

# Private Trader Response to Market Liberalization in Tanzania's Cashew Nut Industry

*Steven Jaffee*

Since 1991, the Tanzanian government has moved to liberalize the market for cashew nuts to reverse a long-term decline in this important traditional export industry. Although the liberalization process has been confusing and nontransparent, and although problems of logistics, finance, and protected vested interests remain, some positive results are evident — and the future prospects for the recovery of the industry and for the returns to participating farmers and traders are favorable.



## Summary findings

Between World War II and the early 1970s, Tanzania developed one of the world's largest cashew nut industries. In 1973–74, marketed production reached 145,000 ton<sup>e</sup> (about 30 percent of world production), with cashews providing an important source of income to some 250,000 farmers and being the country's fourth largest source of foreign exchange. This trade was originally developed and organized by private traders (of Indian and Arab origin), although in the 1960s a multitiered marketing system — involving local cooperative societies, regional cooperative unions, and a marketing board — was imposed, with private traders gradually removed from the marketing system.

Despite a buoyant international market, Tanzania's cashew nut industry underwent a steady and massive decline through the 1970s and 1980s. Jaffee examines the factors that contributed to this downward spin: Tanzania's villagization program, a decline in real producer prices, and inefficiencies in cooperative and marketing board crop collection and downstream activities. With the decline in production, living standards in the main cashew-growing regions worsened, and most of the large-scale, donor-funded, government-owned processing factories became "white elephants."

With the industry on the brink of collapse, in 1991 the government announced the liberalization of the cashew nut market, permitting private firms to once again buy

and sell the nuts. According to Jaffee, the reform process has been characterized by confusion, uncertainty, and latent government controls and interventions, though the industry shows some signs of recovery. Based on a recent survey, Jaffee examines the liberalization process — including its implementation at the national and local levels, the private sector response to renewed trading opportunities, and the resultant patterns of competition, price discovery, and marketing channel formation.

The liberalization experience in Tanzania's cashew nut industry offers interesting insights for other Sub-Saharan African countries where uncertainty remains about the appropriate roles (if any) for marketing boards in liberalized markets, about the ability of cooperatives to compete in such markets, and about the ability of indigenous firms to take advantage of the new trading opportunities.

In Tanzania, neither the cooperatives nor the marketing board have fared well in the liberalized market. Although a relatively large number of private traders have recently entered into cashew buying and selling, successful entry into export marketing has proved viable only for a small number of companies. Their characteristics: medium to large in scale, diversified across commodities, involved in trading and agroindustry, not indigenous, and with strong financial and trading links abroad.

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This paper — a product of the Agricultural Policies Division, Agriculture and Natural Resources Department — is part a larger effort in the department to assess the division of responsibilities between the public and the private sector providing agricultural services and agricultural marketing activities. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Cicely Spooner, room N8-041, extension 32116 (42 pages). March 1994.

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**Private Sector Response to Market Liberalization:  
The Experience of Tanzania's Cashew Nut Industry**

by Steven Jaffee

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## **Introduction**

In the period between World War II and the early 1970s, Tanzania developed one of the world's largest cashew nut industries, accounting for some 30% of total world production and ranking among the leading exporters. Cashews became one of Tanzania's largest sources of foreign exchange and provided an important source of income for some 250,000 smallholder farmers. Tanzania's cashew nut trade was initially developed by private traders, although during the 1960s a multi-tiered marketing system--featuring local cooperative societies, regional cooperative unions, and a national marketing board--was imposed, with the role of private traders being marginalized and eventually removed entirely.

As analyzed by Ellis (1979,1980,1982), this multi-tiered marketing system failed to operate efficiently. Rising marketing costs, together with declining real producer prices, and the forced villagization of smallholder farmers greatly undermined the incentives to produce cashew nuts. From the mid-1970s the industry underwent a steady and dramatic decline. By the late 1980s, marketed cashew nut production was only 15% of its level from the early 1970s, with most of the government's large-scale processing factories lying idle and with Tanzania's reputation for a high quality product badly damaged.

With the industry on the brink of complete collapse, the Tanzanian Government announced in 1991 that the cashew nut market would be liberalized, with private firms permitted once again to undertake trade. The liberalization of the cashew nut market was viewed as somewhat of a 'test case', the results of which would influence the speed and nature of institutional reforms in the processing and marketing of Tanzania's other major industrial crops, including coffee, cotton, and tobacco.

This paper examines the liberalization process within Tanzania's cashew nut industry over the past two years, placing particular emphasis on the nature of the private sector response to market reforms. What types of firms have been able to take advantage of the market reforms? How has the re-entry of private firms into the cashew trade affected the trade of cooperatives and the Tanzania Cashew Nut Marketing Board, and the welfare of farmers? How competitive is the liberalized market and what factors have constrained the emergence of a greater degree of competition? What residual market controls have remained, either officially or unofficially? To what extent has market liberalization placed the industry on a road to recovery? The liberalization experience within Tanzania's cashew nut industry offers interesting insights for other sub-Saharan African countries where there remains uncertainty about the appropriate roles for marketing boards in liberalized markets, about the ability of cooperatives to compete in such markets, and about the ability of indigenous firms to take advantage of the new trading opportunities.

This paper is comprised of four sections. Section I examines important techno-economic characteristics of cashew nuts (and their production and processing), noting possible implications for the organization of cashew nut processing and marketing. Section II reviews the world market situation for cashew nuts and the changing position of Tanzania and other sub-Saharan countries therein. Section III traces the rise and decline of Tanzania's cashew nut industry from the early 1930s until 1990. Section IV then examines the process of market liberalization which has taken place since 1991, emphasizing the nature and effectiveness of the private sector response.

### **I. Cashew Nuts: 'Poor Man's Crop and Rich Man's Food**

The cashew (*Anacardium occidentale* L.) belongs to the Anacardiaceae family of plants which also includes the mango, the pistachio nut, and the noxious poison ivy, poison oak, and poison sumac.<sup>47</sup> The

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<sup>47</sup> The English word 'cashew' is derived from the Portuguese 'caju', which in turn came from the Tupi-Indian 'acuji'. This section of the case study is based on FAO (1969), Northwood and Kayumbo (1970), Rosengarten (1975), and Ohler (1979).

cashew tree is an evergreen perennial found in many tropical areas. Native to northeast Brazil, the cashew was taken, in the 16th Century, by Portuguese colonists and missionaries to East Africa and Goa (India) where it thrived. The cashew has since spread to several dozen countries, primarily between latitudes 15 degrees North and South. Under favorable conditions, the tree can grow to a height of 40 - 50 feet.

While also used for shading and for anti-soil erosion purposes, the cashew tree is most valued for its fruit. The fruit is unusual in that it has two connected parts. One part is a fleshy, pear-shaped stalk, known as the 'cashew apple'. This apple is juicy and thin-skinned, from two to four inches in length. The second part of the fruit is a kidney-shaped nut, one to one and one-half inches long. The nut shell is smooth and oily and contains a toxic, resinous material. Contained within the nut is a white kernel-- the cashew nut which is eaten-- approximately seven-eighths of an inch in length.

While the cashew nut kernel is frequently the focus of commercial activities, various components of the cashew fruit as well as the cashew tree itself can be regarded as industrial raw materials. In this regard, the cashew is similar to the coconut tree. Although having an astringent taste when eaten directly, the 'cashew apple' has multiple potential uses, as in juices, jams, syrups, and alcoholic beverages. The vitamin C content of the 'apple' is several times that of citrus fruits. The toxic liquid found in the nut shell, known as cashew nut shell liquid (CNSL), has been used in tropical medicines and has had various industrial applications (e.g. as a friction-modifying material in brake linings and as an ingredient in paints and varnishes). The cashew nut shell can be ground into a powder for use as an ingredient in building materials and in anti-pest substances. The cashew tree itself provides excellent raw material for charcoal production and for the construction of wood boxes. The discussion below focuses attention on the cashew nut (and kernel), as these are the dominant commercial products within Tanzania's industry.

Cashew nuts (and kernels) have certain properties which may influence the organization of their trade. For example, they are characterized by:

1) **low perishability:** as long as the nuts are properly dried immediately after harvest (to a moisture content of less than 8%), they can be stored without significant loss of quality for up to one year.<sup>2</sup> This implies that production and subsequent processing operations need not be tightly coordinated with one another as processors can conceivably maintain stocks of nuts to guarantee even throughput into their factories. Post-harvest drying involves a simple technique of placing the nuts on bamboo or metal sheets under the sun. Hence, unless the harvest period coincides with precipitation or very high humidity, there is no technical requirement for a rapid collection of the crop from farmers. Cashews can be stored in heaps or in bags and do not have special storage requirements. The kernels also have a long shelf-life as long as they are stored in air-tight containers or other forms of packaging.<sup>3</sup>

2) **bulkiness of the raw material:** although cashew nut kernels are a very high value commodity (see below), the kernel makes up only 20-30% of the weight of the harvested raw nut. Given the presence of foreign matter, empty shells, and diseases/deformed nuts, the actual yield of kernel material from raw nuts is generally only 18-23%. Unless other by-products are to be used (e.g. CNSL, shell powder), the transport of raw nuts will involve movement of much wasted material. This indicates potentially large cost savings by located processing facilities in close vicinity to major production areas.

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<sup>2</sup> Nuts which are not properly dried will develop mould or bacteria or experience irreversible damage to the kernel as a result of enzyme action.

<sup>3</sup> In contrast, the 'cashew apple' is highly perishable and must be processed within 24 hours after being picked.

**3) wide quality variability in the raw nuts and kernels:** as a result of genetic, agro-climatic, and other factors, there are significant differences in the size and shape of raw nuts, in their shell thickness, and in the proportion of kernel material contained therein. This variation occurs between locations, trees, and even on the same tree. The quality (and size) of the kernel cannot be judged by the outward appearance of the nut, except when there is clear evidence of disease or deformities. Even though kernel size/quality is not necessarily linked to raw nut size and color, these crude indicators are frequently used to determine grades. Only by doing a "cutting test" (on a sample of nuts) can a trader/processor detect the true quality of the nut. There is thus a likelihood for conflict and uncertainty over grading.

Wide quality variability also occurs for kernels. Major distinctions are between 'wholes' and 'brokens', between 'white' and 'scorched', and between different sizes of kernels. There exist international quality standards which provide the vocabulary for international trade. Very large price differentials exist between the different grades of whole and broken cashew kernels. It is the production and proper grading of high standard kernels which separates profitable from unprofitable processing operations.

The production and processing of cashew nuts have several characteristics which might also influence organizational patterns. For example:

**4) cashews are tolerant to varied or marginal soil and climatic conditions:** due to their extensive root system, cashew trees can grow in areas with relatively poor soils and with relatively low rainfall. As long as there is a distinct dry period of two to four months, cashews can set fruit where rainfall is as limited as 40 inches per year. Cashew can grow on poor or stony soils, although best results are obtained on well-drained sandy loam soils. These drought- and otherwise-resilient properties of cashew has frequently led to its cultivation in relatively low potential areas where few other crops provide an economic return. Partly as a result, cashew yields are generally well below their genetic potential.

**5) cashew production features relatively low entry costs and little intensity of cultivation or maintenance:** cashews can develop wildy through natural cross-pollination, but are otherwise generally cultivated from selected or unselected seeds, rather than from purchased seedlings. Unless planted on a large scale, entry costs are thus minimal. The fact that cashews can be intercropped with other crops (at least until the development of the tree canopy), does not 'lock-in' the farmer into long-term monocrop cultivation of cashews. Few, if any, specialized production inputs are required for cashew cultivation, unless to combat a fungus/disease/pest which emerges. Tree maintenance, involving weeding and pruning, is less demanding than for most other tree crops. Depending upon genetics and local conditions, the cashew will normally yield a commercially worthwhile crop by the third or fourth years and reach premium yields by the eighth to tenth year. The cashew appears to have a very long productive life (of 30 years or more), although it is possible that yields decline after twenty years.

**6) cashews have a seasonal and uneven yielding pattern:** cashew trees yield mature fruit (and nuts) during a distinct season, lasting some three to four months. Effective storage is thus critical for continuous utilization of processing facilities. If the 'apple' is not being used, the grower can wait for the fruit to drop to the ground, this signifying its maturity. One problem is that the yielding pattern is very uneven with small quantities maturing initially, building up to larger quantities, and then smaller amounts again. Under humid conditions or where harvesting coincides with precipitation (as in Tanzania), the harvesting must be very regular. The uneven and uncertain yielding pattern creates barriers to efficient use of hired labor for this task. This, together with features (4) and (5) above partly explain the dominance of smallholder cultivation with family labor for cashews (e.g. the 'poor man's crop').

