin of pepper is green in colour at the time of harvesting and this green colour is due to the presence of the chemical 'Chlorophil'. When the berries get ripened chlorophil gets partially destroyed and subsequently the skin becomes yellowish red owing to a chemical called 'Karottil'^{*}. The green pepper berries get converted into black berries on driage. The sunlight partially removes the chlorophil in the berries during driage. On account of the action of certain enzymes some of the chemical contents in pepper acquire colour. Intensity of blackness of pepper is very much dependent on the degree of greenness of the pepper.

4.03. Grading:

Next stage involved in the processing of pepper is grading of black pepper. Depending upon the size and weight of berries, there are different grades of black pepper. The berries which are infest-affected

* Source: Pepper Research Station, Taliparamba.

are called 'light pepper'. Since light pepper berries do not have much weight, they can be segregated by winnowing. During the discussion with farmers and merchants, it is given to understand that light pepper, which is of comparatively less cost, is mainly used for the preparation of 'oleoresin'. There is another variety of pepper called half pepper (Ara Mulaku), which has more weight than that the light pepper. Half pepper berries can also be separated by winnowing. The half pepper berries on examination is found to be very much wrinkled and unattractive. The half pepper is mostly used for the preparation of pepper essence. Another variety of pepper which is found in the local market is known as pinheads. It is found that the pinheads are very small berries like cuminseeds. Pinheads are also locally called as Peeramulaku. Pinheads can be removed with the help of small mesh sieves.

4.04. The Grade Specifications of Black Pepper:

The grade specifications of black pepper have been drawn on the basis of age-old family trade names, such as Malabar pepper, Alleppey Green, etc. so as not to disturb the traditional names. Detailed specifications have been prescribed by quality control agencies

taking into account the individual characteristics of pepper and also broadly based on physical characteristics like colour, size, density, moisture content, essence of extraneous matters, and damaged produce. Some of the important varieties of black pepper mentioned here under below:

Malabar Garbled:

The big pepper berries are called Malabar garbled. Malabar garbled variety is also classified into Grade-I, and II, the difference is on the percentage of light berries in the consignment. Malabar garbled varieties are dried mature berries grown in South India and having dark brown to ~~dark~~ black in colour.

There are pepper berries bigger than that of Malabar garbled and depending upon the size they are classified into three groups namely:

- 1) Tellicherry garbled special extra bold
- 2) Tellicherry garbled extra bold
- 3) Tellicherry garbled

4.05. Use of Pepper:

The Western and European countries are using garbled pepper in powder form. In countries like,

Italy and France the bigger groups are very much in demand and they do fetch maximum price.* In the industrialised countries and in the socialist countries of Eastern Europe, the food industries and in particular their meat sectors, are the biggest consumers of pepper, according to a study conducted by the Spices Export Promotion Council, Cochin-16.

A recent development in the industrialised consumption of pepper is in the form of oleoresin and pepper oil. Use of green pepper in brine water or vinegar is also becoming popular according to a study conducted by Spices Export Promotion Council in 1984. In recent times, dehydrated and frozen dried green pepper are also found gaining popularity in Western consuming markets according to the study made by the Spices Export Promotion Council, Cochin-16.

4.06. Garbling:

In the dampening rainy season the dried pepper gets infested due to fungus. Farmers also opined that moisture in pepper will also augment the growth of fungus. The presence of fungus will diminish the black colour of pepper and the berries become

*Source: Spices Export Promotion Council, Cochin.



← PEPPER VINE
READY FOR HARVEST

VIEW OF PEPPER GARDEN.



↑
PEPPER SEEDLING
OR CUTTING.



↑
TIEING TENDER HEADS OF
PEPPER VINE



↑
HARVESTING OF PEPPER.



↑
TAKING HARVESTED PRODUCE FOR SEPERATION FROM SPIKES.



← PHYSICAL SEPERATION OF
PEPPLER BERRIES FROM SPIKLES.

PHYSICAL SEPERATION OF PEPPLER
BERRIES FROM SPIKLES



← GRADING OF PEPPLER
BY WINNOING.





← DRYING OF PEPPER
IN SUN.



← FILLING OF BAGS
WITH PEPPER.



↑
CLEANED PEPPER
TAKEN FOR GARBLING.



↑
GARBLING OF PEPPER
By MECHANICAL DEVICE

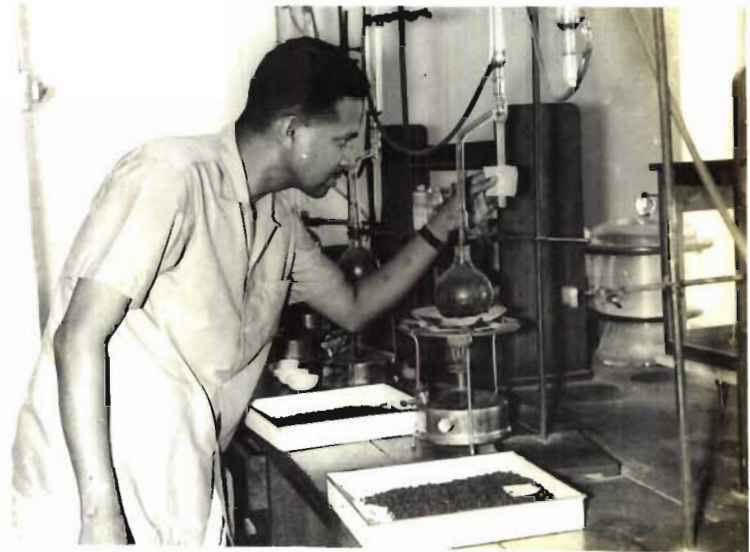


↑
WEIGHING AND BUNDLING OF
GRADED PEPPER INTO HESSAIN BAGS.



↑
STITCHING OF BAGS

QUALITY CONTROL -
DETERMINATION OF
MOISTURE PERCENTAGE



← PRE-SHIPMENT INSPECTION OF
PEPPER

SEALING BY "AGMARK"
INSPECTING OFFICER



↑
PEPPER EXPORT CONSIGNMENT
TAKEN TO SHIP



SHIPMENT OF EXPORT
CONSIGNMENT



↑
GENERAL VIEW OF A PEPPER GARDEN.

unattractive. In order to prevent these, exporters adopt certain measures to make sure that the export commodity remain healthy and also attractive in colour till it reaches the final destination in the foreign markets. The above process of applying petroleum product white oil is called garbling of pepper. On garbling, pepper is thoroughly cleaned and made free of dust, foreign particles, etc. and berries become shining black. The recommended dosage of white oil used by pepper exporters in Cochin is approximately 20 milli-litres of white oil for 1 kilogram of dried pepper.

But recently there have been complaints received from importing countries especially USA in the application of white oil during garbling operations. The exporters in Cochin are now alternately using water for garbling operations.

4.07. White Pepper:

According to the Spices Export Promotion Council sources, Dutch people are very much fond of white pepper. Because of this, Indonesia remain as the main producer of white pepper. According to a recent study by the Spices Export Promotion Council now Malaysia and Brazil also prepare white pepper for external market. During

field study it is observed that white pepper is made by removing the skin of ripened berries. Once the skin is removed the pungency of pepper is very much reduced.

According to information collected from pepper exporters, there is not much demand for white pepper from Kerala. This is mainly due to the unfavourable export price prevailing for white pepper. Another reason for non-processing of white pepper in Kerala is that the farmers have to wait for the complete maturing of pepper if they want to prepare white pepper. During this prolonged waiting, there are possibilities of pepper either falling down or eaten away by birds. Farmers are also of the opinion that the risk involved in the preparation of white pepper are not commensurate with the export price of pepper. Traders in Cochin have also opined that preparation of white pepper is not profitable as there is a loss by 20 per cent weight with the removal of skin.

4.08. Green Pepper:

Green pepper comes from undried but fully developed green berries. They are preserved in brine. Dehydrated green pepper is prepared from matured green pepper treated to retain its colour and dried mechanically.

4.09. Pepper Oleoresin:

Pepper Oleoresin is the solvent extract of black pepper which contains flavour of the pepper spice. For this, black pepper is ground, charged into percolators and treated with suitable solvents such as alcohol, acetone, ethylene-dichloride, ethyl acetate, etc. The solvent is desolventised to yield the oleoresin with residual solvent level of 30 parts per million or less. According to Pepper Research Station sources, on an average pepper yields 14 per cent oleoresin.

4.10. Pepper Oil:

Pepper oil is isolated by steam distillation of the dried berries. According to the studies conducted by the Pepper Research Station, the pepper contains 3 to 4 per cent essential oil.

4.11. Flavouring and Taste:

The important quality of pepper is its pungency. The pungency is due to a chemical known as "Piperin". In dried pepper the content of piperin varies from 4 to 10 per cent, according to Central Plantation Crop Research Institute sources. Piperin

content will be more in undried berries and hence undried berries have more pungency. The smell of pepper is also very attractive as its pungency. The causative factor for the smell is a substance called pepper oil. The pepper oil can be distilled with the help of steam.

4.11. Structure of Pepper:

According to Central Plantation Crop Research Institute, the essential ingredients of pepper are found as in Table No.4.1.

TABLE No: 4.1.
STRUCTURE OF PEPPER

Ingredients	Percentage
Water content	10.50
Fibre	9.50
Volatile liquid	2.00
Non-volatile liquid	8.50
MAP (Starch)	35.00
Protein	10.00
Piperin	4.50
Other Starch materials	20.00

Source: Pepper Research Station, Taliparamba.

4.12. Marketing of Pepper:

As stated earlier, pepper is essentially an export oriented crop. The total production in India is around 32,000 to 36,000 tonnes and of which 12,000 to 14,000 tonnes are consumed domestically¹. As evidenced from field studies 20,000 to 23,000 tonnes of pepper are exported on an average annually². According to the Spices Export Promotion Council sources, the share of pepper as a foreign exchange earner among the other agricultural products exported from India is very significant at 178 crores in 1985-'86³.

4.13. There are three types of merchants or agencies who deal with mortgaging of pepper arrived in the market from the hands of farmers. They are: -

- 1) Small scale merchants
- 2) Large scale merchants
- 3) Wholesale merchants or exporters.

4.13.1. Small Scale Merchants:

The small traders mainly operate in the small towns of hilly districts of Kerala. The small scale farmers sell their stocks of dried pepper to marginal merchants who used to collect the produce from the

1. Ibid.
2. Ibid.
3. Ibid.

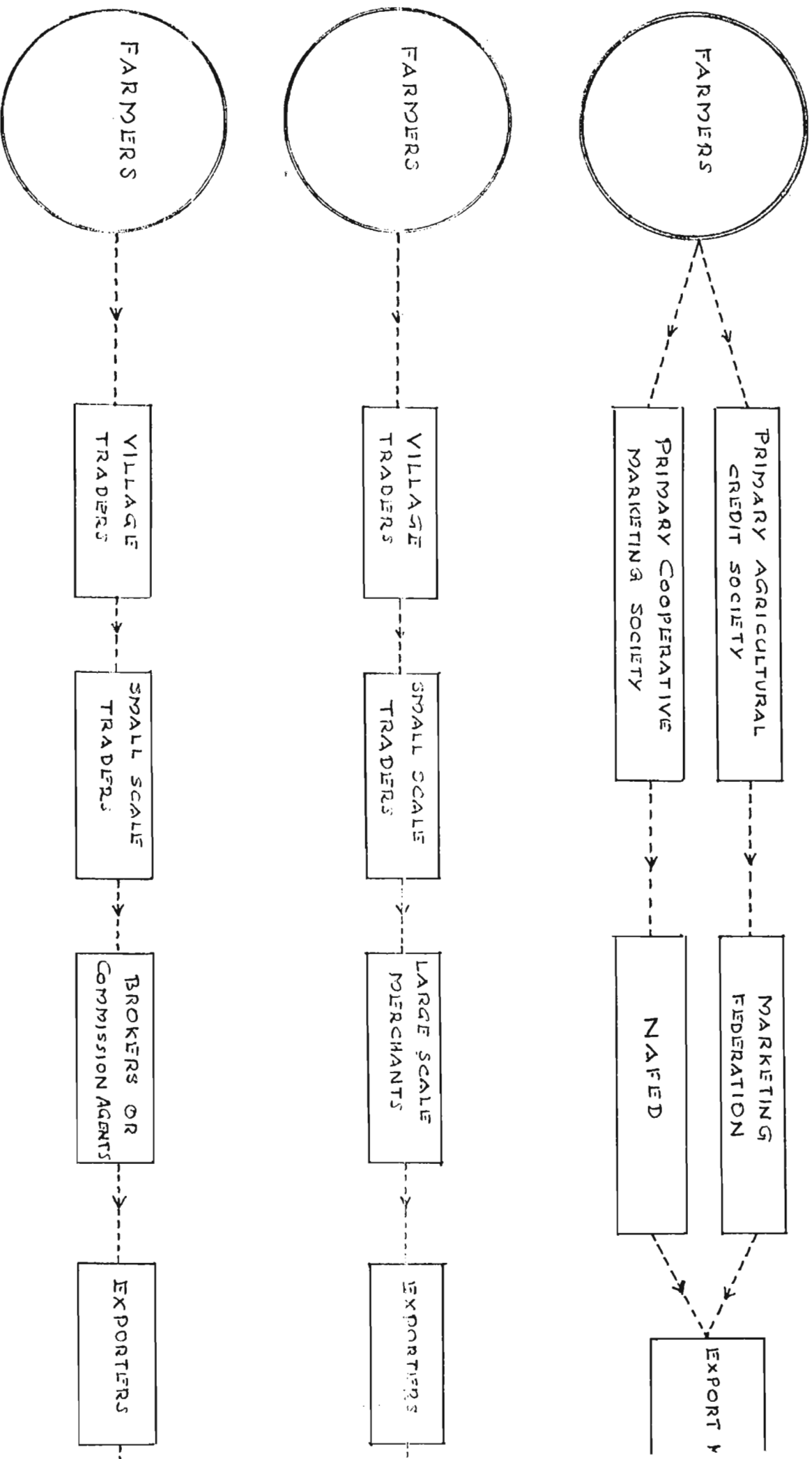
farmer's households. The researcher has come across a number of farmers both in Idukki and Wynad districts handing over the produce to small scale merchants who used to visit the farmers households or send their representatives. The small scale merchants who collect stocks of dried pepper pool their stocks and immediately sell the material to large scale merchants without any grading or processing. It has been noted that small-scale merchants collect more than 65 per cent of the pepper produced in the country as they have got personal contacts with the farmers. The small-scale merchants some times act as representatives of either large scale merchants or exporters.

4.13.2. Large Scale Merchants:

The small traders supply their produce to the large scale merchants operating in important towns of pepper such as Cochin, Alleppey, Kottayam, Kattappana and Sultan's Battery. At times large scale farmers are also found to hand over their produce direct to exporters without the assistance of middlemen.

During the course of interview the researcher has come across a group of people known as commission agents who assist small scale merchants. The commission

CHANNELS OF DISTRIBUTION IN EXPORT OF PEPPER



agents play an important role as an agent between the small scale merchants and large scale merchants or exporters. The commission agents normally charge a rate of 1 per cent on all transactions handled by them without handling the merchandise.

The important pepper trade centres in Kerala as evidenced during the field study are Kanhangad, Payannoor, Tellicherry, Sultan's Battery, Kalpetta, Nilambur, Trichur, Perumbavoor, Kothamangalam, Palai, Moovattupuzha, Thodupuzha, Vandanmedu, Adimali, Munda-kayam, Kanjirappally and Ranni. The large scale merchants operating in the above places take the produce to whole scale merchants or exporters operating in Calicut, Alleppey and Cochin. It has been estimated by Spices Export Promotion Council and trade sources that the entire pepper produced except those kept for personal consumption by cultivators will ultimately reach the hands of whole sale merchants.

4.14. Pepper Processing for Marketing Purposes:

Before discussing the third classification of pepper traders, it is necessary to describe pepper processing. Pepper processing is nothing but preparing the pepper for the whole sale or terminal markets for

final distribution. In other words, the processing is undertaken by either dealers themselves or actual exporters. It is observed that most of the farmers sell dried black pepper without cleaning or grading them to conform to the prevailing market grades or grades prescribed for export of pepper. There are also instances wherein the small pepper cultivator taking the green pepper harvested by him to the village fair and disposing the same for a good meal in the evening. Most of the small farmers sell their crop to village hawkers at times long before harvest at considerably low prices. Those cultivators who have got both staying power and other resources, process the pepper themselves after cleaning, garbling, washing, drying in order to meet the market requirements.

4.15. Wholesale Merchants/Exporters:

The important export centres of pepper are found operating in the port cities of Cochin, Calicut and Alleppey. In the above places there are sufficient storage points and warehouses. Most of the wholesale merchants have got own or rented trading centres with garbling machines. The exporters are found to be in a position to grade the dried pepper according to various

export orders and finally take them for export. During the study, the researcher has found that 95 per cent of the wholesale merchants are themselves acting as export houses. The meagre percentage of wholesale merchants who do not have export houses are found selling their produce for export by others after garding, packing, labelling and even pre-shipment inspection.

4.16. Markets of Indian Pepper:

Indian pepper has two types of markets. They are the domestic market and export market.

4.16.1 The Domestic Market:

It is estimated that the domestic consumption of pepper in the country is between 12,000 to 15,000 tonnes.* The important upcountry/domestic markets of pepper are Madras, Bombay, Calcutta, Kanpur, Amritsir and Patna. It is found that there is a product preference for large and healthy berries in domestic markets and in order to get such a quality of pepper, sieving is undertaken well before the final despatch of material to such markets. Small scale traders are also found taking pepper from Amritsir to Afghanistan and from Patna to Nepal.

* Ibid.

During the survey it is seen that the domestic market of pepper is virtually controlled by the private sector. Because of this domination of private trade in the domestic marketing scene of pepper, details of arrivals/sales in the domestic markets are not readily available. Therefore, the researcher has to entirely depend on the figures projected by the trade as regards the domestic market arrivals/sales figures. It is also seen that the important domestic markets are centred in Bombay, Calcutta, Kanpur, Delhi, Amritsar and Patna. The stocks meant for domestic market are taken mostly by road transport from Cochin. It is gathered that the major exporters/export houses operating in Cochin are having their sales depots/stockists in the major internal markets.

It is also seen that the domestic price of pepper at times is very much fluctuating, based on the prevailing price of export for pepper. The private trade with its near monopoly in the domestic market is found influencing the prevailing rates of pepper in various domestic markets. Another welcome feature of the domestic pricing of pepper is that the daily market rates in Cochin, Alleppey and Calicut are published prominently next day in the leading dailies of not only

in Kerala but also in all the important news papers in Bombay, Madras, Calcutta, Delhi etc. As the newspaper publishes the daily market price and also the quantities of arrival in each day both the farmers and the traders derive benefits from this information. The farmer is found in a position to bargain his price for produce based on the previous day's market reports published in this Press. In Kerala, the All India Radio is found to have an arrangement of broad casting daily, the prevailing rates of all major agriculture produces including pepper in the important markets of Calicut, Cochin, Alleppey and Trivandrum.

The cooperative sector, a new entrant in the market scene of pepper from 1975-'76 is yet to make its presence in the domestic market of pepper. From the trade circles it has been gathered that a strong domestic market base is very essential for sustaining the export market for pepper. The private trade is found placed in a better position because of their involvement both in the domestic and export market. By remaining actively both in domestic and export market, they are able to maintain close and constant contacts with farmers, traders, and also representatives importers in India. The cooperative sector agencies have to do considerable work for catching up with private trade in domestic marketing.

4.16.2. The Export Market:

Majority of the pepper produced is exported to foreign countries as evidenced during the field study. In the late 1940's India's share in the world trade of pepper was 75 per cent.¹ However, when the countries like Indonesia, Malaysia, and Brazil started pepper cultivation on commercial scale, their contribution to the international market increased and resulting in the decline of share as India could not step up the production commensurate with the growing world demand. As a result, India lost the supremacy over pepper export and by 1973 the country's share in the world export came down to 32 per cent and by 1975 it further declined to 26 per cent. The fall in the export was very steep since 1976 and it touched to the lowest level of 12.8 per cent in 1978 as could be seen from the data given in Table No:4.2. The situation is gradually improved since then but it is still far behind the levels attained earlier. But in the year 1979 India's export share has gone up to 18.6 per cent of the world export and in 1980 India's share reached 21.3 per cent. But in the year 1981 the share declined to 15.5 per cent and since then it is found varying between 18 to 21 per cent.

1. Ibid.

TABLE No: 4.2.
 WORLD EXPORTS AND INDIA'S SHARE OF EXPORTS
 FROM 1973 to 1985

Year	World Export ('000 M.Ts.)	India's Export	
		Quantity ('000 M.Ts.)	% of World Export
1973	98.7	31.6	32.0
1974	89.9	26.3	29.2
1975	92.2	24.2	26.2
1976	106.5	20.5	19.2
1977	105.8	24.6	23.2
1978	122.7	15.7	12.8
1979	111.9	20.8	18.6
1980	123.2	26.3	21.3
1981	135.2	21.0	15.5
1982	125.6	22.6	18.0
1983	130.0	25.8	19.8
1984	119.2	25.4	21.3
1985	95.6	19.6	20.5

Source: Spices Export Promotion Council
 International Pepper Community

4.16.3. In the earlier table an analysis is made about India's share of exports compared to world export of pepper. In order to have a clear picture about the world production and export of pepper in other countries in comparison to India's figures, is made in the table No.4. 3. with figures in selected years only.

WORLD EXPORT OF PEPPER, COUNTRYWISE IN 1985
(in tonnes)

India	-	19,587
Brazil	-	24,676
Indonesia	-	26,201
Madagascar	-	2,300
Sri Lanka	-	2,282
Thailand	-	1,635
Malayasia	-	18,906

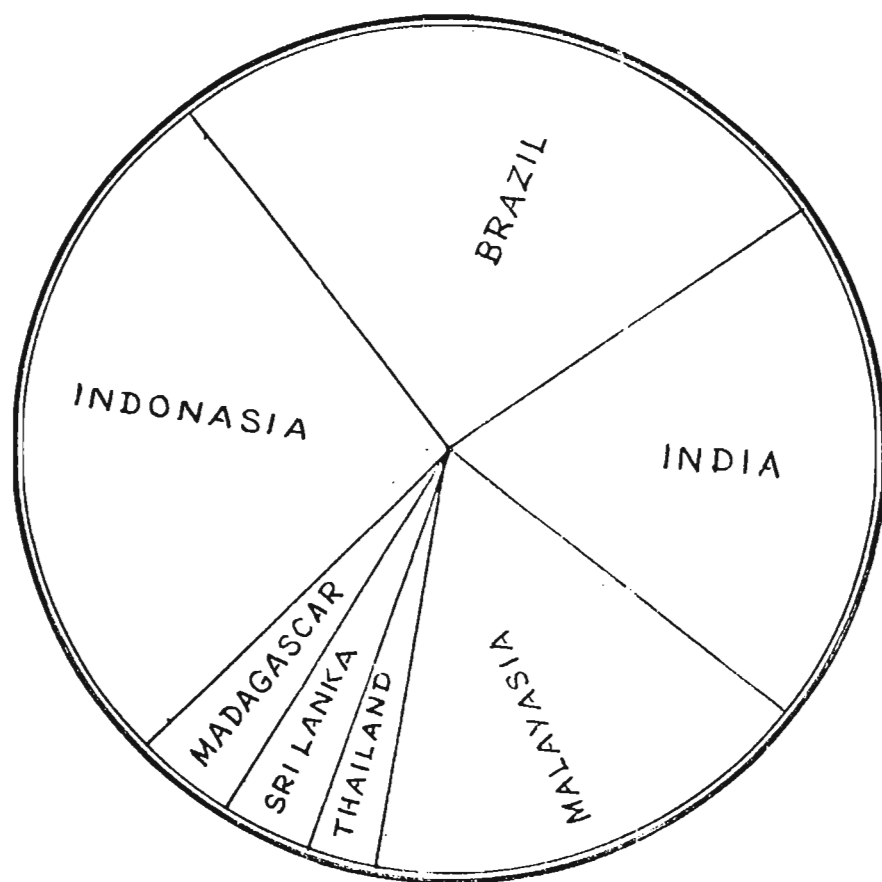


TABLE No:4.3.

COUNTRY-WISE PRODUCTION AND PERCENTAGE
SHARE OF EXPORTS OF PEPPER DURING SELECTED
YEARS FROM 1949 to 1982.

Countries	1949	1950	1960	1970	1980	1981	1982
	(Qty.in thousand M.Ts.)						
INDIA	15.3 (75)	18.7 (49)	18.7 (29)	19.7 (32)	27.9 (23)	20.6 (15)	20.54 (16)
INDONESIA	2.6 (13)	7.1 (25)	12.7 (20)	2.6 (4)	29.7 (24)	34.0 (24)	33.2 (26)
MALAYASIA	0.8 (4)	0.3 (1)	4.2 (7)	26.2 (42)	30.7 (25)	28.6 (21)	25.01 (20)
BRAZIL	-	-	1.9 (3)	9.0 (14)	32.0 (26)	46.9 (35)	46.19 (37)
TOTAL INCLU- DING OTHERS	20.3	27.8	63.5	62.0	124.0	134.2	126.2

(% share of exports are given in brackets)

Source: Spices Export Promotion Council
International Pepper Community.

From the table it is seen that India's share in world export has come down from 75 per cent in 1949 to 16 per cent in 1982. Brazil which has come in the world pepper scene in the year 1960 has achieved major break through in export front from 1970 onwards and in the year 1982 it achieved 37 per cent share of world export market. The Table reveals the progress made by both Malayasia and Indonesia.

4.16.4. The export earning from pepper and pepper products was about Rs.60.5 crores in the year 1984-'85. During 1985-'86 the export value of pepper was an all time record of 172.5 crores which worked out to 61.6 per cent of the total earning of 282.5 crores from all spices.¹ The data on the export earning from pepper along with that of total spices for the last 12 years are given in Table No: 4.4.

TABLE NO:4.4.

EXPORT EARNINGS OF SPICES AND THE SHARE
OF PEPPER FROM 1973-'74 to 1985-'86.

Year	Total Export earnings from All Spices (Crore. Rs.)	Export earnings from Pepper	
		Amount (Crore Rs)	% of total
1973-74	54.9	29.5	53.7
1974-75	61.3	34.4	56.1
1975-76	71.0	33.9	47.7
1976-77	72.9	38.2	52.4
1977-78	142.0	49.1	34.6
1978-79	161.0	28.9	17.9
1979-80	153.6	33.3	21.7
1980-81	116.4	38.7	33.2
1981-82	105.3	28.4	27.0
1982-83	101.9	29.6	29.0
1983-84	111.6	41.3	37.0
1984-85	208.6	60.5	29.0
1985-86	282.5	172.5	61.6

Source: Spices Export Promotion Council
1. Ibid.

As a detailed analysis of export market of Indian pepper is being discussed in the separate chapter, it is necessary to study about exporters of pepper.

4.16.5. Exporters of Pepper:

The exporters of pepper can be grouped under two categories. The first being private trade and the second the cooperative sector. The private sector had monopoly in the export of pepper until the year 1975. It was in the year 1975 that Kerala State Cooperative Marketing Federation entered the pepper export front. Federation was soon followed by another cooperative apex body at national level known as NAFED in export of pepper. Even after their entry, private trade is responsible for 85 to 90 per cent of Indian export market.¹ The main exporters of pepper operate from Cochin, Calicut and Alleppey. A list of important exporters in the private sector is given below:

M/s.Kishore Shamji & Co., Cochin

M/s.N.S.R.Mandradiar, Cochin

M/s.J.Mariwala & Sons, Cochin

M/s.Parekh & Bros. Cochin

M/s.J.M.Gandhi Sons, Cochin

M/s.South India Produce Co., Cochin

1. Ibid.

M/s.Sidharth Spices Corporation, Cochin

M/s.Indian Commercial Co., Cochin

M/s.Tanna Exporters, Bombay

M/s.Harkisan Das & Co., Bombay

M/s.Pankaj Spices & Trading Co., Cochin

M/s.Allanna Sons Pvt. Ltd., Cochin

M/s.Brooke Bond India Ltd., Cochin

M/s.M.J.Exporters Pvt. Ltd., Cochin

M/s.M.C.Jacob & Co., Cochin

The above list is not complete but they are the major exporters of pepper having export houses in Cochin.

