

Liberalisation, Gender and Livelihoods: the cashew nut case Working Paper 3



photo: Steffen Cambon

India Phase 1: Revisiting the Cashew Industry

**Mridul Eapen, Centre for Development Studies, Trivandrum
J. Jeyaranjan, Institute for Development Alternatives, Chennai
K.N. Harilal, Centre for Development Studies, Trivandrum
Padmini Swaminathan, Madras Institute for Development Studies, Chennai
Nazneen Kanji, IIED, London**

December 2003

Acknowledgments

The core team wishes to thank all the numerous people we interacted with and who directly and indirectly contributed to this study: farmers, traders, processors, workers, commission agents, government officials, cashew experts, researchers and activists.

We are grateful for the project assistance we received from Ms. Tina Sebastian and Mr. R. Puliwara (CDS) and Ms. Daya J. (SAKHI). Thanks to Ms. Sandhya Mhatre, Dept of Economics, University of Bombay, who undertook the Maharashtra part of the study and Narasimha Reddy who assisted with the work in Andhra Pradesh.

Thanks are due to Dr. Narasimha Reddy (Professor of Economics, Central University, Hyderabad) and Dr. M Vijaybaskar (Faculty, MIDS) for their comments on an earlier draft of the report as well as to all the participants of the workshops we held in Delhi and in Trivandrum. Last but certainly not least, thanks to Fiona Hall for her editorial assistance.

Contents

SUMMARY.....	4
1. INTRODUCTION	6
2. FRAMEWORK AND RATIONALE FOR THE STUDY	7
2.1 VALUE CHAIN ANALYSIS	8
2.2 ANALYSIS OF SOCIAL ‘EMBEDDEDNESS’	9
3. THE CASHEW INDUSTRY IN INDIA: SOME BACKGROUND.....	11
3.1 INDIA IN THE GLOBAL CONTEXT	11
3.2 DOMESTIC PRODUCTION AND CONSUMPTION.....	12
3.2 THE INDIAN PROCESSING INDUSTRY	15
3.3 TRENDS IN EXPORTS OF KERNELS	18
3.4 SUMMARY	20
4. PRELIMINARY FINDINGS FROM TAMIL NADU, KARNATAKA, ORISSA, MAHARASHTRA AND ANDHRA PRADESH.....	21
4.1 TAMIL NADU	22
4.2 ORISSA	28
4.3 KARNATAKA	30
4.4 MAHARASHTRA ⁶	33
4.5 ANDHRA PRADESH	35
4.6 SUMMARY	37
5. A CASE STUDY OF THE CASHEW PROCESSING SECTOR	38
5.1 CASHEW CULTIVATION IN KERALA	39
5.2 WORKING CONDITIONS IN KANYAKUMARI, TAMIL NADU	50
6. CONCLUSIONS.....	53
6.1 INTERNATIONAL TRADE.....	53
6.2 THE DOMESTIC MARKET	53
6.3 CASHEW CULTIVATION.....	54
6.4 PROCESSING	54
ENDNOTES.....	56
REFERENCES.....	58
APPENDIX 1: THE MYTH OF INDIA’S EXPORT BOOM.....	61

Summary

Globalisation processes and economic liberalisation are leading to fundamental changes in the livelihood sources of different groups all over the world. This report forms part of a research project on the cashew sector in India and Mozambique. The project is responding to a policy concern that more empirical work is needed to understand the effects of trade liberalisation on poverty and gender equality and to identify approaches which enhance the livelihoods of disadvantaged groups.

India is one of the world's largest producers of raw cashew nuts, the largest importer of raw nuts (it imports most of Mozambique's marketed production) and the largest exporter of processed cashew nuts. Cashew provides an important source of income for smallholder farmers and for low-income groups, particularly women, who are the overwhelming majority of workers in the processing sector. This report presents the findings from the mapping phase of the project in India (Sept 2002–Dec 2003). The objective of this phase was to map the export supply chain(s) and to identify changes which are linked to greater liberalisation through the 1990s.

India's share in the international cashew market has been reduced over time through the entry of other countries, most recently Vietnam. International prices of raw cashew and processed kernels are declining and the domestic resource cost of earning foreign exchange has increased; thus, terms of trade are deteriorating. Although international markets are still expanding, our as yet limited research suggests that they are dominated by lead buyers with considerable profits concentrated at the European and US ends of the cashew production chain. At the same time, quality requirements and standards are increasingly applied to suppliers. An examination of the secondary data on cashew production and trade revealed that within India there is a growing domestic market for cashew kernels which may account for almost 50% of the total market. Many states have increased cashew cultivation but the dependence of the processing industry on imported raw nuts has increased over time.

There are huge differences in the way each state within India has organised, promoted and facilitated cashew cultivation and harvesting, with consequences for the degree to which cashew supports sustainable livelihoods. The benefits to small farmers and workers in the processing sector also vary greatly, depending on the type of cultivation (individual smallholders, plantation and encroached forest land) and processing (cooperative, cluster, private and government factories). Both women and men are active at the local level and cashew can make a particularly important contribution to livelihoods in areas which are poorly endowed in natural resources. Possible examples of good practice have been identified which require further investigation.

Liberalisation has been accompanied by the evolution of cashew processing activities from factory to non-factory or 'cottage' and commission-based processing. Labour standards and working conditions seem to be deteriorating, particularly for women, who represent the overwhelming majority of workers. In Kerala, the hub of the cashew industry in India, most public sector factories have closed and in private factories, employers have 'seasonalised' and 'informalised' workers. Gender-based inequalities mean that women work for even lower wages than men in poor and health-threatening environments.

Our research framework, combining value chain analysis with exploring the social aspects of economic activity, has proved useful in understanding why potential benefits fail to reach poor, less powerful groups and why particular enterprises are excluded. A key challenge for our future work is to assess whether there are policies and interventions in different parts of the chain which can help the Indian cashew industry meet international requirements while simultaneously helping to improve livelihoods, wages and working conditions within the industry.

1. Introduction

Globalisation processes and economic liberalisation are leading to fundamental changes in the livelihood sources and strategies of different groups all over the world. IIED, in collaboration with partners in Mozambique and South India, has developed a research project on gender, markets and livelihoods in the context of globalisation. The project responds to a policy concern that more empirical work is needed to understand the effects of economic liberalisation on poverty and gender equality. The research focuses on the cashew sectors in Mozambique¹ and India. India is one of the world's largest producers of raw nuts, the largest importer of raw nuts (it imports most of Mozambique's marketed production) and the largest exporter of processed cashew nuts. There is a growing market for cashew nuts (kernels) in Europe and the USA, with new markets opening up in other parts of the world, for example, Russia and Japan. On the other hand, countries such as Vietnam are currently increasing their supply of cashew nuts for the international market. Unlike the case with many agricultural products, there are no import tariffs on cashew nuts in Europe and the US. Thus the study deals with the context of liberalisation and the global restructuring of food product chains, rather than the issue of double standards with regards to protectionism or subsidies in the North. In particular, it focuses on the consequences of this changing global context for the livelihoods of farmers and workers at the base of the cashew supply chain.

Cashew provides an important source of income and food security for smallholder producers and for low-income groups, particularly women, who work in the processing sector in both Mozambique and India. The aims of the research project are to understand the changes brought about by liberalisation and to identify approaches and initiatives that enhance the livelihoods of poor women and men, with emphasis on overcoming the constraints women face due to their gender. When both country studies are completed, it will be possible to draw out the linkages between the two and to assess how liberalisation in both countries in the South has affected the contributions of cashew to the livelihoods of less powerful groups involved in cashew production and processing.

This report presents the findings from the mapping phase of the project in India. This first phase began in October 2002, with funding from the Ford Foundation, India and later, additional funding from the Swiss Agency for Cooperation and Development (SDC). In this phase, the objective was to map the export supply chain(s) and to identify changes which are linked to greater liberalisation through the 1990s and the consequences for different actors in the industry. We were also able to identify different patterns of production, processing and marketing which require further study; some might well provide greater benefits for disadvantaged groups, particularly for women who comprise the overwhelming majority of workers in the processing part of the industry. One of the primary objectives of the next phase of the study is therefore to identify policies and interventions which would assist the cashew industry to face international challenges while simultaneously helping to face international

¹ The Mozambique case study, undertaken with Eduardo Mondlane University in Maputo, began in January 2002 and will be completed in June 2004. The Mozambique study is funded by the Netherlands and Irish Embassies in Mozambique. Information on the project and reports from Mozambique are available on the IIED website, under the Sustainable Agriculture and Rural Livelihoods (SARL) programme.

challenges while simultaneously helping to improve wages and working conditions in the processing part of the industry.

The report is organised as follows. In Section 2, we provide a brief rationale for our choice of the value-chain and social embeddedness perspectives as a framework to understand the trajectory of the cashew industry in India, as well as presenting a simplified cashew supply chain. In Section 3 we critically examine available secondary data and discuss how international trade and global value chains operate; to some extent this critical examination has formed the backdrop for our fieldwork, conducted to understand the different nodes in the chain. In Section 4, we discuss our findings from field visits to a number of states, which revealed considerable diversity in the supply chain and in the social and institutional arrangements to cultivate, process and market cashew. Section 5 focuses in detail on the cashew processing sector, highlighting the importance of the sector for women and revealing gender-based variations in working conditions. Section 6 concludes and lists future research questions that will help us understand the currently weakly researched nodes of the chain, with a view to capturing ‘good practice’ for enhanced livelihoods and informing trade policy from a stronger empirical base.

2. Framework and rationale for the study

India, and especially the state of Kerala, has a long engagement with the cultivation and processing of cashew. The industry has been the subject of considerable research; the themes largely covered but studied independently include the economics of cultivation; the commercial aspects of the import of raw nuts and the export of kernels; and the changing fortunes of women involved in processing the raw nuts (Emam Beevi, 1978; Kannan, 1983; Deepa, 1994; CEC, 1999, Lindberg, 2001). To the best of our knowledge there are no studies, in India or elsewhere, which attempt to map the entire cashew production chain from growing the nuts to the arrival of the processed kernel at its final destination: supermarkets in developed countries. Global value chain analysis highlights the relative value of those activities that are required to bring a product (or service) from conception through the different phases of production, involving a combination of physical transformation and the input of various producer services to the delivery to final consumers Gereffi et al., 2001:3).

Increasingly, trade in labour-intensive products (produced largely by developing countries) is organised by a (*few*) global buyers who may work for, or act on behalf of, major retailers or brand name companies (Humphrey and Schmitz, 2002). Recent studies point out that access by developing countries to developed country markets has become dependent on the ability to enter global production networks of lead firms situated in developed countries (eg., Gereffi, 1999; Dolan and Humphrey, 2000; Schmitz and Knorrninga, 2000). Understanding the nature of control exercised by these lead firms and how value chains are governed, **at both international and national levels**, is key to understanding how gains are distributed along the chain. Value chain analysis focuses on the way in which specific groups are included in the chain and the terms on which they are included. Value chain analysis needs to be combined with an understanding of social ‘embeddedness’ (Granovetter, 1985) in order to be able to

meaningfully read differential outcomes and behaviour at different nodes of the same chain. The concept of social embeddedness draws attention to the way in which economic actions are embedded in social structure, conceived as ongoing and dynamic interpersonal networks.

Box 1: Some characteristics of cashew

Raw cashew nuts grow on trees and a single nut is attached to and hangs below a false fruit or cashew apple. The most significant difficulty in processing cashew nuts is that the hard outer shell, which contains the *edible kernel*, contains a caustic oil which can burn the skin and produce noxious fumes when heated. The oil (referred to commercially as CNSL, cashew nut shell liquid) contains 90% anacardic acid and 10% cardol. Cashew nuts are kidney shaped and brittle which makes it difficult to remove the shell without breakage. Whole white kernels are the highest grade and larger whole kernels fetch higher prices. Processing the raw nut to produce the edible kernel is a long and labour-intensive process which includes:

- Steaming or drum roasting the raw nuts
- Cooling the nut
- Cutting or breaking to separate shell from kernel
- Drying the kernel
- Peeling
- Sorting the kernels (separating broken pieces)
- Grading the kernels
- Packing

Cashew kernels are often subject to final stages of roasting, salting or adding other flavours, and then packaging and branding for the final consumer.

2.1 Value chain analysis

Global value chain analysis highlights the levels of integration between suppliers, producers and customers for a particular commodity. By focusing on the nature of transactions between those operating within a supply chain it provides a different perspective to standard trade theory. The latter is built on the assumption of trading partners meeting each other in free markets as independent agents. Beginning with descriptions of the full range of activities required to enable a product to reach the final consumer, value-chain analysis facilitates an understanding of how tightly or loosely knit, and how integrated or fragmented an entire chain or its links are. There is now a fair body of knowledge built around both the theoretical underpinnings of the analysis, as well as the application of the analysis to diverse contexts. We draw upon the insights that these studies provide in our study of the cashew industry.

According to some of the literature (eg. Humphrey and Schmitz, 2002) ‘governance’ within a chain is central to this analysis. In this context governance implies that some firms in the chain set and/or enforce the parameters that others in the chain operate, including the pre-setting of quality standards (Humphrey and Schmitz, 2002). Governance *matters* because market access does not automatically follow the dismantling of trade barriers; more importantly, the chains that developing country producers feed into are often controlled by a limited number of buyers. On the other hand, governance is needed because the buyer has a better understanding not only of

the demands of the market but also of the risks associated with non-compliance with standards. For any context to be studied using value chain analysis, it is essential, according to Humphrey and Schmitz (2002), to “*distinguish between different forms of governance and recognize the reasons why they exist; secondly, it is necessary to understand the way in which competences are acquired at the level of the firm and the cluster*” (ibid: 23). Understanding these two aspects will clarify how insertion into global value chains affects local upgrading² strategies and also on what terms insertion into the chain can take place. The term ‘upgrading’, in our opinion, is crucial and needs to be concretely captured since this determines the nature and coverage of the flow of gains through the chain. While the use of the term ‘global’ in value chain analysis does connote a hierarchical relationship—overseas buyers (generally located in developed countries) dominating and dictating terms to producers (generally located in developing countries)—the principles of the analysis itself are useful to understand the functioning of any chain (domestic or global). Nevertheless the fact is, the bulk of the physical parts of most global commodity chains are located domestically (developing countries) while the more significant value-adding parts of the same chains are overseas (in developed countries).

The cashew industry in India has, to the best of our knowledge, not been comprehensively analysed from a value-chain perspective. The industry is largely an export-oriented industry which employs large numbers of women to process the nuts. The great demand generated by the processing sector has led to large-scale cashew cultivation across the country, as well as increasing the import of raw nuts. This is common knowledge, yet there is very little comprehension either at the policy or academic level of how these different actors, cultivators, small traders, processors, importers of raw nuts, exporters of kernels and so on interrelate. Neither is it clear what any increase in exports and export earnings means to the livelihoods of cashew growers, nut collectors, women workers or even processors of raw nuts. Equally there has been very little opportunity to engage with the global buyers of Indian processed cashew to understand the nature of the market at the retail level, the different ways in which the retailers compete to retain their customers through, for example, product and price differentiation. Another key question is how and through whom they translate their requirements of quality and processing standards to their producers in India and what the consequences are for those further down the chain.

2.2 Analysis of social ‘embeddedness’

While value-chain analysis can help reveal where different actors are located along the chain and what their relative benefits are, it cannot explain organisational patterns at different nodes on the chain. Thus we found Granovetter’s (1985) concept of the social embeddedness of economic behaviour very useful for our study. The concept derives from new economic sociology which, since the 1980s, has attempted to break down the divisions between economics and sociology. To the lay person, it might seem obvious enough that the economy is part of the social world, not isolated from the rest of society, and that economics should deal with people in their everyday economic activities. In academic economics, however, exactly the opposite opinion has prevailed for several decades and still dominates the discourse. In this view, economics is based on a series of simplifying assumptions, which allow the formalisation of analysis with the help of mathematics (Swedberg and Granovetter, 2001:1). However, as Granovetter proposes, careful and systematic attention should

be paid to the actual patterns of personal relations through which economic transactions are carried out. This helps to clarify the various complex intermediate forms between the idealised extremes of atomised markets and completely integrated firms. *“Intermediate forms are so intimately bound up with networks of personal relations that any perspective that considers these relations peripheral will fail to see clearly what ‘organizational form’ has been effected. Existing empirical studies of industrial organization pay very little attention to patterns of relations, in part because relevant data are harder to find than those on technology and market structure but also because the dominant economic framework remains one of atomized actors, so personal relations are perceived as frictional in effect”*(504).

Granovetter (1985) makes another observation that we find extremely relevant. This is the manner in which economists’ assumption of rational action needs to be perceived. *“What looks to the analyst like non-rational behavior may be quite sensible when situational constraints, especially those of embeddedness, are fully appreciated. When the social situation of those in non-professional labor markets is fully analyzed, their behavior looks less like the automatic application of ‘cultural’ rules and more like a reasonable response to their present situation... That such behavior is rational or instrumental is more readily seen, moreover, if we note that it aims not only at economic goals but also at sociability, approval, status and power. Economists rarely see such goals as rational...”*(506).

Rammohan and Sundaresan (2003) applied the concept of social embeddedness to their study of the coir yarn commodity chain in India. They emphasise the need to explore the social and economic implications of upgrading, rather than simply its economic aspects, particularly for ‘peripheral’ workers. Similarly, the focus of our study is to understand how the global restructuring of cashew supply chains affects not only the overall gains to the Indian economy but to the lives and livelihoods of disadvantaged groups, including its effects on rural cultivators and the conditions of work of women in the processing sector. While we have not yet achieved our overall objectives, this report does construct the global supply chain, it provides an overview of key shifts in the industry and begins to identify the consequences, particularly for the hundreds of thousands of women workers in the processing part of the chain.