7) cashew nut processing is a complicated process not amenable to on-farm activity: Cashew nut processing is more costly and difficult compared with that for other dessert nuts. The cashew nut shell is more difficult to break and requires conditioning, via humidification and roasting, before the kernel can be removed through decortication. This problem is exacerbated by the presence of the toxic, sulphur-containing CNSL. Physical contact with CNSL can result in severe burns or dermatitis. Care must also be taken to prevent the CNSL from coming into contact with the kernel and therefore contaminating it. Cashew nut processing thus requires some technical skill and careful management. The multiple stages involved in cashew nut processing are illustrated in Figure 1 below.

8) there are a range of technologies available for cashew nut processing:<sup>4</sup> traditionally, the various functions of cashew nut processing were performed manually, using semi-skilled experienced workers. This remains the situation in India, the world's largest producer of cashew nut kernels. Since the 1960's, however, various mechanized processes and equipment have been introduced in several countries, most particularly for roasting, CNSL extraction, and decortication (deshelling). For the most part, raw material cleaning and sizing and kernel grading have remained very labor-intensive manual operations. Between the Indian, largely manual technology and the various types of medium-to-large-scale mechanical and semi-mechanical operations, there are significant differences in investment requirements, labor skills (and health) requirements, and levels of efficiency. In general, the Indian processing system involves lower investment and variable costs and achieves far greater efficiency in terms of kernel material yield and the proportion of whole kernels. That system does, however, require large numbers of experienced workers who work with unhealthy exposure to the CNSL. The mechanized systems are more vulnerable to breakdown (due to shortages of spare parts, lubricating oils, etc.), require large quantities of nuts for efficient operations<sup>5</sup>, and operate well below manufacturer specifications wherever strict grading and sizing activities are not in place prior to the decortication process.

## II. The World Market Situation for Cashew Nuts

International trade in cashew nuts began from India after World War I. Following the introduction in the 1920s of improved packaging for long-distance transit, the trade expanded rapidly, especially between India and the United States. By World War II, cashew nuts had become the second most important traded dessert nut (after almonds). They have remained in this position for the past half century.

Although also consumed in the country's of production, the cashew nut is widely regarded as a luxury snack food, chiefly destined for markets in countries with above average per capita incomes. Cashew nuts are the most expensive of the major dessert nuts, with a unit value typically 40% higher than that of almonds and three times that of all nuts as a group.<sup>6</sup> Some 90% of cashews are eaten out-of-hand, in contrast to the pattern for other nuts which are more commonly ground down into paste or used for confectionary purposes. This explains the very large price differentials between 'whole' and 'broken' cashews and among 'whole' nuts of different sizes.

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<sup>4</sup> The technologies of cashew nut processing are examined in FAO (1969) and in Ohler (1979, p.201-13).

<sup>5</sup> Most of the major manufacturers have produced systems with a rated capacity of more than 3000 tons/year. There are, however, a few manufacturers whose systems have rated capacities of 500 tons/year or less. It is the larger systems which have been put in place in Tanzania and Mozambique.

<sup>6</sup> Only macademia nuts are more expensive than cashew nuts.



# Cashew Processing Production Flow

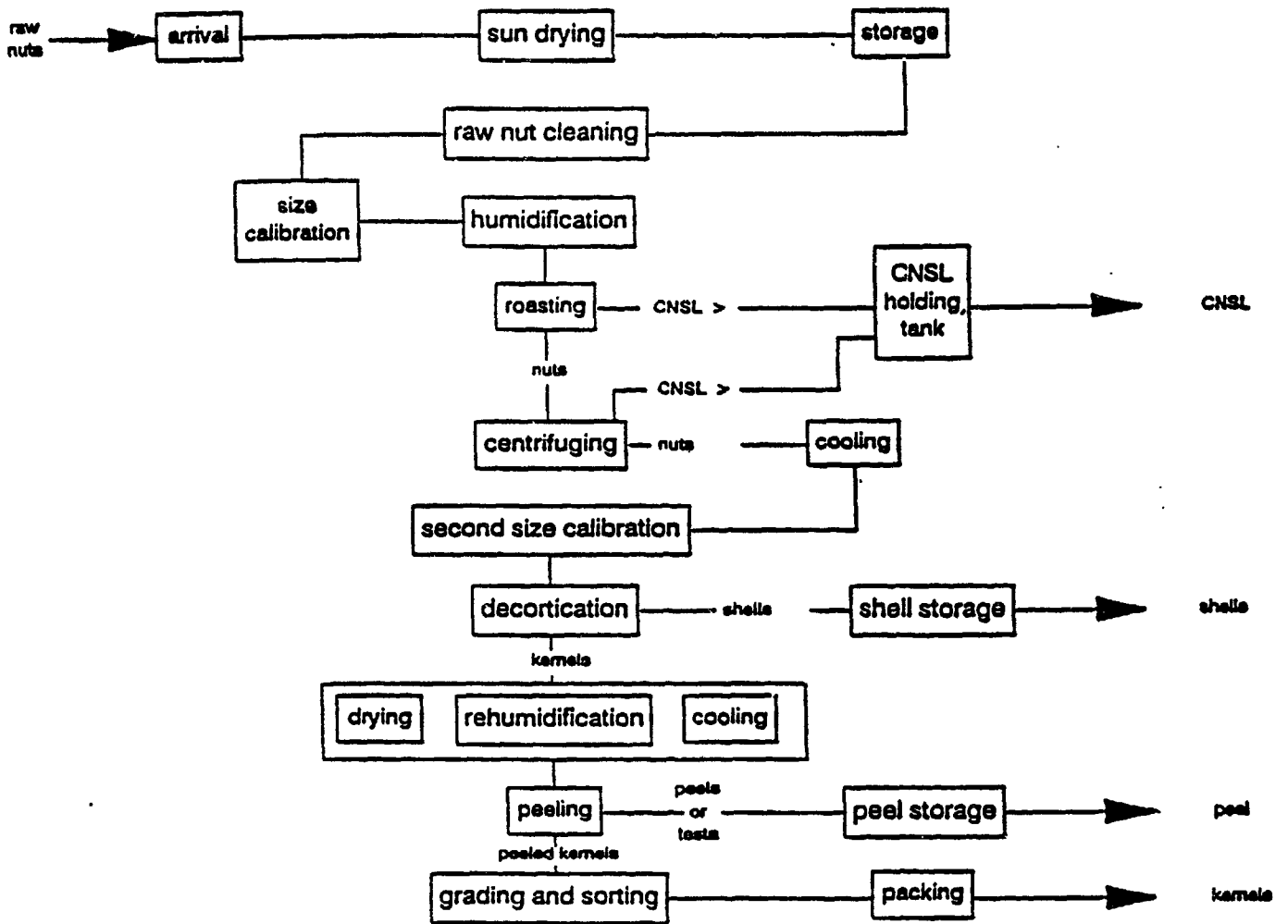


Figure 1

## World Production Trends

World production of cashew nuts grew rapidly during the 1950s and 1960s, reaching a peak of 510,000 tons (of raw nuts) in 1974.<sup>7</sup> Three countries--India, Mozambique, and Tanzania--accounted for the bulk of such production, although smaller industries had also developed in Brazil, Kenya, and several other African countries. Beginning in 1975, however, and continuing through the mid-1980s, there was a sharp fall in world production, contributing to a very tight international market. While Indian production was stagnant, the global fall can primarily be attributed to the huge decline of production in Mozambique and Tanzania. There has been some recovery in world production since the mid-1980s, due primarily to a significant expansion in Brazilian production. Table 1 summarizes major patterns in world production over the past two decades.

Country/Region	Average Annual Production (000 Tons)			Share of World Production (%)		
	1969-71	1979-81	1989-91	1969-71	1979-81	1989-91
<b>India</b>	<b>175.7</b>	<b>159.0</b>	<b>140.0</b>	<b>33.8</b>	<b>36.2</b>	<b>28.1</b>
<b>Brazil</b>	<b>24.1</b>	<b>71.3</b>	<b>145.5</b>	<b>4.6</b>	<b>16.2</b>	<b>29.2</b>
<b>Africa</b>	<b>311.1</b>	<b>174.9</b>	<b>140.4</b>	<b>59.9</b>	<b>39.8</b>	<b>28.2</b>
Mozambique	180.0	69.4	44.7			
Tanzania	108.4	54.2	27.0			
Kenya	16.2	15.8	11.5			
Nigeria	N.A.	25.0	25.0			
Guinea Bissau	2.4	3.8	19.0			
Others*	5.0	6.7	13.2			
<b>World</b>	<b>519.5</b>	<b>439.7</b>	<b>497.9</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

\*Including Cote Ivoire, Madagascar, Angola, Benin, Togo, Mali, and Zambia

Source: FAO Production Yearbooks

The table indicates that the share of sub-Saharan Africa in world production decreased from nearly 60% in 1969-71 to only 28% in 1989-91. A small recent expansion in West African production has not compensated for the extreme decline in Mozambique's and Tanzania's production levels. While in 1969-71 Brazil's production was only 8% that of sub-Saharan Africa, by 1989-91 Brazil's output exceeded that of the African continent.

<sup>7</sup> Gill and Duffus Edible Nut Market Reports, various years.

## Cashew Nut Industry Decline and Recovery in Mozambique

Between World War II and the early 1970s, Mozambique emerged as the world's largest producer of cashew nuts, accounting for some 40-50% of total world production. Private traders of Indian origin initially procured the crop and shipped raw nuts to India for processing. However, with a steady build up of local processing capacity after 1960, Mozambique began to export most of its production in kernel form, cancelling India's former monopoly of this trade.

Following independence in 1975, things began to fall apart in the cashew nut industry. The decline was brought on by the exodus of experienced traders and factory managers, combined with civil war and severe shortages of foreign exchange and basic consumer goods. Security problems led farmers to flee from important production areas and restricted the overall movement of goods. Shortages of spare parts further hampered the transport of cashew nuts and forced many traders out of business.

Producer incentives also declined sharply. The export trade was brought under the control of a parastatal agency (although private traders continued to act as buying agents) and official producer prices and trading margins were set. From the mid-70s through to the mid-80s, real producer prices declined sharply. This and the overall shortage of consumer goods undermined incentives for producers to sell their nuts. Home consumption of cashew nuts increased sharply (to compensate for declining groundnut production) and much of the rural trade in cashew nut came to be based on barter arrangements. Overall productivity declined as production support services broke down and as the age of most trees extended beyond their productive years. Production which had averaged over 200,000 tons/yr. during 1972-74 fell to only 25,000-30,000 during the mid-1980s. Nearly half of the country's cashew nut processing facilities were closed, while the others operated at well below capacity.

Beginning in the mid-1980s, the industry has begun to recover, with this process being accelerated by the recent ending of hostilities in the main production areas. Private firms have once again been permitted to operate processing factories and conduct exports, and in 1992 accounted for 35% of the value of trade. The parastatal Caju de Mocambique is presently being prepared for privatization. A World Bank-funded project is supporting the rehabilitation of cashew groves and marketing infrastructure. The improved security situation in the countryside has aided cashew collection. Marketed production recovered to 54,000 tons in 1991/92 and export levels are increasing from year to year. Cashews remain a very important crop for smallholder agriculture in Mozambique and the further recovery of the industry will be critical to the country's overall economic recovery.

Sources: Edible Nut Market Report; Austin (1991); Jaffee (1993); World Bank documents.

In most countries the 'cashew apple' is wasted or discarded.<sup>8</sup> In Africa, despite the fruit's very high nutritional properties, the 'apple' is used primarily to make alcoholic beverages. In contrast, both in India and Brazil the 'apple' is widely used, contributing to increased farmer incomes and increased employment and value-added in industry. In India, a carbonated beverage and several types of alcoholic drinks are made from the 'apple'; in Brazil, a wider industry has developed which uses the 'apple' to produce juices, jams, chutneys, etc.

### World Trade Trends

Cashews are one of the many varieties of edible nuts traded worldwide. World trade in edible nuts has experienced relatively rapid growth, averaging about 2.7% per year since the early 1970s and increasing in value from \$1.94 billion in 1980 to \$2.84 billion in 1990.<sup>9</sup> Only seven varieties of nuts--groundnuts, almonds, cashews, brazil nuts, desiccated coconut, hazelnuts, and walnuts--account for 90% of international trade in edible nuts. While international trade in CNSL is not insignificant, the discussion here focuses on trade in raw cashew nuts and kernels.

International trade in raw cashew nuts has traditionally involved shipments from East Africa to India. India was the first country to build up a processing industry. Domestic production has been unable to meet the requirements of that country's hundreds of small-to-medium-scale factories. State-level restrictions on internal movements of cashew nuts further constrained raw material supplies and necessitated imports from the emerging East African industries during the 1950s and 1960s. Peak levels of Indian raw nut imports were reached in the early 1970s at levels exceeding 175,000 tons per year. The imports, generally concentrated over the December to May period, complemented the local harvest which begins in May and continues until July. Indian processors could thus operate over an extended period without having to maintain very large stocks of raw nuts.