During the survey, the researcher though could meet most of the leading exporters of pepper in Cochin, he could not collect details of procurement and sales by private agencies. One of the main reasons for not getting the figures was that most of the private exporters had interest in more than one firm or other. But they were found happy in disclosing/explaining the trade practices followed in purchasing centres and in Cochin. The details pertaining to forward marketing and 'pars condition sales' have been collected from private trade only. They also provided the researcher the particulars of purchase tax, cash compensation

support scheme of Government of India and also the export formalities connected with pepper export.

The researcher had collected the procurement and export figures of both MARKETFED and NAFED from 1975-'76 onwards. Since the correct figures in respect of procurement and export from both MARKETFED and NAFED was available, the private share in export market was computed from the total export figures available at Spices Export Promotion Council. It may also be noted that the findings of the study has in no way affected for want of individual procurement or export figures from private agencies.

All the major exporters in Cochin have warehouses for storing pepper and for undertaking garbling operations. The exporters are found mainly dependent on small scale merchants and also commission agents for assured inflow of material. The exporters normally collect ungarbled pepper from the small scale merchants mostly in bulk without any grade specifications. The exporters after cleaning and garbling operations, grade the bulk material into various export specifications and either they sell the stocks to some other exporters who have got foreign orders or themselves export the materials to foreign buyers.

The private agencies have virtual control of both the domestic and export market of pepper. A study conducted by the Spices Export Promotion Council, Cochin and also India Pepper and Spices Traders Association (IPSTA) reveals that the private trade accounts for 85-90 per cent¹ of the total pepper trade in the country. The balance 15-10 per cent of the pepper trade is shared by the two cooperatives MARKETFED and NAFED.

The private trade has the advantage of commanding the market situation as the purchasing decision is made by the individual himself. Hence the farmers generally prefer the private trade. The private exporter is in a position to decide the price at which to purchase the commodity and at the rate at which to offer the commodity to the foreign buyer. In other words, the purchasing decision as well as the final export price are determined by the individual himself. By doing so private trade is able to procure pepper well in advance against his future export commitment. According to SEPC sources Government of India has given some concessions of purchase tax on pepper if the purchases are against a foreign contract. The private trade is in a position to take advantage of this situation as they can clearly show that the entire purchases made by

1.. Ibid.

them are against export contracts, thereby saving the payment of purchase tax. But MARKETFED and NAFED are not in a position to obtain prior export contracts to take advantage of the purchase tax concessions.

Another definite advantage for the private sector is that they could offer easy payment terms to the small pepper merchants and commissioning agents. During the course of interview the researcher has come across a number of commissioning agents thriving on the pepper trade without actually seeing the product. They collect commission upto 1 per cent of the involved value, from the small merchants and at times even from both the merchants and the exporters.

In Idukki and Wynad districts there are cases of private exporters advancing money to small pepper merchants even before the pepperberries have started appearing in the pepper vines. The commission agents who act on behalf of the pepper exporter collects high percentage of commission both from the farmer and from the exporter.

It has also been observed that the private trade is in a position to develop personal contacts with the agents and representatives of the importing country. They are also able to influence the purchasing

decisions of the foreign buyer to their advantage. It may not be possible for the institutional agencies like MARKETFED and NAFED to do so as they have their own limitations. Another definite advantage of the private trade as evidenced during the study is that the private trade is able to offer flexible terms to both the buyer and seller depending upon the market conditions. A private trader need not fully adhere to the formalities or trade practices unlike institutional agencies like MARKETFED and NAFED. He has got absolute authority with regard to the payment of advances to small merchants or service cooperative banks without any collaterals or securities.

The private trade is also in a position to avail maximum credit facilities from private and public financial institutions and draw necessary credit on the strength of stock deposits. The cooperative sector is slightly in a disadvantageous position in this respect as they can secure credit from nationalised banks or cooperative banks only on the strength of the government guarantee. As such liquidity of finance is a problem for the cooperative agencies unlike the private trade.

During the course of interview and personal discussions with exporters it is found that the private trade is in a position to undertake foreign trips for furthering their business interests. A private business man can visit foreign countries either as a member of the Spices Export Promotion Council or even in his individual capacity. Most of the private exporters in Cochin have their own representatives in importing countries who even use to monitor the most important trends in international circles, the production prospects in our country, exportable surplus and the real demand for the product in the importing countries.

Farmers have disclosed that the private exporters work throughout the day, irrespective of day or night, during season. Because of the flexible working time, they are in a position to cater to the needs of farmers and also small traders who may be very much interested in securing some advance payment against their offer of products to the exporters.

4.17. Trade practice in Local Markets:

The intermediaries in the pepper trade may be classified as (1) Exporters (2) Interstate Traders (3) Commission Agents (4) Local Traders (Garbling),

(5) Up-country Traders and (6) Brokers. The up-country traders bring their pepper stocks to Cochin and they also arrange sale of such stocks to commission agents or brokers. If the stocks are supplied by traders through commission agents, the traders used to get advances upto 97 per cent of the market value of pepper. During the course of interview with traders it was given to understand that an interest of 21 per cent was levied on the advances so given. In addition to this they also used to add agency commission, trade charges, etc. On all transactions broker is found to be an inevitable factor. The brokers used to collect a brokerage of one per cent on every quintal (100 kgs.) on all sales effected whether from the storage points of up-country traders, or at the go-downs of exporters.

During the course of the field survey a system of trade known as 'pars condition sale' was found in existence. On enquiring it is found that the system involves delivery of stocks to the local exporters by the up-country traders during a specified period through brokers. Semi-dried stocks of pepper will be supplied by the up-country traders. A representative sample of 50 kgs will be drawn from the stocks supplied. The sample is dried to the satisfaction of the buyer. Then the weight of the dried

stock is determined giving an allowance of 2 per cent by weight and the difference in weight is treated as drriage. Then the weight of the entire stocks supplied is calculated on the basis of drriage. It is found that the 'pars condition sale' of pepper is done during plucking season, that is, December - February. From March onwards as fully dried pepper is available there is no question of 'pars condition sale' from March onwards.

4.18. Trade Practices in Production Centres:

It is seen that the village traders pay advances to the pepper cultivators in the districts of Trivandrum, Quilon and Pathanamthitta. When the berries are ripe in the pepper gardens the traders will themselves arrange harvesting of pepper. They will also fix floor rate for the un-ripened berries. The pepper cultivators are very much affected on such transactions. But with the advent of cooperative outlets of local service cooperative bank and also the opening of collection centres in villages have done a lot of service to pepper farmers who can sell the produce without the help of unscrupulous village traders.

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In certain places of Idukki district, some village traders have made wholesale purchase of the entire pepper in a garden. The terms of sale is completed at the flowering period and as such the farmer is again at a disadvantage. During the course of interview it has been studied that more than seventy per cent of the pepper crop in southern districts are transacted in the form of un-dried stocks by the cultivators. The traders are found to arrange drying of stocks and subsequent sale of dried pepper to exporters either in Cochin or in Alleppey. In the districts of Idukki, Wynad and Cannanore the normal practice is that the cultivators themselves dry their stocks for 2 - 3 days and then sell the semi-trade stocks to the village traders who to collect the material from the farmers household. The large growers are found to undertake complete drying operations and sell the material straight to the commission agents or even to exporters with the help of middle-men. In places like Calicut, Kattapana and Sulthan's Battery. The largescale growers sometimes deposit their stocks with reliable traders. The traders will utilise the stocks either for local sales or export sales and pay the cost to the

depositor (Cultivator) at the market rate when he officially authorises the trader to effect the sale. It is found that more than 10 per cent of pepper cultivators resorting to this trade practice as the cultivator could make himself free from the problems of storage, garbling and payment of purchase taxes etc

4.19. Forward Market pricing at Cochin:

The researcher has come across a new phenomenon of forward market pricing of pepper at Cochin. The forward market is being supervised by India Pepper and Spices Traders Association, Cochin. The Forward Market Commission constituted under Government of India permits a total of eight contracts in a year. They are called January, February, March, May, July, August, October and December contracts. A registered member with IPSTA, can do 'hedging' provided sufficient deposits are made with IPSTA. The minimum quantity to be transacted at a time is 2½ tonnes. This quantity is known as a Unit. The hedging is a tripartiate contract for arranging the contracted quantity of garbled pepper at the date of closing (15th of the concerned month) within a period of 10 days as grace period.

The buyer, seller and IPSTA are the parties in the hedging operations. It is found that the main duty of IPSTA is to supervise, regularise and control hedging. There will be two contracts on the table at any time of the year. For example, during the month of April '86, the contracts are for May and July. The market rates are also indicated specifying for both May and July in every day. When transactions take place in the market. The transactions at any rate are bound to effect on the maturing dates of May 15th and July 15th, as if the contract was made in April. According to the terms, the transactions should be arranged with in the grace period of 10 days ie., by 25th of May and 25th of July, as the case may be. The transactions need not necessarily be performed in the form of stock. In otherwords, there may not be actual transfer of stocks in these hedgings. The transactions can be arranged by adjustment of the difference between the contracted rate and the cutting rate that is the closing rate on the date of maturity. Take for example, that there is a contract entered on 1-4-1986, that is May contract for the supply of 10 tonnes of pepper at the rate of 5,500 per quintal. Suppose the cutting rate of May contract is 5,800 per quintal. Even if the rate is 5,800 per quintal

the seller is bound to give 10 tonnes at the rate of 5,500 Rs./quintal. The transaction can be concluded even by paying of Rs.300/quintal as the margin. The seller can also insist on delivering the stock, in that case the buyer can also insist on stock delivery.

It has been found that the hedging is a shelter to the exporter/trader. The advantage to the cultivator is practically nil since no cultivator will be interested in undergoing laborious process of hedging. The main disadvantage of the forward trade is found to be the possibility of manipulation. It has also been found that heavy fluctuations in forward rate can harm the interest of the cultivators. Sometimes panic is also created in the pepper market. Eventhough there is a restriction of Rs.50/- per day, unauthorised transactions are possible resulting in panic among village traders and cultivators. Therefore, it is suggested that the forward market operations are properly controlled so as to avoid any panicky situation happening in the pepper market.

4.20. Need for Regulated Market:

It is noticed that marketing of pepper in Kerala is not subjected to any market regulations, aimed at protecting the farmers from the exploitation by unscrupulous elements. Most of the small pepper growers numbering 60,000 lack the staying power and they are forced to sell their produce at the earliest in order to meet their day to-day needs. Although credit facilities are available through institutional agencies like MARKETFED, NAFED and other primary co-operative marketing societies, at a reasonable rate of interest, majority of the small and the middle class pepper growers are found not in a position to avail the loan facility because of the procedural formalities in getting the loans sanctioned. Agencies like service cooperative banks and other nationalised banks insist on collateral securities and on most of the occasions they are beyond the reach of small pepper growers. Farmers belonging to the upper class who are in a minority are alone, able to avail the credit facility. Therefore, there is an urgent need for rationalising the existing marketing system. This could be ensured by setting up of regulated markets in important places of cultivation and also bringing pepper under the

purview of suitable marketing legislation. It is suggested that a statutory Board for pepper to be set up in the lines of Coir Board, Rubber Board, Coffee Board and Cardamom Board.

4.21. The price of pepper does not depend upon the internal demand and supply position alone. Pepper prices in India are found to respond very well to fluctuations of pepper prices in the international markets of Newyork, London, Amsterdam, Rotterdam Hamburg, and Singapore which themselves are well correlated. The international prices of pepper also appear to respond very much to the fluctuations in production and supply of pepper, in pepper producing countries. If past experience is an indication, speculative hoarding, selling and manipulation of prices of pepper in international markets are not a rare phenomena. The recent spurt of Indian pepper scaling new hight at Rs.65/kg. per kilo around October 1986 was mainly because of the lower production trends in Brazil and Indonesia. According to reliable trade sources the international price of pepper will continue to be the same for another 5 years or so because of the unprecedented demand for pepper in the international market, followed by poor production trends likely to be in Brazil.

C H A P T E R - V

INDIAN PEPPER EXPORTS.

5.1. Pepper is the most important spice crop grown in India. It is traditionally grown in Kerala and the neighbouring districts adjoining the Kerala State. An estimated area of 1.02 lakh hectares is under pepper cultivation in the state with an annual production of 25,000 to 28,000 Metric tonnes. Kerala accounts for 96 per cent of the total pepper cultivation in India and about 94 per cent of the total production in the Country.¹

5.2. Export:

A substantial portion of Black pepper produced in India is exported of the total production of 30,000 to 35,000 metric tonnes in India, 22,000 - 25,000 metric tonnes are exported annually. It is estimated that 85 percent of the total export is accounted by a very popular grade known as Garbled Malabar Black Pepper.

5.3. Export Grades of Pepper:

Black pepper, Green pepper in Brine, Dehydrated Green Pepper, Frozen and freeze dried green

1. Ibid.

pepper, pepper oil and pepper oleoresin are exported from India. The Table No.5.1. gives an idea about Indian exports of pepper from 1970-71 to 1985-86.

TABLE No;5.1.

EXPORT OF PEPPER FROM INDIA

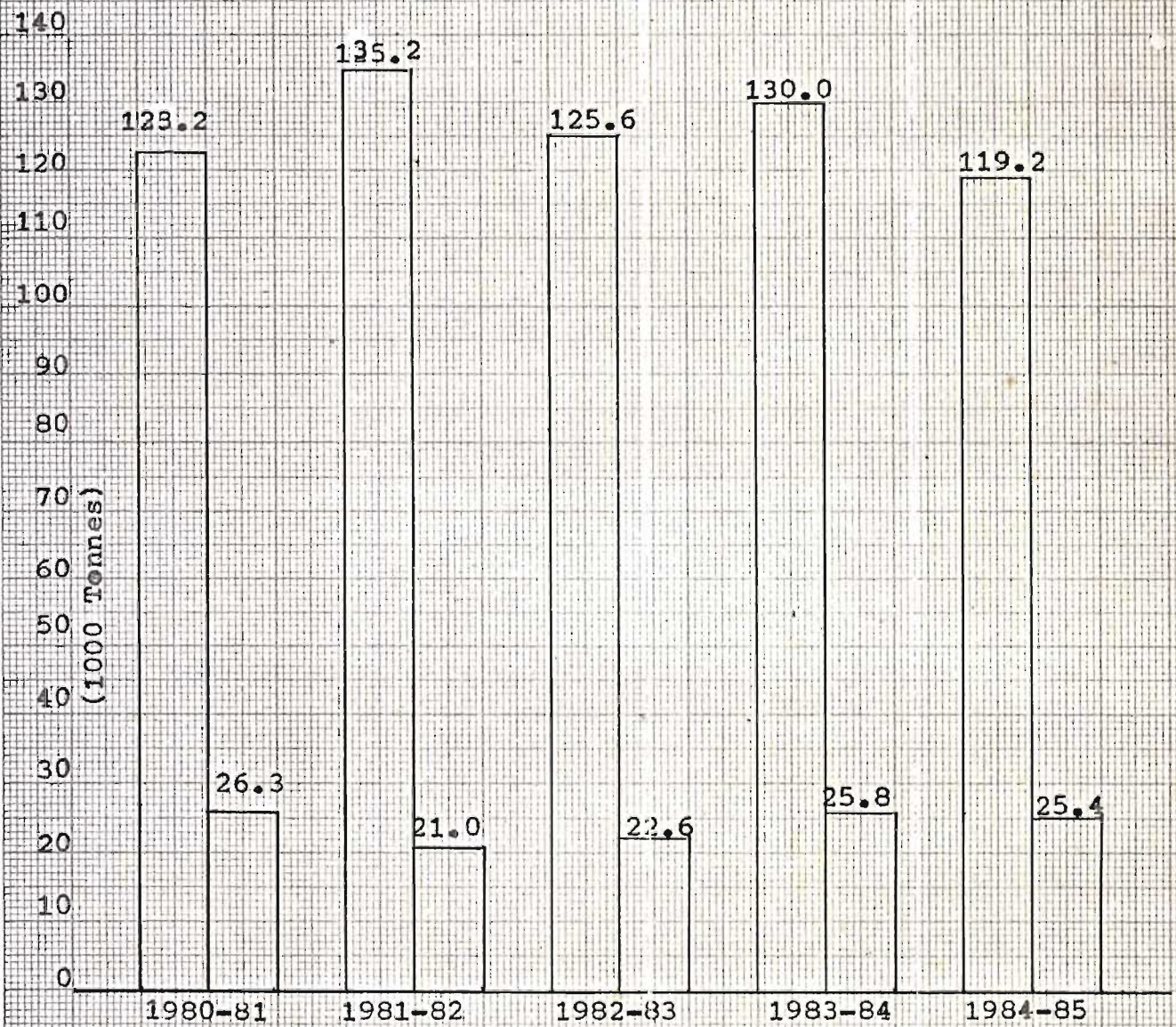
Year	Quantity (tonnes)	Value ('000 Rs.)	f.o.b. price (RS/kg)
1970-71	17270	152285	8.10
1971-72	19247	148219	7.10
1972-73	19958	143099	7.00
1973-74	31648	295308	9.18
1974-75	26341	344762	13.09
1975-76	24226	338837	13.99
1976-77	20527	382354	18.63
1977-78	24559	490926	19.98
1978-79	15684	288875	18.42
1979-80	20851	333077	15.97
1980-81	26305	387045	14.71
1981-82	21002	283615	13.10
1982-83	22965	295901	12.88
1983-84	25787	413470	16.03
1984-85	25427	605141	23.80

Source: Spices Export Promotion Council

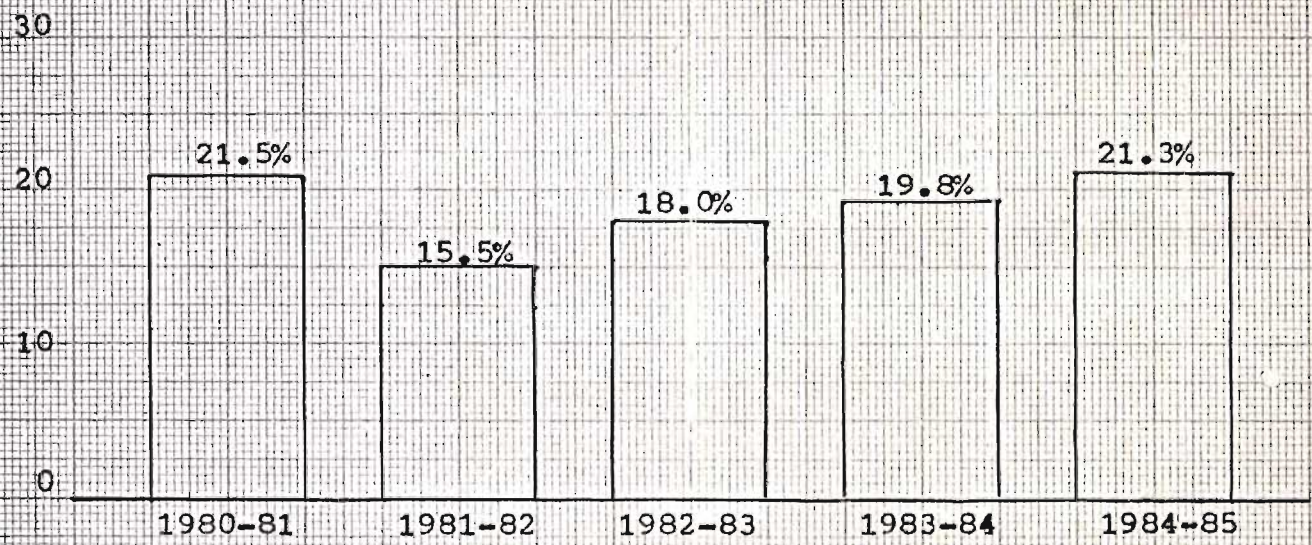
EXPORT OF PEPPER FROM INDIA AND THE WORLD

A. World Export

B. Indian Export



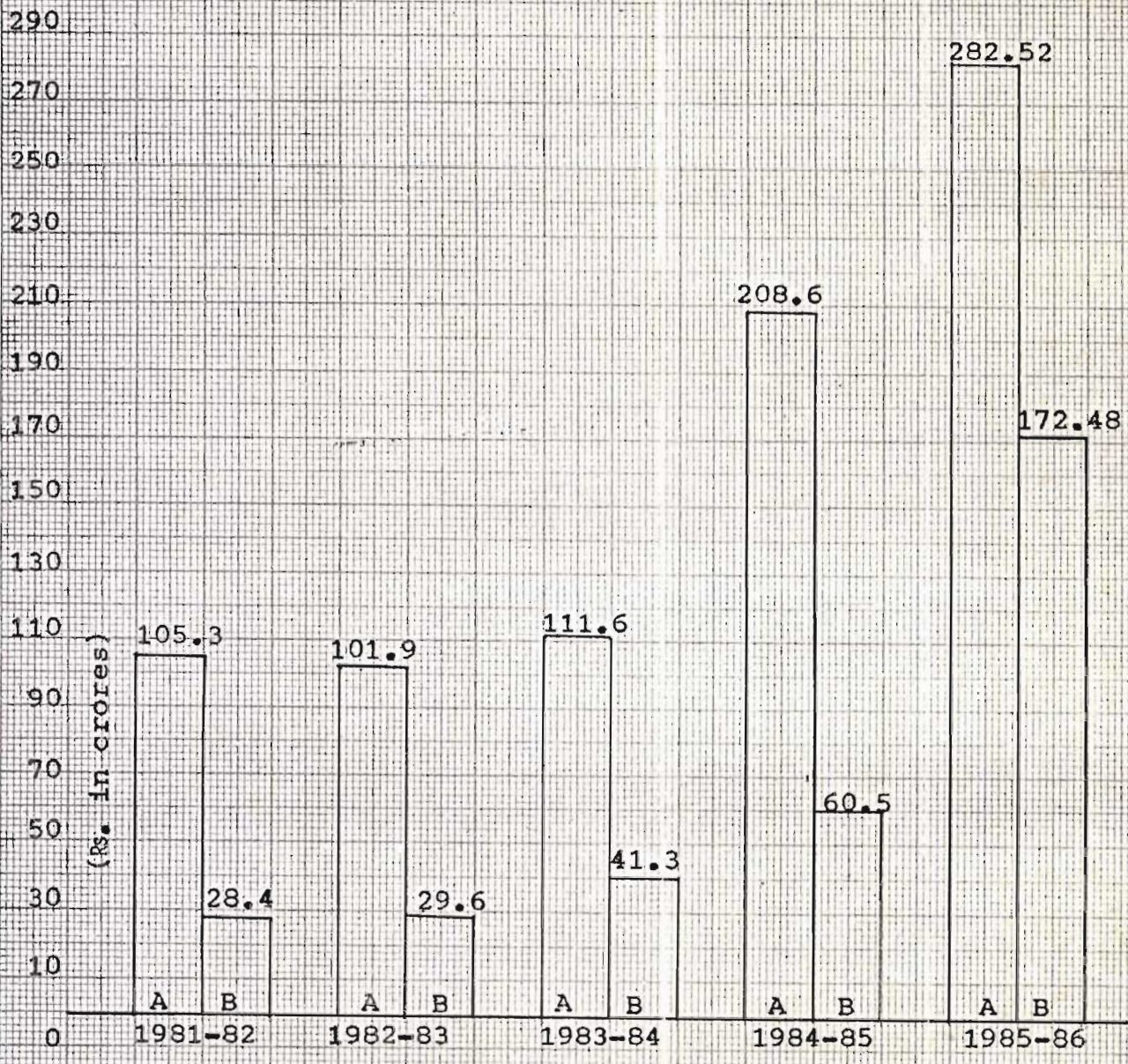
EXPORT SHARE OF PEPPER IN SPICES EXPORT FROM INDIA



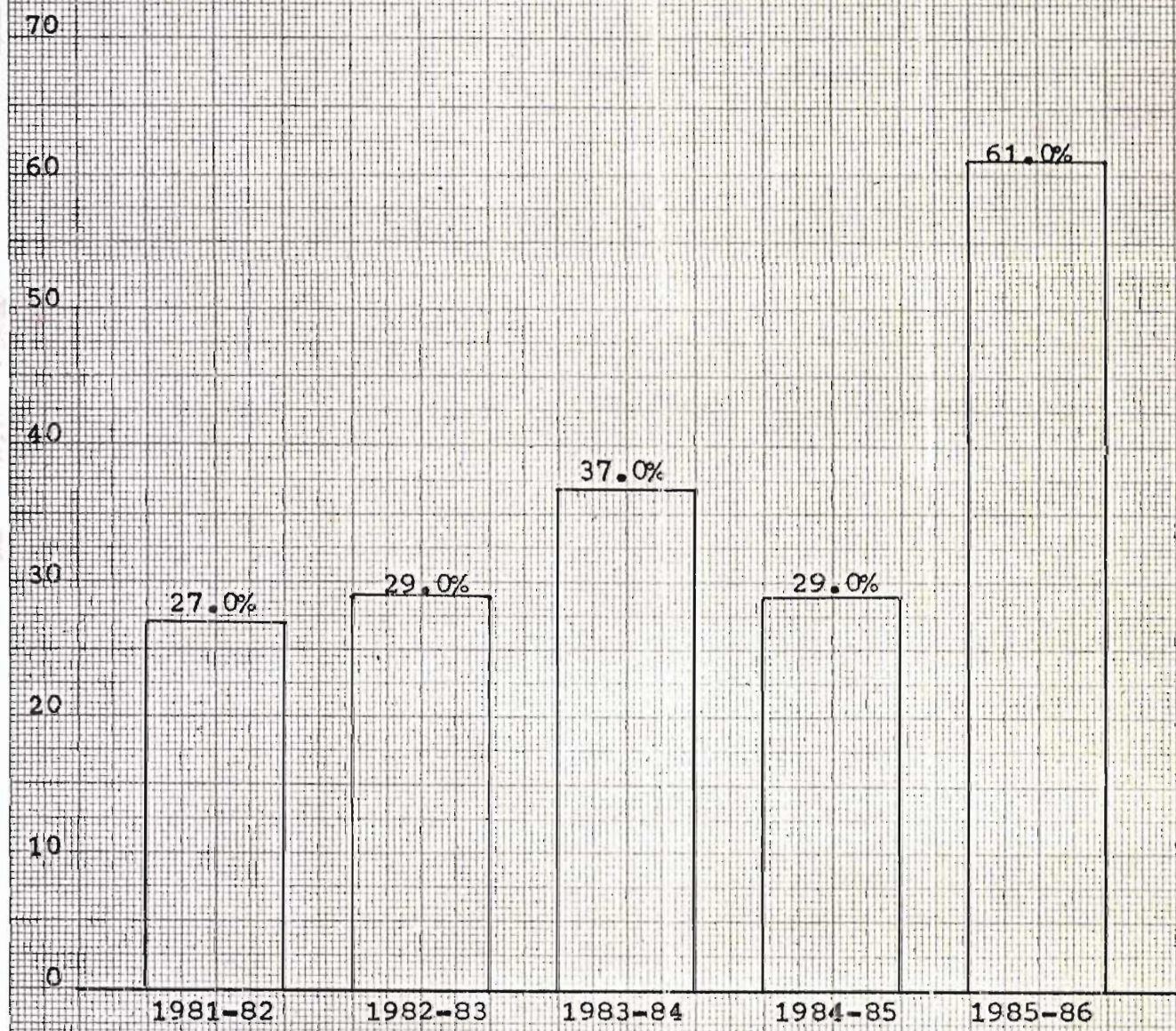
EXPORT EARNINGS OF PEPPER AND OTHER SPICES

A. All spices

B. Pepper



SHARE OF EXPORT EARNINGS OF PEPPER IN TOTAL SPICES



In order to ensure quality of pepper shipped from India, export of pepper is subjected to Compulsory Quality Control and Pre-shipment Inspection. Different grades are prescribed by the Agmark Authorities (Agricultural Marketing Adviser to the Government of India) There are 20 specified grades for export. The grades have been formulated on the basis of garbled and ungarbled berries, extraneous matter, pin heads, light berries and moisture level.

The specified grades of pepper are listed below with their classifications:

A. Garbled Malabar Black Pepper:

1. M.G. Grade-I
2. M.G. Grade-II

B. Ungarbled Malabar Black Pepper:

1. MUG - Grade-I
2. MUG - Grade-II
3. MUG - Grade-III
4. MUG - Grade-IV

C. Garbled Light Black Pepper:

1. GL - Grade Special
2. GL - Grade-I
3. GL - Grade-II
4. GL - Grade-III

D. Ungarbled Light Black Pepper*

1. UGL - Grade Special
2. UGL - Grade-I
3. UGL - Grade-II

E. Pin-heads*

(* Pinheads are underdeveloped and/or broken berries black pepper)

1. PH- Grade Special
2. Ph - Grade

F. Black Pepper (Non-Specified)

1. N.S. Grade-X

G. Tellicherry Garbled Black Pepper:

1. TGSEB (Tellicherry Garbled Special Extra Bold)
2. TGEB (Tellicherry Garbled Extra Bold)
3. TG (Tellicherry Garbled)

H. Black Pepper Ground:

1. Standard
2. General

Grade designations and definitions of the above grades are shown in full particulars in the Appendix.