2.3 A simplified cashew supply chain

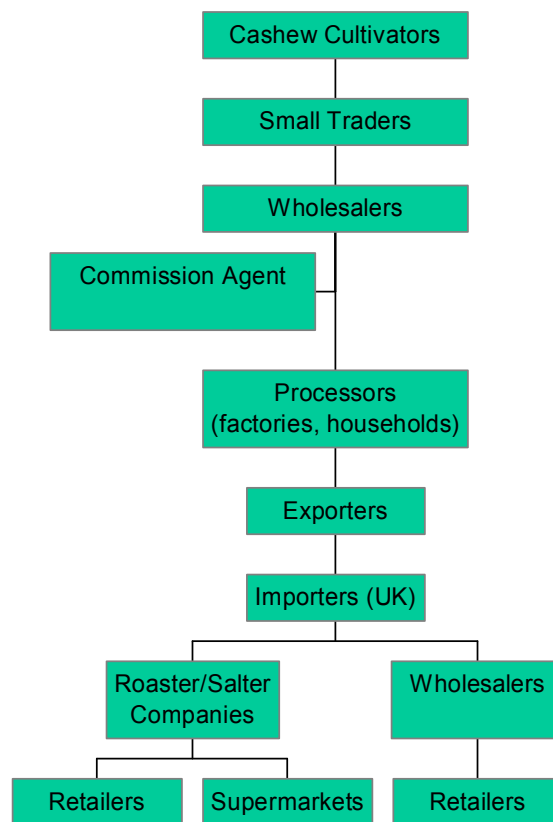
In this study, we have examined cashew nut cultivation, collection of nuts, distribution of nuts collected domestically and those imported, processing of raw nuts, collection and marketing of processed nuts. Exploring how each of these activities is organised (technically and socially) and how they are linked, has enabled us to comprehend, to some extent, why the same set of activities show different outcomes in different areas; also, why certain interlinkages between activities are more beneficial (to some of those involved in the activities) than others.

The international linkages to the UK have been tentatively constructed through a few interviews with key importers and require much further detailed study. However, the interviews confirmed other research taking place in the UK which shows the increasing concentration in the food retail business with a few main supermarkets dominating the market (Vorley, 2003). There are only a few *large* importers of

cashew who tend to sell to large roaster/salter companies, which then sell to the supermarkets. These then do their own packaging and sell to the final consumers under their own supermarket brand name.

Although we only constructed the chain following our field work, we present it early in this report (Figure 1) to facilitate the reader’s understanding of the rest of our findings. Constructing this supply chain instantly highlighted the complexity at each node of the chain in terms of the number of actors involved, the range of interactions among these actors, and the underlying pattern of social relationships.

Figure 1. A simplified cashew supply chain, including international links



The chain represents domestically produced cashew nuts and importers of raw cashew to India are not represented. However, many commission agents, processors and exporters are also importers of raw cashew.

3. The cashew industry in India: some background

3.1 India in the global context

India is a major player on the cashew world stage. While cashew cultivation originated in Brazil, today cashew is cultivated in Asia, Africa and Latin America. In the year 2000, the total global area under cashew cultivation was around 4,000,000 ha, while the estimated average productivity was around 510 kg per ha and total raw

nut production was 1.8 million tonnes (Singh and Balasubramanian, 2002). India is the second largest country in the world cashew economy for area under cultivation as well as production of raw cashew nuts, second only to Brazil. Today cashew is cultivated on around 720,000 ha in India, yielding an output of 450,000 MT and an average productivity of 710 kg/ha.³

The Portuguese introduced cashew into India as early as the second half of the 16th century, but its commercial value was only realised in the twentieth century. The world market for cashew is relatively new. Cashew started appearing on global markets towards the middle of the 1920s and trade was dominated by two countries: India, the sole exporter of cashew kernels and the United States, the only buyer. Raw cashew nuts hardly figured in world trade because in India kernels were produced entirely from raw nuts grown within the country. It was with the emergence of East Africa as a supplier that trade in raw nuts started. Of course, growth in the demand for kernels also helped. The expansion of the global market for cashew kernels in the 1960s prompted India to adopt a systematic and integrated approach towards developing the cashew economy, including reducing India's dependence on imported raw nuts. In the mid-1960s the government launched a cashew development programme and in 1966 a separate Directorate of Cashew Nut Development was established under the Ministry of Agriculture. As a result, India witnessed remarkable expansion in the area under cultivation although the processing industry is still heavily dependent on imported raw nuts.

3.2 Domestic production and consumption

The cultivation of the crop is mostly confined to the western and eastern coastal areas of peninsular India (Table 1). In more recent years cashew has been introduced into the north east as well as some interior parts of the newly carved state of Chattisgarh.

Table 1 gives an idea of the changing geography of the cashew economy of the country. In 1965-66 Kerala came first for area, production and productivity, followed by Tamil Nadu. Since then Maharashtra, Karnataka, Andhra Pradesh and Orissa have emerged as leading producers of raw cashew nuts and Kerala has lost its pre-eminent position (see Section 5). The table also reflects the remarkable expansion of area, production and productivity throughout India. If we take the official data for granted, production of raw nuts has registered a more than four-fold increase between 1965-66 and 2000-01.

India has relatively reliable data on raw nut imports and cashew kernel exports, so we have used these to assess the size of the domestic market for cashew kernels. Using a commonly accepted conversion factor, we worked out the raw nut equivalency of kernels exported from the country. Deducting the raw nut equivalent from the total

² Fairly detailed data on cashew cultivation are available from the publications of the Directorate of Cashew Nut and Cocoa Development and the Cashew Export Promotion Council. However, the official data are known to suffer from some limitations, especially in estimating the area under cultivation and productivity levels. The following observations on the production of raw cashew nuts in India, therefore, should be interpreted with caution. We confine ourselves to a discussion of the broad directions of change, without focusing on the precise magnitudes.

domestic availability of raw nuts gives us the raw nuts processed for the internal market. Total domestic availability of raw nuts is simply domestic production plus imported raw nuts. Kernel export figures do not account for all the nuts that are being processed internally. According to our calculations, which were based on published figures, the domestic market for kernels must have more than doubled in size over the last decade (Tables 2a and b). An alternative interpretation, which we think may be likely, is that the production figures are overestimated.

Table 1. Production of raw cashew nuts in India

State	Area ('000ha)	1965-66 production ('000mt)	Productivity (kg/ha)	Area ('000ha)	2000-01 production ('000mt)	Productivity (kg/ha)
West Coast (A)						
Kerala	87	73	700	120	76	765
Karnataka	9	6	600	91	42	500
Goa	33	2	100	55	25	500
Maharashtra	13	3	210	121	98	1050
TOTAL - A	142	84	522	387	241	740
East Coast. (B)						
Tamil Nadu	70	10	150	86	59	750
Andhra Pradesh	21	7	330	130	75	650
Orissa	6	2	250	90	59	700
West Bengal	2	1	600	9	6	1000
TOTAL - B	99	20	260	315	199	690
Others - C	-	-	-	18	10	530
Gr.Total(A+B+C)	241	104	400	720	450	710

Source: Balasubramanian P.P. and Singh (2002)

Table 2a. Raw nuts in India: imports versus domestic production (1970-2002) (Quantities in MT)

Year	Imports	Domestic production	Total availability	Import %	Domestic production %
1970-71	169000	127000	296000	57.09	42.91
1975-76	137000	161000	298000	45.97	54.03
1980-81	16000	185000	201000	7.96	92.04
1985-86	22000	234000	256000	8.59	91.41
1990-91	83000	294000	377000	22.02	77.98
1995-96	223000	417000	640000	34.84	65.16
2000-01	249000	450000	699000	35.62	64.38
2001-02	355000	508000	863000	41.14	58.86

Table 2b. Domestic consumption as percentage of domestic production (Quantities in MT)

Year	Total availability	Export equivalent of raw nuts	Domestic consumption equivalent of raw nuts	Domestic production	Domestic consumption as % of domestic production
1970-71	296000	228000	68000	127000	53.54
1975-76	298000	244000	54000	161000	33.54
1980-81	201000	146000	55000	185000	29.73
1985-86	256000	168000	88000	234000	37.61
1990-91	377000	226000	151000	294000	51.36
1995-96	640000	319000	321000	417000	76.98
2000-01	699000	405000	294000	450000	65.33
2001-02	863000	443000	420000	508000	82.68

Source for Table 2: As for Table 1

At present, little is known about the nature, dimension and magnitude of the domestic market for cashew kernels as well as its relationship with the export market. This is an important area to include in the next phase of the study as the domestic market clearly contributes to the economy as a whole, but also because the requirements of the domestic and export markets may be different, with possibly different implications for the livelihoods of growers and processing workers, who are the ultimate focus of our study. In addition, we would need more detail on how production figures are derived, since we have used these estimates to derive the size of the domestic market.

3.2 The Indian processing industry

The Indian processing industry has long been dependent on imported cashew nuts. And as Table 3 shows, the degree of import dependency has been increasing over time, especially since the mid-1980s. This increasing dependency is attributed to the failure of domestic raw nut production to catch up with growing demand for cashew kernels from both within and outside the country.

Table 3. Import of raw nuts into India (in 000 tonnes)

Year	Exports	Raw nut equivalent	Imports	% Share of imports in total exports
1970-71	50	228	169	74
1975-76	54	244	137	56
1980-81	32	146	16	11
1985-86	37	168	22	13
1990-91	50	226	83	36
1995-96	70	319	223	70
2000-01	89	405	249	62
2001-02	98	443	355	80

Note: Kernel to raw nut conversion ratio has been taken as 4.54

Source: Compiled from various publications of the Cashew Export Promotion Council of India, Kochi.

Source countries for Indian imports of raw cashew include Tanzania, Guinea-Bissau and Ivory Coast, followed by Benin and Mozambique (Table 4). In the 1970s imports from Tanzania and Mozambique constituted almost 75% of imports. In the early 1980s there was a sharp decline in nut availability from these sources, resulting in an overall slump in imports. Since the mid-1980s new suppliers have emerged, with West African countries providing over 50% of imports. Imports from Mozambique grew after the introduction of the World Bank sponsored liberalisation programme. In sharp contrast, on account of the growth in its own domestic processing industry, imports of raw nuts from Vietnam have tended to dry out over the same period (blank cells in Table 4 indicate no imports).

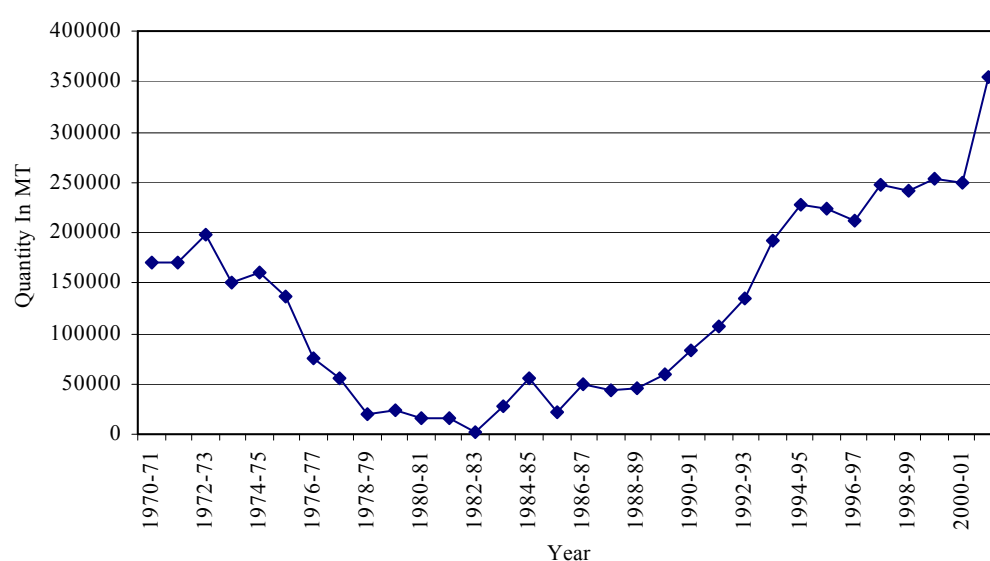
Table 4. Sources of India's imports (%)

Country	1970-1971	1975-1976	1980-1981	1985-1986	1991-1992	1995-1996	1996-1997	1999-2000	2000-2001
Guinea Bissau				26.12	15.95	13.91	7.26	12.32	22.86
Ivory Coast	0.07	---	---	2.05	7.12	11.06	8.5	15.59	20.16
Tanzania	49.83	53.0	4.8	38.22	19.84	33.78	30.23	31.24	20.4
Benin					2.30	4.43	4.8	9.4	10.94
Mozambique	35.84	30.08			1.30	9.02	13.2	9.27	8.36
Indonesia				6.00	12.23	7.04	3.22	8.26	3.68
Nigeria				0.99	4.87	8.76	6.82	5.13	4.36
Senegal				1.30	0.94	4.43	0.79	3.69	2.68
Vietnam				1.61	27.00	6.33			
Kenya	13.41	15.2	91.57				0.47	2.5	2.56
Total				100.00	100.00	100.00	100.00	100.00	100.00

Source: Compiled from various publications of the Cashew Export Promotion Council of India, Kochi.

Figure 2 illustrates trends in India's raw nut imports. The period between 1972-73 and 1982-83 is marked by a sharp decline in imports. A host of reasons such as unfavourable climatic conditions, pest problems, political instability, changes in the policy environment of the raw nut exporting countries, etc., have been responsible for the reduced supply of raw nuts. For instance Mozambique gained independence in 1975 and started regulating exports of raw nuts as part of its policy of promoting domestic processing activities.

Figure 2. Imports of raw nuts, 1970-2001



Source: Compiled from various publications of the Cashew Export Promotion Council of India, Kochi.

The period since 1982-83 has witnessed a remarkable increase in India's imports of raw nuts. There is little doubt about India's dominance of the world market for raw nuts. In 1996, for instance, India accounted for 91% of global imports (Table 5). Moreover, India has consistently maintained its overwhelming presence in this market.

Table 5. Country-wise share of global imports of raw nuts (1996). Quantities in MT

Country	Imports	Percentage distribution
India	265,686	90.5
Canada	6,979	2.4
European Union	5,722	1.9
Brazil	5,469	1.9
United States	4,697	1.6
Malaysia	1,218	0.4
New Zealand	951	0.3
Saudi Arabia	735	0.3
Japan	523	0.2
South Africa	261	0.1
Sri Lanka	175	0.1
China	160	0.1

Source: UNCTAD, *Trade Analysis and Information System* (www.unctad.org)

Indeed, this dominance is precisely why the literature described the market for raw nuts as monopsonic, which refers to the buying side form of monopoly, in this case when a single country rather than firm has buying power. This can result in monopsony price distortions which are lower-than-competitive prices for produce purchased by processors or retailers.

McMillan et al. (2002) have even gone to the extent of blaming the failure of Mozambique's liberalisation on India's monopsonic advantage. This view could have been justified for the period up to 1991 when the Indian government used different forms of control over trade in raw cashew nuts. In fact, there were periods when imports were channelled (see section 5) through state trading agencies. However, the channelling policy introduced in the 1970s was later found to be adversely affecting both processors and cultivators. The 1980s witnessed progressive liberalisation of import controls. The new era of liberalisation since 1991 has removed the remaining trade barriers, establishing 'free' trade in raw cashew nuts.

There is evidence to argue that the channelling policy had a dampening effect on the price of raw nuts. In the 1970s, for instance, growth rates for prices of raw nuts lagged behind the rate of increase in the price of kernels (Kannan, 1983). There is thus reason to argue that India has also contributed, at least indirectly, to the stagnation of raw nut prices in Eastern Africa. Nevertheless, it is unclear whether the above argument would hold good for the more recent period, especially the 1990s.

⁴ The buying side form of monopoly, when a single firm has buying power. Can result in *monopsony price distortions*, which are lower-than-competitive prices for produce purchased by processors or retailers.

We underline the following points in this regard:

- 1) The state policy in India regarding imports of nuts does not give monopoly rights to any particular agency or firm, nor are there state-sponsored entry-barriers for newcomers starting in the business of trading in raw cashew
- 2) Our interviews with processors and traders suggest there are several traders who coordinate or directly import cashew. In fact, many processors have direct contacts for importing raw cashew from East Africa.
- 3) Non-policy barriers to entry into the business do not appear to be too high to pre-empt entry; if the trader's margin goes up there would be the threat of entry.

We do not, however, rule out the possibility that some traders/importers enjoy market power and rents. Indeed, study findings to date in Mozambique suggest that there are still only a few main exporters there who have strong relationships with Indian buyers, which go back to colonial times. But, we wish to emphasise the need for a more in-depth study of the market for raw nuts. It may be true that the Indian traders have the market power to push down the price of raw nuts offered to their suppliers in Africa. But, there arises the question as to whether the Indian traders would be able to capture the advantage of lower prices themselves, without transferring the advantage to Indian processors and ultimately to the importers of kernels in Europe and the United States.

3.3 Trends in exports of kernels

Cashew is exported from India in several forms, such as cashew kernels, broken and whole; raw cashew nuts; roasted cashew nuts and cashew nut shell liquid. The figures given here represent exports of cashew kernels (broken and whole).

Other than India, since the 1960s the major cashew kernel exporting countries have been Brazil, Mozambique, Tanzania, Kenya, Vietnam and Indonesia. However, India still contributes the highest share of the export market (Table 6). Neither Vietnam nor Indonesia had significant exports before 1990.