This trade subsequently declined as a result of reduced production in East Africa and periodic constraints on access to foreign exchange by Indian importers. Raw nut imports fell to as low as 20,000 to 30,000 tons/year during the early 1980s. Since then, import levels have increased due to greater supply availability, particularly from Southeast Asia. For example, in the first six months of 1992, imports totalled over 80,000 tons, with largest supplies coming from Vietnam, Indonesia, and Tanzania.<sup>10</sup> While Tanzania once obtained premium prices over those of other suppliers, this has not generally been the case in recent years due to growing uncertainty about the quality of Tanzanian shipments.<sup>11</sup>

World trade in cashew kernels is far better documented than is the trade in raw nuts. According to Gill and Duffus, world imports in 1990 totalled over \$500 million, ranking cashews second (behind almonds) among dessert nuts. India has long been the world's largest supplier of kernels with its prices and quality setting the benchmarks or standards for the industry. At least in Europe, India has been the preferred supplier, with long-standing trading relationships based on confidence in product quality and on fast and regular deliveries. India has more than 150 cashew kernel shippers, many of which have offices in the United States and Europe.

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<sup>8</sup> Rosengarten (1975) claims that 95% of cashew apple production is wasted world-wide.

<sup>9</sup> Such figures are for world exports as reported in United Nations, Yearbook of International Trade Statistics.

<sup>10</sup> The Cashew, October-December 1992 (Indian trade magazine).

<sup>11</sup> As reported by international cashew brokers and as indicated in the Indian import data.

Through the early 1970s, Mozambique was also a major exporter. Its decline has been paralleled by a major expansion in Brazilian exports. While Brazil doesn't obtain the technical results which prevail in India's manual processing system, it has been competitive in the U.S. market due to its lower transportation costs and the unique larger-sized variety of the nut produced there. Other suppliers, including Tanzania, Kenya, and China have a reputation for irregular quality, contributing to substantial price discounts in international markets (of 25-30%). Table 2 traces the levels of kernel exports by the leading suppliers, while Table 3 illustrates the substantial price premium obtained by Indian suppliers.

Country	1975	1980	1985	1988-90 (Ave.)
India	58.0	37.4	31.6	34.9
Mozambique	24.4	17.1	2.5	3.2
Brazil	7.6	11.9	25.0	21.7
Tanzania	4.0	5.5	0.5	1.4
Kenya	0.0	2.7	1.9	0.5

Source: Gill and Duffus, *Edible Nut Market Reports*, various years.

Country	Quantity (Tons)	Unit Value (\$/Ton)	% of Indian Price	Comments
India	19,833	4835	100	Manual Processing; High Quality
Brazil	19,429	4205	87	Mechanical Processing; Medium Quality
Mozambique	2,845	3577	74	Mechanical Processing; Low Quality
Tanzania	1,332	3673	76	Mechanical Processing; Low Quality
China	744	3568	74	Manual Processing; Low Quality
Kenya	403	3262	68	Mechanical Processing; Low Quality

Source: Agriconsult/AMEC (1992)

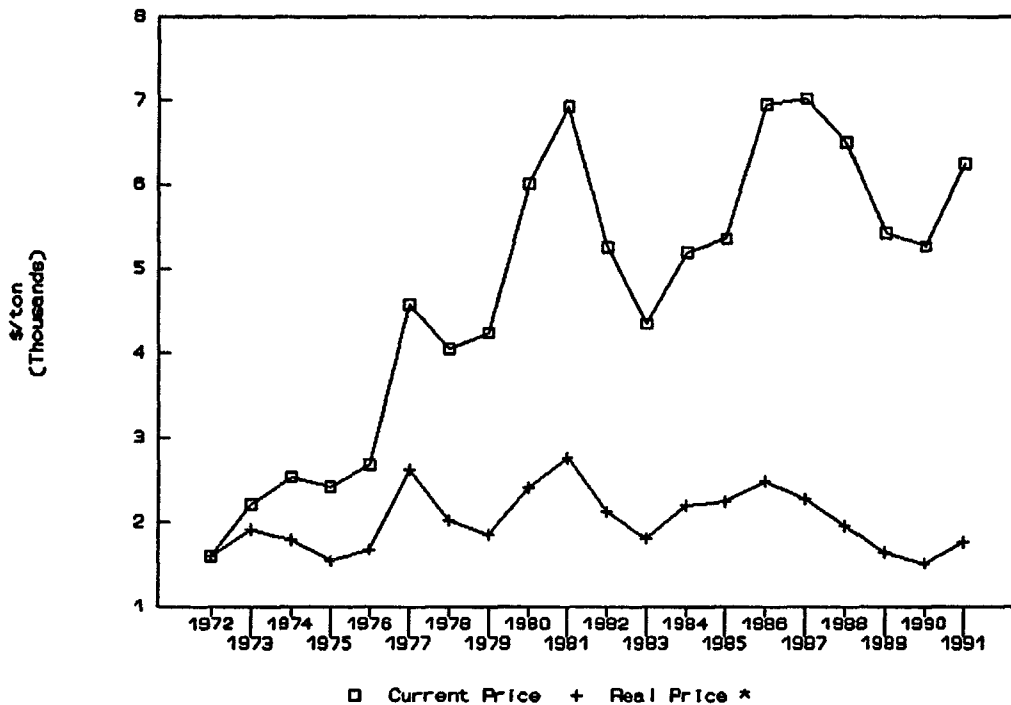
On the import side, the United States is by far the largest single market, accounting for more than 50% of world imports. The bulk of such imports are eventually marketed as a snack food under three main brand names--Planters, Eagle Snacks, and Fisher. Cashews are the only major dessert nut for which U.S. domestic production is negligible and the U.S. is in fact a major exporter of almonds, walnuts, hazelnuts, and other varieties. As Table 4 indicates, the other major import markets include Japan, Australia, Canada, the former USSR, and several EEC countries. With the major exception of the former USSR (which had previously been a large importer of lower quality nuts for confectionery use), import levels increased in these major markets during the 1980s.

Country	1980-82 Average	1984-86 Average	1989-91 Average
United States	30,917	43,073	48,372
(Former) USSR	20,816	3302	3328
Netherlands	3080	2301	3669
Germany	2796	2736	3661
Canada	2666	3235	4309
United Kingdom	2638	2934	4919
Japan	2371	2717	4520
Australia	1535	3011	2930
Sub-Total	66,819	63,309	75,708

Source: Gill and Duffus Edible Nut Market Report, various issues.

Long-term trends in international prices in kernels are shown in Graph 1 below. The data refer to U.S. CIF prices per ton for benchmark size 320 whole kernels. Current prices have been deflated by the G-5 MUV index to obtain real prices. The graph shows that since the early 1970's, sharp increases in (nominal and real) prices were recorded during three periods--1976 to 1977, 1979 to 1982, and 1984 to 1987. Through most of the 1980s, real prices were higher than those which prevailed during the early 1970s.

**Graph 1: International Prices for Cashew Nut Kernels  
(U.S. CIF \$/Ton for Whole Kernels (W320))**



### **III. The Rise and Decline of Tanzania's Cashew Nut Industry**

Cashew nut production and trade has long played an important role in the Tanzania economy. Over much of the period since the early 1960s, cashews have been Tanzania's fourth largest source of foreign exchange, following coffee, cotton, and sisal. Cashews are grown by more than 250,000 smallholder farmers. Although grown throughout the coastal area, cashew nuts have long been the most important source of farm incomes in the southern regions of Mtwara, Lindi, and Ruvuma. The decline of the industry has had a strong adverse effect on living standards in these regions.

The Cashew was probably introduced into Tanzania from Mozambique in the 16th Century and was initially used to check soil erosion in the coastal areas. Cashew groves developed naturally and there is no evidence of any specialized production or commercial trade of the crop prior to this century. This section traces the early development and subsequent decline of the Tanzanian industry through four periods, namely:

- 1) 1930s to 1962 -- Private Merchants and the Development of Trade
- 2) 1962 to 1974 -- Expansion and Multi-Tiered Marketing System
- 3) 1974 to 1985 -- Industrialization and Production Decline
- 4) 1985 to 1991 -- Reversing the Downward Slide

In the subsequent section, the recent process of market liberalization is examined.

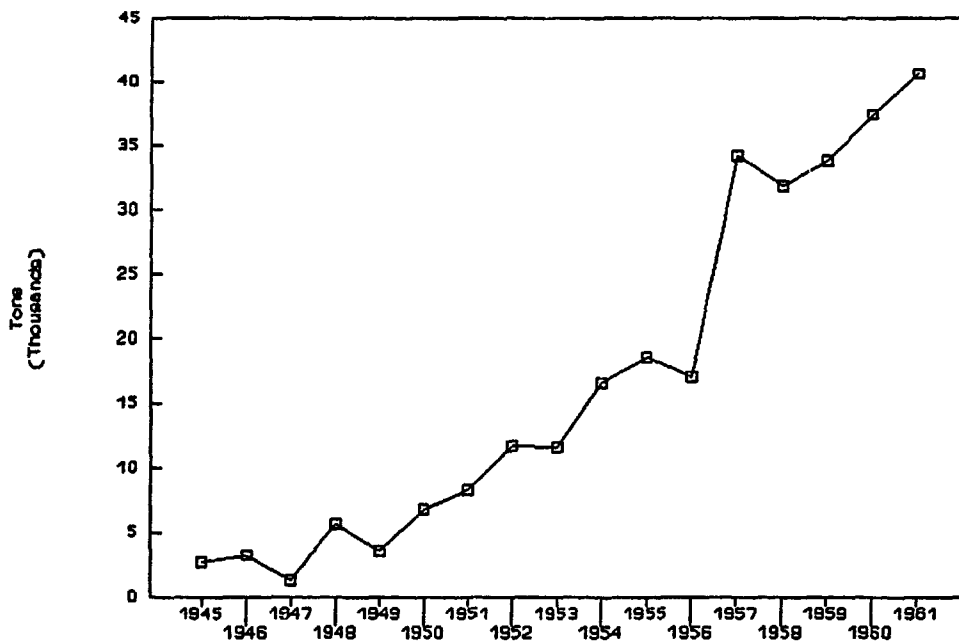
### Private Merchants and the Development of Trade (1930s to 1962)

A commercial cashew nut trade did not develop until the 1930s, when plantings on Mafia Island and on sisal estates in Tanga yielded an export crop of 210 tons in 1938.<sup>12</sup> This trade was interrupted during World War II, but immediately afterwards there was an expansion in plantings, especially in the Mtwara and Ruvuma Regions in the southern zone (see map in the Appendix). Both production and trade grew steadily, the rapid progression of exports being illustrated in Graph 2. This trade was entirely in raw nuts, sent to India for processing. An attempt in the early 1950s to develop a small-scale processing operation at Mtwara was unsuccessful due to the instability in the available labor force.

While there were some cashew plantings on estates, including on lands leased by the Tanganyika Agricultural Corporation (famous for the failed groundnut scheme), most of the expanding production took place on smallholdings. Cashews fit into the traditional cropping system, with trees sometimes planted on land previously left fallow after cassava was harvested or else the two crops were intercropped until the tree canopy developed. In parts of Newala District, the high population density and past intensive cultivation had impoverished the soils such that only cashews and cassava provided a reasonable return. A drought-resistant tree, the cashew has the unusual ability to flower and set fruit during the driest part of the year. This proved important in southern Tanzania where the dry season lasts as long as six months.

These early cashew plantings were encouraged by private traders (of Indian and Arab origins) who operated local shops or transport companies and who bought or bartered for the cashew crop. During the October-February harvest season, "buying days" were announced when traders would purchase the crop for cash. Some two dozen private traders/shippers stored and exported the crop out of Mtwara port to India, where they built up long-term trading relations with processors and brokers.

Graph 2: Tanzania Raw Cashew Nut Exports, 1945-61



<sup>12</sup> This and the subsequent paragraph are based on Northwood (1962) and Tanganyika Trade Journal (1963).