* Source: Directorate of Agricultural Marketing Government of India.

5.4. Important Export Market of Pepper:

U.S.S.R. and East European countries are the major buyers of Indian Pepper. The other important export markets of Indian pepper are the U.S.A., Canada, France, Egypt, Federal Republic Germany etc.

Statement showing exports of pepper whole from India during the last 7 years from 1979-'80 to 1985-'86 is given the Table No:5.2.

From the Table it is seen that U.S.S.R. and East Europe zone countries to be dominant export market of Indian pepper for the past 20 years. U.S.S.R. and East Europe zone had an export market share as high as 74 per cent during the year 1982-83. In the year 1984-'85 this share has gone up still further to 78.15 per cent. The share of Indian export to U.S.S.R. and East Europe zone suffered a severe set back in 1985-'86 which resulted in the unprecedented low level 35.5 per cent.

TABLE No:5.2.

EXPORT OF PEPPER FROM INDIASTATEMENT SHOWING EXPORTS OF PEPPER WHOLE FROM INDIA
DURING THE LAST FIVE YEARS IS GIVEN BELOW:

COUNTRIES	(Qty.M.Ts. Value '000Rs)				
	1979-80	1980-81	1981-82	1982-83	1983-84
USA	2904.73	1460.08	485.95	2130.45	5815.47
CANADA	883.93	1012.26	614.41	660.42	725.33
USSR	8498.66	16011.06	14775.30	11080.49	7636.16
CZECHOSLOVAKIA	371.14	717.70	668.99	1062.99	1075.37
GDR	659.92	552.28	804.81	1044.90	1549.63
YUGOSLAVIA	766.44	918.97	777.85	1142.03	551.19
POLAND	2022.80	400.93	-	1000.00	1609.77
ROUMANIA	912.96	363.97	-	999.98	-
BULGARIA	629.83	224.88	-	-	-
ITALY	1365.33	1063.70	699.91	890.86	1356.84
W.GERMANY	132.35	368.14	55.71	68.38	738.45
UK	118.60	35.96	42.29	80.44	321.14
FRANCE	27.70	70.69	23.02	8.00	503.10
S.ARBABIA	124.25	312.54	78.34	105.05	366.44
AUSTRALIA	71.08	54.10	17.63	15.68	102.55
EGYPT	20.00	413.92	82.50	395.06	452.64
JAPAN	188.01	189.12	259.03	306.96	338.62
SPAIN	21.49	39.04	22.58	86.09	31.12
IRAN	295.15	121.28	50.00	-	424.93
SUDAN	122.17	271.43	290.00	99.98	181.11
OMAN	33.13	30.79	13.88	12.09	25.88
IRAQ	102.46	87.83	123.03	41.97	94.92
OTHER COUNTRIES	564.27	1548.28	653.82	1265.62	1768.44
O T A L: Qty.	20836.40	26269.00	20539.05	22497.44	25668.60
Value	332656.90	386217.30	277311.56	290077.15	408317.63

Source: DGCIS and Customs Daily Lists Provisional Figures.

COUNTRYWISE EXPORTS OF PEPPER WHOLE (BLACK) FROM INDIA DURING
1985-'86 AND 1984-'85

(Quantity : M.Tons. : Value : '000 Rs)				
Countries/Zones	1985-86		1984-85	
	Quantity	Value	Quantity	Value
I. EUROPEAN ZONE				
(a) U.K.	440.60	20,635.35	121.45	2,435.31
(b) <u>E.C.M.Count-</u> <u>ries</u>				
France	881.04	39,663.63	274.96	6,375.39
Italy	1,152.52	52,428.86	989.17	23,476.40
Belgium	127.06	4,610.88	92.00	298.41
F.R.Germany	1,547.70	72,914.29	42.81	853.84
Denmark	56.08	2,262.90	10.00	66.01
Netherlands	224.81	9,565.66	36.80	507.51
T O T A L	3,989.21	1,81,446.22	1,445.74	31,577.56
(c) <u>Eastern Europe</u>				
Czechoslovakia	825.50	35,640.26	1,047.87	27,121.98
G.D.R.	1,348.57	54,771.05	814.23	20,317.60
Hungary	-	-	555.00	12,900.00
Poland	1,299.95	55,748.04	843.66	20,059.76
Rumania	306.09	13,828.62	499.94	11,998.56
U.S.S.R.	8,255.71	3,93,249.91	14,898.08	3,38,950.57
Yugoslavia	933.91	42,613.21	976.02	26,129.78
Bulgaria	360.99	17,768.07	160.00	4,690.30
T O T A L	13,330.72	6,13,619.16	19,789.80	462,168.55
(d) <u>Other European</u> <u>Countries</u>				
Greece	192.58	8,945.24	45.11	1,045.29
Spain	232.34	10,472.25	28.04	791.14
Sweden	133.32	5,799.49	-	-
Portugal	3.00	61.38	-	-
T O T A L	561.24	25,278.36	73.15	1,836.43
II. MIDDLE EAST ZONE				
Israel	40.00	1,984.41	-	-
Aden	1.40	27.52	-	-
Baharin	24.47	1,097.35	11.85	952.56
U.A.E.	229.72	10,233.77	90.09	3,056.27
Egypt (ARE)	939.96	41,723.22	184.94	4,751.22
Iran	-	-	809.98	19,298.14
Iraq	-	-	199.99	4,916.13
Kuwait	12.00	415.59	4.55	138.63
Libya	-	-	100.00	2,707.68
Oman	13.29	659.94	7.66	223.01
Qatar	8.00	348.48	11.00	309.04
Saudi Arabia	437.96	20,429.04	51.85	1,081.76

(contd....)

TABLE No. 5.2. (a)

BLACK PEPPER (CONTD.)

Countries/Zones	1985-86		1984-85	
	Quantity	Value	Quantity	Value
Yaman Arab Rep.	-	-	34.00	1,217.54
Sudan	98.00	4,594.47	40.00	1,173.82
Djibouti	-	-	0.25	10.28
Jordan	38.00	1,883.82	-	-
T O T A L	1,842.80	83,397.61	1,546.16	39,266.08

III. East Asia Zone

Malayasia	2.00	94.34	-	-
Japan	372.73	16,803.69	329.42	8,745.19
Maldives	0.31	12.14	0.26	6.93
Singapore	1,382.82	61,165.66	2.00	67.85
Pakistan	171.61	7,456.51	-	-
SriLanka	1.54	32.87	5.33	91.50
Hong Kong	19.04	878.40	-	-
T O T A L	1,950.05	86,443.61	337.01	8,911.47

IV. African Zone

Mozambique	-	-	0.50	13.67
Algeria	-	-	250.00	7,005.60
Kenya	1.50	76.50	1.60	47.09
Seychelles	0.50	25.80	0.90	29.68
Tanzania Rep.	2.00	97.60	2.00	67.50
Somalia	-	-	1.98	51.18
Morocco	281.92	12,876.74	-	-
T O T A L	285.92	13,076.64	256.98	7,214.12

V. Australia & Oceanic Zone

Australia	144.01	6,465.63	74.40	1,677.21
Fiji	0.09	5.14	0.40	8.58
New Zealand	0.10	6.30	0.10	2.80
T O T A L	144.20	6,477.07	74.90	1,688.59

VI. American Zone

U.S.A.	14,039.37	6,44,950.80	1,151.52	32,254.95
Canada	936.96	43,263.34	525.25	12,554.73
T O T A L	14,976.33	6,88,214.14	1,676.77	44,809.68

GRAND T O T A L **37,521.07** **17,18,588.16** **25,321.96** **5,99,907.79**

Source: Spices Export Promotion Council.

TABLE No: 5.3.

TREND IN INDIA'S PEPPER EXPORTS, % SHARE OF DIFFERENT ZONES*

ZONES	1951-52	1961-62	1971-72	1976-77	1982-83
	1955-56	1965-66	1974-75	1980-81	
WEST EUROPE	15.1	11.2	8.1	6.8	6.5
USSR & EAST EUROPE	11.1	43.4	59.4	70.0	73.9
MIDDLE EAST	1.3	5.2	3.8	5.4	5.6
EAST ASIA	1.0	5.0	3.1	1.9	1.4
AFRICA	0.7	2.1	0.4	1.3	0.1
AMERICAN ZONE	63.6	30.3	23.6	14.3	2.4
OTHERS	7.2	2.8	1.6	0.1	10.1

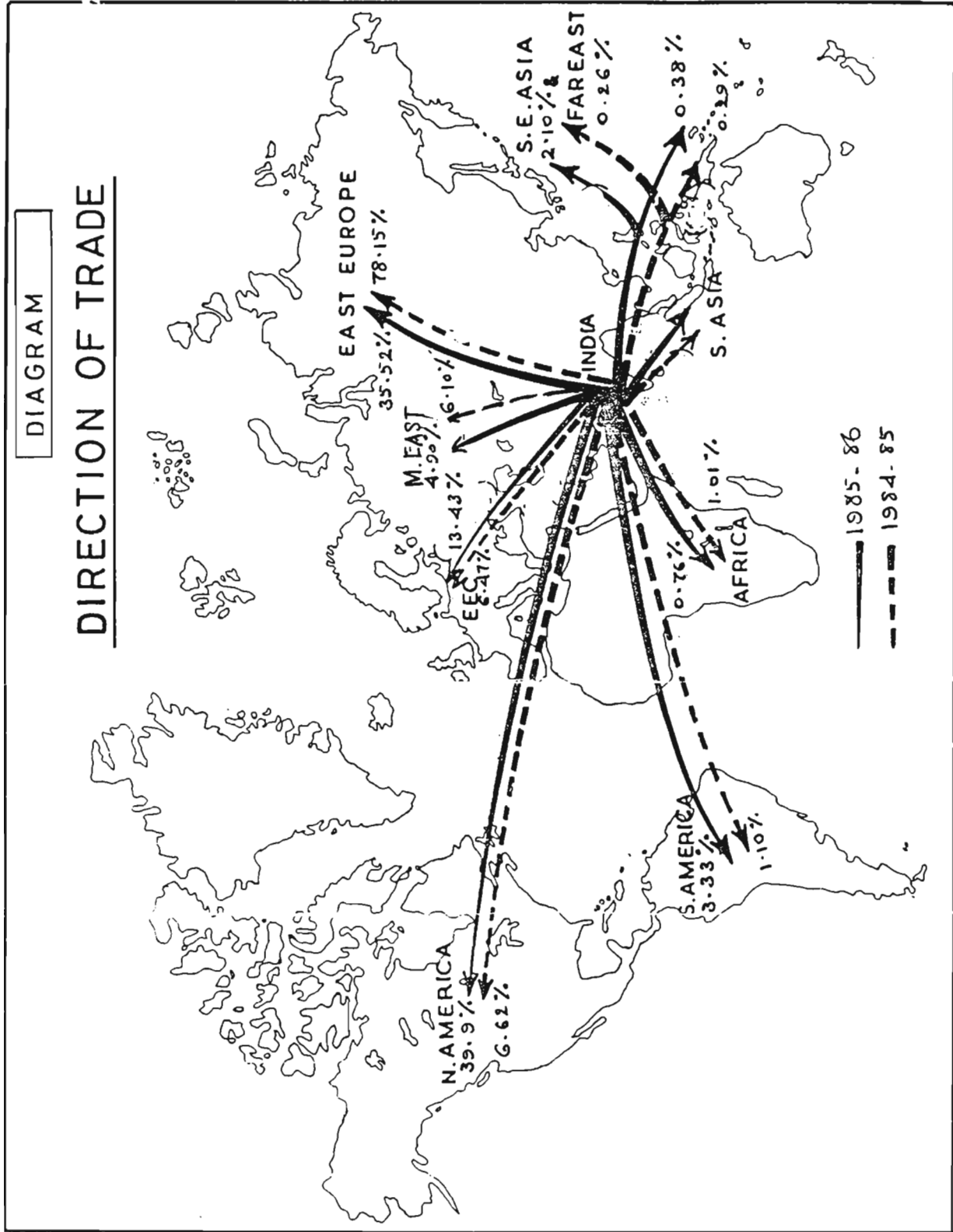
Source: Spices Export Promotion Council.

A close analysis of the Table reveals that India's major thrust in American zone during 1950-1955 period has started decline trend. Indian share of export market to American zone was 63.6 per cent during 1950-55 but within another 5 years period this share has come down to 30.3 per cent. Review of India's export share to American Zone shows that the per centage is varying between 24 to 12.5 during the period from 1974-75 to 1982-'83.

* Ibid.

DIAGRAM

DIRECTION OF TRADE



India's export to American zone touched a record low level at 6.6 per cent in 1984-'85. The main reason for the decline in India's market share to USA was the unprecedented competition from Indonesia and Brazil. According to trade sources, the USA could buy their almost full requirement from Indonesia and Brazil in 1984-'85 because of the competitive price and also easy trade terms. India could not offer parity to USA in international pepper market on account of increased domestic price of pepper.

A welcome feature of Indian export market in 1985-'86 is the recapture of the world's largest pepper market of USA. India's export to American zone in 1985-'86 were 14,976 metric tonnes of which the USA alone accounted for 14,039 metric tonnes. It is interesting to note that India's export to American zone was very much in excess of export to USSR and Eastern Europe zone both quantity and per cent wise for the first time in last forty years. The quantity exported to USSR and Eastern Europe zone was only 13,331 metric tonnes compared to 14,039 metric tonnes exported to American zone. In terms of percentage American zone accounted for 39.9 where as the USSR and Eastern Europe zone for 35.5 per cent only.

It is also a point of interest to note that India's export to European zone is catching up, if the export figures to U.K., France, Italy, Federal Republic Germany are any indication. India could also tap the markets of pepper in other European countries like Spain, Sweden and Greece.

A close look at India's export to East Asia zone reveals that the market share in the zone has gone up 6 times in 1985-'86 when compared to the performance in 1984-'85. The main reason for the unprecedented increase is attributed to the export to Singapore which is entre port to other market in East Asian zone.

It is gathered from Spices Export Promotion Council trade circles that the largest importer of pepper, the USA is concentrating in Indian market due to crop failure and production problems in Brazil. India can certainly maintain its market share in the American zone with sustained efforts of both Government machinery like National Cooperative Development Corporation, Spices Export Promotion Council, Spices Board and exporters.

Another point of interest is that now Indian pepper is finding its export market in 54 countries of the world. India's exports to the above countries can be increased with the systematic planning of promotion campaigns and export promotion tours.

5.5. India's share in World Trade Market:

Having seen the important export markets for Indian pepper it is necessary to examine the India's share in world export market. According to Spices Export Promotion Council sources, India's share in the world trade of pepper was 75 per cent in the late 1940's. However when the countries like Indonesia, Malaysia, Brazil etc. took up pepper cultivation on commercial scale and started exports, their contribution to the international market increased and simultaneously India's share started declining, as the country could not step up the production commensurate with the growing world demand. As a result India lost the superemacy over pepper export and in 1973 the country's share in the world pepper export came down to 32 per cent and by 1975 it further declined to 26 per cent.

The fall in the export was very steep since 1976 and it touched the lowest level of 12.8 per cent in 1978 as could be seen from the Table No.5.4.

TABLE No:5.4

India's Pepper Export Share against
World Export from 1973 to 1985.

Year	World Export ('000 M.Ts.)	Indian Export	
		Quantity ('000 M.Ts.)	% of World export
1973	98.7	31.6	32.0
1974	89.9	26.3	29.2
1975	92.2	24.2	26.2
1976	106.5	20.5	19.2
1977	105.8	24.6	23.2
1978	122.7	15.7	12.8
1979	111.9	20.8	18.6
1980	123.2	26.3	21.3
1981	135.2	21.0	15.5
1982	125.6	22.6	18.0
1983	130.0	25.8	19.8
1984	119.2	25.4	21.3
1985	95.6	19.6	20.5

Source: Spices Export Promotion Council

The situation has shown some signs of improvement, but it is still far behind the levels attained earlier.

5.6. Problems of Pepper Exports:

Declining share of India in the world market.

During the last decade world trade in pepper recorded impressive growth rate. But India was not able to take any benefit out of the expanding trade in pepper. Brazil, a new entrant in the international scene of pepper and also Malayasia could make use of the opportunity. Indonesia also derived benefits out of the increased world demand as Indonesia could recover from the earlier set backs in production of pepper.

A perusal of Table No. 3,5 in page No.60 of the study shows that the area under pepper cultivation in India has remained more or less static with stagnant yield rates. Because of the low productivity, Indian pepper became uncompetitive in the world market. Average yield of pepper in India is 194 kg/Ha. in 1984 when compared to the levels of 1,575 kg/Ha in Malayasia and 1,201 kg/Ha. in Brazil. Because of this low productivity India's than to traditionally established markets like the USA declined steeply and Brazil and Indonesia captured India's share in those markets. India was forced to heavily depend on the bilateral

trade to USSR and East European countries. In order to recapture the lost markets in USA and other countries, India has to certainly maintain price competitiveness and adopt appropriate marketing strategies. It will not be possible to make any increase in the area under cultivation in Kerala which accounts 96 per cent of the total cultivable area in the country. Therefore the pepper production can be increased only by improving the existing productivity. If the existing average yield of pepper in Kerala is doubled Indian pepper production will reach an appreciable level of 50,000 Metric tonnes annually which would take care of the domestic demand as well the export market. Therefore urgent measures are called for rejuvenating the existing pepper gardens with high yielding varieties and also for undertaking modern agricultural practices by farmers.

5.7. Limited Direction of Exports:

The Table No.5.2. shows that there are 54 countries importing pepper from India. A close review of the Table shows that during the period from 1980-81 to 1982-'83. 74 per cent of India's exports of pepper went to U.S.S.R. and East European countries with which bilateral trade terms existed. Though India,

fully aware of the risk in over dependence on a particular market segment, could not succeed in making significant exports to other destinations. From trade circles and Spices Export Promotion Council, it is gathered that the main causative factor is the lower market rate prevailing in General currency areas than offered by the U.S.S.R. & East European countries. It is a welcome trend noticed India's export in 1985-'86 to American zone. The U.S.A. the largest buyer of pepper in the world, purchased the maximum quantity of 14,040 Metric Tonnes from India thereby becoming the largest buyer of Indian pepper in 1985-'86.

5.8. Fluctuation in Price:

The majority of pepper growers in Kerala are small and marginal farmers for whom the better prices are the best incentive. Because of the low productivity the farmers always expect a good price for their produce. As the internal and export prices of pepper are inter-related and influence each other a rise in the domestic price will render the commodity uncompetitive in the world market. Any shortfall in production will influence the domestic price as there is a ready demand of 14,000-15,000 Metric tonnes within the country.

In the year 1984-'85 the domestic price of pepper in India went up to Rs.53 to 55 per kilogram which was more than double the rate that prevailed in 1983-'84. This unprecedented increase in domestic price, together with increased domestic demand for pepper has affected India's export efforts in 1984-'85 which was below 20,000 Metric tonnes.

Therefore the only way ensure remunerative price to farmer while keeping export price competitive is by increasing the productivity of the crop.

5.9. Levying of purchase tax by the State Government.

As seen earlier, Indian pepper suffers from the disadvantage of less productivity and hence uncompetitive with regard to price in the world market. The State Government's recent imposing of sales/purchase tax on pepper to the extent of 7 per cent has taken the exporters by surprise. This imposition of purchase tax by the government has reflected in the final price quoted by the exporter to the buyers in the importing countries. Though the State Government has exempted those specific purchases against specific export orders from paying the tax, the procedures are found cumbersome and unbusiness like. The

researcher has come across problems being faced by both MARKETFED and NAFED in the above regard.

5.10. Lack of co-ordination in production and Marketing of Pepper Export.-----

The study reveals that various agencies are looking after various aspects of production, marketing, research, export promotion of pepper. The absence of a single agency with an integrated approach has stood in the way of maximising effort in production and export of pepper.

The Directorate of Cocoa, Arecanut and Spices Development attend to the development programmes for pepper, whereas the Kerala Agricultural University undertake research on the various aspects of the crop. The Central Plantation Crops Research Institute affiliated to the Indian Council of Agricultural Research also undertake research on various aspects of pepper crop including development of new strains with disease resistance. The Spices Export Promotion Council concern itself with the promotion of exports of pepper and also pepper export trade. The Central Food Technological Research Institute and the Regional Research Laboratory undertake research on product development and processing technology. Since more

than six such agencies are working on various aspects of pepper there will be confusion as their areas of operations overlap each other. It is also not possible to have effective co-ordination between them as they are under the administrative control of different Ministries and institutions. In addition to this there are also agencies like National Cooperative Development Corporation, NAFED at national level who can very much influence the marketing of pepper with inventory levels and also by occasional release of pepper through established system of Agricultural Co-operative Marketing. The MARKETFED, which is one of the largest exporters of pepper in the country, can also influence the procurement and export of pepper in the State of Kerala, accounting for 94 per cent production in the country.

In order to have better co-ordination between various Central and State agencies engaged in pepper and also co-operative institutions like National Cooperative Development Corporation, NAFED and MARKETFED and also private export trade. It is suggested to have a Board exclusively for pepper just in the lines of Coir Board, Tea Board, Coffee Board, Cardamom Board and Rubber Board.

5.11. Absence of Publicity Campaign and Trade Promotion in Importing Countries:

At present no planned publicity campaign is seen undertaken for the promotion export of pepper except for the participation by the Spices Export Promotion Council in international trade fairs and publicity through brochures, product literature. Absence of such publicity campaigns is very much evidenced in the static pepper production in the country for the past one decade and India's over dependence in U.S.S.R. and East European zone for export market. Therefore, there is an increased need for finding out new markets for Indian pepper abroad.

At present the trade delegations sent by Government of India to foreign countries and the deliberations of International Pepper Community, mostly comprise of government officials who are prone to frequent transfers and hence lack of continued follow up measures. It is suggested to attract more members drawn from the export trade both in the private and cooperative sector to such delegations as they are better positioned to plan and formulate policies based on their practical experience/wisdom.

Inadequacy of infrastructural facilities like shipping services, port handling facilities, warehousing facilities and telecommunication services in the port of Cochin has also affected the exports of pepper; at times, if the past experiences are any indication. According to trade sources there have been instances of foreign ships leaving Cochin port without loading the export cargo because of the labour unrest. Though such instances are not many, it is suggested to avoid such situations as the news of ship returning without export cargo will bring in bad publicity about labour situations in port.

5.12. Inadequate procurement by Cooperative Sector Agencies:

Though MARKETFED and NAFED have been in the pepper trade for the past 10 years they are yet to make their presence felt in the market. It is seen that both the cooperative agencies are in the market only to meet their export commitments and they do not purchase pepper in anticipation ^{of} future export orders or to meet domestic demands. It has been established earlier that a strong domestic market is necessary to sustain the tempo in export market. In order to create domestic market and also to have a comfortable

situation as regards stock availability. MARKETFED and NAFED should be active in the market whether an export order is in hand or not. Cooperative agencies like MARKETFED and NAFED should be in the market for maintaining tempo and morale of pepper farmers whose fortunes are determined by the price trend in export market. In order to provide some healthy competition to private trade in domestic and export markets, the presence of cooperative marketing agencies is much essential.

There is an increased need to develop new markets, recapture the lost markets and expand the existing ones with the help of a comprehensive plan, in the context of increasing world production of pepper and a rapidly shrinking share for India.

C H A P T E R - VI

A STUDY OF PROCUREMENT AND MARKETING OF
PEPPER BY MARKETFED AND NAFED

6.01. The Kerala State Cooperative Marketing Federation (MARKETFED) was established in the year 1960 with its registered office at Calicut. It entered the pepper trade only in 1975. In the year 1978 federation got its head office shifted to Cochin. It is the apex body of 77 Primary Cooperative Marketing Societies in the state and MARKETFED deals in agricultural inputs and also procurement of agricultural commodities like cashew, copra, cocoa, arecanut and other spices including cardamom, ginger, pepper, **turmeric**, cloves and lemon grass oil. The State Cooperative Marketing Federation has acted as a monopoly procuring agent for cashew from 1977 to 1982. It also acts as an agent for distribution of imported fertilizers on behalf of the State Government.

6.02. The Primary Cooperative Marketing Societies (PCMS) elect one representative from a district to the board of directors of MARKETFED. In addition to 14 elected representatives of the marketing societies, the Federation's Board of management consists of a representative from the State Government who is appointed

as Managing Director, who is the Chief Executive of the Federation. The State Government also nominates two non-official directors and two other ex-officio directors the Registrars of the Co-operative Societies in Kerala and the Government Secretary, Cooperation.

6.03. The Bye-laws of the Federation shows the objects of the Federation as noted hereunder:

i) To arrange for the purchase, marketing and sale of agricultural and other produce belonging to its affiliated societies and their members to their best advantage within the country and out side.

ii) To rent or own godowns, open sales depots, sub-offices and branch offices and appoint agents within its jurisdiction and elsewhere to facilitate the purchase, storage and sale of agricultural and other produces.

iii) To purchase and distribute fertilizers, seeds, insecticides/pesticides and other agricultural inputs, farm implements including processing machinery and other agricultural and domestic requirements.

iv) To run warehouses.

v) To undertake processing activities and establish processing units.

vi) To raise funds by loans, grants and other contributions from Government, Reserve Bank, Kerala State Cooperative Bank, Nationalised Banks and other financing agencies.

vii) To advance loans to affiliated societies against the security of produce and other goods.

viii) To undertake interstate trade, import and export of agricultural produce, farm requirements and consumer goods.

ix) To undertake grading, packing and standardisation of farm produce.

x) To undertake market research and provide market intelligence.

xi) To render technical advice and guidance and to organise consultancy work in related fields.

xii) To arrange transport, shipping, clearing and forwarding of goods.

xiii) To act as an agent on behalf of Government or any other institution for production, procurement, supply and distribution of agricultural and other goods and act as an insurance agent.

- xiv) To supervise the working of affiliated societies.
- xv) To develop, assist and co-ordinate the activities of affiliated societies.
- xvi) To act as exponent of co-operative opinion in matters relating to agricultural marketing and co-operative trade.
- xvii) Convene periodical conferences and seminars on agricultural marketing and related activities.
- xviii) Formulate and conduct programmes for training of business managers, graders, marketing assistants etc., for employment in marketing cooperatives.
- xix) Encourage self-help, thrift and cooperation among affiliated societies and their members.
- xx) Guarantee loans advanced to any member society of the Federation by Government, State Bank of India or any other agency within such limits and on such terms as may be prescribed and charge commission thereon.
- xxi) Own, obtain on lease or otherwise, land buildings fixtures and vehicles and give them on lease or rent.