Table 6. Market share of major players in the cashew kernel export market (%)

Country	1961	1971	1981	1985	1990	1991	1994	1998	1999
India	96.02	67.76	46.59	59.27	60.65	59.09	73.24	64.84	65.77
Brazil	0.92	4.65	23.54	33.09	32.90	29.55	21.25	22.80	15.00
Mozambique	2.43	22.94	18.54	3.69	4.72	4.06	0.85	3.42	1.00
Tanzania	0.24	4.46	8.52	0.00	1.32	1.36	NA	NA	NA
Kenya	0.38	0.19	2.81	3.95	0.41	1.57	0.93	NA	NA
Vietnam						0.69	0.72	5.70	14.00
Indonesia						2.15	1.70	2.37	0.90

NA: Data not available

Source: Data for 1961-1990 from Deepa (1994); the rest from various publications by the Cashew Export Promotion Council, Kochi

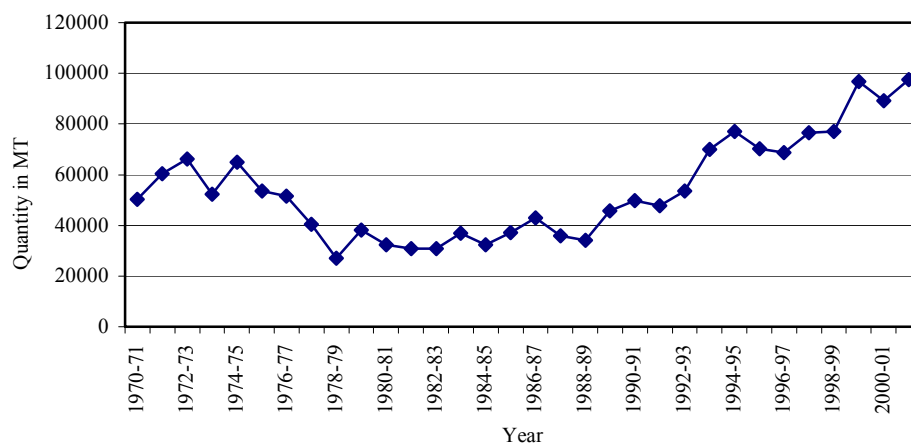
The new players have reduced India's dominance over time. Brazil has increased its share over the years, and Vietnam's share rose considerably in 1999. Vietnam has

suddenly become a potential competitor to India. Apart from exporting to China and the US, Vietnam started entering new markets like Iran, Saudi Arabia and Russia in 2001. The Vietnamese government is spending about US \$1.38 million, spread over five years from 2000, to introduce hi-tech cashew strains into cultivation to improve quality and yield. It has already succeeded in meeting international food safety and hygiene standards, as well as the technical standards of North America, Europe and Japan. The Vietnamese Cashew Association (VNCA) claims that domestic producers in Vietnam have been able to export cashew despite being priced higher than Indian nuts (Nair, 2002).

The illusion of the export boom

Data on the volume of Indian kernel exports (Figure 3) imply that the cashew industry is experiencing an export boom.

Figure 3: Volume of Indian kernel exports, 1970-2001

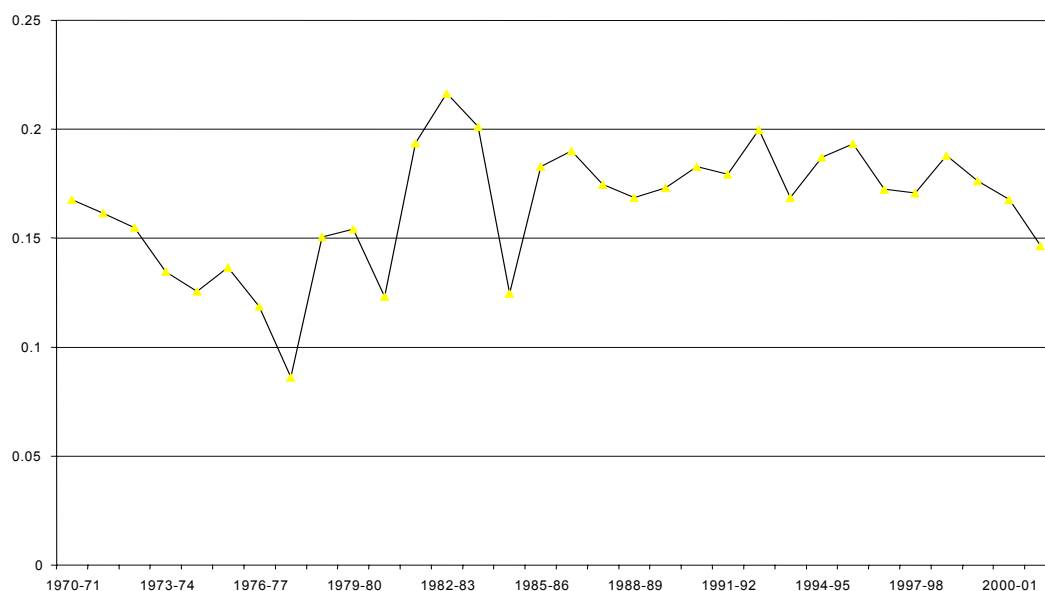


However, our analysis suggests the need for a more cautious approach. It is true that exports in terms of volume as well as gross foreign exchange earnings have been booming. It is also true that more and more domestic resources in terms of capital and labour are being deployed (or expended) in export production. Unfortunately, the boom in domestic resource use in India is not producing the desired results. Firstly, the domestic resource *cost* of earning foreign exchange from cashew kernel exports has apparently been increasing over time. Secondly, in spite of the increase in the number of factories, and workers employed, *net* foreign exchange earnings have *not* been increasing. In other words, India has been using more and more domestic resources for every unit of foreign exchange earned (see Appendix 1 for a full analysis).

The main reason for this dismal scenario is the stagnation in the dollar price of kernels. In fact, both the price of raw nuts and the price of kernels have declined on the world market. The price of a metric ton of raw cashew was US\$ 700 in 1999 but had decreased to US\$411 in 2000/01. The price of kernels declined from \$3.15 per lb in 1999 to \$1.6 per lb in 2002. (FAOSTAT data base, 2002 and the Hindu, 9th September, 2003)

The Indian evidence presented so far and the drop in the price of kernels on the world market demands a rethink on the structure of the cashew market presented in some studies on Mozambique (for example, McMillan et al., 2002). In such studies, India is characterised as having monopsonic power in the market for raw nuts and the market in kernels is characterised as being competitive. It is on the basis of these propositions that the low price pass-through to farmers in Mozambique is explained. However, if this characterisation were accurate, it should be reflected in the margin between the unit price of imports and exports in India. However, as Figure 4 indicates, the behaviour of the margin, even in the 1990s, does not corroborate the view of India's market power; in fact, there was hardly any buoyancy in the price of kernels to pass through to cultivators and processing workers.

Figure 4. Comparison of unit values (imports/exports)



It may be true that the market for kernels is competitive when viewed from the supply side. The 1990s have witnessed entry of new countries and perhaps more traders and processors. But, monopsony power of buyers in the kernels markets cannot be ruled out. It is true that there are many buyers in the market for kernels but there are big buyers who dominate the market. The dominance of big brand names, such as Planters, at the terminal end of the value chain adds credence to the above hypothesis. The existence of brand names, such as the above, the enormous resources required for continuous advertisement, etc., are important restricting factors at the terminal node.

In short, existing studies appear to have focused on one or two nodes of the cashew value chain. This, in our opinion, is the reason for the questionable conclusions that they have drawn. A more comprehensive approach, which takes all the important nodes of the value chain together, would make more reliable conclusions possible.

3.4 Summary

Our re-examination of the secondary data presented above has enabled us to challenge certain ‘established’ notions about the structure of the cashew markets, both domestic and international. This has significant implications for our understanding of where and how value is generated in the cashew chain. To recapitulate our main findings:

- 1) At the domestic level, official figures do not capture or recognise the growing internal kernel market in India. But our analysis reveals the internal market to be almost 50% of the total market. However, we have no knowledge of the ramifications of the domestic market: its geographical spread; the agents involved; the finer processes required before kernels reach the Indian supermarket shelves; how differentiated the products are; retail prices; and more crucially, the relationship between domestic and international prices for kernels.
- 2) At the international level, our scrutiny of the data has called for a more critical understanding of how the markets for raw nuts and kernels have behaved over time and how the different sets of actors with differential powers involved in these markets affect the outcomes for the countries involved. Merely describing markets as monopsonic or competitive based on the *number* of countries involved in each, could hinder our understanding of where and how value gets concentrated along the chain. The example of Vietnam also shows how important state policies and resources are for affecting the capacity of the industry to capture international market shares.

In complex global markets, whether or not local producers can gain access to global value chains, and at what point they can gain access is likely to be an important factor in whether they are able to benefit from trade liberalisation. This will depend on a number of factors beyond the competitiveness of an individual producer. It will include the supply networks that operate locally, their connections to wider markets and value chains, and whether producers are able to adapt to the specific requirements of those value chains.

Value chain analysis has to include the actors who operate at national and international level, to understand where and how value becomes concentrated. All in all, to understand if and how the livelihoods of disadvantaged groups can be improved, the way trade is organised and controlled internationally and domestically has to be understood. We will now turn to our field work findings which provide us with information on how domestic elements in the chain are organised.

4. Preliminary findings from Tamil Nadu, Karnataka, Orissa, Maharashtra and Andhra Pradesh

This section summarises our findings from exploratory fieldwork in the states of Tamil Nadu, Karnataka, Orissa, Maharashtra and Andhra Pradesh. We chose these states based on official figures for area under cultivation and the phenomenal growth of raw cashew production there. Maharashtra and Orissa form the two ends of a cashew belt stretching from the Western Ghats to the east coast. The belt covers the northern part of Kerala (although processing activity is concentrated in the south of Kerala), Karnataka, Tamil Nadu, and Andhra.

There is hardly any official documentation of the status of the industry in these states; research on the growth and development of the industry outside Kerala is almost non-existent. Thus our field trips were exploratory only, our aim being to get a feel of the range of activities involved in these different states and also the manner in which these activities are organised, socially and economically. We are aware that such a thin spreading of resources has meant that we have not been able to capture any particular activity in depth or even changes over time; nevertheless, this initial exploration has given us a fair idea of the domestic supply chain, shown us that there are diverse institutional arrangements and networks in the industry and given us pointers for the research questions that we need to focus on in our subsequent study of the industry.

4.1 Tamil Nadu

Secondary data suggest that Tamil Nadu is an important cashew-growing state in the country (Table 1). In this state cashew growing is mainly concentrated in South Arcot, Pudukottai, Sivaganga and Kanyakumari districts, but we confined our fieldwork to the Pudukkottai–Sivaganga regions and Panruti in South Arcot.⁴ Cashew in Tamil Nadu is predominantly grown on red laterite soil, with very little irrigation infrastructure. Tanks, the main source of irrigation, depend on seasonal rains.

Case Study 1: Cashew cultivation in Pudukottai-Sivaganga

The most striking aspect of this region is that it remains a cashew-growing one despite there being so few processing facilities. The only processing facilities in Pudukottai region are owned by the VLC Group of Kollam, Kerala. Much of the produce is sold to processors in Kollam or Panruti (in Tamil Nadu). However, there is a well-developed market network to collect raw nuts from the growers (see below).

Anecdotal evidence suggests that most cashew cultivation in this region occurs on public forestland (controlled by the forest department) and private cashew cultivation seems to be on the decline. The decline in private cultivation seems to be primarily related to deep bore well technology. When water is struck, farmers abandon cashew cropping as uneconomical. This may well be true in the short term, but evidence from elsewhere shows that water mining does not last long and there are many instances of farmers reverting to previous cropping patterns once the underground water is nearly exhausted.

Private cultivation

We visited eight villages in the Pudukottai, Sivaganga region and interviewed cashew cultivators on various aspects of cashew cultivation. Private cashew cultivation mainly occurs on land which cannot support other crops. There are few villages that grow only cashew and the livelihood options and the survival base seem to be much narrower in such villages.

None of the cultivators processes their own nuts. The only processing activity we observed in the region was about eight small-scale processors who processed about 5-

10 kg of raw nuts on the roadside for sale to travellers on the main road between Thanjavur and Pudukottai towns.

Very small growers, those owning 2 or 3 acres, sell their raw nuts to peddlers the day they are harvested. The peddlers take the collected nuts (about 10-15 kg a day) to the big traders in town. Larger cultivators sell the raw nuts directly to the bigger traders in the towns. They wait till prices are good but this can often be a gamble.

Forest Department cashew plantations

In this region the state forest department is a far bigger player in cashew production than individual cultivators. Planting cashew trees on barren land in the state forests is very common in India. Tamil Nadu forest department embarked on cashew plantation initially as a soil conservation measure. The commercial value of these plantations grew in significance when the price of raw nuts shot up over the past decade or so. Since then, the department has floated a separate corporation, Tamil Nadu Plantation Corporation (TAPCON), to deal with commercial forestry of cashew and other commercial forest products. The cashew plantations operated by the TAPCON in this area are scattered over a vast area, often falling within the boundaries of various villages. The size of each plantation also varies. There is no record, official or otherwise, either of number of trees in each plot or the volume of nuts harvested.

The Corporation generally does not involve itself in cashew harvesting, instead auctioning the usufruct rights every year. The successful bidder can collect raw nuts between January and May that year. Though the process of collecting the nuts from TAPCON-run plantations looks simple and transparent the actual process is very complex.

Successful bidders have to pay a sum to the local community. In return, the village community pledges that the members of the village community shall not collect the usufructs, and extend full cooperation to the contractor. Once the deal is struck, the contractor can bid with the forest department (TAPCON) and secure his seasonal right. The money collected by the community is spent as decided by the community *panchayat*. In Pudukottai and Sivaganga region, such community funds are generally spent on the annual village festival and very rarely put to other uses.

Secondly, the role of traders in the auctioning of Corporation plantations is very crucial. The investment involved in such deals is huge, beyond the combined resources of the conglomerate of individuals (generally 5 to 6) who form a partnership and bid for the plantations. Big traders contribute the rest of the money. In turn, the traders get (i) 36% interest for the money that they advance; and (ii) more importantly, the entire raw nut collection has to be sold to the trader at a price fixed by him (so far traders have been men only). Invariably, the price quoted by the trader would be lower by about 20% than the price that prevails in the market.

Third is the role of politicians. The local functionaries of the ruling party influence the auction and bid for a price. They also seek a share in the profit and on many occasions own the bid by proxy. However, even for such functionaries, approval by the village community is very essential.

From the brief description above, we realise that the complex nexus between traders, politicians and officials of the TAPCON seems to control the entire process. The village community has some stakes but the actual machinations of this complex process warrant a detailed enquiry.

Harvesting of cashew in the corporation plantations

The successful bidder employs local workers to do most of the harvesting. Usually five women per hectare are paid a cash wage of Rs.30/- per day to collect the nuts. After three days of drying, the nuts are packed and are ready for sale. Each worker is able to collect about 15-20 kilograms of raw nuts at the beginning of the season. Once the plantation is handed back to the forest department, the locals (usually women and children) are free to collect the remaining nuts, if any, from the plantation, which they may sell to the peddlers. These nuts are known as ‘*Saruhu Kottai*’ (nuts from dry leaves).

Role of traders

Cashew traders are mainly from the Chettiar caste and are involved in three different ways: as direct procurers of raw nuts, as commission agents and as traders of imported nuts.

Some traders act as intermediaries between the cashew processors (mainly in Kollam, Kerala) and cashew growers. The processor who appoints the trader as his agent provides the capital required for procurement and transportation. The agent in turn uses his knowledge and contacts to procure the required quantity and quality of raw cashew from the region for which he is paid a commission.

As mentioned earlier, there are not enough raw nuts grown in India to meet the processing capacity. Some traders from this region also trade in imported nuts and sell them in small quantities to the processing houses in South Arcot, Kanyakumari districts of Tamil Nadu and sometimes also to Karnataka and Andhra Pradesh processors. But in terms of scale, this is very small compared to their domestic trading activities.

Cashew cultivation and livelihoods

While we came across very few cultivators who relied only on cashew for their livelihood, in terms of employment, cashew generates continuous employment for many women for nearly three months every year. A 50 acre cashew plantation can employ about 100 women for nearly three months. Men are primarily employed to maintain the plantation. Though the cashew plantations provide employment for only three months in a year, it is crucial because:

- It is one of the few sources of income for women
- No other crop provides employment continuously for three months
- It provides employment during the lean season when no other employment is available in agriculture.

The collection of ‘Saruhi Kottai’ is another important element in local livelihoods, although its significance needs to be explored further. Similarly the importance of plantations as a source of firewood for the households surrounding the plantation could merit further exploration. Another area for future investigation would be to assess the importance of income from these plantations and the wage income of workers within the overall economy of the village.

Case Study 2: Cashew cultivation and processing in Panruti Region (South Arcot District)

In this region growing conditions and availability of irrigation are similar to Pudukottai and Sivaganga region. However, cashew plantations are so dense and contiguous in this region that many provide hideouts for outlawed Tamil Nationalist groups.

Private cultivation

There are a number of villages where cashew is the single most important crop. Cultivation is more intensive with periodic ploughing, plant protection during the flowering season and watering the trees during summer months. Therefore yield is higher (around 2000 kilograms of raw nuts from one hectare of land). While one kilogram of Pudukottai raw nuts yield only 20 kilograms of kernels, Panruti nuts yield about 24 kilograms of kernels. Another crucial fact to note is that cashew processing is a major activity in many Panruti villages.

Family labour is predominantly used for harvesting the nuts, although on larger plantations hired labour is also engaged. Demand for labour is so high during harvest season that both men and women are employed, unlike in Pudukottai region where only women harvest the nuts.

Because of their better quality, raw nuts from Panruti fetch slightly more than the market price. Raw nuts are sold in small quantities to the local processors and peddlers. Bulk quantities are sold to the export houses in Panruti. Large plantation owners retain their stock for sale during the off-season for a higher price. The system of advance payments by traders to the growers is not very common in Panruti region.

Forest Department cashew plantations

There are vast plantations owned by the Tamil Nadu Plantation Corporation in the Panruti region. The procedure of auction-cum-tender for usufruct rights is the same as in Pudukottai. However, we know little else about the organisation and politics of this system and hope to explore this in the next phase of our work.

Processing (Panruti): a cluster approach to processing

Of great interest in Panruti is the cluster of small scale cashew-processors that has evolved in the region. As in Kerala, local nut production is not sufficient to feed the existing processing units. Processing and export depend on local supplies only for

about three months in a year. Raw nuts are therefore procured from other states and countries (about a dozen of them) at various seasons. The export houses are the main conduits through which the external procurement of raw cashew happens. It is very important to note here that though the export houses procure raw cashew nuts from the domestic and the international market, most do not have their own processing facilities. Then who does the processing for these export houses? It is reported that there are hundreds of small processing units located in the villages surrounding Panruti town. They tend to be owned by the cashew farmers. Yet, clearly their cashew harvest alone can hardly suffice for the facilities that they own.