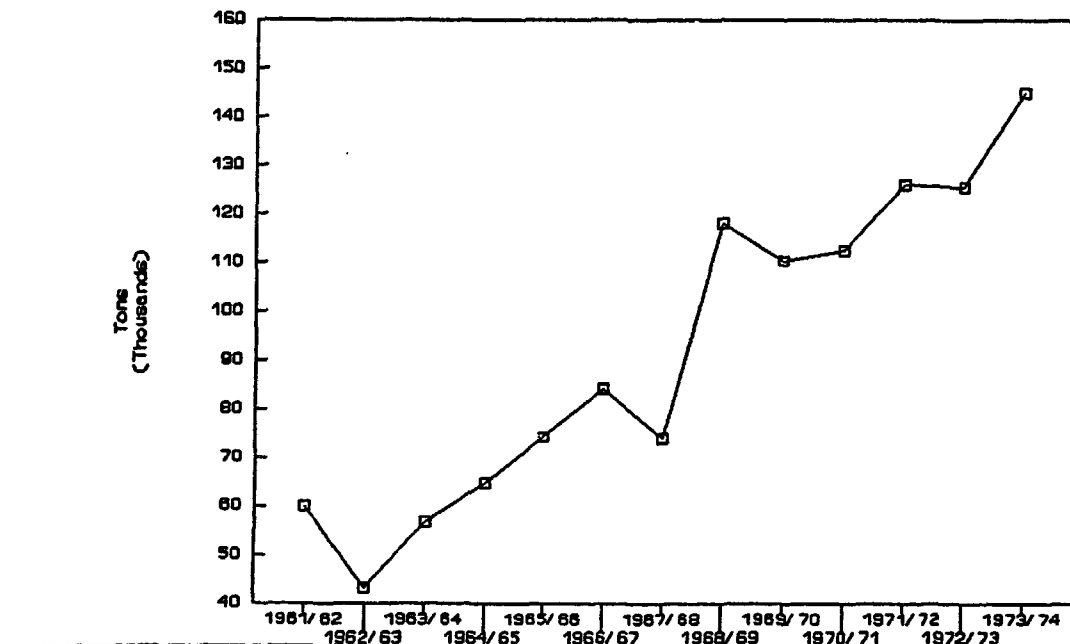
### Expansion and Multi-Tiered Marketing System (1962 to 1974)

At independence in 1962, a Southern Region Cashew Nut Board was established with a mandate to stabilize prices and to develop cooperatives in the region.<sup>13</sup> The Board was given sole authority to purchase the cashew crop and to sell it to exporters at auction. The Board divided up the region into 11 procurement zones, appointing a "main buying agent" for each, who in turn appointed "primary buying agents" to deal directly with farmers. Initially, most of these buying agents were the private merchants already active in the trade. However, by 1963, 80% of the crop in the Mtwara and Rumuva Regions was handled by primary cooperative societies at the local level and newly-formed cooperative unions at the secondary level. In that same year, the functions of the SRCB were taken over the Southern Agricultural Products Board. A year later, the latter would be superseded by the National Agricultural Products Board. Thus began the institutional roller coaster which has plagued the cashew nut industry up to the present.

The multi-tiered system operated satisfactorily through much of the mid-to-late 1960's, although the official producer prices set by the government were not adjusted upward. While available records suggest that both crop collection and payments to farmers took place on a timely basis, the cooperatives were apparently not effective in screening product quality. For example, in 1968 the NAPB lost large quantities of nuts due to improper drying and grading at the post-harvest stage. In response to this problem, the Board commandeered the agricultural staff assigned to the southern zone, using them as cashew nut collection observers and graders.

While the pace of new plantings declined, the maturation of existing shambas contributed to continued rapid growth in production and trade. Graph 3 traces the growth in marketed production through to the early 1970s. This production peaked at over 145,000 tons in 1973/74, then accounting for nearly 30% of total world production.

Graph 3: Marketed Cashew Nut Production in Tanzania  
(Tons)



<sup>13</sup> This and the subsequent paragraph are based on Northwood and Kayumbo (1970), Ohler (1979), Annual Reports of Agriculture, and an interview with former cashew researcher A. Tsakaris.

Smallholders continued to be the backbone of the expanding industry. One survey conducted in the mid-1960s found that 71% of cashew farmers had total holdings of less than four acres, with the majority of farmers owning less than fifty trees.<sup>14</sup> In the survey area (e.g. Lulindi in Masasi District) approximately 25% of the total land area was covered by mature cashew trees, with cashews accounting for 78% of the total cash income of the farmers. At this time, efforts were also made to expand cashew production in the Tanga Region along the coast in order to replace cotton cultivation. The official agricultural staff provided seedlings and technical assistance for this effort.<sup>15</sup> By 1972, the Agricultural Census reported national cashew plantings of 200,000 hectares, of which 139,000 hectares were monocrop and 61,000 hectares were intercropped with one or more crops.

During this period, a further attempt was made to develop a cashew processing capacity in order to increase value-added and to reduce the dependency of the industry on a single market—that of India for raw nuts. A government-sponsored study conducted in 1962 argued that uncertainties regarding the availability of labor in the south and shortages of skilled labor would prevent Tanzania from following the Indian model of manual cashew processing. The study recommended that the country move toward mechanical processing.<sup>16</sup> In 1965, an Italian company, Oltremare S.A. set up Tanzania's first mechanized cashew nut factory in Dar es Salaam with a 9000 ton raw nut capacity (later upgraded to 12,500 tons).<sup>17</sup> While the factory did begin to operate, its kernel exports were not profitable due to the generally low quality of raw nuts found in the DSM Region. The factory's non-profitability also stemmed from its comparatively poor yield of kernel material per ton of raw nuts. In 1968, a second mechanized factory was set up in Mtwara by a Japanese company (Cashco). The factory had a 8000 ton capacity, although equipment breakdowns and power shortages prevented it from operating for several years. By 1973, still less than 10% of the cashew crop was processed locally, with raw nut exports remaining the dominant trade.

#### Industrialization and Production Decline (1974 - 1985)

In 1973, the Cashew Authority of Tanzania was created in order to promote the expansion and wider development of the cashew nut industry. CATA would take over the crop buying functions of the NAPB and by-pass the former exporters by selling the crop to foreign buyers on a tender basis. CATA's mandate was much broader however, with plans outlined for the establishment of a cashew extension and grading service, the development of a cashew research program, an investment in a port storage facility for CSNL exports, and for further investments in large-scale cashew processing facilities. With the cooperative unions being phased out over the 1974-76 period, CATA would procure the crop directly from village societies and influence the determination of official, pan-territorial producer prices.

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In 1974, one of CATA's main objectives was pursued with the initiation of a World Bank-funded project to construct five cashew processing factories with a total capacity of 36,400. The factories, to be located in each of the main towns in Mtwara and Lindi Regions, were to contain 'state-of-the-art' (Oltremere) equipment for mechanical processing. While factory construction proceeded satisfactorily,

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<sup>14</sup> Tsakaris (1967).

<sup>15</sup> Ministry of Agriculture, Annual Report 1966.

<sup>16</sup> Tanganyika Industrial Development (1962), p. 44-52.

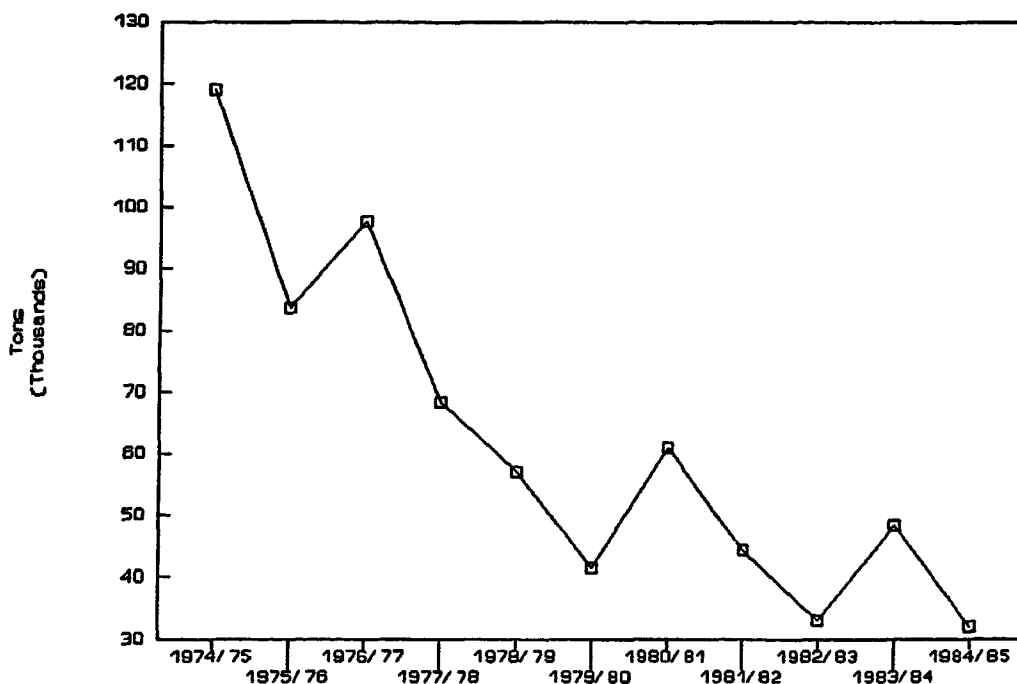
<sup>17</sup> This was by far the largest cashew processing factory in the world at that time.

the actual costs ended up being several times the original estimate.<sup>18</sup> As a result, the research component of the project was dropped and large cutbacks were made in technical support services.

In 1976, with construction of the new factories still taking place, the Tanzanian government requested a second phase to the World Bank project. Concern was expressed about the lack of operational experience in the earlier funded factories and about the overall economic viability of additional factories. At the time, there was also some evidence of a decline in cashew nut production, although greater reliance was given to CATA's optimistic projections for future production levels. In any case, the second phase project was approved, involving the construction of three more factories with an additional capacity of 26,000 tons. Parallel bilateral financing for two additional factories would bring the total processing capacity to 113,000 tons by 1980.

Before any of the new factories came on line, Tanzania's cashew production began to plummet. From the 1973/74 peak of over 145,000 tons, marketed production fell quickly to 84,000 tons in 1975/76 and then declined through the late 1970s and early 1980s to reach only 31,100 tons in 1982/83 (Graph 4). Thus, just as the new factories were being completed, total national production was only one-third to one-fourth of factory capacity.

Graph 4: Marketed Cashew Nut Production in Tanzania  
(1974/75 - 1984/85)



<sup>18</sup> Actual costs were 3.6 times original estimates.

As analyzed elsewhere, several factors likely contributed to this pattern.<sup>19</sup> One of these was the "villagization" program whose implementation in the southern zone began in mid-1974. This program involved the forced re-location of the rural population into villages which were then given priority in the allocation of land and in the provision of social services. In the south, one of the results of the program was to separate smallholders from their cashew shambas, sometimes by considerable distances. This, together with new work responsibilities in the development of the new villages and communal plots, prevented many farmers from harvesting cashews and from properly maintaining these shambas. The latter was probably an important factor in the spread of a mildew disease among cashew trees in certain locations and a subsequent decline in yields.<sup>20</sup>

These logistical and technical problems were exacerbated by the virtual collapse of support services for cashew at this time. With CATA focusing on processing and trading activities, little research work was done, extension services deteriorated, and no system was put into place to detect and monitor farm-level production problems.<sup>21</sup>

Further undermining production incentives was a decline in the real producer prices of cashew nuts, together with a decline in cashew prices relative to those of other crops. This is illustrated in Tables 5 and 6 below. Table 5 shows the decline and then stagnation of real producer prices from 1971/72 through to the early 1980s. The table also shows the substantial decline in the producer's share of total export revenues during the 1970s, reaching its nadir at 25-30% between 1978 and 1981. Cashew nut producers did not benefit from the significant increase in international prices for raw nuts and kernels which occurred from 1977 to 1982 and also did not capture any of the benefits associated with the shift toward increased local processing which took place in the late 1970s and early 1980s.<sup>22</sup>

Ellis (1980) examined trends in producer incentives during this period, finding that increased international prices were absorbed by rapidly increasing operating costs (especially unit administrative costs) on the part of CATA. Significant increases in (real) producer prices were not implemented until the 1981/82 and subsequent seasons, by which time world prices had fallen back somewhat. The result of these developments was a temporary sharp increase in the producers' share of export values and a corresponding large trading loss recorded by CATA.

Table 6 shows that while the real prices for other crops also declined over much of this period, cashew nut producers were most adversely affected by government price (and marketing) policies.

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<sup>19</sup> Ellis (1979, 1980). A detailed analysis of crop production problems did not feature in the supervision reports of the World Bank project until 1980, despite the critical importance of these problems for the economic viability of the Bank-funded investments. Instead, attention focused on the progress of factory construction and on management problems within the CATA.

<sup>20</sup> Although this mildew disease was first cited and diagnosed in the 1960s, it apparently began to have an important negative effect on yields only by the late 1970s.

<sup>21</sup> Research was undertaken only after a bilateral grant was provided by the Italian government became effective in 1979. Of the 344 extension assistants recruited under the World Bank project, only 32 had prior training in agriculture. The extension staff were largely involved in the procurement of raw nuts. In retrospect, it was unrealistic to expect the newly-created CATA to be able to effectively take on a wide range of marketing and support services all at one time.

<sup>22</sup> Just the opposite occurred as delays in processing and CATA losses in kernel exports weakened the financial structure in the cashew nut industry and resulted in the emergence of delayed payments to farmers.