6.04. The Marketing Federation with its constituent units of 77 Primary Cooperative Marketing Societies and affiliated members of 1,200 village level Primary Agricultural Credit Societies, (PACS) is in a position to procure agricultural produce through the co-operative outlets functioning a village level. In order to undertake effective distribution of agricultural inputs like fertilizers and pesticides and also to conduct procurement of agricultural produces like copra and spices. The Federation has got its Head Office in Cochin and has three separate marketing divisions under the control of the Marketing Managers. As seen from the **c h a r t** the Managing Director acts as a Chief Executive under the Board of Directors headed by the Chairman. The Board of Directors with the Chairman as the Head of the Board include a Vice-Chairman and other 15 Directors thus making into total number of Directors to 19. Under the Managing Director there are three marketing managers, one in charge of Fertilizer Division, the Second in charge of Oilseeds Division, and the third in charge of Spices Division. The Managing Director is assisted by other two Division heads called Finance Manager who is in charge of finance and the other the Secretary who is in charge

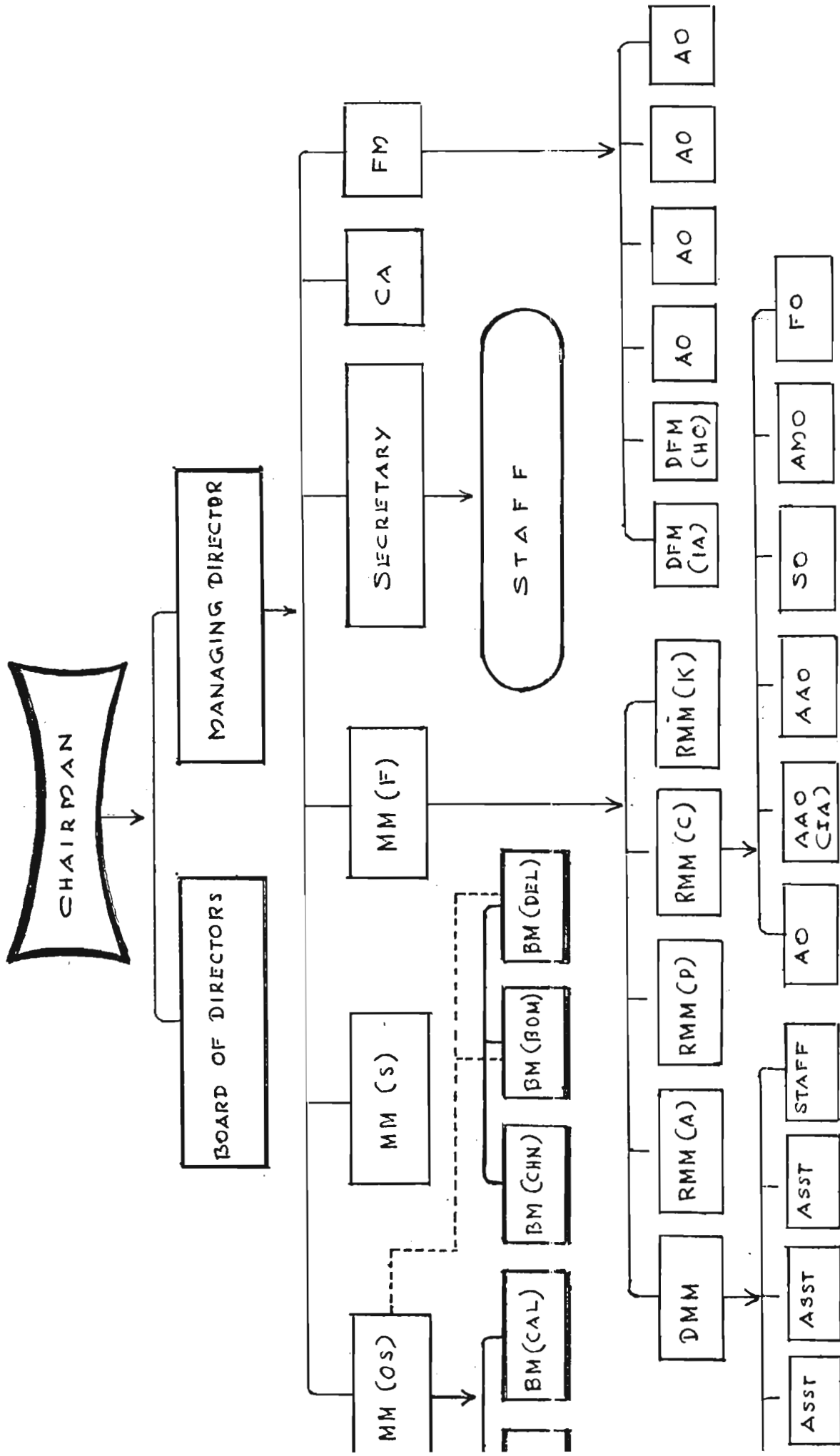
of administration and establishment matters. It is a statutory requirement that the Secretary is a Joint Registrar of Cooperative Societies from the Government on deputation.

6.05. As stated earlier there are three marketing divisions each headed by a marketing manager who is selected by the National Cooperative Development Corporation (NCDC) under their Technical and Promotion Cell. For administrative convenience the Kerala State is divided into four regions; Alleppey, Calicut, Kottayam and Palghat; each region under the administrative control of a Regional Marketing Manager. The Calicut region with head-quarters at Calicut comprises Kasaragod Cannanore, Wynad, and Calicut districts. The Palghat region with headquarters at Palghat takes care of Trichur, Malappuram and Palghat districts. The Kottayam region having its headquarters at Kottayam, has Ernakulam, Idukki and Kottayam under its administrative control. Finally the Alleppey region with headquarters at Alleppey takes care of Trivandrum, Quilon, Pathanam-thetta and Alleppey districts.

6.06. The district-wise set up of the Marketing Federation shows that a district has a sales officer

or field officer. It is the sales or field officer, who acts as the Federation's representative, keeps constant touch with the marketing societies and also **Primary Agricultural Credit Societies (PACS)**. On an average a district office has to cater to the needs of 80 to 90 societies and the district sales/field officer is the king-pin of all the Federation's activities in the District, whether it is a distribution function or procurement operation, the district sales/field officer has to monitor the same to the head office. The sales/field officer has to control the warehousing operations and also storage points located in a district. He has also to provide advances to dealer societies, sanctioned by the head office/regional office and is also responsible for the collection of dues from societies to the Federation. In addition to this, he is also to act as a liason officer with the departments of agriculture, co-operation, district co-operative banks, and the representatives of various fertilizer and insecticides firms. The sales/field officer is also responsible for the promotional activities of the Federation in the concerned district in addition to his reporting on competitive activities and also market intelligence reports to head office. Because of the vast transactions involving marketing societies and more than

THE KERALA STATE COOPERATIVE MARKETING FEDERATION - ORGANISATION CHART



- MARKETING MANAGER
- BRANCH MANAGER
- FINANCE MANAGER
- SALES OFFICER
- FIELD OFFICER
- ACCOUNTS OFFICER
- SRMM - SENIOR REGIONAL MARKETING MANAGER
- AMO - ASSISTANT MARKETING OFFICER
- DMM - DEPUTY MARKETING MANAGER
- DFM - DEPUTY FINANCE MANAGER
- AAO - ASSISTANT ACCOUNTS OFFICER
- IA - INTERNAL AUDIT

1,200 village level societies the Marketing Manager (Fertilizer) is having the administrative control of all the four Regional Marketing Managers, sales officers, field officers, and managers of mixing units at Calicut, Kottayam, Quilon and Taliparamba.

6.07. In order to monitor the activities of the Oil Seeds and Spices Division the Marketing Federation has four branch offices at Willington Island, Bombay, New Delhi and Calcutta. The branches are under the administrative control of the Branch Managers who receive directions or guide-lines either from the Marketing Manager (Oil-seeds) or from the Marketing Manager (Spices) as the case may be. The four branch managers and the Regional Marketing Managers (RMM) at Calicut assist head office in the procurement of spices and also in its export effects. The Branch Manager in Cochin receives the pepper from societies direct and store them in the go-downs attached to the branch office in Willington Island. The Cochin branch has a godown capacity of 4,000 Metric tonnes with facilities for drying pepper in the drying yards, garbling etc. The Cochin Branch Manager is responsible for the shipping operations and quality control and pre-shipment **inspection** of export

commodities. The Branch Manager is assisted by a shipping officer especially trained for undertaking clearance forwarding of foreign export invoices, pre-shipment inspection and quality control work etc.,

6.08. Procurement of Pepper by MARKETFED:

As stated earlier it was in the year 1975-76 that Marketing Federation entered the export market of pepper. Prior to this, the entire export of pepper was handled by the private trade, according to SEPC and Trade sources. It was evidenced during the field survey that with the advent of MARKETFED, the village level co-operative societies have started dealing in pepper more than ever before. This was mainly because of the fact that the Federation used to purchase its entire requirements, whether domestic or for export, only from Primary Cooperative Marketing Societies and from village level societies. The members who are attached to the Primary Cooperative Marketing Societies or village level societies are now in a position to give their produce to their own cooperative institutions who in turn act as the agents of MARKETFED. This confidence of involving the pepper producer, the pepper buying society or marketing society and finally the purchase by the Marketing Federation, is now built on a solid

ground and to a great extent the farmers found themselves less dependent on the village traders and other middle men. The Table No:6.1 shows the procurement and export performance of Federation from 1975-76 to 1985-86.

TABLE No:6.1.

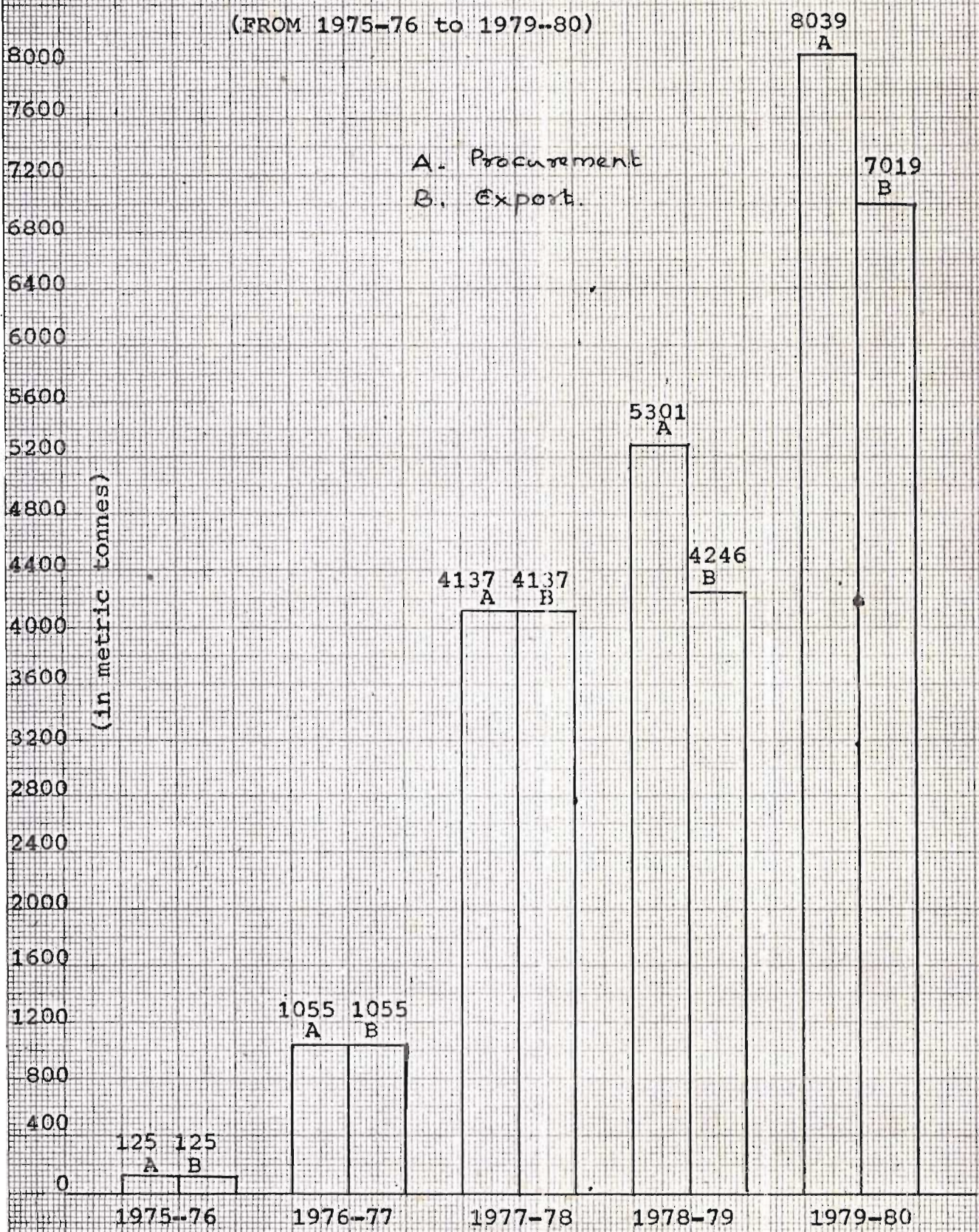
PEPPER EXPORTS OF MARKETING FEDERATION
FROM 1975-76 TO 1985-'86.

Year	Quantity procured in M.Ts.	Quantity exported in M.Ts.	Percentage of export	Value in Lakhs. Rs.
1975-76	125.00	125	100.00	18.14
1976-77	1055.00	1055	100.00	209.24
1977-78	4137.00	4137	100.00	805.30
1978-79	5301.11	4256	80.09	709.53
1979-80	8038.70	7019	87.31	1083.50
1980-81	4053.00	4037	99.60	415.38
1981-82	3754.00	3107	82.76	404.06
1982-83	3642.00	3652	100.27*	468.89
1983-84	3642.00	1605	44.06	219.45
1984-85	2778.00	1190	42.83	281.99
1985-86	5320.00	2062	38.75	1011.32

*The percentage exceeds 100 because of the previous years balance.

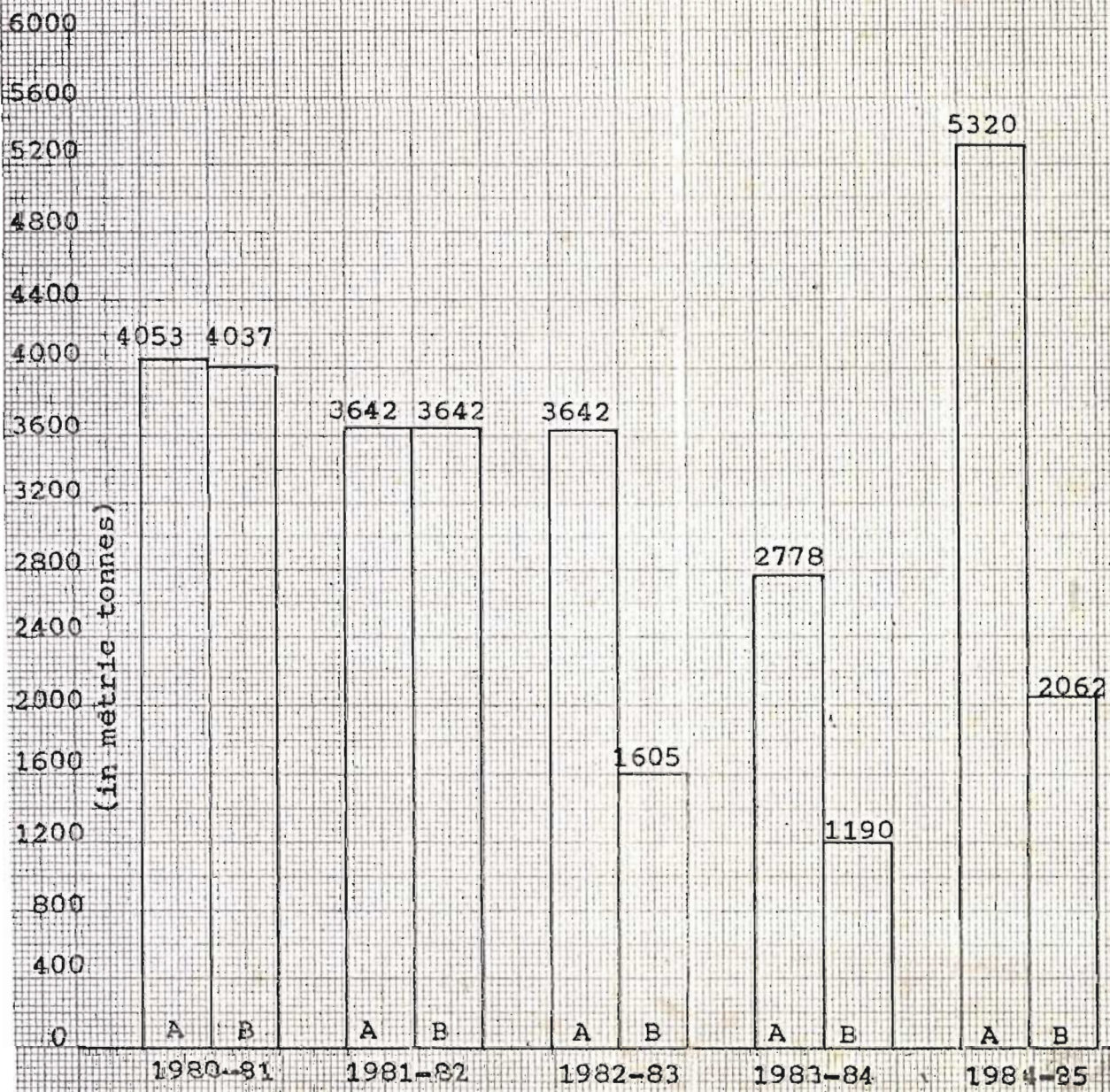
Source: Kerala State Co-operative Marketing Federation

EXPORT AND PROCUREMENT OF PEPPER BY MARKET-FED.
(FROM 1975-76 to 1979-80)



EXPORT AND PROCUREMENT OF PEPPER BY MARKETED
(FROM 1980-81 to 1984-85)

A- Procurement.
B- Export.



6.09. From the Table it is seen that Marketing Federation exported the entire 125 Metric tonnes of black pepper procured in 1975-76. During the year 1976-'77 Federation procured 1,055 Metric tonnes and the entire quantity got exported to U.S.S.R. again. In 1977-78 this figure had grown up to 4,137 Metric tonnes valued at Rs.8.05 crores. A noteworthy feature of 1977-'78 was that the Federation could find new markets in German Democratic Republic, Poland, Italy, Rumania, Quwait and other countries along with the traditional buyer U.S.S.R. In the year 1978-'79 the Federation procured 5,301 Metric tonnes and out of which 4,246 Metric tonnes were exported. Though there was a spurt in quantity exported the value of got declined because of the unfavourable export price of pepper.

6.10. The Table No.6.2. shows details of export by Marketing Federation for the period from 1975-'76 to 1978-'79. From the Table it is seen that the entire exports in 1975-'76 and 1976-'77 was to U.S.S.R. The export performance during the years 1977-'78 and 1978-'79 shows that U.S.S.R. accounted for more than 50 per cent of Federation's export market. Another feature is that the exports were mostly confined to U.S.S.R and socialist countries. Table Nos:6.3 to 6.8 give the full export particulars for Federation from 1979-'80 to 1985-'86.

TABLE No:6.2.
THE KERALA STATE COOPERATIVE MARKETING FEDERATION LIMITED, COCHIN
Details of Export Performance

Country	1975-76		1976-77		1977-78		1978-79	
	Qty. M.Ts.	Value in Lakhs.	Qty. M.Ts.	Value in Lakhs.	Qty. M.Ts.	Value in Lakhs.	Qty. M.Ts.	Value in Lakhs.
BLACK PEPPER								
USSR	125	18.14	975	194.34	2199.360	434.35	2275.000	392.55
YUGOSLAVIA	-	-	30	5.71	-	-	30.000	4.94
GDR	-	-	-	-	84.980	15.97	-	-
CZECHOSLAVAKIA	-	-	-	-	483.350	93.20	296.400	54.98
IRAQ	-	-	50	9.19	-	-	-	-
POLAND	-	-	-	-	751.940	143.20	1600.000	249.16
KUWAIT	-	-	-	-	3.010	0.68	-	-
BULGARIA	-	-	-	-	99.960	18.99	-	-
ITALY	-	-	-	-	5.040	1.09	-	-
RUMANIA	-	-	-	-	479.430	92.55	-	-
USA	-	-	-	-	29.960	5.27	-	-
AMSTERDAM	-	-	-	-	-	-	2.500	0.25
TURKEY	-	-	-	-	-	-	32.500	5.95
JEDDAH	-	-	-	-	-	-	10.000	1.70
Total:	125	18.14	1055	209.24	4137.030	805.30	4246.400	709.53

Source: Marketing Federation Records.

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TABLE No:6.3
 THE KERALA STATE COOPERATIVE MARKETING FEDERATION
 Details of Export Performance
 1979-80

Sl.No.	Name of the Country	PEPPER	
		Quantity (M.Ts.)	Value (Rs. in Lakhs)
1.	USSR	3499.72	525.45
2.	USA	579.18	96.61
3.	SAUDI ARABIA	70.00	9.34
4.	BAGHDAD	149.94	25.66
5.	AMSTERDAM	18.50	3.26
6.	YUGOSLAVIA	226.59	32.29
7.	BULGARIA	379.89	59.15
8.	POLAND	800.87	119.71
9.	ROMANIA	399.98	61.99
10.	BETHLAM	74.90	12.59
11.	HAMBURG	70.00	9.65
12.	ALGIERS	684.10	112.81
13.	HOLLAND	44.94	7.37
14.	WEST GERMANY	39.91	6.54
		7018.59	1083.50

Source: Marketing Federation Records.

TABLE No:6.4.
 THE KERALA STATE COOPERATIVE MARKETING FEDERATION
 Details of Export Performance - 1980-'81.

Sl.No.	Name of the Country	PEPPER	
		Quantity (M.Ts.)	Value (Rs. in Lakhs)
1.	NETHERLAND	5	0.67
2.	USA	9	1.35
3.	CANADA	19	2.75
4.	BULGARIA	224	29.86
5.	WEST GERMANY	15	2.37
6.	LONDON	20	3.82
7.	CZECHOSLOVAKIA	137	18.79
8.	SAUDI ARABIA	80	11.73
9.	U.S.S.R.	2646	352.09
		3159	4226.75

Source: Marketing Federation Records.

TABLE No:6.5.

THE KERALA STATE COOPERATIVE MARKETING FEDERATION
 Details of Export Performance - 1981-'82.

Sl.No.	Name of the Country	PEPPER	
		Quantity (M.Ts.)	Value (Rs. in Lakhs)
1.	U.S.S.R.	2779.77	262.08
2.	YUGOSLAVIA	83.04	12.11
3.	CANADA	29.89	4.20
4.	HUNGARY	199.40	23.62
5.	NETHERLANDS	5.00	6.70
6.	U.S.A.	9.94	1.35
		3107.04	310.06 310.06

Source: Marketing Federation Records.

TABLE No:6.6.
 THE KERALA STATE COOPERATIVE MARKETING FEDERATION
 Details of Export Procurement - 1982-'83.

Sl.No.	COUNTRIES	PEPPER	
		Quantity (M.Ts.)	Value (Rs. in Lakhs)
<u>A. RUPEE PAYMENT AREA:</u>			
1.	USSR	2501.100	325.95
2.	POLAND	500.000	63.37
3.	RUMANIA	399.980	51.19
4.	HUNGARY	200.000	23.72
TOTAL (A)		3601.080	464.23
<u>B. GENERAL CURRENCY AREA:</u>			
1.	SAUDI ARABIA	50.500	4.63
TOTAL (B)		50.500	5.63
GRAND TOTAL (A) + (B)		3651.580	468.86

Source: Marketing Federation Records.

TABLE No:6.7.
 THE KERALA STATE COOPERATIVE MARKETING FEDERATION
 Details of Export Performance - 1983-'84.

Sl. No.	Name of the Countries	PEPPER	
		Quantity (M.Ts.)	Value (Rs.in Lakhs)
<u>A. RUPEE PAYMENT AREA:</u>			
1.	POLAND	400.00	45.43
2.	U.S.S.R.	368.83	46.01
3.	CZECHOSLAVAKIA	49.98	7.30
TOTAL (A)		818.81	98.74
<u>B. GENERAL CURRENCY AREA:</u>			
1.	HUNGARY	199.36	22.60
2.	SWEDEN	42.00	6.50
3.	CANADA	9.86	1.35
4.	U.S.A.	534.92	90.26
TOTAL (B)		786.14	120.71
GRAND TOTAL (A) + (B)		1604.95	219.45

Source: Marketing Federation Records.

TABLE NO:6.8

THE KERALA STATE COOPERATIVE MARKETING FEDERATION
 Details of Export Performance - 1984-'85

Sl.No.	COUNTRIES	PEPPER	
		Quantity (M.Ts.)	Value (Rs. in Lakhs)
1.	U.S.S.R.	1189.86	281.99
		1189.86	281.99

Source: Marketing Federation Records.

TABLE NO:6.9,

THE KERALA STATE COOPERATIVE MARKETING FEDERATION
 Details of Export Performance - 1985-'86

Sl.No.	COUNTRIES	PEPPER	
		Quantity (M.Ts.)	Value (Rs. in Lakhs)
1.	U.S.A. X	2062.43	1011.32
2.	WEST GERMANY X		
3.	MOROCCO X	2062.43	1011.32

Source: Marketing Federation Records.

6.11. It was during the year 1979-80 that the Federation's export reached a record high of 7,019 Metric tonnes valued at 10.84 crores. The total procurement during 1979-'80 was also a record the figure touching 8,039 Metric tonnes. During 1979-'80 the Federations exports to U.S.S.R. touched 3,500 Metric Tonnes which was again a record performance. Again, for the first time the Federation could achieve a break through to the U.S.A. market with about 579 Metric tonnes. Again, during the year 1979-'80 the Federation found new markets in Iraq, Algiers, Poland and West Germany in addition to the traditional markets of U.S.S.R. and other socialist countries. During 1980-'81 the procurement figure had come down very badly to 4,053 Metric tonnes. The main reason for the low procurement was the financial strain faced by the Federation. Out of the 4,053 Metric tonnes procured 4,037 Metric tonnes were exported. The export value realised was also very low i.e. 4.15 crores. In the year 1981-82 3,107 Metric tonnes were exported out of the total quantity of 3,754 procured. The export value was again almost static at 4.04 crores. During the year 1982-'83, 3,642 Metric tonnes were procured and 3,652 Metric tonnes exported, the additional tonnes being the

quantity brought forwarded from the previous year. In 1983-84 the exports suffered a severe set back as the quantity was only 1,605 Metric tonnes. Though the Federation could procure 3,642 Metric tonnes, it could not fetch more export orders because of the severe competition from the private trade. In the year 1984-'85 the Federation could procure 27,783 Metric tonnes valued at 8.19 crores and the quantity exported was only 1,190 metric tonnes valued at 2.81 crores. The export again witnessed a set back on account of acute competition from private trade and due to the misunderstanding between the Marketing Federation and the Russian buyers. The procurement figures for the year 1985-'86 was 5,320 metric tonnes valued at 17.94 crores. Though the Federation was able to almost double the procurement figures over the previous year 1984-'85, the export declined at 2,062 metric tonnes, valued at Rs.10.11 crores.

6.12. The Primary Cooperative Marketing Societies or village level societies send the stocks collected from its members either to the Cochin branch office or to the garbling centre as per instructions received from the Regional Office direct or through the Federation's field office as a case may be. There was another system of trade between federation and societies called consignment agency system. Under this system, the societies act as Federations agent on a particular place for the procurement of pepper from the farmers direct. The Federation will pay a commission of one per cent of its value on all stocks sold to the Federation on a particular day. But the societies have to ensure quality of stocks, proper driage and also insure that pepper procured is free from foreign matters, pinheads and lightpepper. On such consignment stocks the societies can draw 95 per cent advances from the Federation. It was found that more than 20 societies out of the 33 societies in the Idukki district resorting to this practice as there was no element of risk in the above transactions with the Federation.

6.13. As the Federation used to provide interest free advances to marketing and village level societies they could collect more quantities of pepper from

cultivators who are free from the clutches of the middle men. The Federation's preparedness for pepper procurement itself offered a competitive and at the same time healthy environment to the pepper cultivators as the private trade was also forced to provide more and more concessions to the cultivators. A study performance of the past 10 years the MARKETFED proves that the farmers could earn and bargain better terms from the private traders, who in earlier days dictated terms to the farmers. So the presence of cooperative sector side-by-side with private trade provides more market opportunities even to the small farmer.

6.14. The Regional Manager, Calicut is responsible for the procurement of pepper from the districts of Cannanore, Wynad and Calicut. The Calicut region procured 1,390 metric tonnes of pepper in 1983-'84 and 1,119 metric tonnes in 1984-'85. The region collected a quantity of 1,461 metric tonnes mostly from societies valued at Rs.6.02 crores during the year 1985-'86 and this was indeed a record high both in terms of value and quantity. Table No. 6.9. shows the purchase details of Calicut Region from 1983-'84 to 1985-'86.

THE KERALA STATE COOPERATIVE MARKETING FEDERATION, CALICUT.SOCIETYWISE TOTAL PURCHASE OF PEPPER - 1983-'84.