Viewed superficially, these small units appear to be satellite units of the export houses. But we found that these small processors own their produce almost entirely. They own the premises, the machinery (whatever little they have) the raw material and the final produce. They employ wage labour to supplement family labour. They sell the final product to whoever they like. But this does not mean that they are absolutely independent entities. They are part of a network of small processors linked to one or two export houses. Each export house has about 40-50 such small processors in their network. The export house scouts for the raw cashew both in the domestic market and in the international market on behalf of all the processors in its network. When the price and the quality of the nuts are known, the information is disseminated to all the processors. If it is agreeable, then the export house places an order for the procurement of raw nuts. Sourced raw nuts are divided into smaller lots. The individual processors buy the raw nuts from the export house. The contract ends there. The processing units process the raw nuts on their own, sort them and bring them back to the same exporter or to any other export house.

The small processors also procure raw cashew from the domestic market through their agents. Three or four small processors join together and share a lorry load of raw nuts that are imported from Kerala, Karnataka, Andhra, Maharashtra or Goa. The processed kernels are then sold to the export houses. Cashew processing in Panruti mostly uses the Mangalore method of steam cooking and not drum roasting (Box 2).

Social organisation of processing in Panruti region

The most striking aspect of cashew processing in Panruti is the small scale of operation. A thatched shed where women workers sit and shell the raw nuts is the only infrastructure that many processors own. It is basically an extension of their houses. All other services are hired in every village.

This small processor dominated activity allows surpluses generated through processing to be spread more evenly across many players. It also generates valuable employment for local people. Combining cashew growing with processing can generate employment almost throughout the year.

Only women are employed for shelling, and they also predominate in the peeling section. Each worker can shell about 30 kilograms of nuts in a day and workers are paid on a piece rate basis of about Rs. 5 for every three kilograms of nuts shelled. This goes up to Rs.6/- during heavy seasons.⁵ About 20 kilograms of kernels can be peeled by one worker in a day and she is paid Rs.5 for every 2 kilogram of kernels

peeled. Skilled women workers are employed for grading and can grade 80 kilograms of kernels in a day. They are paid Rs.70 per bag.

Labour is scarce and commands an advance, especially during harvest. These villages attract a considerable number of workers from other villages where processing has not been taken up in a big way. All such migrant workers are agricultural labourers and during the busy season in agriculture, stay in their villages. At these times processing activity slows down considerably.

Box 2. Processing techniques

Converting cashew nuts to kernels involves a number of steps:

(1) Steam cooking: Raw nuts are sun dried for three to four days. Then they are steamed in a boiler for 30 minutes to expand the shell and soften the nut. After steaming, the nuts are cooled by spreading them on the floor in the shade. This hardens the shell so that it can be cracked, either by machine or with stones. Steam processing preserves the original colour of the kernel.

(2) Shelling: Women workers use pebbles skilfully to hit the shell. When it breaks, the embedded kernel is removed from the shell. Broken kernels are collected separately while the full ones are measured for wage payment to the workers. Shelling damages workers' hands as the liquid oozing out from the shells corrodes skin. Workers use castor oil to prevent this, but even then the corrosive effect is very visible. An experienced women worker can shell 30 kilograms of nuts in a day. The permissible level of breakage while shelling is about 50 grams for 3 kilograms of nuts.

(3) Heat treatment of unpeeled kernels: Once removed from their shells, the kernels have to be dried to loosen the red outer skin. This drying process is known as borma treatment and present day borma machines are electric. The system ensures uniform heating and does not require periodic changing of trays during heating. It preserves the original colour of the kernel and consistency in quality is achieved easily.

(4) Humidifying unpeeled cashew kernels: Humidifying helps to dislodge the skin from the kernel. Some processors have electric humidifiers, but most of the small processors use an ingenious method to humidify kernels. The kernels are spread over a soaked mat on the floor and covered with soaked gunny bags. Kernels are spread again above the gunny bags. It is again covered with soaked gunny bags. Several layers of kernels are spread like that one above the other. Layers are kept damp and intact for 12 hours. Then the kernels are packed in gunny bags and kept for another 12 hours. After that the kernels are sun dried.

(5) Peeling conditioned cashew kernels: The cashew kernel conditioned as above is now ready for peeling, which is done by hand as knives spoil the look of the kernels. Peeled kernels are briefly heat treated again.

(6) Grading kernels: Peeled kernels are manually graded by skilled labour, employed only for grading. They are graded on the basis of size (a proxy for weight). International specification and standards are widely used. Processors in Panruti grade the kernels only very broadly. Basically they adhere to four grades viz., 240, 320, Butts and Scorched Wholes. A worker can grade one 65kg bag of kernels in a day.

4.2 Orissa

As in all the other states, cashew cultivation in Orissa started mainly as a soil conservation measure. The state has a long coastline (nearly 500 kms) which is buffeted by storms and cyclones, particularly during the volatile north east monsoon. Cashew plantations were developed all along the coast as a natural barrier against storms and cyclones. The government also developed cashew plantations in Western Orissa where the terrain is generally hilly. Cashew was planted extensively here to prevent the loss of topsoil. Today cashew plantations are found in 22 of the 30 districts in the state. As in many other states, the land formerly operated by the soil conservation and forest departments was handed over to the Orissa Cashew Development Corporation in 1980. The Corporation controls nearly 36,000 hectares of land growing cashew and the Forest Department has about 19,000 hectares. In total, cashew is grown on about 58,000 hectares of land.

With the transfer of plantations to the Corporation on a long-term basis, common land that was initially to be used for the public good, i.e. for soil and moisture conservation, is now being exploited commercially by a public corporation mainly to generate revenue for the state. Of note is that local people, mostly the landless, had encroached on this land to farm it for subsistence food. Once the commercial value of the land rose (with the increasing demand for cashew), this encroachment was dealt with legally and these poor cultivators were evicted, despite the fact that these people depended on these lands for their survival (see Box 3 for an example).

Our fieldwork in Orissa gave us the following impressions of the state's cashew economy:

1. Despite the fact that Orissa has vast tracts of cashew plantations, much of the plantations are old and poorly maintained. Though the corporation and forest departments have been implementing schemes to rejuvenate the old plantations by planting high-yielding breed grafts, the coverage is very limited.
2. Our interactions with the farm scientists at the Orissa Agriculture University indicate that poor cultivation practices in both public and private plantations result in very low yields. While some areas have natural limitations (the hilly terrain of Western Orissa is acutely drought prone and yields are low), there is huge scope to increase yields in the coastal plantations. Some individuals who have planted new varieties and are using good cultivation practices manage to get a yield of around 8 kilograms of raw nuts from one cashew tree.
3. There is little processing activity and few facilities. Official figures suggest that altogether there are 41 processing units in the state. Only 15 of these function throughout the year, the rest are seasonal. Why the existing units have become dysfunctional and also why processing as an activity has not expanded in Orissa, are issues worth probing.
4. Orissa remains predominantly a producer of raw cashew. Andhra traders procure almost the entire produce and take it to Andhra for processing (although the northern coast is the domain of Bengali traders). The traders go round the villages during the beginning of the season and pay an advance for the raw nuts. We were informed that the traders play a significant role in the deals between the contractors and the

⁴ US\$=approximately Rs. 46/- at the time of the study.

Corporation. Further research is needed into the trading networks in the private and government plantations to see how they may affect the livelihoods of the poor farmers as indicated by Box 3.

5. We have very little information on the process of collection of raw nuts, its seasonality, labour arrangements, duration of such seasonable employment, the significance of seasonal employment etc. This again needs to be mapped in greater detail to understand the social importance of the cashew economy for the state.

Box 3. Cashew and the livelihoods of Mayurjhullia villagers

Mayurjhullia is a village *panchayat* in Nayagarh district consisting of about 12 hamlets. Farming is the primary occupation of these people, supplemented by seasonal migration to nearby towns and wage labour in other villages. Apart from these sources, the sale of cashew nuts is an additional livelihood source during harvest season.

The village contains a big patch of government land measuring about 260 hectares which landless people had encroached and were cultivating. In 1980, the government handed over the land to the Cashew Corporation. The encroachers opposed this move as it robbed them of their only livelihood source. The Corporation officials held talks with the villagers, assuring them that they would benefit in the long run and that they could get some revenue unofficially from the contractors. The Corporation cited several examples of neighbouring villages where the contractors paid a lump sum to people when the cashew was harvested. This money was used to build schools, colleges or hospital buildings. The Mayurjhullia villagers were convinced by the Corporation officials to accept the proposal. The corporation did keep its promise and for a few years the villagers received money (the amount varied from year to year depending on yield and price of raw cashew) which was distributed equally among all the hamlets. A committee was set up to manage the negotiation process and to administer the money. The committee members were drawn from all the hamlets.

However, this story did not continue for long. A few rich farmers from this village successfully bid to manage the cashew plantation. They promised the committee that they would continue to pay, but the promise was never kept. The committee was powerless to enforce any sanctions against the rich farmers who came from the same village. This went on for three years (until 1998).

The state government in the meantime proposed to the state assembly that the cashew plantations be handed over to private companies on long lease, as the Cashew Development Corporation was considered inefficient. The issue was hotly contested in the assembly with the opposition parties opposing the move tooth and nail. The villagers discussed the issue and also decided to oppose it. Nevertheless, the Cashew Corporation went ahead with the auction process. When the contractor came to the village, he was clearly told by the villagers that he could not take even a single nut from the plantation. The villagers took over the plantation and were arrested, but released the same day. Further clashes led to many more arrests, thus further impoverishing these villages.

This brief example gives us a glimpse of the significance of cashew plantations for the livelihoods of the poorer people in the state, and the complexity of relationships which govern the way benefits are shared.

4.3 Karnataka

The west coast of Karnataka is an important cashew growing and processing centre. In fact Mangalore town is the birthplace of large scale cashew processing, which started in colonial times. However, the industry started moving to Kollam in Kerala in the 1930s, due to less stringent labour laws in Travancore state. Our exploratory fieldwork was carried out in Mangalore and we interviewed a cross section of individuals involved in cashew: farmers, peddlers, small traders, small and large processors.

Cultivation

In Karnataka cashew is predominantly grown in the hilly terrain along the coast, on private, forest and common lands. Cashew plantations originally planted as a soil conservation measure, and owned by the Forest Department, have been handed over to Cashew Development Corporation, which has about 27000 hectares. As in other states, the Corporation invites bids for usufruct rights at the beginning of every season (November-December). Lease rights are for nearly six months (up to June).

In much of Karnataka lack of proper irrigation and the rocky soil has hindered the cultivation of crops other than cashew. Most of the area is planted with cashew, which is now more or less a mono crop. Miles and miles of cashew plantations abut the roads in the region.

Plantations have not been raised in a very systematic way. The main objective seems to be more to create proof of land occupancy, which may result in receiving land title. Nuts collected from adjacent plantations are used as seeds. Trees are not sufficiently spaced and people do not know the different varieties or their yield potential. Consequently, yields are very low, just a kilogram of nuts per tree on average. There is no scope for irrigation. The plants are neither fertilised nor treated with pesticides. The dry leaves are collected and used as natural manure for the few other crops raised. The dead branches and twigs are regularly collected for firewood.

Collection of raw nuts by traders

Peddlers collect the nuts in small quantities direct from the villages. They sell these consignments (some 8-10 kilograms) to small traders in the town, who in turn sell them on to the bigger traders who then sell to the processors, either through commission agents or directly.

Some farmers supply small quantities of raw nuts to the village grocer in exchange for essential goods. During the lean season, many cultivators get essentials on credit from the grocer against the future harvest.

Unlike peddlers, small traders differentiate the nuts by their quality and variety. Poor quality and all African nuts are offered at a lower price. However, when small traders sell to the big traders, low and high quality nuts are cleverly mixed and sold, which gives the small trader a higher margin.

The small traders play a crucial role in local livelihoods since the cashew season coincides with the off-season in agriculture when no other employment is available. Being able to sell cashew during this time provides valuable cash for cultivators.

Processing

While processing in Mangalore city has stagnated or even declined over time, in the hinterland (eg. Udipi and North Canara districts where cashew is extensively grown) processing is very vibrant and growing. Our interviews with some of the big

processors in the Mangalore region indicate the following reasons for the stagnation of processing in Mangalore city and the shift to the hinterlands:

1. Labour militancy and shortage of labour. Mangalore has a long history of labour movement; while statutory benefits and other financial compensation are fully paid to the workers in Mangalore city, such payments are not made in the newly emerging processing areas. This in turn means that more and more units find their way to the 'non-problematic' regions and away from the Mangalore area. The experience is similar to the Kerala-Kanyakumari linkage that we discuss later in this report (section 5). Though wages are paid as piece rates, working hours are long in the rural units. On the other hand any extension of working hours in Mangalore has to be compensated financially. This is one reason why units have migrated to or are started in the hinterland.
2. Procuring raw nuts during the season can be highly speculative. However, the rural units can procure raw nuts as and when they want. The cost of inventory is much less and the risk of fluctuating prices is minimal for these rural units. When local raw nuts are unavailable, imported nuts are readily sourced.
3. The small operators in the rural areas have better control over logistics and quality. Since the processors are located where cashew is grown, they can ensure proper drying of the collected nuts and can procure nuts from specific growers who take care of the raw nuts. And since they know most of the growers in the region, deferred payments for raw cashew are quite common.

The small-scale processing units are spread across three districts of the region. Each unit has the entire infrastructure required for processing. The owners of these small-scale units have considerable financial clout. These small units have the capacity to process 30-50 bags of raw nuts a day (compared to the big units which average 100 to 150 bags a day). Another indicator of the financial strength of these units is their ability to procure raw nuts during the season and store them for about 4-6 months. In this sense, these units are different to those in the Panruti region of Tamil Nadu. The scale of operation in Panruti is much lower and they operate collectively as a cluster. The small-scale units in Karnataka are independent entities who sell their produce directly to the international or domestic market. Processors in Panruti sell their produce to exporters/export houses.

Most of the small-scale units are located in villages so as to get a steady supply of labour. Workers are paid slightly more than market wages so as to retain them and train them. Production level increases after 3 or 4 months and stabilises after 6 months, at which point workers are paid piece rate wages; workers usually don't receive any statutory allowances. The techniques of raw nut processing are very similar to what we found in Panruti region, the only difference being is the use of electrical humidifiers in Karnataka.

Interestingly, many small processors whom we interviewed said that they sell the processed kernels in the domestic market, usually through agents. Kernels from locally procured raw nuts are in great demand in Delhi and Mumbai markets especially, although Ahmedabad is emerging as a bigger market than Mumbai. Prices received on the domestic market are much better than the export market, even though

processors who supply kernels to the domestic market do not get low interest rate export credit, import licenses etc. However, the domestic market is very sensitive to quality. Prices and the returns are so good in the domestic market that 4 out of 5 units in Hemmadi (one of our study villages) cater only to the domestic market. The domestic market also seems to be growing very rapidly. Two of the processors who are planning new units also intend to cater to the domestic market with their expanded capacity. A few exporters in Mangalore whom we interviewed shared the same view about the scope of the domestic market.

4.4 Maharashtra⁶

The total area under all horticultural crops in Maharashtra state is 1.28 million hectares. Of this, the share of cashew nuts is 0.15 million hectares (Economic Survey of Maharashtra, 2002-2003). The main cashew cultivation area is located in the Konkan region, which is on the coastal Arabian Sea in western India. Thane, Raigad, Ratnagiri and Sindhudurg are the four districts of the Konkan region, where agriculture and fishing are the main economic activities. The Konkan strip is of a highly uneven nature with very narrow rivers and streams fringing the coastline. Over 85% of the land surface is hilly. The soil of the region is generally classified into three types: (1) western hilly area of the Sahayadri and its offshoots, (2) the plateau surface—normally used for cultivating rice and coarse cereals, (3) coastal plains of the entire western strips, which have salty and deep sandy loamy soil. The landscape is also dotted with coconut, areca nut and other trees. Cashew is mainly grown on the hills where it was introduced to conserve soil.

In 1957 the regional agricultural university—Konkan Krishi Vidyapeeth—launched a programme to promote cashew cultivation as a commercial crop. And since 1970 cashew growing has been promoted through various development schemes like Social Forestry, Employment Guarantee Scheme, Waste Land Development, and Horticultural Development. Between 1974 and 2002 the area under cultivation in the state has increased by 178% (Economic Survey of Maharashtra, 2002-2003).

Collection system

As most cashew growers are smallholders, they collect the raw nuts themselves. This is usually done by the women, who go around the orchards as and when necessary. Then growers either sell directly to the local market or to processors or agents. The marketing season starts from the middle of March. A few processors make advance payments to growers through their agents, who are generally local traders. Thus the grower commits the entire produce to the agent well in advance of the harvest at a price expected to prevail during the harvest season.

Processing

Traditionally cashew nut has been used for home consumption, and processing was not a commercial activity. It is known as “*kaaj paadaney*” in local parlance. The “*kaaj paadaney*” process consists of roasting cashew nuts in a perforated *wok*, which is cooled by pouring water. The wet nut is then crushed with stone. The colour of the

roasted cashew kernel is slightly brownish. This type of processing is unique to Maharashtra.

In Maharashtra factory production is merely a systematic co-ordination of manual processing. Women constitute 95% of the work force involved in the shelling-cutting, crushing, peeling and grading processes. There are 48 factories and 250 small units in the state, all of them located in Sindhudurg district of Konkan region. Of the 250 small units, 200 were run under the Prime Minister's Rojgar Yojana (a rural employment programme funded by the Union Government of India) and were closed down within four months. At present only 50 small units are currently in operation: 45 of these process cashew nuts while five process the cashew apples.⁷

During our visits we came across various categories of processing units. Although the existing cashew processing units in Sindhudurg district have been classified according to industrial category (Table 7), we cannot, at this juncture, go into the specifics of their organisation and functioning, since this requires a detailed study in itself. But, taking an overall view, we can place these processing units in three broad categories on the basis of processing methods used, processing capacity and employment.