<b>Table 5: Producer Price Trends for Cashew Nuts, 1971/72 to 1983/84</b>			
<b>Season</b>	<b>Nominal Producer Price (Tsh./Kg.)<sup>1</sup></b>	<b>Producer Price in Constant 1971/72 Tsh./Kg.</b>	<b>Producer Price as % of Export Unit Values<sup>2</sup></b>
1971/72	0.91	0.91	67.0%
1972/73	0.91	0.84	67.0%
1973/74	0.91	0.73	49.8%
1974/75	1.03	0.67	54.5%
1975/76	1.03	0.58	47.4
1976/77	1.07	0.55	36.5
1977/78	1.12	0.52	30.0%
1978/79	1.64	0.65	40.2%
1979/80	1.64	0.51	24.7%
1980/81	1.78	0.44	30.9%
1981/82	2.80	0.56	72.2%
1982/83	4.70	0.70	65.8%
1983/84	6.58	0.80	48.2%

1 Weighted value, assuming 80% Standard Grade and 20% Undergrade  
2 Calculated as producer price % average unit value of all cashew export products (raw nuts, kernels, CNSL) on a raw nut equivalent basis. The methodology is similar to that used by Ellis (1979) except that the assumption here is a 20% kernal material recovery from the raw nut.

Sources: Calculated from Data provided in Marketing Development Bureau, Annual Review of Cashewnuts, various years.

By the mid-1970s, there was evidence of farmers not only neglecting their cashew shambas, but of displacing cashew nuts with short-cycle legumes, such as cowpeas, pigeon peas, and various beans. In some places, farmers began to fell cashew nut trees for use in charcoal production.<sup>23</sup> The government's response to such developments included: 1) a campaign to "teach" farmers the importance of maintaining their shambas, 2) road blocks and the banning of petty-trading and charcoal-making in the affected areas, 3) and various types of threats against producers who did not harvest and sell their cashew nuts.<sup>24</sup> Such interventions were not effective and production and trade levels continued to decline.

<sup>23</sup> Havnevik (1979) reports on the situation in Rufiji District.

<sup>24</sup> These efforts are discussed further by Msangi et al. (1987).

<b>Table 6: Comparative Trends in Producer Prices During the 1970s</b> (% Increase or Decrease)					
<b>Crop</b>	<b>1969/70 - 1973/74</b>			<b>1973/74 - 1979/80</b>	
	<b>Nominal</b>	<b>Real</b>		<b>Nominal</b>	<b>Real</b>
<b>Export Crops</b>					
Cashew	0.0	-38.4		91.2	-24.0
Coffee	7.2	-33.9		104.7	-18.6
Cotton	3.8	-36.0		157.3	+2.3
Tobacco	29.1	-20.5		58.1	-37.1
<b>Domestic Crops</b>					
Maize	17.9	-27.4		202.9	+20.4
Paddy	9.6	-32.5		163.2	+4.6
Groundnuts	25.0	-23.0		247.8	+38.3
Sunflower	31.0	-19.3		154.5	+1.2
<b>Source: Eliis (1982)</b>					

Shortages of raw materials were one of the main factors undermining the viability of the new processing factories. Even though more than half of the total production was locally processed between 1980 and 1982, this level of production was insufficient to operate more than a few of the factories. Two of the completed factories were never operated, these lacking access to reliable sources of water and power. Of the remaining ten factories, only four operated in 1982/83 and only two operated during the subsequent two seasons.

Raw materials availability was not the only problem. With poor grading of raw nuts and with power and water interruptions, the quality of the finished product was uneven and generally below international standards. Tanzanian kernel exports thus brought price discounts of 35 to 50% from the Indian price.<sup>25</sup> This, together with the favorable prices for raw nuts imported by India, resulted in the Tanzanian factories accruing negative value-added in 1981 and 1982 and sustaining continued financial losses.

#### Reversing the Downward Slide (1985-1991)

In 1985, CATA was replaced by the Tanzania Cashew Nut Board and the cooperative unions were re-established. Crop procurement arrangements would henceforth resemble those prevailing during the early 1970s, whereby primary cooperative societies would procure the crop from farmers (paying official pan-territorial prices for the two grades), using funds supplied by cooperative unions. The unions would in-turn transport the crop to the TCMB which would then either process the nuts or export them

<sup>25</sup> Over the 1981-83 period.

as raw nuts. An inter-store price was negotiated between the cooperative unions and the TCMB, ostensibly geared toward enabling the unions to recover their procurement and wider operating costs.

At approximately the same time, the Second Cashewnut Development Project was restructured, with the remaining undisbursed funds going toward a pilot program of applied research, extension and training.<sup>26</sup> Under this program, the powdery mildew problem was investigated and farmers were encouraged to dust their trees with sulphur as a remedy. Such efforts were geared toward reversing the decline in production yields, thus stimulating farmers to harvest their crop. In addition to the technical measures, official producer prices were increased in real terms from the 1987/88 season onward.<sup>27</sup>

Such measures, however, were overwhelmed by inefficiencies and graft in the marketing system. The cooperative unions, lacking strong managerial capabilities and having weak accounting systems, were not effective in performing their functions and also built up huge arrears on their bank loans.<sup>28</sup> These financial problems fed down through the system with cooperative societies being able to purchase the cashew crop only on an erratic basis and making payments to farmers only after several months.<sup>29</sup> In several years, large quantities of nuts remained unsold at the farm or village level at the end of the buying season. Between cooperative societies and unions, significant quantities of nuts 'leaked' out of the system. A total breakdown in the system of grading also occurred, with more than 95% of nuts delivered during the late 1980s being classified as standard (e.g. first) grade.<sup>30</sup>

Declining marketed production and problematic buying agents were important, yet not the only factors constraining the operations of the TCMB during this period. Foreign exchange shortages led to shortages in spare parts and oil to operate the factories. At the same time, the factories were required to make employees permanent after only three months of work. This greatly added to labor costs for factories which operated only 100 or fewer days per year. Even in the procurement of nuts, the factories ran into barriers set up by local authorities who viewed the factories as local assets and thus sought to prevent local nuts being transported to other factories for processing. Between 1985 and 1990, nine factories were closed entirely, while the three others operated only intermittently. The value added from processing was either negative or too low to cover processing costs. Raw nut exports also plummeted, reaching below 7500 in 1989/90.<sup>31</sup>

Table 7 provides various indicators of performance for the industry over the 1984/85 to 1990/91 period, while Table 8 summarizes the limited utilization of Tanzania's large-scale, state-of-the-art processing factories.

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<sup>26</sup> This was the Cashew Production Improvement Pilot Project.

<sup>27</sup> The extent to which farmers realized these higher prices is not clear. During this period, local cesses (for education, building, and other funds) on cashew nuts, paid either by farmers or by cooperative societies, were increased significantly. One thing is clear, however. Farmers benefitted little or none from the large international price increase over the 1986-88 period, with windfall profits accruing to the TCMB.

<sup>28</sup> This analysis is based on Duncan (1988) and cooperative union records.

<sup>29</sup> Farmers were also directed taxed to cover for cooperative union losses via excessive deductions for 'shrinkages' between the farm-gate and cooperative union delivery to the TCMB.

<sup>30</sup> Historically, 80-85% of nuts were graded as standard grade.

<sup>31</sup> During this period, the TCMB began to mix nuts from different locations, completely undermining foreign buyer confidence in Tanzania's system of grading and weakening the tender system. Concerns were also expressed about the non-transparency of the tender system, with the possibility of private interests overriding public interest.

**Table 7: Indicators of Cashew Nut Industry Performance 1984/85 - 1990/91**

Indicator	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91
Marketed Production (Tons)	32,073	18,956	16,544	24,374	19,275	17,059	29,325
Producer Price (Tsh./kg)							
Nominal <sup>1</sup>	9.66	11.58	17.93	29.50	39.35	82.60	108.15
Constant (84/85)	9.66	8.98	10.49	13.23	13.76	23.14	25.27
Producer Price as % of Unit Export Value <sup>2</sup>	71%	37%	25%	32%	38%	57%	56%
Cooperative Union Losses (Tsh. Million)	N.A.	94.6 <sup>3</sup>	84.1 <sup>4</sup>	95.9 <sup>4</sup>	131.3 <sup>4</sup>	135.6 <sup>4</sup>	332.2 <sup>4</sup>
TCMB Profits/(Losses) (Tsh. Million)	N.A.	N.A.	488	386	72	(493)	N.A.
Raw Nut Exports (Tons) <sup>5</sup>	13,853	13,379	13,871	14,004	7,485	7,429	19,000
Kernel Exports (Tons) <sup>5</sup>	518	0	0	1014	1711	1412	956
Processing Value Added (%) <sup>6</sup>	12%	N.A.	N.A.	-4%	-2%	12%	36%
Factory Capacity Utilization (%) <sup>7</sup>	2.1%	0	0	4.1%	8.4%	12.9%	4.3%

1 Weighted Average, 95% standard grade and 5% undergrade.

2 Takes into account exports of raw nuts, kernels, and CNSL.

3 Aggregate for Unions for Lindi, Coast, Mtwara, and DSM Regions.

4 Aggregate for (3) above plus Tanga Cooperative Union.

5 For calendar year (e.g. 1985, 1986, etc.)

6 Unit value of kernels and CNSL over and above raw nut export value.

7 Utilization rate for total national capacity.

Sources: Marketing Development Bureau, Annual Report of Cashewnuts, various years.; Unpublished Cooperative Audit report.



**Table 7: Operations of Cashew Nut Processing Factories**

Factory	Date of Test Run	Source of Finance	Est. Maximum Capacity	Annual Rawnut Throughput (Tons)						Total # of Days Operated Through Sept. 1991
				1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	
Tanita	1965	GOT	10,700	0	0	218	2455	3000	1345	> 1000
Mtwara	1968	GOT + ES	6,800	0	0	0	0	0	0	?
Lindi	1978	WB	8,600	0	0	0	0	0	0	301
Mbagala	1978	ES	10,700	0	0	0	0	0	0	?
Mtama	1979	WB	4,300	0	0	0	0	0	0	358
Likombe	1980	WB	8,600	0	0	2402	3144	6000	1473	> 800
Kibaha	1980	WB	8,600	0	0	1383	2536	3500	1345	720
Nachingwea	1981	WB	4,300	0	0	0	0	0	0	95
Masasi	1981	WB	8,600	0	0	0	0	0	0	91
Newala II	1981	WB	8,600	0	0	0	0	0	0	116
Tinduru	Never	ES	8,600	0	0	0	0	0	0	0
Newala I	Never	WB	8,600	0	0	0	0	0	0	0

Sources: Agriconsult/Amec (1992); MDB Annual Cashewnut Report, various years.

#### IV. Market Liberalization and Private Sector Response (1991- Present)

As part of a Structural Adjustment Programme begun in 1983, the Tanzanian government began to liberalize the domestic marketing of grains and other food crops, moving away from the official single channel systems put in place in the mid-1960s. Private traders, which in any case had been active in parallel market trading, were first permitted to conduct trade across regional boundaries. Quantity restrictions were later relaxed and removed altogether. By 1988/89, private traders were allowed to purchase crops from primary societies and by 1990 all restrictions were lifted.

In the southern regions where cashews are the major cash crop, private traders successfully competed with cooperatives in the procurement of the liberalized crops. In general, private traders paid higher prices and paid cash, so farmers did not experience the same payment delays as with the cooperatives.<sup>32</sup> Private merchants were particularly active in the trades in sesame and cassava roots, for which sizable export markets have been developed. An illustration of the emerging major role of private traders in southern zone food marketing is provided in Table 8 which provides survey data from the East Makonde area concerning farmer market outlets for different crops. As the Table indicates, during the 1990/91 season only for cashew nuts did the cooperative societies continue to play a major role.

Crop	Primary Society	Private Trader	Consumer
Cashew	100	0	0
Cassava	25	48	27
Sesame	25	75	0
Groundnuts	0	31	69
Pulses	10	31	59
Cereals	7	43	50

Source: ODA Cashew Research Project. Household Agricultural Marketing Survey.

While domestic markets were liberalized, the marketing of traditional export crops remained confined to one channel, multi-tiered systems. Initial proposals to liberalize the cashew nut trading system were put forward in the late 1980s under the CPIP. However, it was not until the 1990 Tanzania Agricultural Adjustment Programme that the government announced its intention to implement major policy and institutional changes in export crop marketing. This commitment was put in concrete form in Tanzania's Policy Framework Paper, presented by the government in April 1991.