(Qty. M.Ts./Rs. in Lakhs)

S.No.	Name of Society	Quantity	
1.	Kerala Malanad KPCMS.	36.06	203.90
2.	North Wynad CMS	56.36	337.98
3.	Vythiri Taluk CMS	23.87	138.94
4.	Kelakam SCB	0.55	2.90
5.	NMDC	39.94	214.48
6.	Cannanore DT CMS.	16.83	87.73
7.	Kondotty Block ACMS	0.66	4.22
8.	Nilambur CMS	1.74	8.34
9.	Manjeri PCC MS	0.41	1.70
10.	Nilgiri Vegetable MCS	9.02	41.24
T o t a l		185.44	1041.43
<u>1984-'85</u>			
1.	NAFED, Calicut	38.52	160.10
2.	Kerala Malanad KCMS	86.16	205.00
3.	NMDC, Calicut	9.74	32.00
4.	North Wynad CRMS	97.97	344.00
5.	Vythiri TCMS	42.72	150.00
6.	Nilambur CMS	5.69	20.00
7.	Majaeri PCCS	0.09	0.30
8.	Pulpally SCB	46.11	162.00
T o t a l		327.00	1073.40
<u>1985-'86</u>			
1.	Kerala Malanad KPCS	91.70	221.40
2.	North Wynad CRMS	176.80	426.90
3.	Vythiri TCMS	106.86	258.00
4.	Nilambur CMS	11.18	27.00
5.	Pulpally SCB	126.95	306.50
6.	Tellicherry TCMS	12.01	29.00
7.	Kottachery CMS	5.38	13.00
8.	NMDC, Calicut	5.13	12.40
9.	Kelakam SCB	4.97	12.00
10.	Panangad SCB	0.53	1.30
T o t a l		541.51	1307.50

TABLE No: 6.9.

PROCUREMENT DETAILS OF PEPPER BY MARKETED, CALICUT REGION.

FROM 1983-'84 TO 1985-'86.

Sl. No.	Particulars	(Qty. MT/Rs. in Lakhs)					
		1983-84		1984-85		1985-86	
		Qty.	Value	Qty.	Value	Qty.	Value
1.	From Societies	1041.0	185.49	74.4	327.03	1307.5	541.55
2.	From Government Departments	20.0	2.72	1.7	0.46	6.3	2.72
3.	From Private Parties	207.0	39.25	42.5	11.54	-	-
4.	From Federation's Depot, S.Battery.	122.0	21.73	-	-	-	-
5.	From Forest Department	-	-	-	-	147.2	58.31
T o t a l		1390.0	249.19	1118.6	339.03	1461.0	602.58

Source: Kerala State Cooperative Marketing Federation.

6.15. The Cochin office had collected 1,896 metric tonnes of pepper valued at Rs.3.00 crores in the year 1983-'84. The quantity collected by Cochin office was found to be 1,134 metric tonnes valued at Rs.345 crores in the year 1984-'85. But during the year 1985-'86 the Cochin branch made a record collection of 3,857 metric tonnes valued at Rs.16.58 crores. The year 1985-'86 was a record year both in terms of quantity and value of pepper procured. The society-wise purchase of pepper made by Cochin branch office for the three years from 1983-'84 to 1985-'86 are shown in Table No:6.10.

SOCIETYWISE PURCHASE OF PEPPER BY COCHIN OFFICE OF MARKETFED
FROM 1983-'84 TO 1985-'86

Sl. No.	Name of Society	(Qty. MT/Value Rs. Lakhs)					
		1985-86		1984-85		1983-84	
		Qty.	Value	Qty.	Value	Qty.	Value
1.	Ellackkal SCB	1007.0	434.78	506.1	157.63	478.7	97.08
2.	Devicolam TGMS	524.9	222.96	25.0	8.88	6.2	1.34
3.	Santhanpara CMCS	144.3	62.77	56.0	16.68	107.4	22.45
4.	Palai MCS	15.2	6.51	14.3	6.07	23.0	4.49
5.	Pottenkad SCB	105.7	46.25	43.2	13.77	20.9	2.55
6.	Konni MCS	205.3	88.47	95.2	35.43	159.9	31.32
7.	Ezhamkulam AMCS	73.4	30.75	20.4	6.81	70.3	13.32
8.	Thoprakudy SCB	11.3	4.58	53.8	14.29	-	-
9.	Perinthalmanna MCS	103.2	44.94	121.6	38.20	46.6	8.94
10.	Ponkunnam MCS	23.9	10.69	64.2	15.05	409.8	73.19
11.	Vazhathope SCB	318.0	135.15	-	-	78.3	13.03
12.	Nadathara FSCB	2.0	0.88	-	-	-	-
13.	Vellathooval SCB	431.4	180.69	-	-	40.6	7.93
14.	Kallar SCB	249.9	108.05	-	-	-	-
15.	Adimali SCB	302.1	131.89	83.1	19.97	274.5	54.16
16.	Ottappalam MCS	4.3	2.01	1.4	0.43	3.1	0.47
17.	Rajakkad SCB	26.2	12.06	-	-	-	-
18.	Vandiperiyar SCB	34.0	15.13	-	-	-	-
19.	Kattappana MCS	9.9	4.26	-	-	4.9	0.90
20.	Pattomcolony SCB	14.3	5.99	-	-	-	-
21.	Nedumangad TGMCS	1.8	0.78	-	-	-	-
22.	Parathode SCB	248.2	108.64	-	-	-	-
23.	Neyyattinkara RMCS	0.5	0.26	-	-	1.1	0.16
24.	Malanad SCB	-	-	8.5	2.02	8.7	1.17
25.	Monippally MCS	-	-	-	-	2.7	0.42
26.	Ezhumkumvayal SCB	-	-	-	-	19.5	3.84
27.	Kottar SCB	-	-	-	-	69.5	12.79
28.	Trichur Dist. Arecanut Mktg.S.	-	-	-	-	8.0	1.55
29.	Nedumkandam SCB	-	-	-	-	49.8	7.09
30.	Ellackad MCS	-	-	-	-	1.4	0.26
31.	Anickkad SCB	-	-	20.8	5.34	10.0	2.05
32.	Attappady Coop.	-	-	-	-	1.4	0.35
33.	Ezhumkumvayal SCB	-	-	19.9	5.14	-	-
T o t a l		3856.8	1658.49	1133.5	345.71	1896.3	360.85

Source: Kerala State Cooperative Marketing Federation.

6.16. The National Agricultural Cooperative Marketing Federation of India (NAFED) was set up in October 1958, to promote Agricultural Marketing in India.

NAFED functions as the national apex body of the cooperative marketing system, in coordination with 29 State Level Marketing Federations, 10 State Level Commodity Marketing Federations, 8 State Level Tribal Cooperative Development Corporations/Federations, 172 District and Regional Marketing Societies and 3,658 Primary Marketing Societies. This network of Primary Cooperative Marketing Societies covers all important primary and secondary markets in the country. They are engaged in marketing agricultural produce, supply of production inputs and essential consumer articles at the door step of farmers through, 97,000 village multi-purpose societies.

NAFED's operations can be broadly classified under the following categories:

- i) Internal trade
- ii) Foreign trade
 - a) Exports
 - b) Imports

- iii) Price support operations on behalf of the Government of India.
- iv) Production and Marketing of agricultural machinery, implements, and bio-fertilizers.
- v) Developing cooperative marketing for tribal produce and
- vi) Dissemination of market intelligence.

The turnover of NAFED had increased from Rs.504 million during 1974-'75 to Rs.1,388 million during 1984-'85 and to Rs.2,040 million during 1985-'86.

Market support to farmers and maintaining steady supply of commodities to consumers at reasonable prices are the objectives of its internal trade operations. These operations cover a wide range of items like foodgrains, pulses, oilseeds, spices, fruits and vegetables, eggs, tribal produce, packing material, agricultural machiner and implements, organic and inorganic fertilisers and pesticides. NAFED purchases agricultural commodities through the cooperative marketing network, which are farmers' own organisations. In disposals, it gives preference to cooperatives, public sector organisations and State agencies.

6.17. Export of agricultural commodities through the cooperative marketing system developed on a large scale after the establishment of NAFED. For regulating exports of commodities grown in different states, the NAFED had been found as a suitable agency for the following reasons:

i) Procurement is done directly from the producers in all the growing areas, motivating growers to increase production of traditional and non-traditional commodities

ii) No artificial increase in prices takes place due to purchases not being made in terminal markets and

iii) Exports are effected only if the internal situation so warrants.

The volume of foreign trade of NAFED which was merely of Rs.2 lakhs during 1959-60 was in the range of Rs.80 to 120 crores in 1985-'86 depending upon the crop position and international market situation. Commodities exported include:

i) Onions (canalised), potatoes, ginger, garlic.

ii) Nigerseed, sesameseed, gum karaya, bajra, jowar and Ragi (canalised).

iii) Groundnut de-oiled cake, cottonseed de-oiled cake and soyabean de-oiled cake (on quota released by other monitoring agencies).

iv) Fresh and processed fruits and vegetables (OGL)

v) Spices (OGL), black pepper cardamom, turmeric, cuminseed, coriander seed

vi) Rice and barley

vii) Jute bags

6.18. According to the constitution of NAFED the board of management is constituted by Government of India, and represent various interests like Ministry of Agriculture and Cooperation, NCDC, Members of Lok sabha representatives of the State Marketing Federations etc. NAFED has a Chairman to preside over the board of directors and a managing director nominated by Government of India, who is to act as the Chief Executive.

NAFED operates through its Head office at New Delhi alongwith four Regional offices located in Delhi, Bombay, Calcutta and Madras and 34 branches/sub offices in all important towns including Cochin and terminal markets.

6.19. As per details collected from NAFED's Cochin office it came on the pepper procurement scene in the year 1978-79 with a modest procurement of 179 tonnes. It may be noted that the NAFED which is the apex body of the State Marketing Federation was never in competition with the State Federation but was only complementing its. Before taking important purchasing decisions and releasing of pepper both MARKETFED and NAFED officials in Cochin exchange information and ideas to ensure better coordination.

NAFED's procurement and export from 1978-'79 to 1985-'86 are given in Table No: 6.11.

TABLE No: 6.11.

NAFED's PROCUREMENT ON EXPORTS
FROM 1978-'79 TO 1985-'86.

Year	Procurement in M.Ts.	Export in M.Ts.
1978-79	179	-
1979-80	366	-
1980-81	303	1,000
1981-82	292	0,250
1982-83	800	350,650
1983-84	3040	460,000
1984-85	1903	1475,000
1985-86	2746	1750,000

Source: NAFED's records Annual Report of NAFED.

As seen from Table No.6.11 in the initial four years of procurement NAFED gave thrust to internal marketing than to export marketing. Another conclusion one could draw was that it remained passive when the MARKETFED was very much active in the export front. This clearly showed that there was perfect cooperation between NAFED and MARKETFED. But it was in the year 1982-'83 NAFED exported 351 metric tonnes of pepper out of the total procurement of 800 metric tonnes. This export of 351 metric tonnes was in comparison to 3,642 metric tonnes of MARKETFED export. But in the year 1983-'84 when MARKETFED exports started showing a declining trend NAFED also failed to keep up its effects in the export front. In 1983-84 NAFED could export only 460 metric tonnes against Federation's export of 1,605 metric tonnes. In the year 1984-85 NAFED's exports touched a record high of 1,475 metric tonnes. This export performance of 1,475 metric tonnes was very much better than that of Federation's which was 1,190 metric tonnes. A salient feature was that NAFED exported almost 70 per cent of the total quantity procured in 1984-85. The procurement figure in the year 1985-'86 was 2,746 metric tonnes and the export was 1,750 metric tonnes.

6.20. A comparison of NAFED figures with that of MARKETFED revealed that NAFED's procurement operations touched a record high at 3,040 metric tonnes 1983-'84. Federation's procurement figures during 1983-'84 was only 3,642 metric tonnes. According NAFED office it had made purchases only from cooperative sector on an agreement. But the Branch Manager at Cochin who was in charge of the entire NAFED operations told the researcher that it resorted to purchases from open market only to meet the commitments of domestic or export order.

6.21. The ten years' performance of NAFED was a welcoming trend for the farmers and also export trade. NAFED being an apex body of cooperative institutions with the full support of the Central Government and nationalised banks, finance was never a problem standing on the way of NAFED in its marketing activities. NAFED presently act as a price stabilising agency in pepper along with MARKETFED as pepper is procured in all the 12 months of the year. At times of price fluctuations NAFED's very presence in the procurement area acts as a "bullwork" against manipulations and speculations of unscrupulous elements in the trade.

The farmers told that they had the choice to sell their produce either to cooperative agencies like MARKETFED and NAFED or to private trade. Because of the presence of both cooperative agencies farmers were also in a position to bargain for better prices as evidenced during the interview.

6.22. During the course of discussions with NAFED officials a feeling was given that they were also equally surmounted with the problems of payment of purchasing tax as in case of MARKETFED. Being an institutional agency, the NAFED was also obliged to keep record straight just as MARKETFED did and they were also to produce valid documents in proof of having obtained firm export orders before the commencement of actual purchasing for getting the waiver of purchase-tax. If NAFED was to commence purchases against receipt of a firm export order, the chances would be an upward trend in price. This increase in trend though would not be of help to NAFED it would be of much help to the growers as they would be assured of the disposal of produce at a reasonable price. It was that the majority of the farmers who had derived benefits from NAFED belong to the small sector.

6.23. During the course of discussions with the officials of MARKETFED and NAFED the researcher could understand that there was definite understanding between these two organizations in the cooperative sector though at times there existed healthy competition between them. Since the Chairman of Kerala State Cooperative Marketing Federations was the Ex-officio member of the Board of Management of NAFED, both agencies could explore more areas of common interest and thereby give an impetus to both procurement and export efforts of pepper from India.

C H A P T E R - VII

7.01. Role of Cooperative Sector in Procurement and Export Trade of Pepper:-----

As reported earlier we have examined the role being played by the two agencies in cooperative sector MARKETFED and NAFED in pepper. As the two firms together represent the total assessts of the co-operative sector it is necessary to compare their performance against their share of the total pepper market. The table No.7.1. gives particulars of procurement by co-operative sector (by both NAFED and MARKETFED) in comparison with total production of pepper in the country. In order to facilitate comparison the figures are taken from the year 1978-'79, when NAFED emerged on the pepper scene.

7.02. Procurement of Pepper:

A review of the Table No.7.1. reveals that the share of cooperative sector in the procurement of pepper is a meagre quantity ranging from 11 to 22 per cent of the total production of pepper in the country.

TABLE No:7.1.

SHARE OF COOPERATIVE SECTOR PROCUREMENT AGAINST
THE TOTAL PRODUCTION IN INDIA

Year	Procurement by Cooperative Sector. (M.Ts.)	Percentage	Total pro- duction in India (M.Ts.)
1978-79	5480	15.22	36,000
1979-80	8405	22.11	38,000
1980-81	4386	11.54	38,000
1981-82	4046	10.64	38,000
1982-83	4442	10.57	42,000
1983-84	6682	15.18	44,000
1984-85	4681	20.35	23,000
1985-86	8066	16.13	50,000

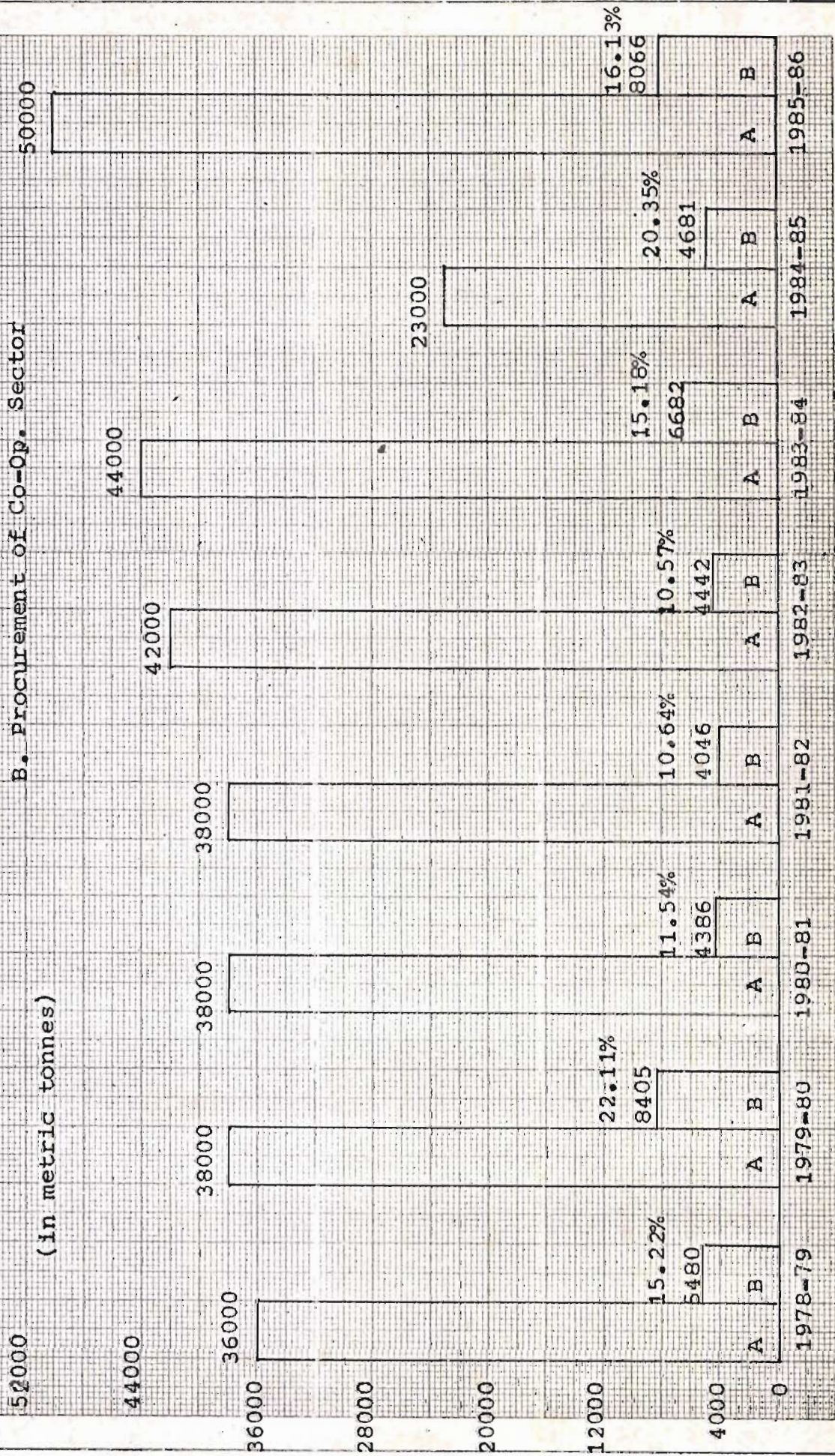
Source: Annual reports of MARKETFED
Annual reports of NAFED, SEPC.

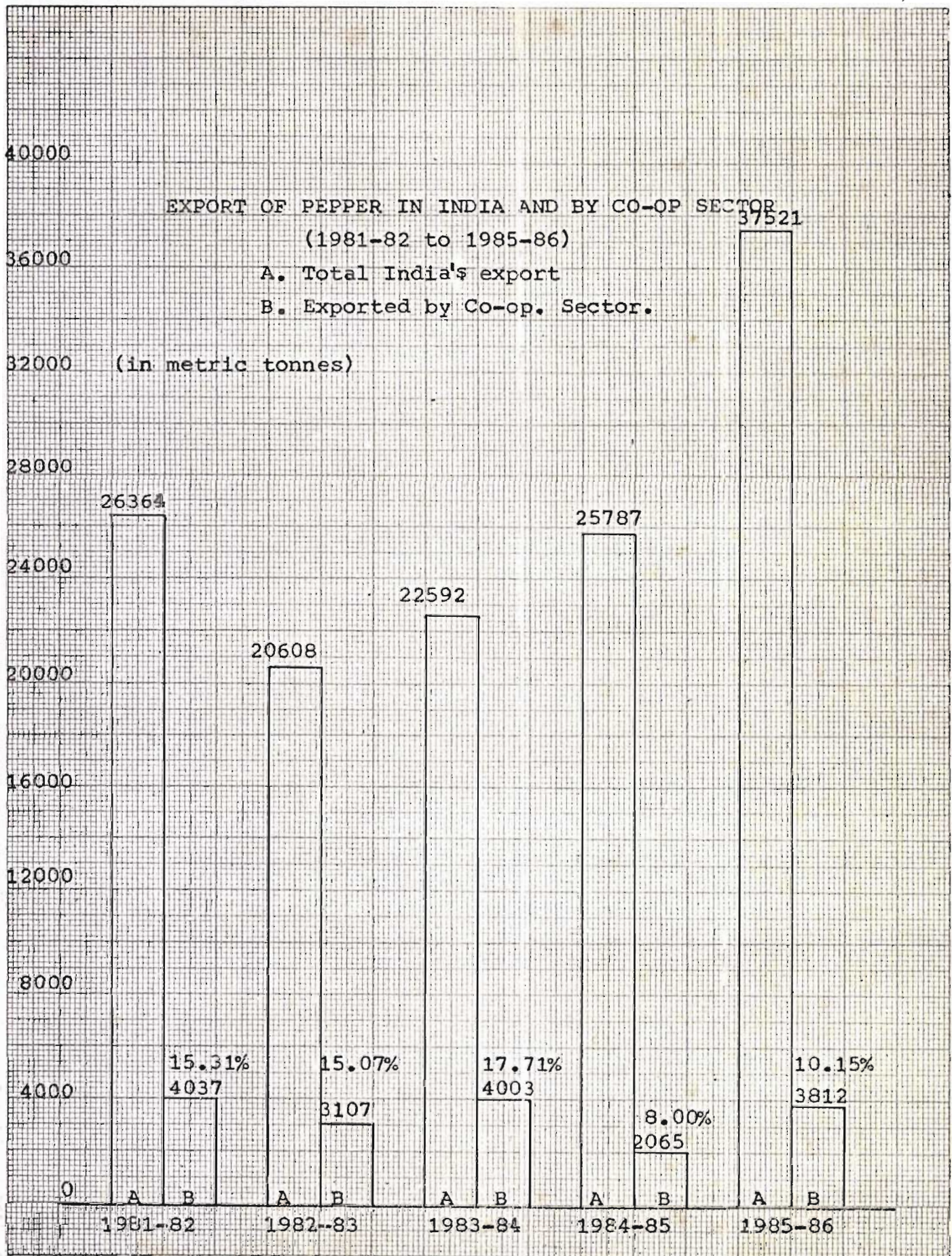
It was in 1979-80 the cooperative's percentage touched a record high of 22 per cent and according to reports from NAFED and MARKETFED it remains the highest even now. The researcher could gather from the cooperative agencies that the procurement figures remained almost static from 1980-1983. It was again only in 1983-'84 the percentage registered a comfortable increase of around 50 per cent over the previous year. The total quantity procured by both the cooperative agencies, was 46.1 metric tonnes in 1984-'85 and in terms of

PROCUREMENT OF PEPPER BY CO-OP SECTOR
AND TOTAL PRODUCTION OF PEPPER IN INDIA

A. Total Production in India
B. Procurement of Co-Op. Sector

(In metric tonnes)





percentage it works out to 16.13 per cent against the total production of pepper of 23,000 tonnes in 1984-'85. The researcher could gather that the cooperative sector could not fare well in this particular year because of the unprecedented competition from the private trade. Moreover most of the export orders were cornered by private exporters because of their aggressive planning and promotional efforts. From the Federation circles it was understood that the purchase tax problem with State Government which had been looming large in the past had also dampened the procurement **efforts** of MARKETFED.

7.03. But in the year 1985-86 both the cooperative agencies increased their procurement **efforts** and MARKETFED alone procured 5,320 metric tonnes of pepper valued at 17.94 crores which had even exceeded their target by 6 per cent. The NAFED during the year 1985-'86 procured 2746 metric tonnes against their previous procurement figures of 1903 metric tonnes in 1984-'85. Thus the total cooperative procurement figures for 1985-'86 was 8066 metric tonnes which constituted 16.13 per cent of the total estimated procurement in the country.

7.04. As seen from earlier chapters, cooperative's share in procurement was found varying from 11 to 22 per cent of the total production. This clearly shows that the cooperative sector with more than 77 marketing societies and 1,200 village level societies is not in a strong position to mobilise the procurement operations so far. During the course of field survey both the cooperative agencies MARKETFED and NAFED have been found very popular not only with pepper cultivators but also with the marketing societies and village level cooperative societies. The very presence of both the cooperative agencies provided sufficient confidence and inculcated a sense of security to the marketing societies and village level societies to go in for full time procurement without any hesitation. However the cooperative's presence only served as a controlling factor as the private sector could not exploit the farmers. The continuous procurement operations by cooperative sector would also alert the private trade not only to sustain but also to invigorate the tempo of their operations, which ultimately provide a healthy competition between the private trade and cooperative sector, to the advantage of the growers and the pepper trade. During the course of interview it was revealed

that the both MARKETFED and NAFED never had any problems of finance because of they were getting preferred a treatment both from Central and State Governments and also from the public sector banks. The society officials had disclosed during the interview that once they were in a position to get advances from both NAFED and MARKETFED they were in a position to collect the pepper from farmers and also from their members. The timely payment by societies to the farmers was also very much helpful to the societies for increased collection of pepper from them. The collected pepper by the societies could also find its way to the godowns or branch offices of the Federation, which in turn provided more turnover by societies with the advance amount provided by MARKETFED and NAFED.

7.05. The Secretaries of service cooperative banks in Idukki and Wynad districts were also of the opinion that continuous procurement by MARKETFED and NAFED would put them on a strong footing in their competition with the private sector agencies, in villages. The officials had also disclosed to the researcher that 30 days interest free advances provided by MARKETFED also gave them more opportunities to tap the local market fully well and the farmers were paid remunerative

prices based on market reports published in the leading newspapers daily. Both the Federation and NAFED provide societies a service charge of one per cent when the stocks were delivered to their storage points. Expenses like handling, transporting, and other incidental charges were also met by the Federation and NAFED and because of these arrangements the primary marketing societies and village level societies enjoyed the benefits of the entire commission.

The only responsibility on the part of the primary marketing society and village level society was to ensure quality of the material procured and see that they confirm to the export specifications to the maximum possible extent. During the course of interview the researcher had come across six dealer societies in Idukki District who used to procure pepper with their own funds without resorting to advances offered by MARKETFED or NAFED. When questioned above this procedure, the secretaries of those societies said that they would be in a better position to bargain with the Federation and NAFED on oneside and also the private trade on the other side depending on the market requirements whether for domestic or export market.

7.06. The Primary Agricultural Credit Societies and Primary Cooperative Marketing Societies act as retail agents of the Marketing Federation, both in the distribution of agricultural inputs and in the procurement of agricultural produce like copra, spices etc., It is found that the short-term and the long-term agricultural credits sanctioned to farmers are also being disbursed through the above PACS. In addition to this these PACS are also affiliated to the concerned district cooperative banks, who in turn with Kerala State Co-operative Bank with headquarters in Trivandrum.

The primary agriculture credit society having jurisdiction of the entire village is found to have 3,000 to 4,000 members. Because of the government policy the PACS at village level have become nerve centres of all activities including the distribution of essential commodities under the public distribution system. Now Government of India has given more importance to co-operative channels of distribution and the apex bodies of cooperatives like National Co-operative Development Corporation and NAFED provide more facilities to the village level societies for developing their own godown facilities and other marketing infrastructure. With all these facilities and also with the State Government

support, the village level societies have started assuming greater role among the farming community of a particular village and now a primary agricultural credit society is being looked upon as a nucleus of developmental activities in the particular village. Because of this newly acquired dynamism and leadership among the villagers the PACS are poised to play a dominant role in the days that are ahead. Therefore, it is very much desirable that MARKETFED should not only sustain but also increase the existing business relationship with them for increased business activities. With this objective in mind, the Federation has opened district sales offices in all the 14 districts and even has posted two officers in seven districts taking into consideration the increased business volume. There are also proposals to create new regional offices at Taliparamba and Trivandrum so as to increase the administrative efficiency and also to provide speedy services to the farmer community. The new region at Taliparamba is proposed mainly with the purpose of augmenting pepper procurement operations as Taliparamba taluk of Cannanore district offers maximum potentiality.

7.07. The researcher has found that the trading operations between primary marketing federations and the apex federation are low due to the following reasons:

- a) Lack of regular offtake by the apex federation.
- b) Delay in the remittance of finances/advances
- c) Delay and uncertainty in purchase of stocks by the apex federation.
- d) Inadequacy of finances from apex federation for undertaking procurement operations in items which do not fall under the purview of procurement as agents of government through public co-operative sector organisations.
- e) Lack of protection against losses due to price fluctuations.

7.08. Some of primary societies have reported, they could have procured pepper on an increased scale than the existing, mainly due to the one or more of the following reasons:

- a) Lack of regular offtake of the commodity procured by the society.
- b) Delay on receipt of sale proceeds from the buyers.
- c) Uncertainty regarding disposal of the stocks purchased by them.