Table 7. Types of cashew processing units in Maharashtra

Category of factory	Number of factories/units	Approx. nuts required per unit/per month	Number of employees/unit (approx.)	Duration of processing & employment days
A	16	25 tonnes	> 100	8-11 months
B	32	3 tonnes	80-100	6 months
C	45	1 tonnes	5	10 months

Category A units use the 'boiler method' for processing (see Box 2). They all have large capacity boilers, more than 100 employees, and according to industrial category they are big processors. These units collect raw nuts from agents and cater to the international and domestic markets. These factories claim that the available local nuts are insufficient and process nuts imported from Africa from mid-February. The African raw nuts are cheaper than local nuts. In Maharashtra the peak cashew season is from March to May. In this period these factories procure nuts through the local agents. They then mix the local and African varieties and build a stock that lasts them throughout the year.

Category B factories have been present in the interior villages of Sindhudurg for generations. These units have an initial investment of approximately Rs. one million and are run from temporary structures/tin sheds. They use the drum roasting process as opposed to steam cooking (see Box 2) and usually employ 35-40 people, mostly local women, on a daily wage basis. Their job involves crushing, peeling and grading. Around 3-4 men are employed specifically for roasting and loading, and they earn around Rs.3000-Rs.4000 per month. These units run only between mid-March and December.

Category C factories have been in operation since 2002, encouraged by a local NGO, the National Bank for Agriculture and Rural Development (NABARD) and the

Agriculture Department. They are run by unemployed young people who have been trained by NABARD and the Agriculture Department. After completing the training, the young people started the processing units with an initial investment of Rs.50,000 of their own money. The state government gave them a subsidy of Rs.25,000 to buy assets. 45 registered home-based units are being run successfully in this way. Each unit processes one metric tonne of cashew per month, and sells shelled, graded cashew under the “Gopuri” brand, with a local youth group lending a helping hand in its marketing. In the last 10 months, they transacted total business worth Rs.350,000. These units grade cashew kernels and sell them separately, while using the lower grade cashew to make cashew *modak* and cashew *katri* (sweets) as by-products. Due to the good performance of these units, the Madhyavarti Zilla Kharaydi-Vikri Sangh (a marketing organisation), has agreed to give them financial support in the form of loan at 12% for a 10-month period up to a maximum of Rs.3 lakhs.

We also came across five cashew apple processing units run by women’s self help groups in a few villages of Kankavali taluka. These units process cashew apple to make jelly, pickle, squashes etc. and sell them locally.

According to the small-scale entrepreneurs that we interviewed, cashew nut production in Sindhudurg district is high, yet only a small quantity is processed here, while most of the nuts go to other states such as Kerala and Goa for processing. According to them, Maharashtra produces good quality cashew and has the capacity to process it. With better financial support, more small units would become viable. It was also felt that if the marketing system currently in operation expands, then the raw cashew that is currently leaving Sindhudurg would be retained for processing.

4.5 Andhra Pradesh

Andhra is emerging as an important cashew growing state in the country. The area under cashew in the state doubled between the mid-1980s and 2000-01 to a total of 145,315 hectares (Table 8). Data on area under cashew cultivation find a place in the state’s annual *Season and Crop Report* published by the Government of Andhra Pradesh, unlike many other states.⁸

Cashew is mainly grown in the Coastal Andhra districts, such as Vishakapatnam, East and West Godavari, which together accounted for 70% of the area under cashew in the state in 2000/01. Our field visits were confined to East and West Godavari districts where we interviewed a cross section of people associated with cashew cultivation, processing and trading.

Cashew in Andhra Pradesh is grown on both forest and private lands. Forest land constituted about one third of the area during the mid 1980s and much of the expansion in the subsequent years seems to have taken place on private lands.

Collection

Traders from the nearby towns procure the raw nuts from the cultivators. They in turn sell the nuts to traders, processors or agents from Kerala. The presence of Kerala traders and processors is ubiquitous in Andhra Pradesh. Some small traders have a

wide clientele of agricultural labourers who bring in small quantities of nuts (very often not exceeding a couple of kilograms), generally gathered by the labourers from the ground after the harvest is over. These nuts are poor quality and receive low prices, but even so can represent a significant income for the agricultural labour households.

Unlike in the other cashew growing areas in the country, the growers in the Godavari districts are more price responsive. When the price for raw nuts started to climb they rapidly brought new land into cultivation and shifted these to other crops when prices started declining. Cashew's longer gestation period does not seem to deter such shifts. This could also be due to the maximising drive of the enterprising migrant coastal Andhra farmer.

Table 8. Area under cashew cultivation in Andhra Pradesh (hectares)

Sl.no	Districts	1985-86	2000-01
1	Srikakulam	9,295	18,571
2	Vijayanagaram	9,268	8,266
3	Vishakapatnam	8,352	29,540
4	East Godavari	12,169	33,583
5	West Godavari	18,906	42,702
6	Krishna	1,059	824
7	Guntur	528	97
8	Prakasam	2,792	761
9	Nellore	6,696	743
10	Karnool	0	0
11	Anantapoor	0	0
12	Cuddappa	17	7
13	Chittor	6,016	126
14	Telangana Districts	3,053	10,041
15	Total	71,815	145,315

Source: Season and Crop Reports, various years, Government of Andhra Pradesh

Cashew cultivation

Cashew is grown in the dry lands of the Godavari districts along with other dry crops. One striking aspect of cashew cultivation in these districts is that the cultivation practices are rather intense. The crop is not left in the wild as in many other states. The land is ploughed at regular intervals, plants are fertilised, pesticide is sprayed as and when required and drip irrigation is installed on many farms. Another important characteristic of cashew cultivation in these districts is that it is not grown as a mono crop. It is part of a portfolio of many cash crops like oil palm, horticultural crops like mango, lemon etc.

These intensive cultivation practices ensure high yields. Most of the new plantations in the private sector are of high yielding hybrid varieties which start yielding more quickly than 'traditional' varieties. On an average, plantations in East and West Godavari districts have 50-60 trees. The annual yield from a one hectare plot is about 20-25 bags of raw cashew (each bag weighing 80 kgs). Hired labour is engaged along with family labour to harvest nuts. Dried raw nuts are stored and sold when the prices are good.

Processing

Surprisingly, despite the phenomenal expansion in cashew cultivation in the state, processing has not expanded at the same rate. We estimate that the state's annual output should be in the region of 150,000 tonnes of raw nuts. Only a tiny fraction of this seems to be processed in the state. Processing is reported only in two places: Palasar in Srikakulam district and Morie in East Godavari district. While Palasar has a few small scale processing units, units in Morie are cottage or household enterprises operated by about 200 cashew-processing families. As elsewhere, women predominate in the work force in shelling, peeling and sorting activities. Men usually act as transporters as the nuts have to be moved around for various sub-processes. Thus, processing in Morie is a scaled down version of the cluster-like activities in Panruti in Tamil Nadu. One crucial difference between these two regions is that, apart from the scale of activity, the Panruti processors are closely linked to the export houses, whereas Morie caters to the domestic market. Also while Panruti processors source raw material from elsewhere *in addition* to what is grown in their area, Morie processors process only a fraction of what is grown in their area.

The cashew sector in Andhra is interesting in that, despite enormous expansion in area under cultivation and production of raw nuts, further value-addition activities have yet to gain momentum. The small processing capacity compared to the level of raw nut production indicates the huge latent employment potential that remains untapped in this state. It seems the main beneficiaries of such a huge raw nut production are the Kerala processors.

4.6 Summary

These field work findings have provided a general idea of the range of activities in the cashew industry; the levels of organisation; the nature of interlinkages (if any) between the people involved in different activities; as well as the significance of the industry to the well-being of the households involved and to the region in general. This exploratory phase has revealed the enormous diversity inherent in the cultivation, collection, processing and marketing of nuts. Institutional arrangements and the benefits which small farmers and workers who are processing cashew are able to derive seem to be diverse and context-specific. Forms of cultivation vary greatly (individual smallholder farms, plantation and/or encroached forest land) as does the organization of processing (individual, cooperative and cluster). Even the extent of processing activity varies greatly. Thus, for example, the two regions that we studied in Tamil Nadu are both involved in growing cashew, but while one has moved further into processing, the other has not gone beyond the primary activity of cultivation. The more interesting aspects of this differentiation is not just the vertical movement in the cashew chain that one region has attained, but the glimpse that we managed to capture of the organisational pattern (socio-political and economic) at each node of the chain.

At least one example of possible 'good practice' has been identified in Panruti, south Arcot district in Tamil Nadu where there are hundreds of small processing units, organised and owned by villagers which are part of an extensive network linked to a small number of large export houses. This cluster arrangement merits further study

since it seems to generate considerable employment and a greater spread of benefits than other patterns, although the nature and conditions of employment are unknown.

In relation to cashew plantations, a complex nexus of power relations between corporation officials, politicians, traders and village leaders seems to govern the benefits to communities. Employment in plantations is important for women and may provide a source of income over longer periods than other crops and in lean seasons when there is no other agricultural employment. In addition, cashew can make a particularly important contribution to livelihoods in areas which are poorly endowed in natural resources.

Our findings reinforce the importance of combining insights from value-chain analysis and the embeddedness argument of Granovetter (1985). It is clear that women and men are actively involved in economic activities along the cashew value chains at local level, at least, although how female intensive different activities are along the full value chain is still an open question. As economic agents, people are not isolated individuals but come from particular social (and gender) backgrounds which affect the form of their integration. A full analysis needs to consider variations in access to and benefits from particular fields of productive activity, based on gender and social origin (Joeke, 1999:86). Certainly, gender analysts have shown how the behaviour of individuals in households has to be understood in the wider context of social processes, institutions and power structures and that markets operate according to rules and norms which afford different access to women and men (Kanji and Barrientos, 2002). The next section explores the processing part of the value chain in Kerala and in Kaniyakumari district in the neighbouring state of Tamil Nadu, where we do have more information on how activities are organised, and where labour is almost entirely female.

5. A case study of the cashew processing sector

While we have not been able in this preliminary study to explore how labour is organised at each node in the cashew chain, there is more information available on labour organisation in cashew processing, particularly in Kerala. The processing part of the industry is almost entirely fuelled by women's labour and we should ask how this has benefited women and their households and what changes there have been in the past decade.

Our field trips for this part of the research were largely confined to Quilon in Kerala (where the bulk of processing activity in the country is concentrated) and a short trip to neighbouring Kanyakumari district in Tamil Nadu. In this section we bring together available information on women's labour in cashew to form an up-to-date baseline assessment of conditions for women in cashew processing. Before that, we briefly examine relevant trends in cashew cultivation in Kerala.

5.1 Cashew cultivation in Kerala

Kerala plays an important role in the Indian cashew sector. As already noted, Kerala was the foremost state in the country for almost all aspects of domestic production, such as area under cultivation, productivity and production of raw nuts. But in the last decade the state has fallen behind in almost every aspect of cashew cultivation (Table 9).

Table 9. Kerala's share in cashew area and production

Year	Area in hectares			Production in MT		
	India	Kerala	Kerala's share	India	Kerala	Kerala's share
1970-71	302732	107516	35.5	127223	85391	67.1
1975-76	374653	112311	29.9	161536	107212	66.3
1980-81	464465	145211	31.2	185250	117000	63.1
1985-86	518379	154114	29.7	234480	128900	54.9
1990-91	531849	155391	29.2	294590	142100	48.2
1995-96	634970	118600	18.6	417830	140000	33.5
2000-01	627000	100000	15.9	450000	76000	16.8
2001-02	770000	120000	15.5	508600	84300	16.5

Source: Compiled from various publications of the Directorate of Cashewnut and Cocoa Development, Kochi.

The relative decline of the state's primacy in cashew production can be attributed to two factors: (1) the dismal performance of the state itself; and perhaps more importantly (2) the spectacular expansion of cashew cultivation in other parts of the country. It is a matter of policy importance and concern that Kerala has not been able to capitalise on its head-start in cashew cultivation. The few studies that have explored cashew cultivation in the state and our own field visits and interviews indicate that the following factors may explain Kerala's diminishing importance.

Despite most processing factories being located in south Kerala, most cashew is grown in the northern districts, especially Kannur and Kasaragod, where the biophysical conditions are particularly suitable. North Kerala is known for the high productivity (590 kg per acre) and quality of the nuts it produces. Yet despite favourable biophysical conditions, Kerala farmers have not engaged in intensive cultivation practices although the reasons for this are unclear. Many farmers, especially in the southern districts, have switched from growing cashew to other more lucrative crops, such as rubber. Thus, the relatively low value of cashew has been an important reason for its decline in Kerala. As a recent study concluded, "*An expansion of the area under cashew cultivation is difficult to achieve because only little waste land is available and, because, on better soils, cultivators tend to grow more remunerative crops than cashew*" (Veron, 1997). In southern districts there is little land exclusively under cashew, except for plantations owned by public sector corporations. Instead, cashew trees tend to be grown in mixed cropping plots as a part of farmers' diversification strategies.⁹

Other reasons for the decline of cashew cultivation in the state include the pronounced seasonality of the cashew production cycle, high sensitivity of yield to weather conditions, unattractive prices, land ceiling for cashew plantations (which existed

until recently), senility of the trees, and the non-agricultural orientation of landowners. But there has been little research into the extent to which these reasons, or a combination of these reasons, have led to a decline in Kerala's relative share in the production of raw nuts.

One important question meriting further research is why Kerala farmers/households choose to shift out of cashew cultivation altogether, despite the fact that, unlike other crops, cashew is a high-value crop and both international and domestic markets have been expanding. Viewing cultivation as one node in the cashew chain immediately raises the possibility that the way the chain is constituted does not really give the Kerala cultivator/household sufficient incentives to concentrate on cashew cultivation, and there is little support for cultivators of cashew to 'upgrade' their activities.

Processing in Kerala

Kerala has the largest processing capacity in India, almost 50% of a capacity of one million metric tonnes of raw nuts in 2000, followed by Tamil Nadu (Balasubramanian 2001). It also exports the highest share of the country's cashew kernels (Pillai, 2002).

Progress in this industry in the 1990s was against a backdrop of India's growing liberal environment, both in terms of trade liberalisation and industrial delicensing, coupled with a fairly steady growth in the production and exports of cashew kernels (after a sharp downturn between 1977-88).¹⁰ However, such an environment appears to have legitimised greater 'informalisation' of production and work arrangements in the processing sector in Kerala. Thus we doubt whether any of the large numbers of workers employed in this sector, over 90% of whom are women, would have benefited from this growth. In some ways the gains made earlier by a unionised labour force and an interventionist state appear to have been reversed. The question now is what potential is there for 'upgrading' the cashew processing industry to ensure that workers benefit from future gains?

Brief history of the cashew industry in Kollam

We begin by focusing on how history has shaped this industry in Kollam (formerly named Quilon) in South Kerala. Kerala was among the first regions in the country, after south Kanara, where cashew-processing units emerged. In the 30s the industry became concentrated in Quilon (now Kollam), in the former princely state of Travancore. Though initially foreign companies like Pierce Leslie and General Foods had given impetus to the export trade, very soon it came to be dominated by indigenous entrepreneurs with a few families leading the field¹¹ (Deepa, 1994; Lindberg, 2001). Most of the cashew firms were organised as proprietary concerns and to some extent as partnerships, an arrangement which continues today; recent data show that almost three-quarters of the private cashew firms are proprietorships and the rest partnerships.¹²

⁸ See Veron, 1997 for details.

⁹ The well known names were Thangal Kunju Musaliar, P Krishna Pillai, Poyilakada; P Parmeswaran Pillai, Narayanaswamy Reddiar. MP Govindan, MP Kesavan, K Mytheen Kunju etc two of the biggest concerns now, VLC and KKP are owned by descendants of some of these pioneers of the 20s.

¹⁰ Derived from Balasubramanian (2001).

An important historical reason for processing capacity being located in Kollam (despite most cashew being grown in the north of Kerala), appears to have been the availability of cheap labour. The industry has always been labour intensive; for instance, Deepa (1994) found that the number of workers per unit of productive capital in cashew was 21.32 compared to 2.20 in cotton spinning and weaving, and 2.25 in coir spinning and weaving. Another factor appears to have been the lack of labour legislation and regulations in Travancore,¹³ unlike parts of India governed by the British. As the processing work required manual dexterity deemed to be most suitable for female workers, the industry became highly female labour intensive; the absence of a law governing maternity benefits to women workers helped to reduce the financial burden on factory owners. Factories thus shifted from Mangalore (in S. Kanara) to Quilon in the 1930s to escape the onerous legislation of British India.

It is estimated that by the 1940s, when Quilon was processing 75% of India's cashew kernel exports, only one third of the raw nuts processed came from local sources. Twenty-five percent came from Malabar and S. Kanara and the rest, a little over 40%, were imported from East Africa (Lindberg 2001). There was a setback in the processing sector during the war but the post-war period saw a rapid expansion of the industry due to high export demand. The number of cashew factories in Quilon/Travancore grew from two in 1933 employing about 3,900 workers, to 40 in 1938 (employing 22,000 workers) and 117 in 1948, employing over 35,000 workers (Lindberg 2001).

State intervention

The poor earnings and inhuman working conditions in Kollam's cashew factories led to the emergence of a trade union movement. The first union formed as early as 1939. And subsequently, unions affiliated to different political parties, in particular the left-wing parties, gained considerable strength. However, the rise in trade unionism has not meant that labour issues are tackled from a gender perspective (Lindberg 2001). Issues such as differences between male and female wages have not been given much attention, despite the fact that women workers believe that they belong to the working class and also get involved in collective action (Box 4).¹⁴

Box 4. Women and trade unions

While the representation of women in trade unions at local levels is high, at higher levels few women are present. This may be that while household heads do not object to women being part of a large local group activity, they generally disapprove of them occupying higher positions in the party, which involves travelling and giving them more importance.

¹¹ Lindberg (2001) has brought out some interesting facts in support of this hypothesis. For instance the Factory Act of 1881 regulated child labour and working hours in British India; almost 13 percent of total work force in Travancore (in early 50s and in all probability earlier) was child labour while it was only a very small percentage in S. Kanara. No wages were paid for broken kernels in Travancore, as in S Kanara nor were the workers paid a higher wage rate for imported African nuts which being smaller took a longer time to shell. Again, there was no legislation in Travancore against open pan roasting of raw nuts in residential areas resulting in heavy smoke and fumes while town councils in Mangalore had legislated against roasting in populated areas.