The cashew nut industry would play the lead role in export crop market liberalization, beginning with the 1991/92 season. This industry was chosen, in part due to the relative weakness of its cooperative unions (compared with those in the cotton and coffee industries), but also because the industry was in the

<sup>32</sup> ODA Cashew Research Project, *Household Agricultural Marketing Survey*, op cit.

gravest shape. A survey conducted during the 1990/91 season had found that, depending upon location, some one-third to one-half of farmers with cashew shambas were not harvesting nuts (see Table 9). Even those who did harvest faced severe sales problems. By July 1991 (some two to three months after the expected end of the buying season), still 30% of the crop had not been purchased due to cash shortages. The government needed to intervene with the banks to clear the crop. Especially in the southern zone, where, depending upon location, cashew nut sales account for between 36% and 80% of total farmer crop incomes, the decline in production and the inefficiencies in marketing were contributing to a significant decline in living standards. At the same time, the government's huge investment in processing facilities was bringing minimum return, with most factories lying idle.

**Table 9: Importance of Cashews and Cashew Sales in Tanzania's Southern Zone**

Area	% of Households with Cashews	Of Those with Cashews, % Harvesting in 90/91 Season	Of Those With Cashew % Sold Cashews	Of Those With Cashes % Use Cashews for Food	Mean Cashew Income (Tsh.)	Mean Total Income from Crop Sales (Tsh)	Cashew Sales as % of Total Crop Sales
E.Makonde	70	64	59	40	7436	12630	59
W.Makonde	96	83	75	80	24319	28988	84
S.Masasi	73	77	73	67	13531	21804	62
Tinduru	81	44	40	35	6880	19007	36
Lindi/Nach./NEMasasi	73	60	53	45	6218	10244	61
Coastal Plain	75	65	61	29	7473	10937	68

Source: ODA Cashew Research Project, Agricultural Marketing Survey 1991.

The government's original intension was that the TCMB would retain a monopoly on export marketing, yet primary marketing would be liberalized. The Ministry of Agriculture issued its guidelines in July 1991, leaving only three months for preparation before the beginning of the marketing season. These guidelines were vague and were announced only through the media (e.g. radio and newspapers), with no official documentation being sent to the regional and district authorities who would be responsible for implementing and monitoring the structural changes. Local authorities thus were given no explanation of the rationale behind the policy changes and were largely unaware of the structural changes envisioned within the marketing system. Implementation of the guidelines was seemingly left at the discretion of local authorities.

This weak communication, combined with the conservative attitude of some local authorities and the vested interests of the cooperatives, caused a delay in the registration of private cashew traders and resulted in ad hoc procedures for doing so. In some regions, local officials viewed would-be private traders not as competitors with the cooperatives, but as supplementary actors in the procurement of the

crop. Restrictions were placed on the locations where the private traders could operate and on the quantities which they could purchase. They were required to pay official prices and to submit weekly sales returns to local authorities. The registration process was interpreted by some regional authorities as a fund-raising exercise, with significant licensing fees being charged.<sup>33</sup> Initially, private traders were required to sell the crop to TCMB. They argued that without the right to export (and retain FOREX), there was little incentive to participate. Only in April 1992, however, did the TCMB concede to the right of private firms (and cooperatives) to export cashew nuts on their own accounts.

As a result of the uncertainties and official barriers, very few private traders were registered through December. By February, there were still only thirty-one registered traders, the majority of which were in Lindi (15) and Mtwara (10). In Coast and Tanga Regions, local authorities sought to protect the regional cooperative unions by greatly limiting the number of registered private traders. Only in the Lindi Region did private traders play a major role in the procurement of the 1991/92 crop. The regional cooperative union, LIRECU, was declared insolvent prior to the season and was thus unable to obtain a bank overdraft to procure cashews. Only late in the season did the TCMB provide LIRECU with funds in order to buy the crop in poorly accessible areas where the private traders had not ventured. Thus, in Lindi, private traders accounted for 77% of the purchased crop. Nation-wide, the share of private traders was only 17.5% during the first season of 'liberalization'.

With pre-determined official prices and fixed margins, and with official efforts to segregate the buying operations of cooperatives and private traders, no real competition emerged during this season. The only major distinction occurred with regard to grading. In contrast with the cooperatives, grading was taken seriously by private traders. As a result, nearly 30% of the nuts purchased in Lindi were downgraded to undergrade (UG).<sup>34</sup> In contrast, in neighboring Mtwara Region, the cooperative union (MARCUCU) purchased nearly 10,000 tons of nuts, only two tons of which were classified as UG.

Several private firms did try to export part of the 1991/92 crop. The results were generally disastrous.<sup>35</sup> Having procured much of their crop relatively late in the season, the firms had acquired stocks of mixed quality. Being granted the right to export only in April, the private exporters were in a position to sell their crop only after the Indian domestic season had begun. As a result of these two factors, Indian buyers offered relatively low prices which several exporters rejected. These firms subsequently had to unload their stocks at even lower prices during the subsequent season.<sup>36</sup>

A few cooperative unions also sought to directly export their crop. They too ran into severe difficulties related to product quality and experienced several cancellations in sales contracts. Shipments which were made by the cooperative unions were subjected to major quality-related claims, reducing

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<sup>33</sup> One trader reports having to pay Tsh. 20,000 for the right to purchase cashew nuts in a particular district.

<sup>34</sup> Standard grade nuts are defined as those containing not more than 1/4% foreign matter and not more than 13% (by weight) of damaged, empty, immature, or old nuts. Moisture content should not exceed 13%. Undergrade nuts are those not meeting these requirements.

<sup>35</sup> Equally disastrous were initial private attempts to import and distribute sulphur and blowers for cashew tree dusting. With delays in sulphur shipments and trade documentation, the imported inputs arrived too late for use before the season, leading the firms to have to maintain large input stocks and incur expensive finance charges.

<sup>36</sup> One firm which purchased about 600 tons during the 1991/92 season was still holding this (now deteriorated) stock in April 1993. A sizable loss was predicted on sales.

actual sales values to less than \$400/ton, compared with invoice prices of more than \$600/ton.<sup>37</sup>

Despite all this confusion, marketed production did increase by 38% over the previous season, reaching 41,238 tons. Favorable weather, an increase in sulphur dusting in some locations (especially in Tinduru where a major government- and cooperative-directed campaign took place), increased real producer prices, and prompt payments to farmers all contributed to a larger proportion of cashew owners actually harvesting their crop and probably to a higher level of output.<sup>38</sup> While exporting most nuts in raw form, the TCMB did put into operation two of its factories, processing 9000 tons of nuts. Once again, however, this resulted in negative value added as raw nut prices were favorable and Tanzania's kernel exports received price discounts. Although providing employment opportunities, TCMB's processing operations were loss-making as a result of high unit costs and relatively poor technical results.

The competitive disadvantage faced by the TCMB is clearly illustrated in Table 10 below. TCMB's use of mechanical processing, together with the organization's apparently poor technical efficiency in utilizing this equipment and weaknesses in the raw material grading system, have resulted in a situation where the kernel-based revenue per ton of raw nuts processed in Tanzania is nearly 26% lower than that obtained in India. This huge difference, stemming from Tanzania's lower yield of kernel material and much lower proportion of realized whole kernels, has been a major reason why India has been able to pay seemingly high prices for raw nuts and why the TCMB frequently achieves low or negative value added through processing.

The beginning of the 1992/93 season was characterized by uncertainty and confusion.<sup>39</sup> The experience of the prior season, together with pessimistic predictions about the Indian market for raw nuts, led some former or would-be private traders to delay their registration or buying operations. The uncertainty was compounded by mixed signals from the TCMB concerning whether or not it would buy nuts from private traders. If not, then private firms would need to depend entirely upon their own export channels. While the Lindi branch of TCMB did announce that it would buy from private traders, this branch did not have funds at the beginning of the season and thus issued IOUs to traders. The Mtwara branch of TCMB waited until December to announce its intention to buy from private traders, with this delay designed to protect the procurement interests of the regional cooperative union (MARCU).

Uncertainty and confusion spread to the financing of crop procurement and to the prices which producers would be paid. Under pressure to recover past loans and to weed out non-paying clients, the commercial banks (particularly the parastatal National Bank of Commerce) denied overdraft facilities to several of the cooperative unions and made loans to others contingent on agreements regarding guideline producer prices and inter-store TCMB buying prices. Negotiations on these matters were protracted and things were not sorted out until December, three months into the buying season.

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<sup>37</sup> For example, MARCU had a contracted price of \$700/ton for 3500 tons, although realized sales earnings were only \$394/ton.

<sup>38</sup> The Cashew Farmer Practices Survey (1992), conducted by the ODA Cashew Research team, did show a greater propensity of farmers to harvest nuts.

<sup>39</sup> The analysis below is based on field work conducted by the author in March 1993. Interviews were conducted with government and commercial bank officials, with officials of the TCMB and several cooperative unions/societies, and with twenty-four private trading companies/individuals. The field work concentrated in the Mtwara and Lindi Regions and in Dar es Salaam. Tremendous assistance was provided by Commercial Unit of the Cashew Improvement Programme.

**Table 10: Comparative Cashew Processing Yields and Revenues**

Grade	Price (\$/lb. FOB) <sup>1</sup>	Typical Production Breakdown		Revenue Breakdown for Composite Ton of Kernels (\$ FOB)	
		Tanzania <sup>2</sup>	India	Tanzania	India
<b>Wholes</b>					
W210	3.09	1%	3%	34	204
W240	2.80	3%	7%	185	432
W320	2.70	27%	47%	1607	2797
W450	2.65	14%	14%	818	818
Scorched	2.62	3%	6%	173	346
Dessert	1.93	7%	6%	298	255
Sub-Total		55%	83%	3114	4852
<b>Brokens</b>					
Butts	2.09	9%	5%	415	231
Splits	2.15	14%	5%	663	237
Large White Pc.	1.82	17%	4%	681	160
Small White Pc.	1.71	5%	3%	188	113
Sub-Total		45%	17%	1948	741
<b>Total Revenue Per Ton of Kernels</b>				<b>\$5062</b>	<b>\$5593</b>
<b>Total Revenue Per Ton of Raw Nuts</b>				<b>\$962<sup>3</sup></b>	<b>\$1296<sup>4</sup></b>

1 December 1991

2 Oltremere system.

3 Assuming an average of 19% kernel yield from raw nuts. Likombe factory achieved 18.7% in 1990/91.

4 Assuming an average of 23% kernel yield from raw nuts.

Source: Modified from Agriconsult/AMEC (1992)

While a few of the cooperative unions (including Ruvuma, Coast, and DSM) did obtain overdraft facilities, the others (including MARCU and LIRECU in the most important production areas) would need to obtain their financing through the TCMB, which finally obtained overdraft facilities in December and January. Relatively high inter-store TCMB buying prices of Tsh. 182-190/Kg. (depending upon region) were agreed to. In determining the guideline producer price, greatest consideration was given to the financial viability of the cooperative unions and to their ability to repay loans to the banks. Hence, the sample budgets constructed for the unions built in a sum of Tsh 20/kg. for finance costs. At the agreed guideline producer price of Tsh. 125/kg. for standard grade, it was expected that the unions would obtain

net margins of 10 to 12% which they could direct toward repayment of arrears.<sup>40</sup>

The agreed guideline producer prices of Tsh. 125/Kg. for SG and Tsh. 89/Kg. for UG were lower than the official prices for the previous year (e.g. Tsh. 137 and 89/Kg., respectively), were lower than the guideline prices which regional authorities had already announced in some areas (e.g. Tsh. 140/Kg. for SG in Lindi Region), and were considerably lower than the prices which private traders were actually paying in the beginning of the 1992/93 season (eg. between Tsh. 140 and 160/Kg. for SG). While the lower guideline price was implemented in the north and in Lindi Region, it was rejected outright by farmers in parts of Mtwara Region, forcing MARCU to increase its procurement prices.

Figure 2 provides a flow chart for the industry during the 1992/93 season. Three main channels have emerged. One is organized by private exporters who have hired private traders or cooperatives located in major production areas to serve as their buying agents. The second channel features cooperative unions procuring nuts from cooperative societies and then trading on their own account. The third channel involves private traders and cooperative selling to the TCMB which in turn exports the raw nuts. The discussion below focuses primarily on private trader activities.

### Private Trader Activities

Although there were initial entry delays (particularly among smaller traders), by January there were many private traders active in the market. Compared with the prior season, relatively few restrictions were placed on private traders other than the stipulations that they should buy the crop from cooperative societies (and not directly from farmers) and that they should pay certain local taxes. Some traders intended to buy only SG, although in some districts local authorities forced them to also buy UG. Many of the smaller, part-time traders didn't bother to register themselves with district authorities. The number of private traders buying at the local level probably numbered more than 200.