- d) Losses due to market fluctuations.
- e) Inadequate field staff for procurement
- f) Inadequate finance for procuring and storing of stocks; and
- g) Severe competition from the private trade.

The researcher feels that this is an area wherein the apex federation can undertake a detailed study of the problems of marketing societies at the primary level with a view to solving them.

7.09. Suggestions for improving the working of the Primary Co-operative Marketing Societies are given below : -

- 1) It is seen that 77 Primary Co-operative Marketing are affiliated to MARKETFED. The primary marketing cooperative societies should enroll maximum individual farmers, particularly small/marginal farmers as their members to develop direct link with growers.
- 2) Since the existing share capital is found not adequate, efforts should be made for raising additional share capital from affiliated societies and individual members and also by enrolling new members.

- 3) The potentially viable primary marketing societies should be revamped and revitalised. It is also suggested that well run marketing societies should further strengthen their share capital base for expansion and diversification.
- 4) Each primary marketing society should aim at handling agricultural produce worth at least Rs.50 lakhs every year so as to make it economically viable and also effective in the area. Each society should survey the various types of agriculture produce grown in its area of operation and workout the marketable surplus available and should develop a plan to handle a substantial portion of the marketable surplus. The primary societies also may prepare a list of farmers who are willing to deliver their surpluses to the primary societies. By doing so, they will be able to estimate the total produce to be handled by them.
- 5) The primary marketing society has to motivate the farmers to deliver all their surpluses to the marketing society. For this, they have to conduct or organise member training programmes. The society should also make arrangements for the collection of agricultural produce from the

villages and then arrange for storage and disposal. The marketing society may retain some portion as may be required for sale the rural consumers within their jurisdiction and arrange for the sale through the whole sale consumer stores and its branches. The surpluses which cannot be disposed of at their level may be sold through MARKETFED.

- 6) The primary marketing society should have more and more contacts with its subsidiary village level societies and also the state apex Federation.
- 7) The primary cooperative marketing society should coordinate its activities with regulated market committee, if available.
- 8) They have to ensure timely elections to the board of directors.
- 9) Annual general meetings should be convened once a year.
- 10) Accounts should be prepared promptly so that the audit would be completed in time. Separate accounts may be maintained for important activities of the primary cooperative marketing societies like marketing of agriculture produce, distribution of consumer activities, and processing units set up by them.

7.10. It was seen earlier that the MARKETFED came to the pepper procurement scene in the year 1975-'76 whereas NAFED could start their procurement operations only by 78-'79. It was also seen that NAFED who gave initial importance to procurement aimed at domestic marketing, turned to export scene only by 1982-'83. But MARKETFED started export business right in 1975-76. The table No:7.2. gives particulars of cooperative's share in the total Indian Export of Pepper from the period 1975-'76 to 1985-'86.

TABLE No:7.2.

SHARE OF COOPERATIVE SECTOR AGAINST TOTAL EXPORTS

Year	Quantity Exported by Co-operative Sector	Percentage.	Total Indian Export.
1975-76	125	0.51	24,226
1976-77	1055	5.13	20,527
1977-78	4137	16.76	24,677
1978-79	4246	27.01	15,719
1979-80	7019	33.58	20,898
1980-81	4037	15.31	26,364
1981-82	3107	15.07	20,608
1982-83	4003	17.71	22,592
1983-84	2065	8.00	25,787
1984-85	2665	10.52	25,322
1985-86	3812	10.15	37,521

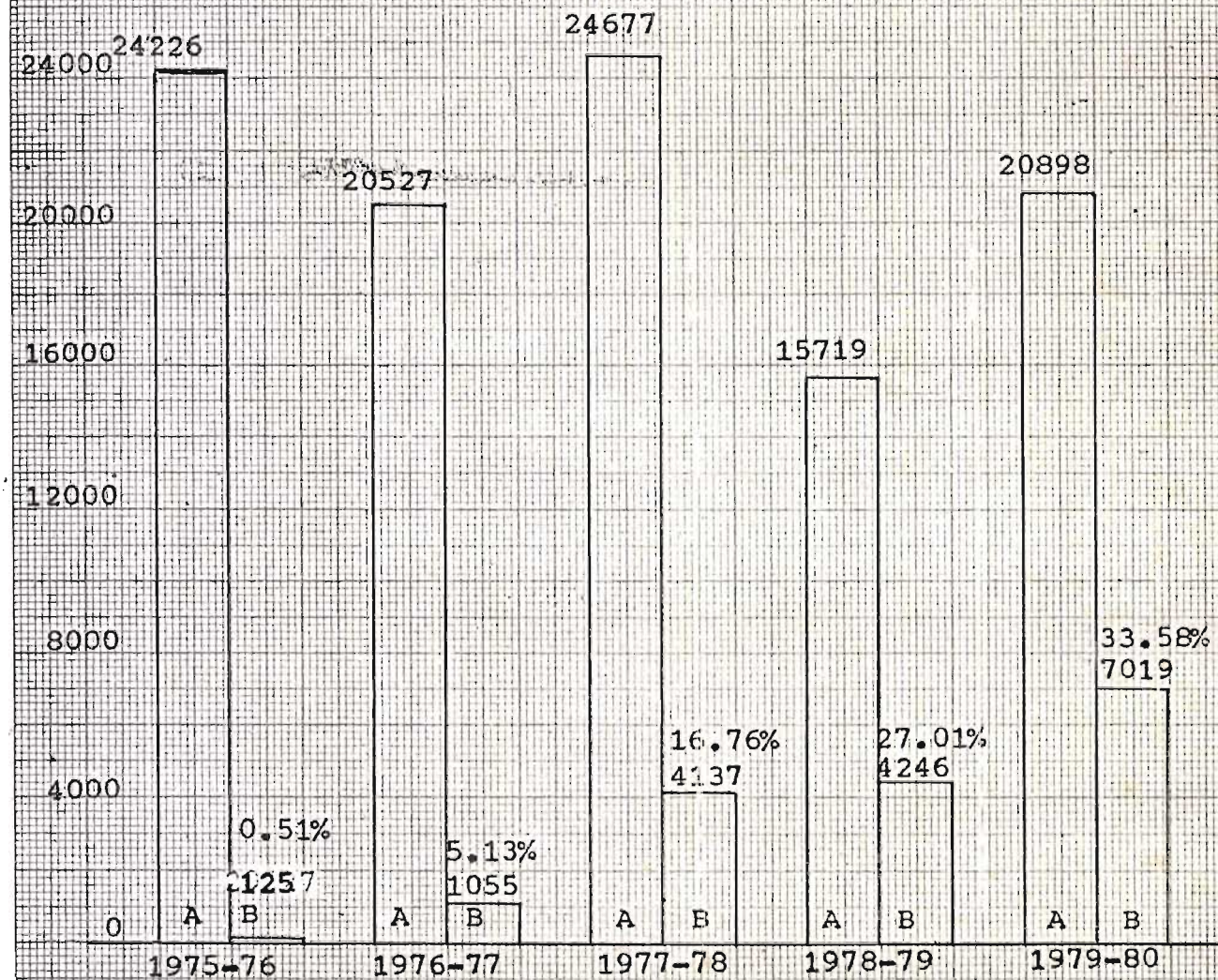
Source: MARKETFED Annual Reports
NAFED Annual Reports, SCPC.

40000

EXPORT OF PEPPER IN INDIA AND BY CO-OP SECTOR
(1975-76 to 1979-80)

36000
32000
28000
(in metric tonnes)

A. Total India's export
B. Exported by Co-op. Sector.



It is seen from Table No.7.2. that the cooperative sector, MARKETFED, alone could account for around 34 per cent of the total quantity of exports from India once in 1979-80. Eventhough NAFED also joined MARKETFED, the share of cooperatives had started a declining trend from 1980-'81 onwards. The figures for 1980-'81 were also not encouraging as the cooperative share was only 15 per cent of the total export. The figures for 1981-82 and 1982-'83 also showed the static trend in which the percentage of export was found varying between 15 to 18. In 1983-'84 export percentage came down to 8 per cent with a turn over of 2,065 metric tonnes. But during the year 1984-'85 both NAFED and MARKETFED together could export 2,665 of pepper which was not again impressive when we consider the rapid strides made by the private agencies in the export front.

In the year 1985-'86 MARKETFED could export 2,062 metric tonnes of pepper. The quantity exported by NAFED during the year 1985-'86 was 1,750 metric tonnes, amking the total share of cooperative to 3,812 metric tonnes. This export performance of public sector was also not impressive when compared with the export performance by the private sector.

7.11. Reasons for the downward trend in
Export by Cooperative Sector:-----

During the survey it was revealed that the cooperative sector both MARKETFED and NAFED were found exporting a major share of pepper to U.S.S.R. and socialist countries. They never bothered to develop other important markets of U.S.A., Canada, Middle East and European Common Market Countries. The sudden withdrawal of U.S.S.R. from MARKETFED purchases had upset all export programmes of the Marketing Federation, from 1984-'85 onwards. The reported reason for U.S.S.R.'s withdrawal from MARKETFED purchases was non-fulfillment of the earlier export contracts to U.S.S.R. by MARKETFED. The SEPC sources also confirmed the above statement.

7.12. A perusal of export figures of MARKETFED in 1985-'86 shows that it could not compete well with private trade in gaining export orders and the total exports was only to the tune of 2,062 metric tonnes valued at 10.11 crores. On enquiry with MARKETFED sources, it was given to understand that it failed to obtain any contract from the traditional buyer, the U.S.S.R. On further enquiry it was revealed

that the U.S.S.R.'s enbloc refusal of MARKETFED orders was on account of its failure in honouring the earlier export commitments to U.S.S.R. When the researcher, made an attempt to collect the intricate details of this transaction, he was given to understand that difference of opinion which persisted between the Federation officials and the trade representatives of the U.S.S.R., was the main reason for the Federation not getting the U.S.S.R. export orders. The researcher could gather from trade circles and SEPC sources that the private trade could successfully utilise the opportunities to the best of their advantages.

7.13. The frequent change of managing directors had also considerably affected the Federation's business in general and export efforts of pepper in particular. It was seen that the Managing Directors were changed almost every alternate year without allowing even one person to complete a full term of 3 years. The fact that the new incumbent would take atleast six months to study the various matters connected with procurement and export would alone dampen the export efforts. It was also gathered that the managing director himself was not in a position to take, on

the spot decisions as he was to consult with the Chairman and also the members of the business committee of the society. The failure on the part of the Federation in making timely decisions had also considerably affected its export effects.

7.14. The levying of purchase tax based on a new formula declared by the State Government had also considerably reduced the procurement operations and subsequently export efforts. The Kerala Government had intensified arrear collection of purchase tax assessed on earlier years. This action of the Government had also put the Federation into considerable hardship. The State Governments new directive that the exporters should produce complete evidence of having obtained a specific export order for getting waiver of purchase tax had again affected both MARKETFED and NAFED whose accounts were straight and open. They cannot have the flexibility or elasticity available to the private trade with regard to the maintenance of books and other formalities.

The Federation and NAFED officials disclosed to the Researcher that the State Government regulations had considerably affected and continue to affect the

policy of procurement and export. They also informed of forming a delegation comprising Federation officials, SEPC panel members and politicians for moving the State Government to exempt cooperative sector from the payment of purchase taxes, the levy rate being 7 per cent.

7.15. The MARKETFED policy of paying one per cent out right commission to the agent on export orders from U.S.S.R. had also come in for sharp criticism. Under the trade practices with regard to the purchase of pepper by U.S.S.R. and socialist countries three per cent of the FOB value of the export consignment was kept pending for the final assessment of quality. It was also gathered that the U.S.S.R. used to open a letter of credit only covering the FOB value by 97 per cent with a provision of one per cent for payment of commission to their trade agent in India. According to the Federation's spokesman, the Federation had preferred a claim with U.S.S.R. Embassy in 1985 for payment of Rs.27 lakhs which was kept pending on various export invoices by U.S.S.R. Because of the above problem Federation was also forced to cancel the export commitment to U.S.S.R. in the first week of March 1985.

7.16 With the formation of the International Pepper Community in 1971, the member countries of Indonesia, Brazil, Malaysia, Sri Lanka and India have to necessarily follow the recommendations and guidelines set by the Community. Being institutional agencies, the cooperative agencies like MARKETFED and NAFED had to scrupulously follow the guidelines and directives of both Government of India and Ministry of Commerce or Foreign Trade from time to time. But the private agencies could find some way or other to circumvent some of the directors with regard to minimum export price, payment of purchase tax etc.

7.17. The prohibiting rate of interest paid by the Federation in its attempt to provide 30 day interest free advances to societies also posed real problems to the Marketing Federation and NAFED. There were times when MARKETFED's funds were locked up in inventory mortgage, packing credit, export credit etc., Because of this, primary marketing societies and village level societies could not get much needed advance from MARKETFED. Therefore, it was suggested that there should be a mechanism by

which the Federation could get sufficient funds well in advance from NCDC and NAFED, taking into consideration the total planned commitment of procurement and export operations during a particular year. NCDC and NAFED should provide concessional financing to the Federation through NABARD (National Agricultural Banking for Rural Development) to tide over such fiscal crisis.

7.18. The cooperative sector was looked upon both by State and Central Governments on one side and the farming community on the other side as a price stabilizing agency. In order to keep this cherished goal, cooperative sector had to be in the market on all the 12 months of the year, whether in season or off season or whether there was export order or not. Only with continued procurement operations MARKETFED could ensure a relief to the pepper grower and also enable him to have a remunerative price for his produce.

7.19. It was seen that the Federation was routing advances directly to PCMS or PACS and not to the farmers. There had been occasions wherein the advance money received from the Federation was diverted to other activities thereby depriving the farmers of

their benefits. There were also instances of PACS and PCMS not being able to pay back the Federation either the amount or the produce after the expiry of thirty days interest free credit period as evidenced from the field study. If the Federation was not paid back the money or the material by societies, one day the Federation's entire finance would get blocked and thereby affecting further releases of advances to other genuine societies who were in need of finance. The Federation had naturally to pay the interest charges to its bankers whether the societies pay back the advance or produce within the allowable period to the Federation or not.

7.20. Another problem which had come in the way of the Federation's loosing export market was the timely availability of quality pepper to suit the export market. Since the export price of pepper was very much dependent on its general appearance, percentage of driage, and also percentage of foreign matter, it was very much essential that the quality of pepper was ensured right from the procurement to the final stage of reaching the material at the hands of consumers in the importing countries. Since the pepper

had to undergo various stages of processing from procurement to the final buyer, a quality consciousness and awareness of export specifications such as various grading and inspection procedures should be inculcated in the minds of farmers. From experience, there had been cases of good quality material being mixed up with inferior variety of pepper like pinheads, light pepper, and half pepper. According to reports received from the Federation's Office in Cochin, that there was no occasion by which the Federation's consignment was held up for want of quality.

7.21. Another important factor for the declining trend of pepper export by cooperative sector was due to the unhealthy competition posed by the private trade. Though there were agencies like SEPC, IPSTA etc. to ensure fair play and healthy climate on the pepper trade, there were unscrupulous elements with the idea of making quick money. Such elements would not hesitate to resort to any malpractice in their pursuit for quick money. There were occasions of creating artificial increases in the price of pepper and such increases cause much damage to institutional agencies like MARKETFED and NAFED. The forward trade in pepper permitted some sort

of speculative buying which might have ramifications in the final export price. Since these speculative prices were to influence the day to-day markets of pepper, one had to be very prudent while making either purchases or releases. From the field study, the Researcher had come across instances wherein a group of people were able to manipulate the prices by quoting higher rates. It was therefore, suggested that 'hedging' in pepper trade was put an end to, as the benefits of price fluctuation were being enjoyed by a selected traders themselves. The pepper grower was always at a disadvantage in this regard.

7.22. As evidenced during the interview, and field study insitutional agencie's purchasing decisions and their quoting of export price was not determined by a single individual, unlike the private trade. In the cooperative sector decisions were taken by the Board of Management with the help of a sub-committee called Business Committee. Though the Managing Director is the Chief Executive of the Federation he might have to seek the advice of Business Committee before an important decision is taken whether in relation to bulk purchasing or release of stock in the open market or quoting of prices to importers. Because of the involvement of various interests, right from Business Committee,

Managing Director and officers like Marketing Manager, Shipping Officer, Branch Manager, Cochin etc., there could not be any confidentiality with regard to pricing at various stages. The prices quoted were of considerable importance for sustaining the tempo in the export market and therefore, maximum care should be taken to keep the same confidential. But according to information collected from the MARKETFED and NAFED officials, the confidentiality with regard to the prices of pepper in the cooperative sector was a myth than a fact on most of the occasions. But in the case of private trade, they were able to sustain this confidentiality with regard to pricing right from the procurement level to the final export stage as evidenced during the field study.

7.23. As seen in the earlier chapters, co-operative sector was very much wedded to the agricultural sector which provided livelihood to more than 80 per cent of the population in India. Both the MARKETFED and NAFED had proclaimed aims of providing remunerative prices to agricultural commodities and also to ensure price stability in times of price fall. It could be gathered that NAFED established in 1959 by an Act of Parliament as completed 28 years of service to the farming

community. From the Federation sources it was gathered that they had completed 27 years of fruitful service to the State in general and farming community in particular even undergoing considerable hardship and also monetary losses.

Since these two apex federation had addressed themselves to the task of pepper procurement and also its marketing, both on the domestic and export front they had to necessarily assume the role of market leaders in pepper trade. If these two agencies could chalk out joint efforts in undertaking procurement throughout the 12 months of the year they could very well ensure remunerative prices to the pepper farmers. These two agencies with service as their main motto of business than profit could also provide healthy competition to the pepper trade. Private trade might be able to tap the best domestic or export market only with an eye on the final profit. They might not bother much about the welfare of pepper growers.

Table No.7.3. shows the Marketing of Agricultural produce by Co-operatives. A close analysis of the table shows that cooperative marketing in India has tremendous scope.

TABLE No: 7.3.

MARKETING OF AGRICULTURAL PRODUCE BY COOPERATIVES

Sl. No.	State	(Rs. in crores)		
		Achievement 1982-'83	Target 1983-84	Sixth Plan Target (1984-'85)
1.	Andhra Pradesh	33.52	30.00	30.00
2.	Assam	21.31	25.00	50.00
3.	Bihar	39.92	40.00	40.00
4.	Gujarat	169.27	240.00	260.00
5.	Haryana	109.92	130.00	140.00
6.	Himachal Pradesh	5.00	9.00	15.00
7.	Jammu & Kashmir	10.51	10.00	20.00
8.	Karnataka	150.47	155.00	140.00
9.	Kerala	97.57	105.00	120.00
10.	Madhya Pradesh	80.18	90.00	110.00
11.	Maharashtra	1009.07	955.00	675.00
12.	Manipur	1.00	2.00	3.00
13.	Meghalaya	1.10	1.00	10.00
14.	Nagaland	0.50	1.00	2.00
15.	Orissa	19.07	25.00	40.00
16.	Punjab	191.74	225.00	260.00
17.	Rajasthan	14.00	20.00	45.00
18.	Tamil Nadu	90.07	70.00	70.00
19.	Tripura	1.00	2.00	10.00
20.	Uttar Pradesh	228.00	250.00	400.00
21.	West Bengal	8.40	10.00	45.00
22.	Union Territories	5.12	5.00	15.00
T o t a l		2286.80	2400.00	2500.00

Source: National Cooperative Development Corporation
Various Annual Reports of MARKFEDS.

7.24. It is also **suggested** to have a monthly meeting of the Business Committee and the Board of Directors at regular intervals during peak season. Marketing Manager should organise frequent meetings of Branch Managers, Regional Marketing Managers and Field Officers who are engaged in pepper procurement so that there is no communication gap in existence between them. Such meetings would also provide new informations from the field and also help the Head Office management to evolve new strategy to meet the situations in the market.

7.25. The private trade was found to extend their services to farmers and other agencies engaged in pepper trade almost from dawn to dusk but the Federation's officials were found to be available for services only during office hours of 10 a.m. to 5 p.m. The Managing Director and senior officials of the Marketing Federation should make earnest efforts in boosting up the morale of officers engaged in pepper procurement and other operations so as to make them work even after office hours at times of necessity especially during peak season. By doing so, the Federation could effectively meet the challenges offered in turn could be asked to extent such services by PCMS and PACS to pepper growers so that they were also in a position

to approach the cooperative outlets even after the office hours. This arrangement, if implemented, would increase the confidence of farmers in the cooperative moment.

7.26. During the course of field study there had been instances of certain societies complaining of not having a joint meeting of societies and officials of the Federation. It is suggested to have periodical meetings of officials of PCMS and PACS who were engaged in pepper procurement with senior officials of MARKETFED including the managing director once before the commencement of the season and another during mid-season and one after the season so as to ascertain the procurement, production levels and also quality problems, if any. Such meetings would also provide information to Head Office to help the Head Office to workout future operations. Instead of conducting state level meetings in one centre it is suggested that meetings were held district-wise or region-wise at least once in a while. If these meetings are attended by the Chairman of the Board and also respective directors of the district both the directors of the board as well as the officials of the Federation would have first hand knowledge on

procurement and production figures. Since the presence of the Chairman and Managing Director were assured in such meetings, on the spot decisions could be taken which could be communicated not only to the officials but also to the officials of PCMS and PACS. It was gathered from the Federation sources that some initiation in the above directions had been taken during the year 1985-'86.

7.27. Advances to societies were made by the Head Office in consultation with the Chairman and Managing Director. Not much involvement of Regional Marketing Managers and field staff were there except that they were simply passing on advances as per the direction of Head Office. To have more involvement of Regional Marketing Managers and also field staff with regard to disbursement of advances it was suggested that the application for advances from societies should get endorsement from field office and then regional office for onward transmission to Head Office for final approval. This arrangement would boost the morale and efficiency of Field Officers and Regional Marketing Managers.

7.28. Though MARKETFED and NAFED were to complement and supplement their efforts, in actual practice they were found acting quite in the contrary without much consultation, understanding and mutual planning. In order to tap the maximum possible results from the market it is suggested that there should be proper cooperation and coordination between them so as to avoid any possible unhealthy competition. With better co-ordination and co-operation between the officials of MARKETFED and NAFED they would be able to serve the PCMS and PACS in a more efficient manner at the same time keeping them away from the challenges of the private trade. This was mainly because of the fact that most of the declared objectives of both NAFED and MARKETFED were similar and service oriented with the farmer as the focal point of operation. At times of necessity both federations could exchange products to meet the demand of either or the other. With proper co-ordination between the two agencies they could also fully utilise the storage facilities available with them, so also the garbling facilities.

7.29. To have better co-ordination and also utilisation of existing facilities available with them, it is suggested to have periodical meetings of officers of these two agencies. As both MARKETFED and NAFED have got infrastructural facilities like branch offices and field offices and godowns, not only in Kerala but also in important business centres like Bombay, Delhi and Calcutta they would be in a position to utilise the existing facilities to the fullest advantage with proper monitoring and planning.

7.30. The internal consumption of pepper was around between 13,000 to 15,000 tonnes a year. If these two co-operative agencies join together, they could capture a good share of the domestic trade. To sustain the procurement opportunities through out the year, the cooperative sector had to give equal emphasis on domestic market with that of export market. If both agencies plan and work together they could be in a position to influence the pricing of pepper in the domestic market by which some sort of price stability could be offered to the pepper grower. As more than 60,000 pepper holdings were accounted by small farmers, price stability in pepper would be a great boon to them.

Another definite advantage by joint working would be that by proper inventory control both agencies could arrest the price fluctuations in the market. If the co-operative sector could succeed in doing so, the entire farming community would look upon the co-operative sector as a real friend, philosopher and guide. Such a leadership in the domestic market could enable the co-operative sector to have more say in the export market in addition to building up a confidence in the farming community and also in the importing countries. The profit generated out of domestic market could act as a cushion against any possible adversity in the export market. Thus a joint action by the two giant co-operative institutions would go a long way in promoting pepper production, procurement and export and domestic marketing.

C H A P T E R - V I I I

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

8.01. The present Study examines the value of pepper as an important cash crop of Kerala and its significance as a foreign exchange earner for the Country. The evolution of pepper from its traditional past to the present place in the international trade is also analysed in the Study. In order to study the botany and cultivation of pepper in depth the Study has covered personal visit of pepper gardens in all the prominent pepper growing districts in Kerala. More than 1100 farmers have been visited to study the method's of cultivation, agricultural practices, fertilizer applications, adoption of plant protection measures and the yield from pepper vines in Kerala.

8.02. The total population for the Study comprises the entire State of Kerala having 1.02 lakh hectares under pepper cultivation and the export houses of pepper including the cooperative agencies like primary cooperative marketing societies and MARKETFED and NAFED. In order to understand the procurement of pepper at various levels (village/small traders) and also large scale merchants the Study covered important terminal markets

of pepper and 88 numbers of service cooperative banks and primary marketing societies from all the 14 districts of the State. To assess the services rendered by cooperative sector, a detailed study into their pepper procurement was also attempted. To analyse the role of cooperative sector, export efforts of MARKETFED and NAFED were also made. The export performance in respect of pepper for the past 15 years and various export segments have also been studied so as to explore the possibility of tapping the export market in its fullest potential. The role being played by cooperative sector in the procurement and export market of pepper was also covered by the Study. The important factors influencing the productivity and production of pepper was also studied with the main objective of enabling the pepper cultivators to meet the challenges of international markets. As the export market of pepper is very much dependent on the production trends in the pepper growing countries such as Indonesia, Malaysia, Brazil and Sri Lanka these markets were also studied. As India was enjoying 50 per cent of the world production of pepper in the year 1985-'86, the important measures for sustaining the existing share of world market and also to increase the tempo of production in the country were also studied.

8.03 An attempt to analyse the working of MARKETFED and NAFED in respect of pepper procurement and export was also made, with a view to revamp and revitalise the existing activities of the cooperative sector. As the cooperative's share in pepper procurement and export is found ranging between 15 to 17 per cent of the total market share, the strategy to boost up the cooperative share to at least 50 per cent of the production and export of pepper was also attempted. During the Study as it was found that pepper was mainly meant for export, various grades specification and quality control measures for improving the existing standards of pepper were also studied. In addition to this, various promotional activities undertaken by the Department of Agriculture, Government of Kerala, Spices Export Promotion Council and the International Pepper Community, were also included in the Study. In addition to this, various trade practices that were being followed in pepper trade, including forward pricing and also hedging and its impact in pepper pricing were studied.

8.04. The impact of Government controls and also export concessions were also analysed in the Study. Since the export market of pepper is found very much depended on USSR and other socialist countries, the importance of

finding new markets in the USA, Canada, and Europe were also detailed out in the Study. The fact that American pepper market, which is the largest import market for pepper remains untapped by Indian trade has induced the researcher to look for the opportunities in USA for Indian pepper.

8.05. The pepper with a history of more than 6,000 years, is considered to have its origin in Kerala. There are several historical records to prove that pepper was very much extensively used in medicines and also for the preservation of mummies. It was also seen from Indian and European history that the trade wars waged between the Dutch, Portugese, the French and the English traders were for gaining supremacy in the pepper trade.* The supremacy of English people in Pepper trade was commenced with the establishment of East India Company in 1,600 A.D.