¹² Lindberg (2001) has traced the social order since the early period of the cashew industry arguing that by the '50s an even stricter gender division of labour was in place, which was legitimized and mediated through dichotomous thinking and the language of femininity and masculinity.

It has been found that with growing literacy, the influence of the trade unions has been reduced. Radicalism is now seen as a desirable attribute for men and not for women. Previous women's more radical activities are now treated as unfeminine by the younger generation, as well as by the women who in their prime had been at the forefront of union activities. Apart from this, poverty and the changing nature of the functioning of capitalism (relocating factories and casualising workers) have further suppressed the scope of women's trade union activities. It is interesting to note that women are willing to work at a lower rate (betrayal of union norms?) to prevent their children from starving while their husbands refusing to work for lower wages, but have no qualms about relying on women's income at such times.

The gap between the leaders and the workers has widened and this has further adversely affected women's role. They seem to have lost faith in the leadership and the confidence that the unions will heed their demands. The large-scale closure of organised factories and the unions' failure in getting them reopened affected workers' morale considerably. The fear of job losses compels women to work for very low wages. A number of them stated that they were thankful for even this work since otherwise they would have very little means of survival.

Source: Lindberg, 2001

State intervention has been very intense in the cashew processing sector in Kerala, largely in response to pressures from trade unions. Initially the state intervened to enact protective legislation for workers and grant them minimum labour rights given the deplorable conditions in which they worked (Kesavan Nair, 1994). In 1945 the government declared cashew workplaces as 'factories' even though they did not use power. This declaration gave employers considerable obligations, including adhering to stipulated working hours; and paying unemployment compensation, maternity benefit and employees' state insurance, especially if the factories were categorised as 'perennial' factories. Despite stiff resistance from factory owners, in 1956 the government declared cashew factories to be 'perennial'. Just prior to this, the industry was also brought under the purview of the Minimum Wages Act.

Needless to say, the implementation of this legislation in the cashew industry threatened its cheap labour base; factory owners took a number of steps to evade implementation of the legislation:

- ‘seasonalising’¹⁵ employment by closing factories on a cyclical basis
- employing more and more workers for shorter periods
 - underweighing employees' output
 - under-registering the ‘regular’ workers
 - falsely recording number of days worked
 - resorting to ‘cottage processing’¹⁶

¹³ This involved cyclically shutting down operations in one place, generally on the pretext of unavailability of raw nuts, and opening them in another, thus artificially creating a ‘seasonal’ workforce (Lindberg, 2001).

¹⁴ Factories were declared as closed (on some pretext) but workers offered work on an informal basis in the factories on a "cottage processing" basis, that is, at half the minimum wage rates with no other benefits.

These steps resulted in rendering the workers, women workers in particular, as 'casual' workers and hence ineligible for most or all of the statutory benefits (Kannan, 1983; Lindberg, 2001). These practices eroded workers' earnings considerably. Firstly, actual wages paid were less than the minimum wage, sometimes by up to 40% (Kannan, 1983). And secondly, there was a sharp reduction in the number of days worked in a year, from almost year-round employment until the early 50s, to about 100 days a year by the early 70s (Lindberg, 2001).

With factory after factory closing down, the government responded by banning cottage processing in 1967. So factory owners shifted the cottage processing to the neighbouring state of Tamil Nadu. By 1967, 12 units had been set up in Tamil Nadu and by 1972 there were 107 factories, primarily located in Kuzhithurai (in the district of Kanya Kumari) (Kannan 1983).

However, a recent decline in the frequency of appointing minimum wage committees, and the toning down of recommendations for fear of reprisal from factory owners, suggests a certain backtracking by the state from its earlier strong stance.¹⁷ Since 1956 there has been a steady erosion in subsequent governments' commitment to labour welfare and labour rights in the industry.

The entry of the public sector

In 1969 the Left Front government in Kerala set up the Kerala State Cashew Development Corporation (KSCDC). This was an attempt to make a political statement and also adopt a pro-labour stance. The operations of KSCDC initially spanned a wide spectrum of activities: from channelling¹⁸ imported raw nuts through the Cashew Corporation of India (CCI), to distributing these nuts, and subsequently to taking over and running the closed privately-owned cashew factories. KSCDC was able to distribute the imported nuts more equitably among the processors (distribution was no longer controlled by the largest processors), market the kernels, and most important, pay statutorily fixed wages and benefits to the workers employed in its factories. In a further attempt to increase raw nut availability for Kerala factories, the government restricted inter-district movement of domestic raw nuts in 1975, culminating in the Monopoly Procurement Scheme of domestic nuts in 1977.

The KSCDC opened one factory in 1971 and then started purchasing or leasing factories, and by 1975 it had 34 factories with 30,000 employees (accounting for about one-quarter of the estimated work force in this sector). The initial years were successful for the Corporation, and it showed reasonable profits for its first ten years of operation, despite paying their workers full benefits. This exploded the myth that the cashew industry is unworkable when statutorily fixed minimum wages are paid to the workers (Pillai, 1981; Kannan 1983). However, this success story no longer

¹⁵ This has been described as a shift of the industry since raw nuts were moved from Kerala to Kanya Kumari by Kerala factory owners it was not so much in response to a availability of raw nuts as process

¹⁶ See Lindberg (2001)

¹⁷ Though these figures relate to India as a whole, they speak largely for Kerala given its dominant share in kernel exports, and its dependence on nuts from external sources.

prevails. KSCDC has been incurring losses in recent years (Kerala Economic Review, various issues) and since 2001 the KSCDC factories have been closed.

What has contributed to KSCDC's downfall is still unclear. There have been a number of allegations of corruption and mismanagement. It has also been argued that its failure was political, triggered by a change from a Communist-led to a Congress-led government in the 80s. A deeper exploration of the reasons for KSCDC's failure is essential, given that it did have, for some time at least, a beneficial impact on earnings and working conditions. And government's inability to provide continuous employment has emboldened the private sector to justify the 'seasonal' nature of the industry and hence their inability to pay statutorily fixed minimum wages and other benefits legally due to workers in the industry.

The private sector

As described above, the private cashew processing sector is dominated by a few family groups with large factories (Deepa, 1994; Lindberg, 2001). In the early 70s one third of cashew firms¹⁹ employed almost 90% of the workers; on an average there were 700 workers per factory (Kannan, 1983). Today the industry is still controlled by later generations of the former 'cashew kings'.

There are two types of processing organisation within the private sector: the factory (organised) and the household/cottage (unorganised). Since the banning of any form of cottage processing in the latter half of the sixties, the practice continues on a clandestine basis, while cottage type processing on a sub-contracting has re-emerged in Aluva and Mattanchery (Ernakulam district) and in some places in Kollam. However, this needs further investigation. Our queries in Kollam also revealed that the process of 'grading' second quality nuts for the domestic market is being contracted out by factories and carried on as a home-based activity.

Today the organisation of processing activities in the private sector can be divided into four types:

1. owner himself undertakes the processing using his license, but attempts to casualise the work force
2. owner leases the license to a lessee, and the lessee carries out the processing activity
3. owner enters into a contract with a commission agent
4. lessee enters into a contract with a commission agent

Points 3 and 4 are a recent practice known as *commission varuppu*. Commission agents enter into a contract with either the owner or the lessee to process a certain quantity of nuts for a certain amount of money; this is also called 'toll processing'. These agents may be foreign or Indian. While one of the foreign commission agents stressed the fact (in our interview with him) that the commission given to the factory owners does allow for the stipulated wages plus benefits to be paid to the workers, the

¹⁸ Interview with officials of KSCDC

¹⁹ It is possible that a family group can consist of a few firms.

unions argue that the only way for the owner/lessee to increase his profit under this system is to squeeze the workers. *Commission varuppu* further dilutes the obligations of factory owners to workers, according to union leaders. The extent of entry and influence of foreign companies in the cashew market, the manner in which they have organised their activities and so on, is still a matter for investigation.

Simultaneously, the search for cheap labour has resulted in new factories being set up (some by the existing large processors) in new but poor and backward areas, such as parts of Kuttanad where agricultural employment for women has declined sharply in recent years.²⁰ It is these practices, rather than a shortage of nuts, that are likely to be leading to the decline in number of days of employment in cashew factories (Table 10).

Table 10. Number of registered cashew factories and workers in Kerala/Travancore, 1933-2000

Year	No. of Cashew Factories	No. of workers in Cashew Factories	Cashew Workers as a % of Total Factory Workers	No. of Days of Employment
1933*	2	3990		Upto 1950s full employment
1937*	40	22121		
1948*	117	35247		
1958	Na	62278	41	
1960	181	69249	41	
1963	197	78695	45	
1967	241	96867	48	
1971	266	99050	48	100
1975	267	122465	46	
1978	243	122029	45	97
1981	260	127550	42	62
1984	243	104727	36	76
1987	264	107067	36	70
1996	379	180598	44	
2000**	400	200000	Na	30-200***

Source: Lindberg (2001)

Notes:

*Official Statistics Travancore, not reliable

**From interview with the President, Cashew Workers Welfare Association, January 2001

***Varies between factories. In KSCDC factories the average number of working days was 13 between 1992-95.

Overall, the number of factories has continued to grow and the pace of growth picked up in the 1990s. However, the number of days of employment per worker has been shrinking: it reached a low of 42 days in 1986 and in the first half of 1990s the number of working days in government run factories was only 13 days. Currently we were told the number of working days varies between different factories from 30 to 200 days (see Table 10).

It is also our impression that the re-emergence of cottage processing or *kudivaruppu* is linked to the growth of the domestic market for cashew kernels, where quality and labour standards may not be as exacting as the international market. In some of the

²⁰ As revealed to us in an interview with a large processor in Kollam.

home based units we visited in Kollam, daily earnings of women working in grading were only around Rs.45-50, compared to Rs 60-65 in the commission factory we visited.

The picture of the organisation of production in the private sector has always been complex and if anything, this complexity has increased with the failure and subsequent closure of the government-run units, and with government becoming increasingly lax in the implementation of labour laws. There is a need to investigate the different forms of organisation that characterise the processing activities in the private sector, the relationships between these different forms, how labour moves and is made to move between the different forms, the share of labour cost in the total processing cost, (the latter, in order to address and assess the allegation that formalising all labour would render the industry unviable). Some of these issues have been the subject of research earlier but the rapidity of changes simultaneously on several fronts in the 1990s—national and global—provides a compelling argument for re-examining some of these questions; more important, the re-examination has, of necessity, to address the question of how these seemingly disparate aspects of the industry are linked.

Workers and earnings

Worker composition

In an earlier section we found that while the official data reveal a growth in the number of workers in this industry, to almost 200,000 in 2000, the actual situation is not so clear because of the various ways in which the workforce has been casualised and therefore goes unrecorded. Nevertheless, working with the available data we examine the structure of the workforce (Table 11) and its composition with respect to various attributes such as gender, caste, age and education (Table 12).

As was noted earlier, over 90% of workers are women. Men serve as roasters, borma (oven) operators, watchmen, coolies and supervisors and for these tasks the number required is very low. All the other tasks, such as peeling, shelling and grading are done by women. The gendered division of labour has increased over the years. In the 1930s, 20 to 30% of workers were men; in 1993 they made up only 3% (Table 12).

²¹ Information supplied by KSCDC officials.

²² Information supplied by a CAPEX official

²³ Information supplied by the foreign commission company.

²⁴ Information supplied by a large processor.

²⁵ The large processor we interviewed admitted that some clandestine cottage processing was also adopted by good practice factories.

²⁶ We were told that to remain competitive, government factories did resort to making a few workers permanent while the larger majority were employed on a temporary basis (interview with KSCDC officials).

Table 11. Distribution of workers by category in Kerala cashew factories

Category	1965 (%)*	1977 (%)**
Shellers	42	42
Peelers	46	42
Graders	8	10
Roasters, etc.	4	6
Total	100	100

Source: Lindberg 2001.

Notes:

* From a study of 30 cashew factories in 1965

** Study of 17 factories in 1977

Table 12. Sex of workers in Travancore/Kerala (%)

Year	Men	Women	Children	Factories surveyed
1936-37	27	73		32
1937-38	26	74		39
1938-39	27	73		41
Kerala				
1952	14	73	13	42
1964	7	93		
1969	5	95		
1978-79	6	94		
1983-84	5	95		
1989-90	6	94		
1993-94	3	97		

Source: Compiled from Government of Travancore/India publications. Quoted in Lindberg (2001:116)

Caste also plays a role in labour organisation. Of the activities performed by the women, the most tedious, dirty and hazardous is shelling, followed by peeling and then grading. The lower caste women are engaged in the most menial tasks, with between 75-100% of scheduled caste women found in the shelling section (Deepa, 1994). However caste segregation was reported to be dwindling as the upper caste women also were undertaking jobs previously considered as menial (Lindberg, 2001).

The level of illiteracy among workers seems to be high, with almost 40% of women workers recorded as illiterate in one study (Deepa, 1994). However, our fieldwork revealed conflicting views about the age of women seeking work in this industry: according to one factory owner, young people do not like such work. But according to a trade union leader, the young people are equally willing to take up jobs in this industry and employers prefer people with education at least up to 10th standard. He also pointed out that a small percentage of degree holders are found among cashew labourers, which suggests the entry of younger women.²¹ We too observed younger women (above 18 years of age) in our brief survey.²² These conflicting views imply

²⁷ It is the monotonous, repetitive tasks in which women are given a space with little prospects of better earnings while for the men, given the fact that the capital labour relationship is different for male workers, their situation in the new tasks would be superior.

²⁸ As disclosed in the Quilon workshop.

²⁹ These data were collected in the course of our interviews with key resource persons.

the need to explore in-depth the types of women who are compelled to work in the industry.

Stipulated wage rates and other benefits

The gendered nature of the wage system is evident from Table 13, which also demonstrates the clear gender division of processing work. In the 1930s and 40s most cashew factories paid workers, men and women, on a piece rate basis. However with the introduction of minimum wages in 1952, men roasters received a daily wage while women's wages were still dependent on specified outputs. The gendered wage gap is taken for granted, even by left-wing unions. For instance male workers in clandestine processing are paid higher daily wages since it is believed that men are troublemakers and hence nobody could get away with paying low wages to them.

Table 13. Estimated average daily wages according to the stipulated minimum wages for cashew workers, 1953-1999 (in rupees)

	1953	1959	1967	1975	1990	1999
Females, piece work						
Shellers	1.25	1.60	3.24	8.00	24.23	63.02
Peelers	1.24	1.59	3.14	7.85	24.00	63.01
Females, daily wage earner						
Graders	1.25	1.56	2.92	7.43	24.65	65.00
Others		1.56	2.92	7.43	24.65	66.00
Males, daily wage earner						
All workers	1.88					
Casual worker		2.21	3.72	9.18	28.40	75.00
Scrubber		2.31	4.02	mw	mw	mw
Roaster		2.76	4.28	mw	mw	mw
Fireman		2.76	4.28	11.38	32.60	80.00
Tinker		2.76	4.28	mw	mw	mw
Stenciller		2.61	4.02	9.83	31.05	75.00
Packer		2.61	4.02	mw	mw	mw
Bag carrier		2.56	4.02	9.83	31.05	80.00
Oilbath roaster		2.46	4.28	mw	mw	mw
Sizer	-	-	-	-	28.40	75.00
Others	-	-	-	-	34.75	85.00
Female/male ¹	0.66	0.67	0.73	0.74	0.79	0.82

mw = monthly wages

Notes:

1. *Female/male: estimated average wage rate for women divided by the average wage rate for men*
2. *From 1960 onwards the figures include "dearness" (cost of living) allowance.*
3. *Estimated daily output for shellers is 7 kg. and for peelers 5.5 kg.*

Source: Lindberg (2001).

In course of time the opinion as to what is appropriate for men and women has even become firmly rooted among the workers themselves. Over time men have achieved a better position than women. Men have been differentiated on the basis of skill and education in the tasks that they perform, with the gradual introduction of several new

job classifications and monthly wage payments. But this is not the case for women, whose earnings have been more or less equalised across tasks.

The adoption of monthly wages for certain types of work done by men, like borma worker, roaster and oil bath roaster, has also meant considerably higher salaries for men workers (Lindberg, 2001). Men therefore get better terms, having time rated work and being entitled to unemployment compensation. Women get lower wages and almost all their work is paid on a daily or piece rate basis. The female/male gap in daily wages has reduced over the years, but when including the men who get monthly salaries, the gender gap widens considerably (Lindberg, 2001).

Besides attempts to improve wages in the cashew sector, many social welfare schemes for the cashew workers were initiated, like the employee's provident fund (1963),²³ employees' state insurance scheme (1963),²⁴ gratuity fund (1972)²⁵ and employee's family pension (1975).²⁶ However, there is no proper data regarding how many workers are the actual recipients of all the benefits.

In our discussions with people familiar with this industry, we learnt that workers would receive minimum wages, at least in factories, unless it was clandestine processing. However, most of them are rendered ineligible to avail of the non-wage benefits described above. The evolution of a much less confrontationist stance of the government vis-à-vis the large processors in the cashew sector commented upon earlier, resulted in a wider political acceptance of providing social security to informal sector workers through the tripartite welfare fund model approach. The Kerala Cashew Workers Relief and Welfare Fund was set up in 1989 to cover a person who is engaged in any form of employment in the processing of cashew and her/his dependents. The government, employer and the employee are contributors, Rs 2 per worker per working day by the government; half of that by the employer and half of the employer's contribution by the worker. It is a wide ranging scheme including pension, provident fund and gratuity, ex-gratia payment under special consideration, scholarships to children for education, maternity benefit two times to those not covered under ESI scheme, and, in periods of no work, it provides a supply of free ration or cash if there are long periods of unemployment. However, there is no other medical benefit, a major shortcoming of the scheme since this industry is characterised by occupational health problems primarily due to the continuous sitting posture and in one position.²⁷ While almost 94% of workers were covered under this scheme out of a total estimate of 131,000 workers in 1994, it is still struggling to

³⁰ Workers' savings fund administered by employers consisting of a certain percentage of wages. The purpose of the fund is to provide financial security to workers upon retirement due to age or incapacity.