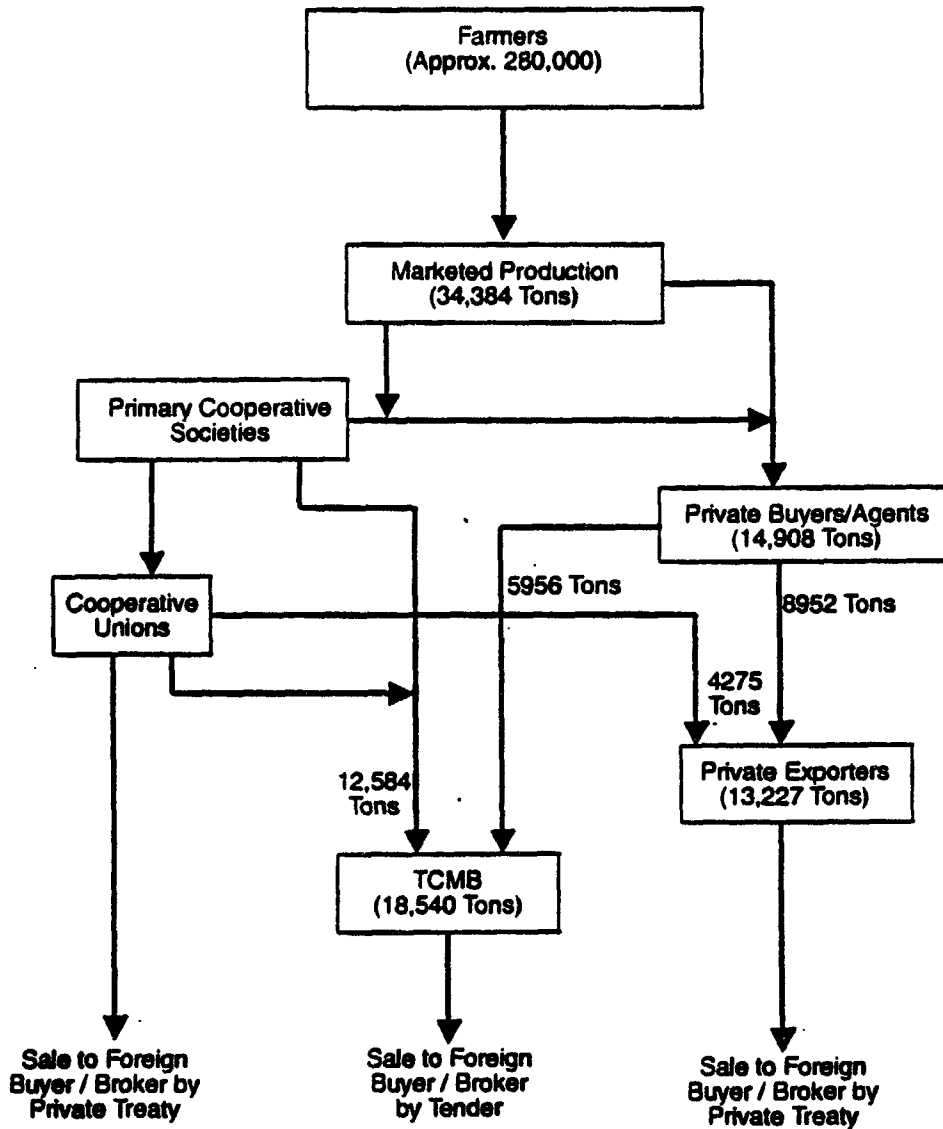
Three main types of private traders emerged this season as first handlers at the local or regional levels (Table 11). One type, referred to here as "petty traders", consists primarily of farmers and office employees who, with some limited initial savings, bought nuts from farmers in order to supply the TCMB. Although initially hesitant to enter the trade, these actors took the plunge once it was clear that the established inter-store TCMB price and the guideline producer prices afforded a comfortable margin. Such traders generally experienced problems in obtaining bank financing for their activities, despite having adequate security. As a result, they dealt in small quantities, relying on their sales turnover to generate funds for further purchases. Most of these traders made use of hired vehicles to transport the crop and many sought to by-pass district and cooperative levies by dealing directly with farmers rather than with cooperative societies.

A second type, referred to here as "buying agents/stockists" consists of business people who were also attracted by the favorable margins available on sales to the TCMB. Such individuals/firms typically own a shop and run some sort of transport business. Quite a few of them have also become involved in stocking sulphur and blowers and/or providing spraying services on contract (in return for nuts). While some have received limited overdraft facilities from Banks, most relied upon savings for initial purchases and on subsequent sales turnover to finance further purchases. These traders operated on a considerably larger scale than the first group, handling several hundred tons each during the 1992/93 season.

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<sup>40</sup> Calculated from cooperative cost/revenue budgets.

**Figure 2: Cashew Nut Channels in Tanzania  
(1992 / 93 Season)**



Source: Author's Field Interviews  
Through March 10, 1993

EKW54313

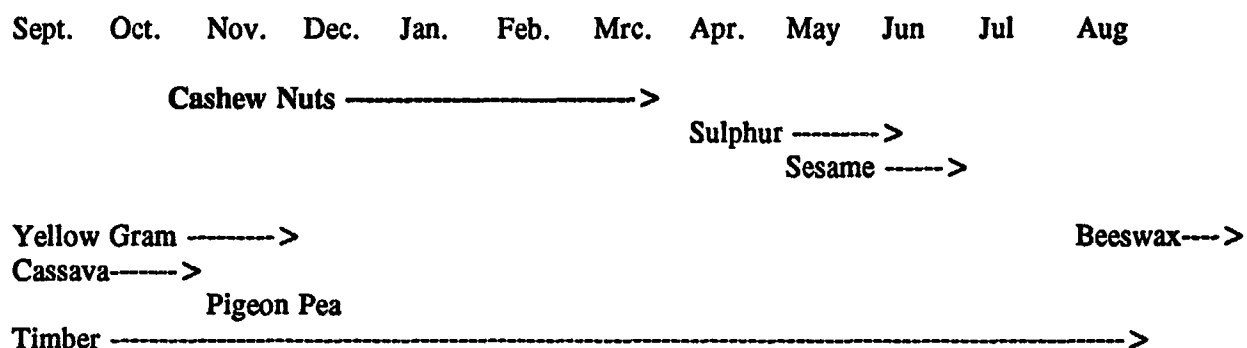


**Table 11: Profiles of Three 'Types' of Private Cashew Nut First Handlers**

'Type'	Main Activities	Typical Ethnic Origin	Source of Finance for Purchases	Quantities Handled (Tons)	Mode of Crop Transport	Prior Cashew Trading Experience	Market Outlet	Form of Remuneration
Petty Trader	Farming; Office Employee	Indigenous	Savings; Crop Turnover	< 25	Hired Vehicle	No	Other Traders; TCMB	Margin on Inter-store Price
Buying Agent/Stockist	Farming; Inputs Stockist; Transport	Indigenous	Crop Turnover; Bank overdraft	50 - 400	Own Truck	No	TCMB	Margin on Inter-store Price
Commodity Trader/Agent	Commodity Trade; Freight-forwarding	Tanzanian Asian	Exporter; Bank overdraft	200 - 3500	Fleet of Trucks	Frequently	Private Exporter	Commission

The third type of trader consists of family-based enterprises involved in wider commodity trading, transport, and other ventures (e.g. petrol stations). These firms serve as cashew buying agents for DSM-based exporters. The local traders are provided with money and instructed on the quantities and source areas preferred. Receiving a commission, these firms use their local knowledge to procure the nuts and often to manage loading and freight-forwarding from Mtwara port. Several of these firms have a history in the cashew trade, either with the present or former generation involved in similar procurement arrangements. These firms became active in trade in sesame, cassava, and other products in the late 1980s and found that cashew nuts fit well into their trading calendar, keeping both staff and vehicles employed (see Table 12)

**Table 12: Illustrative Trading Calendar of Multi-Commodity Trader**



At the first handler level, competition was still not strong during this second year of a liberalized market. Several factors contributed to this. One was the overall shortage of finance available, with the number of traders in possession of cash being present at any one time in the villages being limited to only one or very few. A second reason is a common practice amongst traders to by-pass villages where another private trader is known to be active. The reasons for this are not very clear. However, it is the case that private traders have sought to (and have apparently succeeded to) 'buy' primary cooperative society secretaries through the payment of a small commission (e.g. Tsh. 1/Kg.) or through the provision of a gift such as a radio or bicycle. Such cooperative officials would seek to guarantee village supplies for the favored buyer by telling other would-be buyers that the local crop is already committed to another party.<sup>41</sup> Third, price competition was deadened by the announcement of guideline or 'indicative' prices. Given the many years of government-directed prices, the notion of an 'indicative' price is not well understood and most traders and primary societies tended to settle on prices at or very close to the 'indicative' prices. The fact that cooperative unions were paying the 'indicative' price re-inforced this notion of an official price.

While the majority of the local first handlers are indigenous traders, some of the larger traders and all of the exporter buying agents are long-established Tanzanian Asian trading companies. Table 13 provides a breakdown of the suppliers to the Lindi branch of the TCMB during the 1992/93 season. In indicates that, at least for the trade directed through the TCMB, indigenous firms have been able to hold their own.

<sup>41</sup> As one trader noted, the objective is to have the cooperative secretary tell would-be competitors that there are 'no vacancies' in the village for cashews.

<b>Table 13: Cashew Nut Suppliers to TCMB Lindi (1992/93 Season)</b>		
<b>First Handler/Supplier</b>	<b>Quantity Supplied</b>	<b>Proportion</b>
Coop. Society/Union	293.6	6.5%
R.T.C. (Public Enterprise)	202.5	4.5%
Private Traders	3988.2	89.0%
Of which:		
Tanzanian Asian (14)	2048.6	45.7%
Indigenous (17)	1939.6	43.3%
<b>Sources: TCMB Lindi Buying Records; Lindi Regional Agricultural Staff.</b>		

The pattern for private exporters is quite different. During the 1992/93 season, twelve private companies undertook (or were preparing) exports, accounting for about 40% of the country's raw nut trade. Nine of these exporters were interviewed, basic information on which is provided in Table 14 below. By Tanzanian standards, each of these firms is quite large or is part of a larger group of companies. In contrast with the mixed pattern found for local buyers/traders, each of the exporters is owned and/or managed by Tanzanian Asians, typically family-based companies or partnerships. As the Table indicates, only one firm concentrates on cashew nut trading, but even this firm is part of a conglomerate. Each of the other firms is active in trading of a wide range of commodities, plus most are also active in the transport business and in agro-processing ventures. During the 1992/93 season, cashew nut trading accounted for 20% or less of the turnover of most of these firms. These firms are also among the country's largest traders of non-traditional agricultural commodities, including sesame, cassava roots, and others.

Table 15 outlines the trade mix of one of the largest emergent cashew nut exporters. Notice both the extensive range of products and the diversity of markets served. These new cashew nut exporters are generally quite experienced in international trade or else have hired experienced managers from abroad to develop this business. Several of the new exporters had experience in cashew nut trading during the 1960s and 1970s.

While several of the firms financed their cashew nut purchases out of their own funds, most obtained some additional funding, either from local commercial banks or from external buyers or affiliated companies. Such external finance provided a strong competitive edge, as money was available on a timely basis and was available at interest rates below 10%, compared with the 27-31% interest rates on local overdraft facilities.

As noted above, the private exporters are generally not directly involved in the local-level procurement of the crop. They instead have relied upon private traders (or less commonly cooperatives) based in the main production areas to arrangement crop collection, grading, farmer payments, and the preparation of consignments for shipment. The buying agents are not strangers; several are linked through family, while others have previously dealt with the exporter with other commodities (e.g. sesame, cassava). Trust is essential in this type of trade, given the relatively large sums of money which the exporter provides the agent to make purchases, and given the fact that the exporter is simultaneously negotiating forward export contracts for which the agent's supplies will help fulfill.

**Table 14: Characteristics of Surveyed Private Cashew Nut Exporters**

Company	Year Established	Ownership	Fixed Assets (\$ 000)	Cashew Export Volume (Tons) <sup>1</sup>	Cashew Turnover as % of Total Earnings	Prior Cashew Trading Experience	Source of Financing	Other Activities/Trading
TWD	1989	Tan. Asian Individual		3700		No	External	Commercial Import and Export
ETC	1992	Tan. Asian + U.K. Partnership	120	2800	20%	No	Own	Commodity Exports Relief Agency Sales
FDHN	1947	Tan. Asian Family	2500	2045	13%	Yes	Own + Bank	Commodity Exports Oilseed Milling
BDS		Tan. Asian Individual	500	2150 (1150)	20%	No	Own + External	Commodity Exports Seed Beans Transport
RPR	1989	Tan. Asian Family	170	2000 (1000)	20%	Yes	Own + Bank	Commodity Trade Textiles
AMKT		Tan. Asian Partnership	100	1300	50%	No	Own + Bank	Commodity Exports Jems Pharmaceuticals
KRSH	1991	Tan. Asian + U.S. Partnership	15	1200 (1200)	100%	Yes	Own + Bank	Part of Large Holding Company
ABTR	1973	Tan. Asian Family	2500	270	6%	No	Own	Commodity Exports Transport/Clearing Spare Parts
MENT	1983	Tan. Asian Family	4050	0 (600)	N.A.	No	Own	Commodity Exports

<sup>1</sup> Figures in ( ) are tonnage of 1991/92 crop exported in 1992/93.