8.06. During the Second World War period of 1939 to 1945, India had a near monopoly in the international trade of pepper, as the pepper cultivation in Indonesia and Malaysia had completely ruined by 1944-'45. But India's supremacy of pepper started declining with the

*Source: The Spices Export Promotion Council



580 SYLVAN AVENUE, ENGLEWOOD CLIFFS, N. J. 07632 • 201-568-2183

U. S. BLACK AND WHITE PEPPER IMPORTS

Mailing Address
P.O. Box 1267

In Metric Tons (2204.6 lbs)

<u>YEAR</u>	<u>BLACK</u>	<u>WHITE</u>	<u>TOTAL</u>	<u>5 YEAR AVERAGE</u>	
Average					
1955/59	15,528.0	1,296.4	16,824.4	16,824.4	
1960	16,768.6	1,436.5	18,205.1		
1961	14,424.8	1,570.8	16,005.6		
1962	16,526.8	1,411.1	17,937.9		
1963	18,344.4	1,689.6	20,034.0		
1964	19,801.8	1,731.4	21,533.2	18,741.2	1960/64
1965	20,012.2	1,632.9	21,645.1	19,429.2	1961/65
1966	15,394.8	1,735.9	17,130.7	19,656.2	1962/66
1967	23,323.0	2,142.2	25,465.2	21,161.0	1963/67
1968	22,147.7	1,922.6	24,070.3	21,968.9	1964/68
1969	21,949.5	2,845.0	24,794.5	22,561.2	1965/69
1970	19,257.4	2,567.6	21,825.0	22,615.1	1966/70
1971	24,921.1	2,229.3	27,150.4	24,619.1	1967/71
1972	21,518.7	2,471.8	23,990.5	24,324.1	1968/72
1973	22,601.2	2,549.9	25,151.1	24,546.3	1969/73
1974	22,560.6	2,869.9	25,430.5	24,731.5	1970/74
1975	23,155.8	1,813.1	24,968.8	25,342.3	1971/75
1976	24,127.8	2,961.8	27,089.6	26,210.1	1972/76
1977	23,539.8	2,920.2	26,460.0	26,704.0	1973/77
1978	26,142.0	2,382.2	28,524.2	26,378.6	1974/78
1979	24,482.4	2,755.6	27,238.0	26,736.1	1975/79
1980	29,643.9	3,193.8	32,837.7	28,309.9	1976/80
1981	28,563.4	2,503.1	31,066.5	29,225.3	1977/81
1982	27,811.0	2,720.9	30,531.9	30,039.6	1978/82
1983	28,346.1	3,129.5	31,475.6	30,629.9	1979/83
1984	34,505.4	3,642.6	38,148.0	32,811.9	1980/84
1985	27,414.0	4,750.0	32,164.0	32,677.2	1981/85

concerted production efforts in Brazil and Indonesia from 1973 onwards. The share of Indian pepper production in world market was found varying from 27 to 20 per cent during the period from 1973-'74 to 1983-'84. Though India's share in world production of pepper had again come down to 16.5 per cent during 1984-'85, the production figure had touched a record high of 50,000 tonnes during 1985-'86 which in turn was 49 per cent of the total world production.

8.07. Though India accounted for 49 per cent of the total production in 1985-'86 mainly owing to adversities in Brazil and Indonesia, the productivity of Indian pepper continued to be very low with an average yield of 194 kg per hectare. The average yield of pepper in Malaysia is found to be 1575 kg per hectare and that of Brazil 1201 kg per hectare followed by 515 kg per hectare in Indonesia*

8.08. In India the cultivation of pepper is mostly confined to the State of Kerala^{*} with a total cultivable area of 1.02 lakh hectares. The other pepper growing states are Karnataka and Tamilnadu. Kerala accounts for 96 per cent of the total cultivable area in the country. As far as production figures are concerned, Kerala

*Source: The Spices Export Promotion Council
Department of Agriculture, Government of Kerala.

accounts for 94 per cent of the total pepper production in India. Therefore, it can safely be concluded that the problems and prospects of Indian pepper are very much confined to the State of Kerala in the present context and the situation is to continue for another 20 years according to present plans and indications available.

8.09. During the field survey, it is found that more than 61.5 per cent of the pepper farmers are small scale farmers with less than one hectare cultivation. The Study, also reveals that 24 per cent of the farmers belongs to medium scale with cultivable areas of one hectare to three hectares and 14.5 per cent of them holds more than 3 hectares of pepper cultivation. This is the result of survey conducted among 1,112 farmers drawn randomly from all the important pepper growing districts of Kerala.

8.10. As regards the type of pepper cultivation, it is seen that 85 per cent of the pepper cultivation is undertaken in the form of intercrop in coconut and arecanut gardens and also as multiple crop, in cardamom and coffee plantations and lastly as an intercrop in homestead gardens. Only 15 per cent of the total

TABLE No: 8.1.

BREAK-UP OF SAMPLE OF CULTIVATORS
BY THE SIZE OF HOLDINGS

Size of holdings	Number of Cultivators interviewed	Percentage to the total sample
1. Small scale farmers with holdings upto 1 hectare	684	61.52
2. Medium Farmers with holdings from 1 to 3 hectares	266	23.92
3. Large Scale farmers with holdings above 3 hectares	162	14.56
T o t a l	1112	100.00

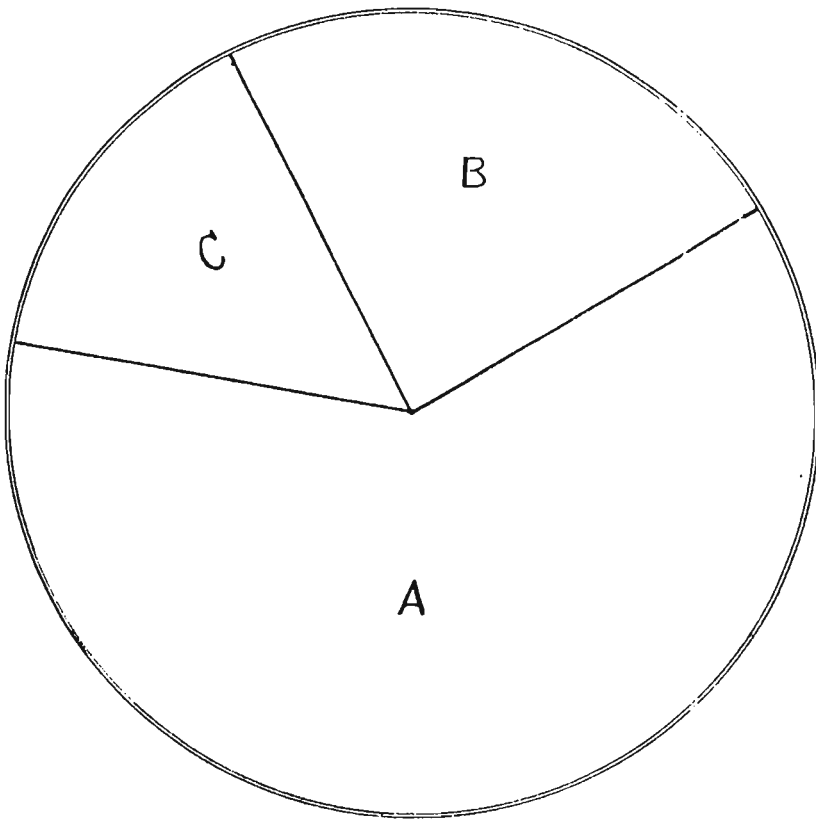
TABLE No: 8.2.

USERSHIP OF CHEMICAL FERTILIZERS BY
HOLDING SIZE

Holding size	Total Samples	Users	Percentage of Users
1. Upto 1 hectare	684	184	26.90
2. 1 to 3 hectares	266	180	67.66
3. Above 3 hectares	162	162	100.00

INTERVIEW WITH 1112 PEPPER FARMERS

- A - 684 small farmers with holdings up to 1 ha.
- B - 266 farmers with holdings between 1 ha. and 3 ha.
- C - 162 farmers with holdings above 3 ha.



pepper cultivation is undertaken on mono crop basis.

8.11. The popular varieties of pepper cultivated are Karimunda, Kalluvalli, Kottanadan, Uthirankotta and the hybrid variety Panniyur-I. It is estimated that the most popular hybrid variety, Panniyur-I, accounts for 10 per cent of the total pepper cultivation, mainly due to the efforts undertaken by Special Agricultural Development Units of the Government of Kerala.

8.12. During the field survey, it is seen that 47 per cent of the pepper farmers interviewed, do apply chemical fertilizers to their pepper gardens. Among the small scale farmers the percentage who apply fertilizer is 26.90. The per cent among medium scale farmers is 67.66 whereas it is 100 per cent among large scale planters. The popularity of organic manure among pepper farmers is really good as 66 per cent of the farmers interviewed, apply only the organic manure like compost and farmyard manure.

8.13. Again it is found that only 16.3 per cent of the small scale farmers apply plant protection chemicals for containing disease like root wilt, stemborrer, and nematode. But 93 per cent of the large

TABLE No: 8.3.

USERSHIP OF ORGANIC/FARMYARD MANURE
BY HOLDING SIZE

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1. Upto 1 hectare	684	508	74.26
2. 1 to 3 hectares	266	180	67.66
3. Above 3	161	142	87.65

TABLE No:8.4.

USERSHIP OF PLANT PROTECTION CHEMICALS
BY HOLDING SIZE

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-----	-----	-----	-----
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1. Upto 1 hectare	684	112	16.37
2. 1 to 3 hectares	266	202	75.00
3. Above 3 hectares	162	150	92.59

TABLE No:8.5.

BREAK-UP OF SAMPLE BY HOLDING SIZE
AND BY THE TYPE OF CHANNELS OF
DISTRIBUTION EMPLOYED

Holding size	Channel of distribution		
	Private only	Cooperative only	Both
1. Upto 1 hectare	512	172	42
2. 1 to 3 hectares	160	106	64
3. Above 3 hectares	102	60	76
Percentage Distribution*	69.60	30.40	16.36

*Total exceeds 100 on account of multiple answers

scale planters use plant protection measures for controlling the diseases in pepper gardens. The percentage of medium scale farmers applying plant protection chemicals is 76 per cent. Thus the total percentage of farmers applying plant protection chemicals to their pepper gardens, is only 42 per cent.

8.14. The important reasons for low productivity of pepper in Kerala could be attributed to the following:

- 1) Cultivation of large number of varieties of genetic stock.
- 2) Senile and unproductive vines in the pepper gardens.
- 3) Improper manuring.
- 4) Poor shade regulations.
- 5) Lack of plant protection measures.
- 6) Poor soil conservation measures.
- 7) Inadequate extension services.

8.15. It is found, that it requires at least 180 to 200 days from the seed formation in pepper vines to the final harvesting stage. It is also noted, that premeature harvesting of pepper by 20 days will reduce the yield by 15 to 18 per cent. The main harvesting period in Kerala is from November to February.

8.16. The important grade of pepper is found as black pepper which constitutes of more than 98 per cent of the total pepper exported from the country. The black pepper is processed by drying green pepper in the sun finally to have a moisture percentage of only 11. The other grades of pepper for export markets are (a) Green Pepper (b) White Pepper (c) Dehydrated Green Pepper (d) Pepper Oleoresin and (e) Pepper Oil.

8.17. The most popular item of export is Malabar garbled pepper. It constitutes 90 per cent of the total export market. Malabar garbled variety is classified as Grade-I and Grade-II, the main difference is on the percent of light berries present. The other export grades of black pepper are classified as the following:

- 1) Tellicherry garbled special extra bold
- 2) Tellicherry garbled extra bold
- 3) Tellicherry garbled

8.18. Garbling of pepper is made by thorough cleaning of black pepper with white oil, for removal of dust, foreign particles to make the pepper shine black. Because of the objections from importing countries, now white oil as garbling agent is being replaced with water.

8.19. Important pepper trade centres in Kerala are Kanhangad, Payannur, Tellicherry, Sultan's Battery, Kalpetta, Nilambur, Trichur, Perumbavoor, Kothamangalam, Palai, Moovattupuzha, Thodupuzha, Kattappana, Vandanmedu, Adimali, Mundakayam, Kanjirappally and Ranni. The important classification of traders in the marketing of pepper are (a) Small scale merchants (b) Large scale merchants and (c) Wholesale merchants or exporters. The following chart shows three modes of transactions by which the pepper from the farmer reaches the final export markets.

8.20. The estimated domestic consumption of pepper is 12,000 to 15,000 tonnes during a year. The main markets are Madras, Bombay, Calcutta, Kanpur, Amristar and Patna. It is also found that the small traders take pepper from Amristar to Afghanistan, and from Patna to Nepal.

8.21. In the late 1940's India's share in the world trade of pepper was 75%. But when countries like Indonesia, Malayasia, and Brazil took up pepper cultivation on commercial scale and started export, their contribution to the international markets increased resulting in the decline in India's share of export market. In

1973 the Indian share of world export was 32 per cent and the same declined to 26 per cent in 1975 and in 1984 India's share was only 21.3 per cent. But in the year 1984-'85 export value of pepper from India registered the record high value of 60.5 crores. And in 1985-'86 it touched an all time record of 172.8 crores. The following chart show the percentage of Indian Export Share in the world market.

8.22. Main export markets of Indian pepper have been traditionally USSR and socialist countries and also USA, UK and European countries of Italy, West Germany, Netherlands etc. But recently Indian export has found new markets in Canada, Middle East countries, United Arab Emirates, Kuwait, Soudi Arabia etc. During the year 1985-'86 Indian Exports to USA touched a record figure of 1440 tonnes. This increase is really substantial when compared with the 1,152 tonnes exported during 1984-'85. The export to USSR in the year 1985-'86 was 1,256 tonnes which was very much low when compared to the export figures of 14,093 tonnes exported to USSR in 1984-'85.

8.23. The export of Indian pepper is found very much affected by the production trends in the main pepper producing countries of Indonesia, Malaysia and Brazil.

The export analysis of Indian Pepper for the past 10 years reveals that it is centred around the traditional markets, USSR and the USA. In terms of quantity it is also found varying from 15,700 tonnes in 1970 to 37,600 tonnes in 1985-'86. The study from 1973 to 1985 reveal that the Indian export is around 20,000 tonnes on an average. Indian pepper export faces maximum competition from Brazil and Indonesia. The Study also revealed that the Indian export to USA was very low in 1981-82 with a turnover of 486 tonnes. The highest quantity of Indian export to USA was 14,040 tonnes made during 1985-'86. As regards to the exports to USSR, the maximum was in the year 1981-82 with a turnover 16,011 tonnes and the lowest in 1983-84 with a turnover of 7,636 tonnes. It was found that Indian export to USSR was around 11,500 tonnes on an average.

8.24. The Table.No.5.2.shows the export of Indian pepper to various countries for the period from 1979-'80 to 1985-'86. The pepper market both domestic and export was in the hands of private trade upto the year 1975-76 when Kerala State Cooperative Marketing Federation entered the market with a meagre turnover of 125 tonnes. Therefore, it could be concluded that till then the entire pepper trade both in **procurement** and

domestic and export market of pepper, private sector enjoyed monopoly. The important private traders of pepper are concentrated in Cochin, Alleppey and Bombay. As Cochin is the most important pepper trade centre in the Country, most of the exporters have their offices in Cochin.

8.25. The important exporters of pepper in Private sector are named below:

M/s.Kishore Shamji & Co., Cochin.
M/s.N.S.R.Mandradiar, Cochin
M/s.J.Mariwala & Sons, Cochin
M/s.Parekh & Bros. Cochin.
M/s.J.M.Gandhi Sons, Cochin
M/s.South India Produce Co., Cochin
M/s.Sidharth Spices Corporation, Cochin
M/s.Indian Commercial Co., Cochin
M/s.Tanna Exporters, Bombay
M/s.Harkisan Das & Co., Bombay
M/s.Pankaj Spices & Trading Co., Cochin
M/s.Allanna Sons Pvt. Ltd., Cochin
M/s.Brooke Bond India Ltd., Cochin
M/s.M.J.Exporters Pvt. Ltd., Cochin
M/s.M.C.Jacob & Co., Cochin.

8.26. During the survey the private trade was found to be of great help to the pepper farmers and also small traders. This was mainly because of the flexibility in the private trade system and the personal selling

efforts of the individuals concerned, in the private sector. The private traders effected even advance payment's to the growers in order to corner maximum stocks from them during harvesting periods. Moreover, the flexibility with regard to pricing and other market practices were very much found accepted by the farmers and traders. Because of the competition between private traders and among themselves, the farmer and the trader had maximum bargaining and better terms. The private traders willingness to work round-the clock during seasons was also found very much appreciated by farmers as they could complete the business without undue delay.

8.27. The private trade with its vantage position in offering maximum credit facilities could attract the farmers in a better way than the cooperative sector agencies. The private traders business - like relationship and personal contacts with the representatives of the importing countries also enable them to corner maximum export orders in preference to cooperative sector. The pepper traders have a very strong association known as India Pepper Spices Traders Association with its Head Office in Cochin. During the survey it was seen that most of the private traders operating from Cochin were affiliated to India Pepper Spices Traders Association and Spices Export Promotion Council.

8.28. The leading private pepper exporters are members of various trade panels formed for the promotion of spices trade in the Country. The representatives of private trade are also included in the governments sponsored export promotion tours and also nominated as delegates to the international pepper community annual meetings held in the member countries, Indonesia, Malaysia, Brazil and SriLanka.

8.29. The Study has proved that most of the trade **dealings** in Cochin, the most important trade centre for pepper, are carried out by the forward market system. The forward market commission constituted by the Government of India conduct as many as eight contracts in a year and they are called January, February, March, May, July, August, October and December contracts. The India Papper and Spices Trade of Association, Cochin is the authority conducting and controlling the forward market pricing in Cochin.

8.30. Hedging is mostly a shelter to the exporter/trader and no pepper farmer is being benefitted from the transactions in the forward market. There have been situations by which market price of pepper are manipulated to suit the conveniences of certain traders. There have been also instances of wide fluctuations of

market price of pepper which have created near panicky situations in the production centres and also among traders. But however, the forward market pricing in Cochin play an important role in the pepper trade and export.

8.31. The cooperative sector agency viz. the MARKETFED has come to the pepper procurement and export scene in the year 1975-'76 thereby ending the monopoly of private trade in Indian pepper. The MARKETFED is the apex body of 77 primary marketing societies spread in all the 14 districts of the State. More than 1,200 village level primary agricultural credit societies are affiliated to it. These primary agricultural credit societies act as the agents of the state federation both in the distribution of agricultural inputs like fertilizers and pesticides and also in the procurement of agricultural produce like pepper, cardamom, ginger, turmeric, copra, cashew etc.

8.32. The federation with its Head Office in Cochin have Branch Offices in the important cities of Delhi, Calcutta, Bombay and Matancherry from where domestic trade in pepper is conducted. The federation, with the board of directors elected from the primary marketing societies on the basis of a revenue district, have a

Managing Director nominated from the Government of Kerala who is the Chief Executive of the Federation. In addition to this State Government nominates four other persons thus making the total number of directors and the board of management as 19. The federation have pucca godown facilities in Calicut and Cochin from where most of the exports consignments of pepper are made ready. The godowns have sufficient storage capacity with garbling facilities. Market Federation has four regional offices in Calicut, Palghat, Kottayam and Alleppey and also district sales offices in all the 14 districts. There are three marketing managers, two deputy marketing managers in charge of procurement and distribution operations of the Federation. And four regional marketing managers and 22 officers attached in the 14 districts take care of the field activities of the Federation.

8.33. The federation started pepper procurement with a modest 125 tonnes in 1975-76 and during the period 1979-'80 the procurement figures touched a record level of 8,039 tonnes. The following table gives a detailed picture with regard to procurement and export figures of State Marketing Federation right from 1975-'76 to 1985-'86.

8.34. The federation collected pepper exclusively from the primary cooperative marketing societies and village level societies attached to it. Because of this, cooperative's share of pepper trade has gone up considerably. The federation also paid advance amount on 30 days interest free terms to primary cooperative marketing societies and village level societies to collect pepper interference from the farmers direct, without the interference of middlemen. This interest free advance facility helped the farmers who are members of the cooperative societies as they could draw money against the sale of pepper to the societies. It is found that 30.40 per cent of the farmers gives their produce to the marketing societies and service cooperative banks, whereas 69.60 per cent of the farmers depends on private sector for their marketing. The Study also revealed that 16.36 per cent of the farmers have transactions both with private trade and the cooperative sector with a view to bargain and obtain most favourable terms.

8.35. The federation's export is mainly to USSR and the socialist countries such as Rumania, GDR, Hungary and Poland. The United States of America, which is the largest importer of pepper in the world, is found beyond the reach of MARKETFED. This is mainly because of the

competition from private sector who could corner maximum export orders from the USA. The survey also reveals that some unpleasant trade relationship exists with USSR mainly due to the communication gap between USSR trade representatives and MARKETFED officials. Because of this misunderstanding USSR has stopped purchasing pepper from the Federation for the years 1984-'85 and 1985-'86. The trade sources and Spices Export Promotion Council confirm that there is the strained business relationship existing between USSR, and MARKETFED.

8.36. The officials of the Federation, including its Chairman used to undertake export promotion tours in foreign countries annually. It is seen that most of the promotion tours undertaken by the Federation have failed to bring in the desired results as there has been not much follow up actions. The Chief executive of the Federation is a member of the trade panel of the Spices Export Promotion Council, India Pepper Spices Traders Association and also an official of the Indian team for International Pepper Community deliberations every year. It is also gathered that the Federation Chairman is being nominated to the newly constituted Spices Board, by merging the existing Spices Export Promotion Council and the Cardamom Board, Cochin. The Chairman of the State Federation is a Member on the Board of Management

of NAFED, National Cooperative Development Corporation and Rubber Board.

8.37. There are 110 cooperative agencies, which are functioning at village level and taluk level, engaged in pepper trade. All the above marketing societies and the primary agricultural societies are found affiliated to the Federation. The survey reveals that cooperative sector is getting more grounds among the farmers of Idukki and Wynad districts mainly because of their offering fair price to the growers based on the market price prevailing at Cochin market.

8.38. Some of the farmers interviewed have expressed the feeling that cooperative officials are found available only during office hours whereas private traders work round the clock during seasons. The private trade at times even collect the produce from the farmers households in their attempt to corner maximum stocks when export orders are in hand. But cooperative societies are found taking the material from the farmers only when the stocks are brought to society premises.

8.39. At present Market Federation pass on advances for pepper purchases to the marketing society and primary agricultural credit societies through the district field offices. This process is time bound

and some of the secretaries have complained about undue delay in the realisation of money by them. The secretaries of the marketing societies and service cooperative societies also have expressed satisfaction over the present system of receiving pepper consignment in the Cochin office of the Federation. The practice followed in Cochin office is, that the stocks received from a particular society are kept separately and percent of driage, presence of foreign particles and also quality of pepper in general is assessed separately. By doing so the Federation officials are able to avoid complaints from dealer societies arising out of the mixing up of stocks from different societies. The societies are paid 90 per cent of the value by demand draft and the balance 10 per cent is paid by the Federation after final assessment of driage and other quality specifications.

8.40. The study also analyse the role of National Agricultural Cooperative Marketing Federation (NAFED) who entered the pepper market in 1978-'79. NAFED commenced procurement of pepper in 1978-'79 with a quantity of 179 tonnes. It could increase its procurement efforts gradually and in the year 1983-'84 a total quantity of 3,040 tonnes of pepper was procured. The

procurement figures by NAFED 1984-'85 was 1903 tonnes and 1985-'86 2,746 tonnes. The Table presents the procurement and export figures by NAFED during the period from 1978-'79 to 1985-'86.

8.41. NAFED is the apex body of 29 State Marketing Federations and 3,658 primary cooperative marketing societies in the country of affiliated to it. NAFED has its regional office in Cochin from where procurement and export operations are being coordinated. The study reveals that there is a close association between NAFED and MARKETFED which is very conducive to the pepper growers and trade. Since the two above agencies are in cooperative sector, there is so much of common grounds of operation and also cooperation. Since the Chairman of Kerala MARKETFED is on the Board of Management of NAFED, there is absolutely good relationship between the two agencies. NAFED also purchases pepper mostly from cooperative societies and primary marketing societies.

8.42 The total procurement by the cooperative sector was found varying from 10.57 per cent to 22.11 per cent of the total production in India. The table No.7.1.shows the procurement figures by cooperative sector from 1978-79 to 1985-'86.

8.43. Large number of primary marketing societies and the primary agricultural credit societies had reported that they could have procured more pepper. The important impediments mentioned were the following:

- 1) Lack of regular off take of the commodities procured by them.
- 2) Delay in the receipt of sale proceeds from the buyer.
- 3) Uncertainty regarding disposal of the stocks purchased by them.
- 4) Loss due to market fluctuations.
- 5) Inadequate field staff for procurement.
- 6) Inadequate finance for procureing and storage of stocks.
- 7) Severe competition from private trade.

8.44. The State Marketing Federation's activities were affected at times for want of money. This was because of Federation's prior commitment with other procurement activities and distribution functions. Own funds of the Federation got blocked up in the purchase of fertilizers and pesticides and also by the purchase of pepper in the regional and branch offices of the Federation. As advances were given to societies for

the purchase of pepper the Federation's funds were blocked till the societies delivered the goods against the advances received by them. The Federation's procurement operations were affected very badly in 1984-85 because of the losses it had on copra procurement undertaken at the instances of State Government and NAFED.

8.45. The trading operations between the State Marketing Federation and the primary marketing societies were not upto the expected level due to the following reasons:

- 1) Lack of regular off take by the State Federation for want of export orders.
- 2) Delay in remittance of finances by member societies.
- 3) Delay and uncertainty in purchase of stocks by the apex federation.
- 4) Inadequacy of finances from apex federation for undertaking pepper procurement on all days in season.
- 5) Lack of protection against losses due to price fluctuations.

8.46. The Federation's Chief Executive was drawn from the IAS Cadre for the first time in 1976-'77, since then the Federation had as many as six Managing Directors

during the last 10 year period. The frequent change of Managing Directors had also affected the functioning of the Federation very badly. No Chief Executive of the Federation had completed a full term of 3 years.

8.47. During the Study it was found that the levying of purchase tax of 7 per cent by the State Government on all purchases of pepper except for export, had considerably affected MARKETFED's and NAFED's export efforts. As per the government order, a firm could get exemption from payment of purchase tax if the purchases were only against export orders. Because of the fact cooperative agencies' accounts and trade transactions were an open book no adjustment what-so-ever was possible and the Federation was forced to pay purchase-tax on most occasions as it could not produce export orders, before the commencement of every purchase. Private trade was found to be getting on with the above formalities in a tactful manner.

8.48. The cooperative's share of export from 1975-'76 to 1985-'86 in relation to the total export of pepper during the same period was studied. The cooperative sector accounted for only half a percentage of total export market in the first year of operation in 1975-'76.

The cooperative's share got increased to a respectable 33.58 per cent of the total export of pepper from India in the year 1979-'80. Since then the percentage had started showing a declining trend and in the year 1985-'86 it was around 10.15 per cent. The export figures for the cooperative sector for the past five years revealed that no extra contribution was made by NAFED though it started export of pepper in a small way in 1980-'81. The total export by the cooperative sector was hardly 3,812 Metric tonnes against a record Indian total export of 37,521 Metric tonnes in 1985-'86. The Table No. 7.2. gives details of export by cooperative sector.

8.49. The study also brought out various reasons for the declining trend in export by cooperative sector.

- 1) Cooperative sector was found very much dependent on traditional markets of pepper in USSR and other socialist countries. It failed to tap the export markets in USA, the largest importer of pepper in the world.
- 2) The problems connected with the payment of purchase tax has discouraged the Federation's efforts on export during the last five years.

- 3) The frequent change of Managing Directors also affected the procurement and export operations.
- 4) Unprecedented competition from the private sector.
- 5) Lack of financial resources also affected the procurement and subsequent export efforts.
- 6) Cooperative agencies' failure in tapping the domestic demands had also affected the export performance.

8.50. From trade circles, it is gathered that the export duty on pepper which is Rs.3 per kg. is being increase to Rs.5 per kg. by Government of India from 1-4-1986 onwards. This increase, according to them, will affect certain exporters who has sold their produce in advance to foreign buyers.

8.51. As the cooperative sector had touched a respectable 33 per cent of the total export in 1979-'80, it could be said that with proper planning and monitoring right from field level operations to the Head Office, it could achieve 50 percentage of the total export within the next five years. As the Study revealed cooperation between the two cooperative sector agencies, NAFED and MARKETFED could help the cooperative sector to achieve the above goal in record time.

Recommendations:

Specific suggestions for increasing the productivity of Pepper:

8.52. The Study has identified causes of low productivity in pepper as the cultivation of a large number of variety of poor genetic stocks, high population of senile and unproductive vines in the gardens, unscientific inter/mixed cropping and non adoption of proper manuring, plant protection, poor shade regulation, lack of soil conservation measures and inadequate extension services. Therefore the strategies are called for immediate replanting of existing pepper gardens with hybrid, high yielding varieties. The following are the strategies for increasing the production of pepper by 3 to 4 per cent per annum and the productivity per pepper vine.

1. Expansion of cultivable Area:

In Kerala which accounts for 96 per cent of the area under pepper there is only limited scope for taking up the pepper cultivation as monocrop. Therefore, it is suggested to extend the pepper cultivation in the western ghats areas of Tamilnadu, Karnataka, Goa and parts of Maharashtra. At the same time, the existing potentialities of cultivating pepper as an

intercrop in coconut and arecanut gardens, coffee and tea plantations in Kerala, Karnataka and Tamilnadu may also be exploited to the maximum possible extent.

2. Urgent Replanting Measures:

Of the total pepper cultivation in 1.06 lakh hectares under pepper, 50 per cent of the pepper vines require urgent replanting. It is also suggested to take up replanting in gardens wherever under planting and gap fillings are noticed.