³¹ Insurance financed by contributions from employers, employees and the state, mainly for sickness and maternity benefits. To be eligible for the benefits the employee must have worked a minimum of thirteen weeks over a period of six months. A factory covered by ESI will not be covered by the maternity benefits act.

³² Workers' saving fund administered by employers consisting of a certain percentage of wages. The purpose of the fund is so a gratuity can be paid as a lump sum to workers for long, uninterrupted service. It can be paid after a minimum of five years of service.

³³ An insurance fund financed in the same way as ESI, meant to provide the workers family with a monthly pension in case of an employee's death.

³⁴ Dependents include husband/wife, unmarried daughters and minor sons and parents, minor brothers and unmarried sisters fully dependent on the beneficiaries.

³⁵ This was a complaint we heard from all the workers we interviewed.

achieve financial viability unlike some other Funds dominated by powerful and vociferous sections of male workers like the headload workers, autorickshaw workers and toddy workers welfare funds (Kannan, 2002).

The conditions for workers, especially women, in this industry fail to provide a decent standard of living, characterised as they are by a reduction in the number of working days, longer working hours in clandestine processing, lower wages and increasing informalisation. The poor conditions of work at the work place compound the problems further. According to Kerala factories rules, the protective measures that ought to be strictly followed include proper ventilation, provision of suitable gloves, suitable sandals, aprons, and so on. On our factory visits, we failed to find many of these conditions being satisfied.

Surviving seasonal employment

Lindberg's (2001) study reveals, in her sample of women workers drawn from a large factory, that almost 50% were the main earners in their families; only 7% conformed to the stereotyped gender role of being only supplementary earners in the family.

As we saw in the earlier section there are long periods of no work in this industry. So how do women workers cope when no processing employment is available? Deepa (1994) found that most women workers were forced to seek other jobs (mostly in other agriculture related activities), make adjustments in consumption expenditure (reducing quantity and quality of food consumed), take out private loans or depend on personal borrowing.

5.2 Working conditions in Kanyakumari, Tamil Nadu

As explained earlier, cashew processing activities in Kanyakumari were initiated, and are today still controlled, by entrepreneurs from Kollam, Kerala. There is considerable switching of activities between the states to escape legislation which producers see as hindering their ability to enhance their profits, especially legislation designed to mitigate exploitative labour conditions. Our limited exposure to Kanyakumari also reveals that the social organisation and control of processing in Kanyakumari by Kerala entrepreneurs has not only been detrimental to local labour, but also to local entrepreneurial initiatives. Local government in Kanyakumari has contributed to this particular form of organisation of production because of its attempts to '*industrialise backward rural areas*' (Center for Education and Communication, 1999).

³⁶ Indian trade unions are organized with strict three layer pyramidal hierarchy. Individual factories are the basic units and at this level there are factory workers who are nominated to be so-called factory conveners. At the next level i.e. the regional level trade union leader has the responsibility for several cashew factories in a particular area, usually consisting of one taluk. The leaders at this level do not work in the factories, but are full time trade unionists. Finally there are leaders at the state level who are full time politicians who deal with country wide issues.(Lindberg, 2001)

³⁷ This came out in our Quilon workshop discussion (November 13, 2002).

A study of the Kanyakumari cashew sector by the Center for Education and Communication in 1999 has covered these issues in detail. We provide a brief summary of the findings here, which our own factory visits endorse. Their work is relevant because the working conditions and implications for gender largely corroborate the Kerala findings. And also because it is an interesting comparison to our findings on the social organisation of production in another part of Tamil Nadu: Panruti (section 4.1). While our initial research indicated the largely beneficial impact on households of Panruti's processing clusters, this appears to be in sharp contrast to the Kanyakumari model.

We have summarised the CEC findings under the following two headings:

1. Ownership and organisation of processing activities in Kanyakumari
2. Women's working conditions

Ownership and organisation of production

According to the CEC, the Kollam cashew nut industry owners have transplanted the same industry organisation into Kanyakumari. As in Kollam, one person/family owns a number of different factories. But where several proprietors have units in a single area, they work in close coordination and function as 'combines'. There appear to be a number of advantages to this (Sathyadas 1991, cited in CEC, 1999):

- ability to access loans from the same credit institutions but in different names
- deriving benefits that accrue to units defined as small-scale
- capacity for monopolistic control over the markets for raw nuts
- ability to change administrative staff from one factory to another so often that the latter do not establish long term contact with local producers
- rendering work conditions uniformly oppressive so that workers see no benefit in switching from one unit to the other except to be near their home.

“In the beginning, the cashew nut industry entered Kanyakumari as a temporary arrangement to evade enforcement of labour legislation in Kerala. When the processors were able to pay very low wages and got their cashew processed, they permanently established their units. Moreover, the nodding acceptance by the state officials and not enforcing the labour legislation in the name of 'rural industrialization' has also played a major role. Though this has generated employment to unskilled women, for many years the cashew nut processors were very careful in not raising the workers' wages. The ownership patterns they followed were quite efficient in discouraging local entrepreneurs from entering the industry. However, the implications of such strategies are very adverse to the interests of labour...”(CEC, 1999: 27)

Working conditions in Kanyakumari

While the industry has continued to expand, workers continue to be exploited, visible indicators of which include long hours of work, denial of non-wage benefits, low wages, etc. However, workers are uncritical when discussing the (exploitative) nature of their jobs in the cashew industry or the (health-impairing) conditions of the workplaces. This can be understood better when you consider that while Kanyakumari district records the highest female literacy rates in Tamil Nadu, it has the lowest

female work participation rate. The district has few industries, agricultural activity is also low, and hence gainful employment is difficult to come by. As per data provided by CEC, a quarter of all factories in the district are cashew processing units; the industry employs nearly 75% of all factory workers in the district, especially in Vilvancode, where most units are located. Given the absence of any other employment generating activity in the area and/or any other source of income women would have remained unemployed had it not been for the cashew factories.

Here we highlight the contrasts between women workers in Kerala and Kanyakumari:

1. Unlike Kerala, there is no mention in Kanyakumari of a decline in the number of days of work. In fact work in Kanyakumari is available throughout the year, including Sundays.
2. The fixed minimum wage in Tamil Nadu contrasts quite sharply with Kerala's (Table 14). For processes where men are involved, the Kanyakumari cashew nut workers are earning just 50% of what male cashew nut workers earn in Kerala; in the case of women it is just 25% (CEC, 1999: 48).

This needs further research, especially:

- Whether payment of such low wages in Kanyakumari is not only encouraging the shifting of units, but also raw nuts from Kerala, such that there is continued processing all through the year in Kanyakumari.
- If so, why are trade unions on both sides of the border not forging alliances to jointly address the issues of declining days of employment in Kerala and the persistence in payment of abject low wages in Kanyakumari?

Table 14. Minimum wages in cashewnut industry: Kerala and Tamil Nadu, 1998 (Rs per kg)

Process	Tamil Nadu	Kerala
Shelling	2.6	8.11
Peeling	1.1	10.12
Grader	24	58.57
Tin Filler	24	24
Loaders workers/fireman	55	75.75
Dearness Allowance	5.37	27

Note: However, for Kerala, Cashew Industry employers have got a 'stay order' which allows them not to actually pay the revised minimum wage rates given above.

Source: CEC (1999)

Summary

Cashew cultivation in Kerala has declined and the way in which the chain is constituted does not seem to give Keralan farmers incentives to concentrate on cashew. While on the face of it, it appears that a decline in the availability of raw nuts for processing is reducing employment in the sector, this does not concur with the fact that almost all the nuts grown in other states and a large part of those imported are

being bought by processors in Kerala. But given the low level of processing activity in other states, and also given the fact that data do not show decline in numbers of cashew workers, we suggest that a decline in factory processing is being accompanied by an increase in clandestine processing.

Labour standards and conditions in cashew processing in Kerala seem to be deteriorating, particularly for women who represent the overwhelming majority of workers. Most public sector factories have closed and in private factories, employers have ‘seasonalised’ and ‘informalised’ workers. In addition, Keralan processing companies have spread their operations to Tamil Nadu, where wages are even lower. ‘Commission varappu’ (including by foreign companies) has increased, processing has been decentralised into a greater number of smaller units. Workers often face an overall reduction in working days per year, which is a key expressed concern of women workers. Given the choices they face, gender-based inequalities mean that women work for even lower wages than men in poor and health-threatening environments.

6. Conclusions

Thus far, our emphasis has been on mapping the physical aspects of the cashew chain (Figure 1), including, wherever possible, the social underpinnings of each of the nodes. The wide canvas that we have covered in our research to date has given us a feel for the complex social and political underpinnings of economic transactions. Although further work is essential, the first phase of our research has already thrown up some interesting findings relating to international trade, the domestic market, cashew cultivation and the processing sector.

6.1 International trade

We have argued that the ‘export boom’ is an illusion in that the domestic resource cost of earning foreign exchange has increased over time, the value in dollar terms of Indian cashew kernel exports has been stagnating and the international terms of trade have declined. We are aware that cashew markets at the retail end of the international chain are controlled by a limited number of buyers. We need to know more about how the buyers’ market is constituted, the parameters that the buyers have set for suppliers, how they monitor standards compliance and how much they are prepared to invest to enable suppliers to attain these standards, including product quality and labour standards. When understanding international markets greater consideration needs to be given to the bargaining power of the main players, the particular markets being addressed (nuts or kernels) and the possibility of lead players combining to block entry of others.

6.2 The domestic market

It appears that almost 50% of the kernels produced in India are being sold on the domestic market. Some of the questions raised for international trade are also

pertinent to the national market. But this market's dynamics and major players are as yet unexplored, as are the linkages between domestic and international markets.

6.3 Cashew cultivation

There are huge differences in the way each state has organised, promoted and facilitated cashew cultivation and harvesting, with consequences for the degree to which cashew supports sustainable livelihoods. This has immediate implications, not just for those involved in the cultivation and harvesting of nuts, but also for those involved in the subsequent set of activities, namely, marketing the nuts, distribution, processing and so on. We have established that both women and men are active at the local level and that cashew can make a particularly important contribution to livelihoods in areas which are poorly endowed in natural resources.

At least one example of possible 'good practice' has been identified in Panruti, south Arcot district in Tamil Nadu, although labour conditions require further study. In Panruti, there are hundreds of small processing units, organised and owned by villagers which are part of an extensive network linked to a small number of large export houses. This cluster arrangement merits further study since it seems to generate considerable employment and a greater spread of benefits than other patterns.

In relation to cashew plantations, a complex nexus of power relations between corporation officials, politicians, traders and village leaders seems to govern the benefits to communities. Employment in plantations is important for women and may provide a source of income over longer periods than other crops and in lean seasons when there is no other agricultural employment.

6.4 Processing

Labour standards and working conditions in cashew processing seem to be deteriorating, particularly for women who represent the overwhelming majority of workers. In Kerala, most public sector factories have closed and in private factories, employers have 'seasonalised' and 'informalised' workers and the numbers of days of employment per worker have declined over time. Given the choices they face, gender-based inequalities mean that women work for even lower wages than men in poor and health-threatening environments.

The questions of the changing forms of organisation of processing activities (increasingly from factory to non-factory type) and the increasing blatant violations of labour laws need to be understood in the context of an overall thrust towards 'removing all barriers' to economic activity, particularly in export-oriented activities, where the goal is primarily to increase earnings in foreign currency. If we are to understand the full impact of the whole cashew chain on employment, livelihoods and women in particular, we need to view processing as just one node in the cashew chain.

Further work on processing, as part of the value chain, will help us verify or disprove the oft-repeated statement that payment of mandatory stipulated wages and benefits could render the whole operation/units unviable. Exploring the processing node will mean also placing an equal emphasis on studying 'employers' as much as 'workers'

and more important, studying employers in conjunction with their workers. It is important not to assume that employers constitute a homogenous category, stereotyped as ruthless exploiters of workers, and generally flush with money. The nature and intensity of employers' linkages with other nodes in the chain, the linkages between employers themselves, the manner in which employers are 'governed' because of being part of the chain, are likely to be important factors influencing their ability to pay decent wages and other benefits

Given today's global environment of liberalisation, combined with the move towards global standards for labour and processes of production, the quality requirements and 'branding' of products, we need to ask how countries in the south can avoid engaging in a 'race to the bottom' by reducing costs, particularly labour costs. In the case of the cashew sector, this puts hundreds of thousands of women in the situation of choosing between exploitative conditions and complete exclusion from much-needed employment.

Certainly, the framework of value chain analysis combined with understanding the social embeddedness of economic activity provides a useful methodology to understand why potential benefits fail to reach poor, less powerful groups and why particular countries and enterprises are excluded. It has already alerted us to the need to investigate further the power and profits of international buyers and retailers in the chain. A key challenge of our future work is to assess whether there are policies and interventions, in different parts of the chain, which can assist the Indian cashew industry to face international requirements while simultaneously helping to improve livelihoods, wages and working conditions within the industry.

Endnotes

1. The Mozambique case study, undertaken with Eduardo Mondlane University in Maputo, began in January 2002 and will be completed in June 2004. The Mozambique study is funded by the Netherlands and Irish Embassies in Mozambique. Information on the project and reports from Mozambique are available on the IIED website.
2. Upgrading has been defined as, "*the addition of high value services and more sophisticated manufacturing capabilities*" Rammohan and Sundaresan (2003: 906).
3. Fairly detailed data on cashew cultivation are available from the publications of the Directorate of Cashew Nut and Cocoa Development and the Cashew Export Promotion Council. However, the official data are known to suffer from some limitations, especially in estimating the area under cultivation and productivity levels. The following observations on the production of raw cashew nuts in India, therefore, should be interpreted with caution. We confine ourselves to a discussion of the broad directions of change, without focusing on the precise magnitudes.
4. The processing activities in Kanyakumari have been the subject of a study by the Centre for Education and Communication (1999) and we draw upon their insights.
5. US\$=approximately Rs. 46/- at the time of the study.
6. This section is based on field visits in Sindhudurg district in February 2003. This included meetings with cultivators, big and small unit processors, Directorate of the Statistical Bureau of Maharashtra and authorities of the Horticulture Research Centre of Konkan Agriculture College.
7. The Maharashtra Government does not permit the manufacture of liquor from cashew apple, which is a loss to the farmers as the fruit is wasted. A small quantity of cashew apple is processed in the form of squash, jelly and jam.
8. Figures on land under cashew cultivation in Andhra Pradesh are based on village level revenue records, whereas cashew data for other states are estimates only. Therefore, figures presented for Andhra are more reliable than those for other states.
9. There is considerable indirect evidence for the decline in cashew cultivation. For instance, cashew traders in the south complain about the fall in the volume of raw nuts coming into the southern markets. An important case study (Veron, 1997) carried out in the Mattannur-Irityy region of the Kannur district in the north also confirms the general tendency of shift away from cashew cultivation in Kerala.
10. See Veron, 1997 for details.
11. The well known names were Thangal Kunju Musaliar, P Krishna Pillai, Poyilakada; P Parmeswaran Pillai, Narayanaswamy Reddiar. MP Govindan, MP Kesavan, K Mytheen Kunju etc two of the biggest concerns now, VLC and KKP are owned by descendants of some of these pioneers of the 20s.
12. Derived from Balasubramanian (2001).
13. Lindberg (2001) has brought out some interesting facts in support of this hypothesis. For instance the Factory Act of 1881 regulated child labour and working hours in British India; almost 13% of total work force in Travancore (in the early '50s and in all probability earlier) was child labour while it was only a very small percentage in S. Kanara. No wages were paid for broken kernels in Travancore, as in S Kanara nor were the workers paid a higher wage rate for imported African nuts which being smaller took a longer time to shell. Again, there was no legislation in Travancore against open pan roasting of raw nuts in residential areas resulting in heavy smoke and fumes while town councils in Mangalore had legislated against roasting in populated areas.
14. Lindberg (2001) has traced the social order since the early period of the cashew industry arguing that by the '50s an even stricter gender division of labour was in place, which was legitimized and mediated through dichotomous thinking and the language of femininity and masculinity.
15. This involved cyclically shutting down operations in one place, generally on the pretext of unavailability of raw nuts, and opening them in another, thus artificially creating a 'seasonal' workforce (Lindberg, 2001).
16. Factories were declared closed (on some pretext) but workers offered work on an informal basis in the factories on a "cottage processing" basis, that is, at half the minimum wage rates with no other benefits.
17. See Lindberg (2001)

18. The channelling policy has to be seen in the context of a drastic decline in the availability of raw nuts in the international market. This decline occurred when most African producing countries set up their own processing units so as to expand into manufacturing activities. This reduction in imported raw nuts considerably affected the Kerala industry, which had by then become heavily dependent on imports of nuts to make up the deficiency in domestic availability of nuts.
19. It is possible for a family group to consist of a few firms.
20. As revealed to us in an interview with a large processor in Kollam.
21. Disclosed in the Quilon workshop.
22. These data were collected in the course of our interviews with key resource persons.
23. Workers' savings fund administered by employers consisting of a certain percentage of wages. The purpose of the fund is to provide financial security to workers upon retirement due to age or incapacity.
24. Insurance financed by contributions from employers, employees and the state, mainly for sickness and maternity benefits. To be eligible for the benefits the employee must have worked a minimum of thirteen weeks over a period of six months. A factory covered by ESI will not be covered by the maternity benefits act.
25. Workers' saving fund administered by employers consisting of a certain percentage of wages. The purpose of the fund is so a gratuity can be paid as a lump sum to workers for long, uninterrupted service. It can be paid after a minimum of five years of service.
26. An insurance fund financed in the same way as ESI, meant to provide the workers family with a monthly pension in case of an employee's death.
27. This was a complaint we heard from all the workers we interviewed.