3. Rejuvenation through proper farm management practices:

In the existing pepper gardens even though about 50 per cent of the vines are in the productive state with high-yield potential, the yield obtained now is very poor due to poor farm management practices. Therefore, it is suggested to adopt scientific package of practices in pepper gardens which can enhance the yield of pepper vines substantially.

4. Planting material availability:

Most of the pepper gardens established during the IVth and Vth Year Plan periods for production of planting materials are still maintained with Panniyur-I variety, the performance of which is not found

satisfactory under shade in the inter/mixed cropping situations. Therefore, it is suggested to take up production of planting material of other improved varieties through rapid multiplication methods.

5. Publicity and Propaganda:

In order to transfer available technology to the pepper farmers, it is necessary to conduct field demonstrations in the gardens of pepper farmers so that they can get convinced of the efficacy and efficiency of scientific farming. It is also suggested the use of modern techniques of publicity through extension literature, instructional films, seminars, training programmes, etc.

6. Popularisation of Improved Processing Techniques:

In order to enable the pepper farmers to fetch better prices for the commodity and also to create more demand in the international markets, it is necessary to transfer improved post-harvest technology of processing to the farmers.

8.53. It is found that the trading operations between the apex State Marketing Federation and the constituent member primary marketing societies are

not yielding the desired results. Again the relationship between them are not cordial. To improve the functioning of the marketing societies the following suggestions are proposed:

- 1) The primary cooperative marketing societies should enroll maximum individual farmers so that they can develop direct link with farmers.
- 2) As the existing share capital is not adequate, efforts should be made for collection of additional share capital from affiliated societies and individual members and also by enrolling the new members.
- 3) The potentially viable marketing societies should be assisted by the State Marketing Federation and the NCDC for revitalisation. Similarly, good working marketing societies may be encouraged to strengthen their share capital for expansion and diversification of their existing business activities.
- 4) Each primary marketing society should chalk out well defined marketing programmes in its area of operations for bringing more farmer - growers thereby finding ways and means for marketing the marketable surplus either within the area of even beyond their jurisdiction.

- 5) The primary marketing society required to motivate the farmers to deliver all their surpluses only to the marketing societies. Well designed member training programmes should be organised by the primary marketing society for the benefit of their members in collaboration with MARKETFED and NAFED. The marketable surpluses thus procured should be sold by the societies themselves or passed on to the State Marketing Federation at the shortest possible time.
- 6) The primary marketing society should improve its contacts with the subsidiary societies and also the State Federation.
- 7) The primary cooperative marketing society should coordinate its activity with regulated market committees wherever available. They should see that timely elections to the board of directors are conducted to vitalise its activities.
- 8) Annual general meetings should be convened in time every year. The accounts of the marketing society should be maintained promptly, so that audit can be completed in time. It is also suggested to have separate accounts for important activities so that the profitability of each activity/division can be studied properly.

8.54. In order to improve efficiency of the State Marketing Federation the following suggestions are proposed:

- 1) The State Marketing Federation should bring in all the primary cooperative marketing societies in the State under its fold, so as to make it more meaningful and worthy of emulation by other institutions.
- 2) The State Federation should raise its own share capital and also from members to ensure better involvement and commitment from its members as 99 per cent of the existing share capital is from the State Government.
- 3) The State Marketing Federation may think of a master and all inclusive plan for commercial transactions in important agricultural commodities including pepper in the State. In other words, the State Marketing Federation should act as a leader for the procurement and marketing of all important agricultural produces like spices and cash crops like coconut and rubber. This strategy may help the Federation in obtaining a better control of the entire agricultural commodity markets.

- 4) The State Marketing Federation is suggested to utilise the services of the primary marketing societies and the village societies for their marketing and distribution activities. It should also have a policy of not making purchases from any sources other than cooperative societies.
- 5) Though primary cooperative marketing societies are the members of MARKETFED, there is no effective coordination between them. In order to have more linkage, the State Marketing Federation should provide guidance to the marketing societies in planning, preparation and implementation of their business plans and also help in the disposal of the commodities procured by them.
- 6) It is also suggested that the elections to the board of directors and also filling up of the existing vacancies should be made so as to maintain the democratic character of MARKETFED and to ensure representations to their constituent primary marketing societies at all the time.
- 7) As far as possible the Chief Executive of MARKETFED should be allowed to complete a minimum period of at least three years. It is also suggested to avoid deputation from government **services** so that own cadre of employees could be developed.

- 8) The experts appointed under the technical and promotional studies of NCDC scheme should not be employed to carry out day-to-day routine business. Their technical services should be utilised for providing guidance and assistance to primary marketing societies or other societies. The non utilisation or under utilisation of the services of experts is to be stopped on a war footing.
- 9) MARKETFED should provide market intelligence, guidance etc., and also monitor the working of the primary marketing societies.
- 10) MARKETFED should take concrete steps to coordinate its activities with other apex cooperative federations and also with the commodities boards such as Rubber Board, Coffee Board, Cardamom Board and Spices Export Promotion Council.
- 11) MARKETFED should also streamline the financial planning, budgetary system and cash management. It is also suggested that the audit should be upto date by engaging the services of chartered accountants.

8.55. In order to improve the existing activities of MARKETFED, especially in procurement and export fronts, the following suggestions are made:

- 1) A separate export cell to take care of all activities connected with procurement and export of spices should be set up under the administrative control of the Marketing Manager, Spices. The above cell will have to monitor all activities right from pepper procurement to final documentation of export. Existing facilities of spices division should be expanded so as to take care of the increased volume of work connected with procurement, grading, quality control and pre-shipment inspection procedure, preparation of export invoices and other connected work. It is also suggested to have a full-time shipping officer to coordinate various activities connected with export documentation, quality control work, inspection procedure customs clearance and related activities.
- 2) To ensure remunerative prices to pepper farmers and also to champion the causes of pepper market, Marketing Federation should continue to do the procurement business, both in season and in

off-season. Marketing Federation should not withdraw from the market for want of export orders in hand. In order to achieve the target of 50 per cent of procurement of pepper in the country, both the MARKETFED and NAFED should give more importance to the development of domestic market for pepper.

- 3) To tap the fullest market for domestic consumption of pepper, the existing branches of MARKETFED in Delhi, Bombay and Calcutta should be revitalised and expanded to handle the increased work load envisaged. Only by finding new domestic markets for pepper the Federation can hope to handle the target of 50 per cent of the pepper procurement in the country. Similarly NAFED is also suggested to revitalise and expand its existing activities in procurement and export of pepper.
- 4) The Federation should be in a position to provide 30 days interest free advances to the marketing societies and the primary agricultural societies all the time for increasing the cooperative share of pepper procurement.
- 5) The regional marketing managers and field officers of the Federation who are in charge of procurement

operations should be motivated to gear up their efforts in making the procurement programme of the Federation a success. They should also be provided with cash awards and other incentives for making them work even beyond the office hours so as to render maximum services to primary societies and pepper farmers during season as is done by the private trade.

- 6) The Federation should also conduct meetings of primary marketing societies and credit societies engaged in pepper trade both before the commencement of season and at least once during season to discuss and implement various marketing programme jointly taken. It is also suggested that these meetings are attended by the Chairman, Managing Director and also by the concerned directors from the districts along with the officers of MARKETFED. Such meetings will not only enhance the morale of all involved but also help to iron out misunderstandings.
- 7) To boost the morale of the cooperative societies and also their members, it is suggested that the Federation should not purchase from any source other than the cooperative sector.

- 8) As the pepper godowns in Calicut are spread over various places in and around Calicut, it is suggested to have a centralised place for pepper storage and garbling operations. Similarly it is suggested to increase the existing facilities in its Cochin Branch office, and office godowns to handle and store 5,000 tonnes of pepper at any point of time by acquiring new godown facilities in Willington Island. The Federation can very well vacate the rented godowns in Alwaye and near by places.
- 9) To have a through knowledge of export markets of pepper and also production trends in various other pepper producing countries, it is suggested to have a well developed management information system which can provide market intelligence including competitors activities even to the field staff working at district levels. The management information system will also provide the senior officers of MARKETFED necessary information to take timely decision which is very essential for reaping optimum benefit from export market operations.

- 10) Now the export promotion tours are under taken only by the Chairman and Managing Director. Since the possibility of Managing Director getting replaced quickly, there is no continuity of proper directions in the present export market operations. The personal contacts with the trade representatives in the important countries are also lost as the top executives are changed very frequently. Moreover, the managing directors are drawn from Central Services they may not have the technical expertise in the marketing operations or export market activities of pepper. Therefore, it is suggested that the Marketing Manager, Spices, is also allowed to accompany the Managing Director in export promotion tours of the potential or actual foreign markets.
- 11) The Chairman of the Marketing Federation is connected with the management of important organisations like NCDC, NAFED, Spices Board and Rubber Board and as such MARKETFED could utilise the good offices of the Chairman for increasing the marketing activities. Again, these contacts and connections of the Chairman could be successfully utilised to lift the Federation to the

position of a market leader in the procurement and marketing of pepper. Since there are two cooperative agencies of MARKETFED and NAFED operating in the pepper market of Kerala they should jointly discuss and evolve common marketing plans so as to maximise the cooperative's share of the market and also to avoid unhealthy competitions between them. It is also suggested to have frequent joint meetings of the officials of MARKETFED and NAFED to explore new markets for pepper and also to find new areas of cooperation and promote mutual confidence.

- 12) To find out permanent solutions to the problems of purchase tax surcharge etc., the Federation should act as a catalyst in bringing together the private trade, the Spices Export Promotion Council, and concerned Government of India and State Government officials in a common forum to discuss and arrive at solutions which could be implemented together by all of them.
- 13) The Federation is suggested to have a separate fund for pepper procurement under the concessional finance from Government of India and also NAFED at the instance of NCDC and NAFED. It is suggested

that this fund is exclusively set apart for procurement and export of pepper. As NCDC and NAFED have quite a lot of concessional finance available for export promotion, Marketing Federation as the largest exporter of spices in the country should get adequate concessional finance from the above funding sources.

- 14) The Federation officials, right from the Managing Director to the field officers at district level should be given all possible training and exposure to export marketing, price fixation, quality control measures, export promotion and various activities connected with international trade and export.

8.56. In order to improve the export efforts of State Cooperative Federations, the National Cooperative Development Corporation is suggested to take the following measures:

- 1) One of the main problems experienced by the State Federation in exporting agricultural commodities are higher than the international market prices. Lack of parity in prices is attributed to the low productivity and high domestic demands. To retain international markets in times of shortages

and control rise in domestic price, export of a minimum quantity is essential as a balancing factor.

- 2) To meet such a situation, it is felt that creation of a price "Stabilisation" fund by the exporting co-operatives is necessary to help the State Federations to meet the losses arising out of international price fluctuations and to stay in the business.
- 3) Export trade is a complex one and therefore, needs the services of professionals with requisite expertise for survival. Owing to several reasons, State Federations have not been able to attract and retain the necessary managerial talent required for handling the sophisticated work involved in export trade. Therefore, it is necessary that NCDC should encourage the cooperatives to employ knowledgeable and experienced personnel who have the necessary skill to augment export trade.
- 4) A separate cell may be created for export trade by the exporting cooperatives. The NCDC should lay down the qualifications and recruitment procedure and participate in the recruitment process to ensure the selection of right type of personnel.

- 5) The Indian exporting cooperatives do not come into contact with foreign buyers. They do not have adequate knowledge of the markets abroad. The foreign buyers are not aware of the potential of the Indian cooperative sector. It is, therefore, suggested that delegations of cooperative professionals may be sent abroad for export promotion campaigns. The NCDC has to subsidise 50 per cent of the expenditure for such visits.
- 6) Indian exporting cooperatives having offices abroad will be useful to promote the products of cooperatives. NAFED, a recognised export house, should open offices abroad with the assistance of NCDC to help the Indian cooperatives.
- 7) NCDC may ensure that NAFED is convening atleast twice a year, a meeting of the Chief Executives of the State Federations and other exporting cooperatives to review the progress made in achieving the targets and promote better understanding with its constituents.
- 8) NCDC may advise NAFED to maintain a pool of top professionals with expertise in export trade and lend their services to assist the State Federations organising and running an export cell.

8.57. Steps to be taken by the Government of India for improving export of agricultural commodities like pepper:

- 1) The present system of announcing the export policy by the Government of India every year, needs review at least in the case of agricultural commodities. To maintain contact with the foreign markets, one should have continued trade links even during the periods of shortages. Export during the periods of surplus production and withdrawing from the export market during the periods of shortages will not help to build a sustained market. It is, therefore, suggested that government may announce export policy applicable for a period of three years for agricultural commodities indicating approximate quantity to be exported each year.
- 2) The taxation policy followed by the State Governments are not helpful to the cooperatives, for example, although the purchase made for export are exempted from purchase tax, very often the cooperatives are not able to avail this facility due to procedural rigidities and unbusiness like conditions. The matter needs to be taken up with the State Government to change the conditions

suitably to enable the cooperatives to utilise the benefits.

- 3) A separate export promotion council for cooperatives should be set up for agricultural commodities. This body should provide market intelligence, regulate the exports, undertake market development etc. State Cooperative Federations should be given representation in the export promotion councils, commodity boards etc.
- 4) The policy of canalising agricultural commodities needs to be given fresh look. Since neither the State Trading Corporation has any experience in handling agricultural commodities nor the infrastructure, the right agency for canalising agricultural commodities is the NAFED. It is also suggested that MARKETFED may also be given suitable representation along with NAFED in the policy making bodies of Government of India so as to take care of the interests of cooperatives while formulating export policies.
- 5) The infrastructural facilities like shipping services, freight charges, port handling facilities, ware-housing facilities and telecommunications services need to be improved in and around Cochin Port, which handles more than 90 per cent of pepper export from India.

- 6) In order to improve the working of cooperatives engaged in export marketing, the government should reduce the procedural delays relating to import licencing, customs formalities, export incentives, finance for exports, settling of claims of foreign buyers and amendment in the Letter of Credit.

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PEPPER COOPERATIVE SECTOR SURVEY

Q U E S T I O N N A I R E

- (1) Name and address of the Service Cooperative Bank/
Marketing Society
.
.
- (2) Since how long are you in the pepper procurement
business?
.
- (3) Total area under cultivation within the jurisdiction
of PACS or Marketing Societies
.
- (4) Total number of pepper cultivators
.
- (5) Average yield per pepper vine
.
- (6) Total quantity procured during the year (average)
.
- (7) Marketing facilities available
.
.
.
- (8) Is there any cooperative channel for pepper trade
in your area?
.
- (9) If yes, whether it is Marketing Federation or
NAFED or both.
.

- (10) State your preference for (a) Consignment Stockist System or (b) Outright Purchase System by the Federation: (Give reasons.)
(a) or (b)
.
.
- (11) Incidence of private trade in your area of operation
.
- (12) State the farmers preferences in general to co-operative sector or private trade with reasons
.
.
.
- (13) Trade practices of the privateers
.
.
.
- (14) Are purchases made against cash payment
.
- (15) If purchases are not made against cash payment, what method is available
.
.
- (16) Are there any warehouse/storage facilities in your area of operation? If not, whether you depend on State Warehouse/private godown facilities.
.
.
.

- (17) Existing banking facilities Nationalised or service cooperative banks
.....
.....
- (18) State your preference for nationalised or cooperative banks with reasons
.....
.....
.....
- (19) State, PAC's/Marketing Societies's preference for cooperative channel or private trade with reasons
.....
.....
.....
- (20) In your opinion which is the most dependable source for ensuring fair price for the purchase, state with reasons
.....
.....
.....
- (21) State in your opinion whether the existing infrastructure of Marketing Federation/NAFED is sufficient to meet the future needs of the trade
.....
.....
.....
- (22) If not, state your suggestions for improving upon the efficiency in the present system of Kerala State Cooperative Marketing Federation NAFED
.....
.....
.....

QUESTIONNAIRE FOR CULTIVATORS OF PEPPER

- (1) Name and address of the cultivator

- (2) Extent of cultivation-State whether,
(a) Less than one hectare
(b) Between 1 and 3 hectares
(c) 3 and above
- (3) How long are you in the pepper cultivation?
 Years months
- (4) Total number of vines in your pepper garden
 now
- (5) Type of cultivation: -
(a) Mono crop
(b) As inter-crop in coconut or
 arecanut gardens
(c) As inter-crop in coffee or
 cardamom or rubber plantations
(d) Homestead gardens
- (6) Average yield per pepper vine in a year
- (7) Total quantity of pepper harvested during the
 year
- (8) State whether fertilizers applied to pepper
 garden or not.
 Yes No

- (9) If the answer is yes, state the tupe of ferti-
lizers used
.....
- (10) Are you a member of a (10.1) Primary Cooperative
Marketing Society or (10.2) Primary Agricultural
Credit Society.
Yes No
- (11) If the answer is yes, in which one and since
how long a member
- (12) State how the pepper produced is sold to
(if more than one source mention all and the
share of each source)
(a) Village Trader
- (b) Small scale trader
- (c) Cooperative society
- (13) Are payments received in cash and when
- (14) State your preference to cooperative sector or
private trade with reasons
- (15) Which sector is dominant in your area? Cooperative
or Private. Give the share of each in percentage.
Cooperative
- Private

- (16) Terms of payment by private agencies
- (a) Advance payment
 - (b) Cash down payment
 - (c) Payment at a later date (specify)
- (17) Whether payment is made on the market price report in the daily newspaper
- Yes No
- (18) Are warehouse/storage facilities available easily?
.....
- (19) Whether plant protection measures are applied or not?
- Yes No
- (20) State whether organic manure is applied to pepper garden
- Yes No
- (21) In your opinion which is the most dependable source for ensuring fair price for the produce? State with reasons.
.....
.....
- (22) State in your opinion whether the services of the Marketing Federation/the National Agricultural Cooperative Marketing Federation are sufficient to meet your requirements?
.....
.....
- (23) If the answer is no to above, state your suggestions for improving upon the efficiency of the MARKETFED, the NAFED operations in your area
.....
.....

THE KERALA STATE COOPERATIVE MARKETING FEDERATION
LIMITED, COCHIN-682016

LIST OF MEMBER SOCIETIES

<u>Sl. No.</u>	<u>Name and address of the societies</u>	<u>District</u>
1.	The North Malabar Dist. Coop. Supply & Mktg. Society Ltd., No.F.1103, Calicut-1.	Calicut
2.	The Badagara Taluk Primary Coop. Mktg. Society Ltd., No.F.1783, Kakkattil, Via-Nadapuram, Kozhikode.	"
3.	The Kerala Malanadu Karshaka Produce Coop. Marketing Society Ltd. No.F.1777, Thiruvampadi, Kozhikode.	"
4.	The Quilandy Taluk Agrl, Coop. Mktg. Society Ltd. No.F.1786, Perambra, Kozhikode	"
5.	The Kozhikode Dist. Coop. Rubber Mktg. Society Ltd. No.F.1879, P.B.No.161, Kozhikode	"
6.	The Kottacherry Coop. Mktg. Society Ltd. No.L.354, Kottacherry, Kanhangad, Cannanore	Cannanore
7.	The Nileswaram Coconut Growers Coop. Mktg. Society Ltd. No.FF.95, Nileswaram, Cannanore	"
8.	The Kasaragod Fruits & Vegetables Coop. Mktg. & Processing Society Ltd. No.C.937	"
9.	The Kasaragod Coop. Mktg. & Processing Society Ltd. No.FF,104, P.O.Vidyanagar, Kasargod, Cannanore	"

Sl. No.	Name and address of the Societies	District
10.	The Regional Agro-Industrial Development Cooperative Ltd. No.1 Near Civil Station, Cannanore-670002	Cannanore
11.	The Cannanore Dist.Coop.Rubber Mktg. Society Ltd. No.C.303, Taliparamba, Cannanore.	"
12.	The Cannanore Taluk Coop.Coconut Mktg. Society Ltd.No.LL.244, Kannothumbal, Cannanore	"
13.	Hosdurg Coop.Rubber Mktg. Society Ltd. No.C.325, Chittarakkal, Nileswar, Cannanore	"
14.	The Tellicherry Taluk Agrl. Coop. Mktg. Society Ltd. No.LL.235, Mattannur	"
15.	The Kasaragod Agriculturists Coop. Mktg. Society Ltd. No.LL.174, Nirchal, Cannanore	"
16.	The Manjeri PCC Mktg. Society Ltd. No.F.1187, Manjeri, Malappuram.	Malappuram
17.	The Tirur Taluk Arecanut Coop. Mktg. Society Ltd. No.F.1785, Thalakkadathur, Via-Tirur, Malappuram	"
18.	The Ponani PCC Marketing Society Ltd. No.F.1252, Ponani, Malappuram	"
19.	The Perinthalmanna Coop.Mktg. Society Ltd. No.F.1179, Perinthalmanna, Malappuram.	"
20.	The Ernad Taluk (Malappuram Dt) Rubber Growers Coop.Mktg. Society Ltd. No.D.1945, Nilambur	"
21.	Trikandivur PCC Marketing Society Ltd. No.F.1254, PB No.30, Via-Tirur, 676101, Malappuram Dt.	"

<u>Sl. No.</u>	<u>Name and address of the Societies</u>	<u>District</u>
22.	Kondotty Block Agrl.Mktg. & Processing Coop. Society Ltd. No.M.7, Kondotty	Malappuram
23.	Nilambur Coop.Agrl.Mktg. & Processing Society Ltd. No.M.296, PO. Nilambur	"
24.	The Kumaranellur Coop.Mktg. Society Ltd. No.F.1173, Kumaranellur, Palghat.	Palghat
25.	Kozhinjampara Agricultural Mktg. Society Ltd. No.613, Kozhinjampara	"
26.	The Ottappalam Coop.Mktg. Society Ltd. No.P.526, Ottappalam	"
27.	The Alathur Coop. Mktg. Society Ltd. No.P.559, Bank Road, Alathur	"
28.	The Palghat Coop. Mktg. Society Ltd. No.F.1078, Palghat.	"
29.	The Palghat Dist. Coop. Rubber Mktg. Society Ltd. No.P.561, College Road, Palghat.	"
30.	The Mannarghat Coop.Mktg. Society Ltd. No.F.1176, Mannarghat, Palghat.	"
31.	The Trichur Fruits & Vegetable Mktg. Coop. Society Ltd. No.4076, Trichur.	Trichur
32.	The Trichur Taluk Arecanut Mktg. Coop. Society Ltd. No.R.169, Kokkalai	"
33.	The Trichur Tapioca Mktg. Coop. Society Ltd. No.3494, Palace Road, Trichur.	"

Sl. No.	Name and address of the societies	District
34.	The Trichur Tapioca Mktg. Coop. Society Ltd. No.3494, Palace Road, Trichur.	Trichur
35.	The Lemon-grass oil Mktg. Coop. Society Ltd. No.3200, Kuruppampady, Ernakulam.	Ernakulam
36.	The Kothamangalam Coop. Mktg.Society Ltd. No.E.137, Kothamangalam, Ernakulam.	"
37.	The Alwaye-Kunnathunad Coop. Rubber Mktg. Society Ltd. No.E.221, Perumbavoor, Ernakulam.	"
38.	The Arakkunnam Coop. Rubber Mktg. Society Ltd. No.E.165 Arakunnam, Via-Mulanthuruthy, Ernakulam.	"
39.	The Muvattupuzha Taluk Coop. Rubber & General Mktg. Society Ltd. No. 3904, Muvattupuzha, Ernakulam.	"
40.	The Palai Mktg.Coop.Society Ltd. No.4214, Palai, Kottayam	Kottayam
41.	The Monippally Mktg. Coop. Society Ltd. No.4052, Monippally, Kottayam	"
42.	The Ponkunnam Coop.Mktg. Society Ltd. No.3945, Ponkunnam, Kottayam	"
43.	The Kaduthuruthy Coop.Rubber Mktg. Society Ltd. No.1397, Kaduthuruthy Kottayam.	"
44.	The Kottayam Dt.Cocoa Mktg. & Processing Coop.Society Ltd. No.K.667, Nagambadam, Kottayam Dt.	"
45.	The Kanjirappally Coop.Rubber Mktg. Society Ltd. No.K.157, Kanjirappally PO, Kottayam.	"

Sl. No.	Name and Address of the societies	District
46.	The Meenachil Rubber Mktg. & Processing Coop.Society Ltd. No.K. 118, Palai, Kottayam Dt.	Kottayam
47.	The Pinapple Coop. Mktg. Society No.K.454, Amayannor, Kottayam.	"
48.	The Kattapana Mktg. Coop. Society Ltd. No.K.328, Kattapana, Idukki.	Idukki
49.	The Thodupuzha Taluk Coop.Rubber Mktg. Society Ltd. No.222, Thodupuzha, Idukki.	"
50.	The Devikulam Taluk General Mktg. Coop.Society Ltd. No.1-156, PO Adimali.	"
51.	The Santhampara Cardamom Mktg. Coop. Society Ltd. No.K.394, Santhampara, Idukki.	"
52.	The Thodupuzha Taluk General Mktg. & Coop. Society Ltd. No. U.174.	"
53.	The Sherthalai Taluk Coconut Mktg. Coop.Society Ltd. No.4218, Sherthalai, Alleppey Dist.	Alleppey
54.	The Karthikapally Taluk Mktg. Coop. Society Ltd. No.A.147, Haripad, Alleppey.	"
55.	The Mavelikara Coconut Mktg. & Processing Coop. Society Ltd. No.A.59, Mavelikara, Alleppey.	"
56.	The Kuttanad Mktg. Coop.Society Ltd. No.A.194, Mankompu PO, Alleppey Dt.	"
57.	The Sherthalai Taluk Fruits & Vegetable Mktg. Coop. Society Ltd No.A.750 Sherthalai PO, Alleppey.	"

Sl. No.	Name and address of the societies	District
58.	The Konni Mktg. Coop. Society Ltd. No.Q.434, Konni, Pathanamthitta	Pathanamthitta
59.	The Ranni Marketing Coop.Society Ltd. No.Q.296, Ranni PO, Pathanamthitta.	"
60.	The Ezhamkulam Agrl.Mktg. Coop. Society Ltd. No.2205, Ezhamkulam, Parakode, Pathanamthitta Dt.	"
61.	Thiruvalla Taluk Mktg. Coop.Society Ltd. No.A.261, Eraviperoor, Pathanamthitta.	"
62.	The Pandalam Coop.Rubber Mktg. Society Ltd. No.A-268, Pandalam, Pathanamthitta.	"
63.	Thiruvalla Taluk Coop.Rubber Mktg. Society Ltd.No.A.253, Eraviperoor	"
64.	Chengannur Taluk Mktg. & Processing Coop.Society Ltd. No.A.340, Karakkad, PO Chengannur, Pathanamthitta.	"
65.	Perinad Coconut Processing & Mktg. Coop.Society Ltd.No.Q.47, Quilon.	Quilon
66.	Sasthamcotta Coconut Processing & Mktg. Coop.Society Ltd.No.Q.213, Sooranad, Quilon Dt.	"
67.	The Coconut Processing & Mktg. Coop.Society Ltd.No.4291, Chavara, Quilon.	"
68.	The Ezhukone Coconut Processing & Mktg. Coop.Society Ltd. Q.75, PO, Ezhamkulam, Quilon Dt.	"
69.	Pathanapuram Taluk Marketing Coop. Society Ltd.No.2635, PO.Punalur, Quilon.	"

Sl. No.	Name and address of the societies	District
70.	Quilon Processing & Mktg. Coop. Society Ltd. No.Q.74, Kadappakada, Quilon.	Quilon
71.	Trivandrum Taluk Mktg. & Processing Coop.Society Ltd., No.T.886, P.O.Kazhakuttam, Trivandrum-695582	Trivandrum
72.	Nedumangad Taluk Mktg. & Processing Coop.Society Ltd. No.T.383, Nedumangad.	"
73.	Neyyattinkara Taluk Marketing & Processing Coop.Society Ltd.No.T.730, Neyyattinkara, Trivandrum.	"
74.	Government of Kerala, Trivandrum.	"
75.	Cherayinkil Taluk General Mktg. & Processing Coop.Society Ltd. No.T.934, Azhor PO, Trivandrum.	"
76.	North Wynad Cooperative Rubber & Agri.Mktg.Society Ltd. No.C-348, Manantoddy, Wynad Dt.	Wynad
77.	The Vythiri Taluk Coop.Rubber & Agricultural Mktg. Society Ltd. No.W-5, Kalpetta, Wynad Dt.	"