References

- Balasubramaniam, D. 2001. Cashew processing industries in India (overall analysis). *The Cashew*, April-June, 15(2).
- Balasubramian, PP. and Singh, HP. 2002. Cashew development in India: an integrated strategical approach. In: H.P.Singh et al. (eds). *Indian Cashew Industry*, Directorate of Cashewnut and Cocoa Development, Cochin.
- Cramer, C. 1999. Can Africa industrialise by processing primary commodities? The case of the Mozambican cashew nut. *World Development* 27:7:1247-1266.
- Center for Education and Communication. 1999. *Impact of Cashew Nut Processing Industry on the Labor Market for Women in Kanyakumari District, Tamil Nadu*. Unpublished Report, December.
- Deepa, GL. 1994. *Industrial Crisis and Women Workers: A study of cashew processing industry in Kerala*. Unpublished M Phil Dissertation, Jawaharlal Nehru University, New Delhi-CDS Trivandrum, July.
- Dolan, C. and Humphrey, J. 2000. Governance and trade in fresh vegetables: the impact of UK supermarkets on the African horticulture industry. *Journal of Development Studies*, 37(2): 147-76.
- Emam Beevi, AJ. 1978. *Impact of Minimum Wage Legislation On Cashew Industry*. Unpublished M Phil Dissertation, Jawaharlal Nehru University, New Delhi-CDS Trivandrum, February.
- Gereffi, G. 1999. International trade and industrial upgrading in the apparel commodity chain. *Journal of International Economics*, 48: 37-70.
- Government of India. 1983. *Report of the Cashew Industry*. The Cashew Corporation of India Ltd, New Delhi.
- Government of India. 1998. *Report on Socio Economic Conditions of Women Workers in Selected Cashewnut Processing Units in Selected States*, Labour Bureau, Ministry of Labour, New Delhi.
- Government of Kerala, *Economic Review, Various Issues*, State Planning Board, Trivandrum.
- Granovetter, M. 1985. Economic action and social structure: the problem of embeddedness. *American Journal of Sociology*, 91(3): November, 481-510.
- Hanlon, J. 2000. Power without responsibility: the World Bank and Mozambican cashewnuts. *Review of African Political Economy* 83.
- Humphrey, J and Schmitz, H. 2002. *Developing Country Firms in the World Economy: Governance and Upgrading in Global Value Chains*, Heft 61, INEF Report, Duisburg (see also www.ids.ac.uk/ids/global/vw.html)

- Kanji, N. Vijfhuizen, C. and Young, S. 2002. Cashing in on cashews. Policies, production and gender in Mozambique. Paper presented at the 8th *International Interdisciplinary Congress on Women*, 21-26, July 2002, Kampala, Uganda.
- Kannan, KP.1983. *Cashew Development in India: Potentialities and constraints*. Agricole Publishing Academy, New Delhi.
- Kannan, KP. 2002. The welfare fund model of social security for informal sector workers: the Kerala experience. *Working Paper Series 332*, Centre for Development Studies, Trivandrum.
- Lindberg, A. 2001. *Experience and Identity: A historical account of class, caste, and gender among the cashew workers of Kerala, 1930-2000*. Department of History at Lund University, Sweden
- McMillan, M, Rodrik, D. and Horn Welch, K. 2002. When economic reform goes wrong: cashews in Mozambique. *Faculty Research Working Paper Series*, RWPO2-028, Harvard University, July
- Nair, P. Kesavan. 1994. A brief history of trade union movement among cashew workers. Paper presented at the *Conference on Development in Kerala*, AKG Centre, Trivandrum.
- Nair, CK. 2002. Quality maintenance of cashew kernels. Paper presented at *the Fifth National Cashew Seminar, 12-13 April, Visakhapatnam*, Government of India, Directorate of Cashewnut and Cocoa Development, Cochin.
- Pillai, RN. 1981. Public sector in cashew industry. Paper presented at the *National Seminar on Cashew Industry* in Quilon, 4-5 December, Quilon.
- Pillai, KK. 2002. Constraints and strategies to augment cashew exports. Paper presented at the *Fifth National Cashew Seminar, 12-13 April, Visakhapatnam*, Government of India, Directorate of Cashewnut and Cocoa Development, Cochin.
- Rammohan, KT. and Sundaresan, R. 2003. Socially embedding the commodity chain: an exercise in relation to coir yarn spinning in southern India. *World Development*, 31(5): May.
- Sathyadas, H. 1991. *Cashew Industry – A Study of its Structure and Capacity Utilization in Kanyakumari District*. Unpublished M. Phil Dissertation submitted to Madurai Kamaraj University, Madurai, Tamil Nadu
- Schmitz, H. and Knorringa, P. 2000. Learning from global buyers. *Journal of Development Studies*, 37(2): 177-205.
- Swedberg, E and Granovetter, M. 2001 Introduction. In M. Granovetter and E. Swedberg *The sociology of economic life*. Westview Press, Boulder, Colorado.

- Veron, R. 1997. *Markets Environment and Development in South India. Cultivating and marketing of pineapple and cashew in Kerala*. PhD, University of Zurich.
- Vijfhuizen, C. Braga, C. Artur, L. and Kanji, N. 2003. *Liberalisation, Gender and Livelihoods: the Cashew Nut Case. Working Paper 1 (English), Mozambique Phase 1: the North*. IIED, London, UK.

Appendix 1: The myth of India's export boom

The figures presented in this appendix present more evidence to support our hypothesis on the illusion of the cashew export boom. There is hardly any doubt, as we have explained in the main text, that cashew exports in terms of volume as well as gross export earnings have done remarkably well over the past one and half decades. This is obvious from Figures A1 and A2, which depict trends in exports in rupee and U.S dollar (Also see Figure 3 in the main text).

Figure A1. Total value of India's kernel exports (Rs)

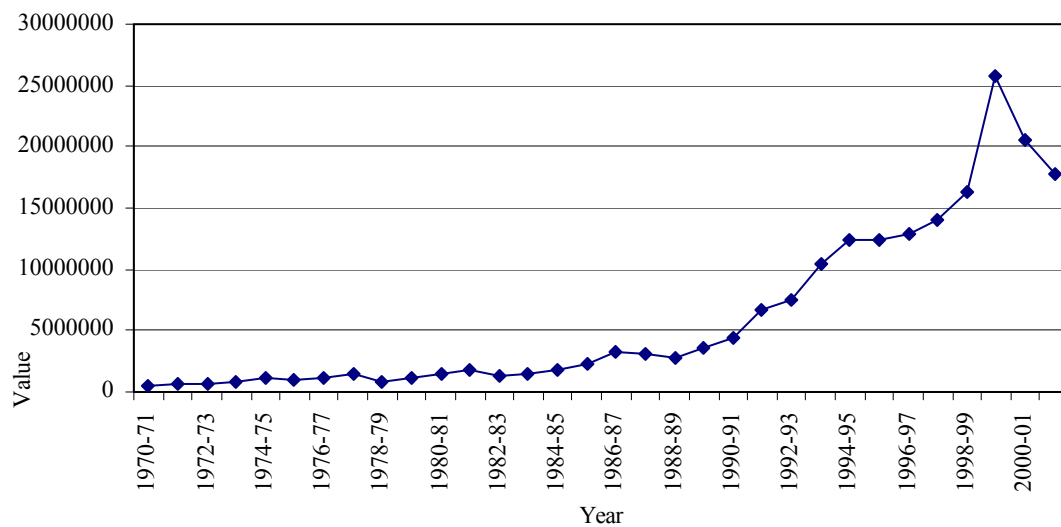
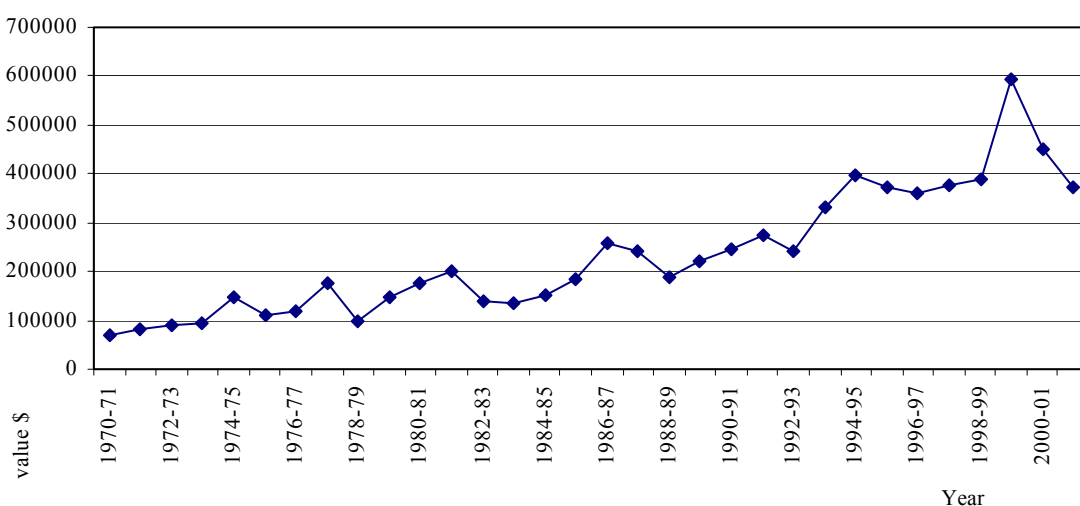


Figure A2. Total value of India's kernel exports (US\$)



However, since the cashew industry's major source of raw materials is raw nuts, the bulk of which is imported, it is important to analyse net foreign exchange earned. Net foreign exchange earned in rupees has been increasing across all three decades, with the rate of increase particularly rapid in the nineties (Figure A3). In terms of dollars, however, after increasing up to 1986-87, these earnings have stagnated (see Figure A4). This is in spite of the remarkable growth in the volume of exports from the country.

Figure A3: Net foreign exchange earned (rupees)

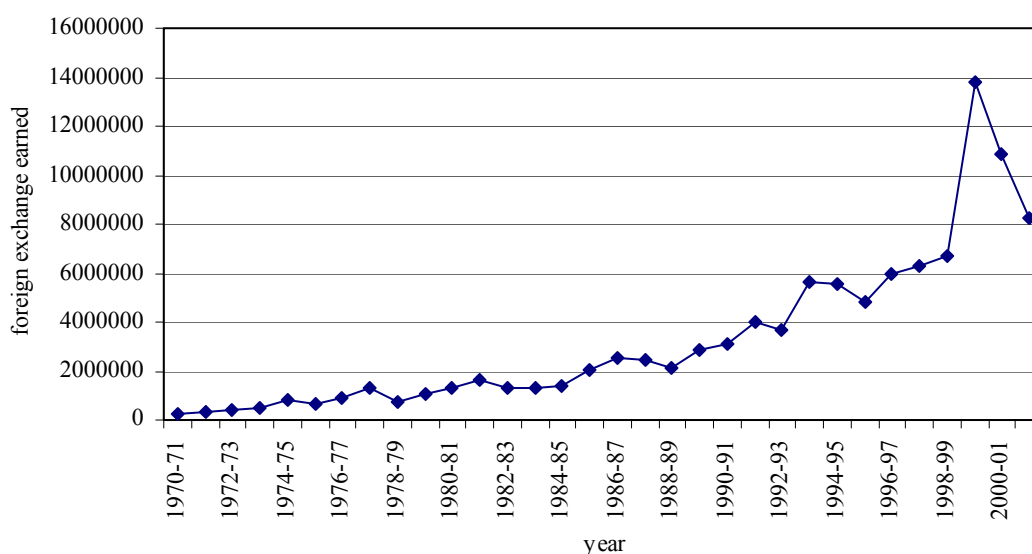
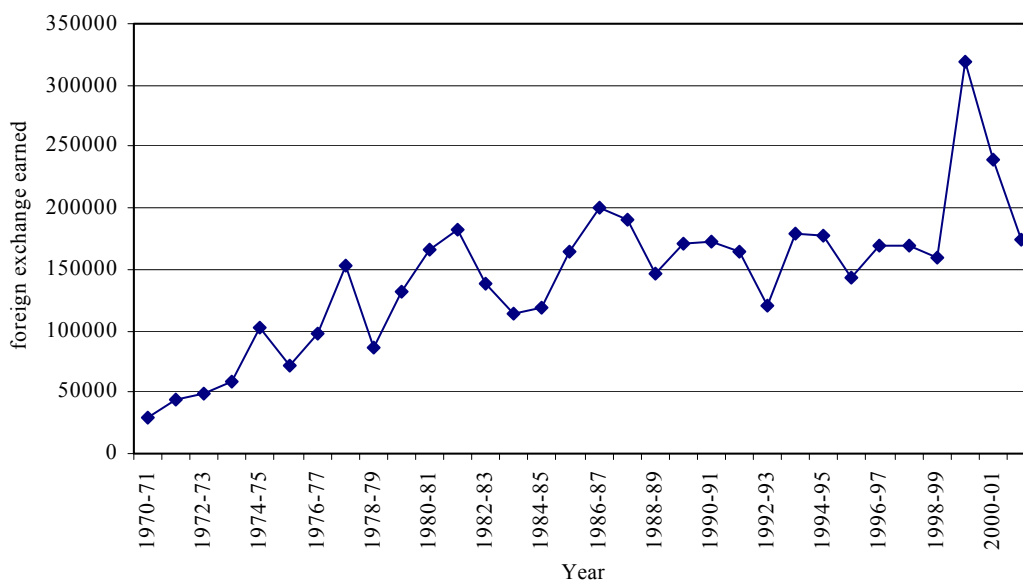


Figure A4. Net foreign exchange earned (US\$)



The stagnation in net foreign exchange earnings may be explained partly in terms of the trends in dollar price of kernels in the international market. The data on average unit value in rupee show an increasing pattern over the past three decades (Figure

A5). This is not surprising given that 1980s and 1990s were characterized by continuous depreciation of the Indian currency. But when we analyse trends in unit value in US dollars, we find that while average unit dollar values increased in the 1970s, since 1987-88 they have either declined or stagnated (Figure A6)

Figure A5. Average Unit Value (Rs/MT)

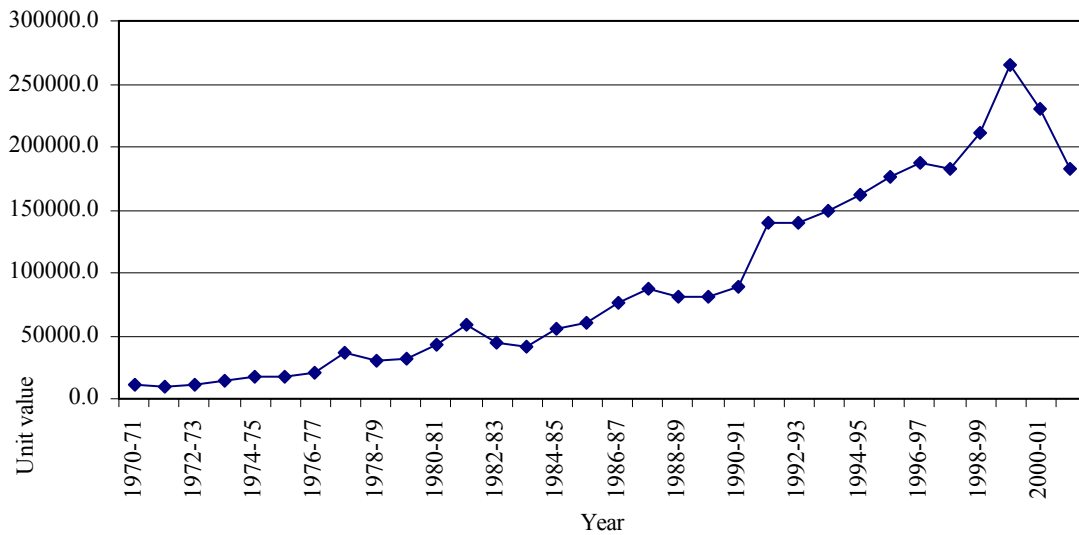
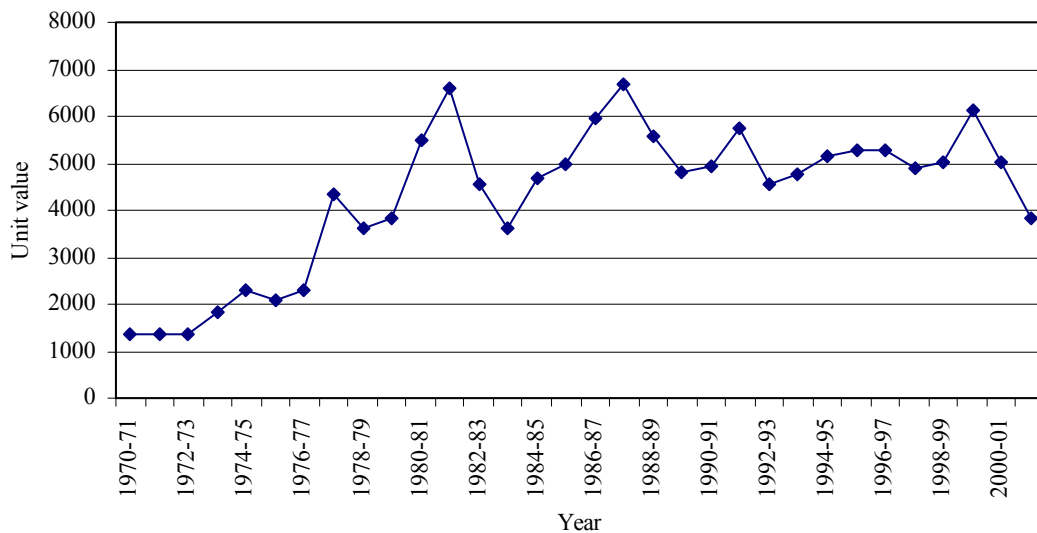


Figure A6. Average unit value (\$/MT)



That the price realised in terms of dollars has remained stagnant for the past two decades is a matter of considerable concern. These figures indicate that India has been getting the same price in dollars per unit for the past two decades. Is this a desirable trend? Is the value of one dollar in 2000 the same as in 1970? The observed stagnation in the dollar price of cashew should be juxtaposed against US domestic

inflation over the same period and the consequent decline in the purchasing power of US dollar. What is becoming apparent is a decline in the terms of trade for cashew. Therefore, it appears that the domestic cost of earning every single unit of foreign exchange from cashew kernel exports has been increasing over time.