Source: Author's Survey (March 1993)

**Table 15: Commodity Export Mix of Major Private Cashew Trader  
(1992/93 Season)**

Commodity	Market Destination	Quantity (Tons)	Value (\$ 000)
Cashew Nuts	India	2045	1,496
Cotton Seed Cake	Western Europe	16,000	1,436
Cocoa Beans	U.K.; Netherlands	670	589
Sesame Seed	Turkey; Japan	1026	540
Beeswax	Japan	152	413
Cassava Roots	Western Europe	3000	345
Yellow Gram	India, Ethiopia	1714	257
Pigeon Peas	India; U.K.	755	217
Castor Seeds	Europe; Japan	736	146
Miscellaneous Minor Items <sup>1</sup>	Pakistan; Zaire		219
		27,300	5658

<sup>1</sup> Including betle nuts, cardamom, copra cake, cooking oil, and gum arabic.

Source: Private Exporter Trade Records

Similarly, export transactions are not conducted with strangers. Several firms direct their trade toward affiliated companies or through buyers/brokers with whom they have had past trading experience. Few of the firms deal directly with Indian processors. Instead, they rely upon offshore brokerage firms (based in places such as Singapore and the Virgin Islands) which provide reliable financial and shipping services and which guarantee product quality to the eventual buyer.

The interviewed exporters were asked to rate various potential problems on a scale of 1 to 5, with 5 signifying a 'major problem or bottleneck' and 1 signifying that the factor is not a problem faced by them in their procurement or sales. Table 16 aggregates the results of this exercise.

<b>Table 16: Private Exporter Assessment of Problems</b> (1 to 5 Scale; 1= No Problem, 3= Moderate Problem, 5= Severe Problem)		
Factor/Problem	Rank	Average Rating
Poor Communications to Producing Areas	1	4.2
Poor Roads	2	3.7
Taxation/Cesses	3	3.1
Availability of Cashew Nuts	4	2.8
Access to Short-Term Finance	5	2.7
Lack of Time/Conflicting Activities	6	2.7
Inflation/Price Instability	7	2.4
Lack of Market Information	8	2.3
Availability/Cost of Packaging Materials	9	2.3
Official Restrictions on Cashew Procurement	10	2.1
Inadequate Transport/Storage Facilities	11	2.0
Lack of Market Outlets	12	2.0
High Cost of Cashew Nuts	13	1.9
Unreliability of Buyers	14	1.8

Source: Author's Field Survey (March 1993)

According to the exporters, the most significant problem is social infrastructure (telephones, roads) linking them or their buying agents with the main production areas. This raises overall transaction costs in crop procurement. Taxation is the next concern of significance, especially the (increasing) local

cesses imposed by district authorities. In some locations, the sum of educational, building, and other funds totals up to Tsh. 18/Kg. While traders are normally required to pay part of the fees, these fees are in fact simply taxes on local producers.<sup>42</sup>

Exporters indicated that the storage and transport facilities which they own or lease are more than adequate for their present trading activities. In fact, not a single firm indicated that it needed to make any additional investment in order to enter into the cashew trade. In the southern zone, there is significant unused storage facilities, especially at the depots of the National Milling Corporation and at the idle cashew nut factories. Varied responses were given to the question about finance. This was not a problem for those firms who receive financing from overseas affiliates or buyers, yet it was reported to be a costly and difficult barrier for those firms having to rely upon local commercial banks. The exporters do not see marketing (including market information, market outlets, and buyer reliability) as a serious constraint to the current trading activities.

Private exporters were asked about their potential interest (or emerging plans) to enter into cashew nut processing to replace or supplement raw nut exports to India. Several firms, each with external partners, have been engaged in discussions with the TCMB to lease one or more of the existing factories. At least one of these deals is expected to go through in time for operations during the 1993/94 season. A few other exporters expressed scepticism regarding the financial viability of the complete mechanical processing systems. They have been exploring alternative, semi-mechanized technologies whose operating scales are significantly lower than the existing factories. In March of 1993, no investments of this type were imminent. A third option, suggested by one of the firms, was to cannibalize a few of the existing factories, utilizing the best features from the Oltremere and Cashco systems, yet building in less mechanized features for several processes.

#### Dimensions of Performance

During the 1992/93 season, the overall performance of the industry was mixed. Total marketed production declined to about 35,000 tons, the decline being attributed to an unseasonal cold spell which damaged flowers and reduced fruit setting. Still, on the agronomic side, there was evidence of increased efforts to combat the powdery mildew problem (through sulphur spraying) and to rehabilitate cashew shambas.<sup>43</sup>

One of the major objectives beyond the market liberalization was to improve the reliability of the crop procurement system and to raise farmer incomes. To some extent, progress has been made. In contrast with past seasons when crop buying was not completed until April or later, this season virtually the entire crop was purchased by the end of February, and in some areas, by the end of January. This occurred despite the delays in bank overdraft approvals. Also in contrast with past experience, farmers were paid this season on a timely basis, especially when private traders paid cash either directly to farmers or to the cooperative societies. The activities of private traders undoubtedly put pressure on the

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<sup>42</sup> Data on producer prices for cashews provided by the Marketing Development Bureau are thus misleading as they do not take into account these cesses. When taken into account, the share of farmers in the export value this past season was only 40-45 %, depending upon location.

<sup>43</sup> The evidence, coming from surveys by the ODA Cashew Research team and from the loan applications of the commercial banks, does indicate that it is primarily farmers with above average landholdings and other assets which are obtaining finance and making the investments to restore cashew productivity. The vast majority of smallholders have not made such investments.

cooperative unions and societies to improve their services to farmers.<sup>44</sup>

Nevertheless, relatively few farmers benefitted from the relatively high prices (e.g. Tsh. 140-160/Kg. for SG) which private traders were offering at the very beginning of the season. While trade figures for the entire season are not yet complete, the share of farmers in the export value is likely to have fallen back below 50% (see Table 17). Given the profit margins earned on exports (see below) and given the level of producer prices prior to the announcement of guideline prices, it would appear that official interventions resulted in a transfer of income from farmers to private traders/cooperatives/banks amounting to some Tsh. 525 million.<sup>45</sup> Direct taxes on producers, in the form of local cesses, probably amounted to about Tsh. 350 million (e.g. an average of Tsh. 10/Kg).

Season	Standard Grade	Undergrade	Weighted <sup>2</sup>	Share of Export Value
1989/90	84	56	82.6	57%
1990/91	110	73	108.2	56%
1991/92	137	89	132.2	66%
1992/93	120 - 140	80 - 90	110.0 - 127.5	47 - 54% <sup>3</sup>

1 Does not take into account local cesses paid by farmers which vary significantly by district (e.g. between T.Sh. 2 and 18 per kg.)

2 For 1989/90 and 1990/91 weighted 95% SG + 5% UG. For 1991/92 and 1992/93 the respective ratios are 90/10 and 75/25.

3 Only raw nuts exported. Estimated average FOB value at \$700/ton.

Source: Marketing Development Bureau and Author's Field Work

During the season, both farmers and traders did move cashew nuts across district and regional borders in order to counter or take advantage of differentials in guideline/actual producer prices and in local cesses. This 'migration' of the crop also took the form of chasing the available cash as in some villages, districts, and regions there were periods in which cooperatives, the TCMB, and locally operating private traders did not have cash to make purchases. As a result of these 'migrations' district-level figures for marketed production showed considerable anomalies with huge recorded increases in some areas and major declines in others.

<sup>44</sup> One future difficulty is foreseen here. It is still the cooperative unions and societies which provide most of the input loans and inputs to farmers, with repayment coming through deductions on the delivered crop. With private traders taking an increasing proportion of the cashew crop (and other crops), input loan recovery may become a severe problem for the cooperatives.

<sup>45</sup> Given export prices and the shilling exchange rate, still very comfortable margins would have been earned by the private trade with a producer price of Tsh. 140/Kg.. At this producer price, the cooperative unions who sold to the TCMB could have covered their finance charges and still had a modest profit to begin repayment of arrears.



Due to differential access to transport facilities, it was traders rather than farmers who were able to best take advantage of these inter-district price and tax variations. The available evidence suggests that local (e.g. first handler) trader operations were quite profitable this season as a result of the set TCMB buying prices and the guideline producer prices. An indication of this is provided in Table 18. The first column is for a Masasi-based trader who procured nuts within a 25 km radius of the town and then sold to TCMB in Masasi. For this low risk operation, this trader obtained a margin of 12.8%. The second column concerns a trader in Nachingwea who transported nuts to Lindi to sell to TCMB at much higher inter-store price. The trading margin was considerably higher.

Cost or Price	Masasi Trader Supplying TCMB in Masasi	Nachingwea Trader Supplying TCMB in Lindi
Producer Price	127.0	120.0
Levies/Cesses/Duties	14.4	9.40
Village Secretary Commission	N.A.	1.00
Transport Costs	2.0	12.0
Packaging Costs	4.35	4.35
Finance Charges	N.A.	3.60
Depreciation (On Vehicles)	N.A.	4.10
Overhead, Labor, Insurance	1.70	5.50
Total Costs	149.45	159.95
TCMB Inter-Store Price	166.45	190.00
Trader Margin	19.20 (12.8%)	30.05 (18.8%)

Source: Author's Trader Interviews

Overall, private traders accounted for about 43% of the crop procured directly from either farmers or cooperative societies and, by the completion of sales, will probably account for a similar proportion of the export volume. However, with the TCMB and several of the cooperative unions not obtaining finance until December or January, the export-oriented private traders (through their buying agents) were able to procure most of the high quality nuts from the 1992/93 harvest. That is, all or a large proportion of the nuts from Tinduru and Nachingwea Districts (all known for high-quality nuts) were eventually procured by private traders. In contrast, most of the nuts in Newala District (the quality of which is uneven or poor) were left for the TCMB and MARCU. In Masasi District, while procurement was more or less equally divided between MARCU and eight private traders, the majority of MARCU's stock was classified as undergrade. Traders supplying both private exporters and TCMB tended to provide the former with standard grade nuts and the latter with undergrades (selling them as standard grade if possible).

While the TCMB was still negotiating with foreign buyers/brokers in March, most of the private

exports were shipped by the end of February. Being financially handcuffed by the banks and eventually obtaining a lower quality stock of supplies, it is likely that the average export prices earned by the TCMB will have been considerably lower than those obtained by the private traders.

As noted earlier, private trader efforts during the 1991/92 season to export were largely unsuccessful, with both product quality and buyer unreliability problems. Firms entering the trade during the 1992/93 season fared much better. FOB prices were mostly within a range of \$675 to 715/Ton. While lower than for the previous season (when average exports were \$813/Ton), the exporters benefitted from a devaluation of the Tanzania Shilling from 290 per \$1 in March 1992 to 345 per \$1 a year later. This, together with the lower producer prices, provided comfortable trading margins (e.g. 12 - 20%) for most exporters this season. The trading costs and earnings for two companies (two transactions) are illustrated in Table 19.

Cost or Price Item	Cashew Nuts Procured in Masasi in January and Exported via Mtwara Port in Late February	Cashew Nuts Procured in Tinduru in December and Exported via Mtwara Port in Late January
Price to Producer	127	130
Levies/Cesses	18.0	15.0
Commissions to Buying Agents and/or Cooperative Officials	6.0	6.5
Transport Costs to Mtwara	16.0	19.0
Packaging Materials	4.35	4.35
Weight Loss	1.4	1.5
Finance Charges	13.25	13.56
Overhead Costs	4.0	4.5
Port/Inspection/Handling	6.6	6.6
Total Costs	196.6 at Tsh. 345 = \$1 \$570/Ton	201.01 at Tsh. 330.3 = \$1 \$608.8/Ton
F.O.B. Earnings <sup>1</sup>	\$689.5/Ton	\$691.5/Ton
Exporter Margin	\$119.5/Ton (20.9%)	\$82.7/Ton (13.6%)

1 Assuming 1.5% weight loss in transit and \$68/Ton for freight and insurance.

Source: Author's Field Interviews

During the 1992/93 season, all processing factories were completely idle. Prior to the season, the large permanent work staff at several of the factories was let go. With both the TCMB and the cooperative unions under pressure from the banks to repay loans and with their delayed crop procurement, it was not possible to undertake processing because of the extended delay which this would entail in terms of payment from the downstream buyer. While discussions were held between several private firms and the TCMB regarding the latter performing custom processing services, no such arrangements were actually implemented.<sup>46</sup>

## Conclusion

In the period between World War II and the early 1970s, Tanzania developed one of the world's largest cashew nut industries. By 1973/74 marketed production reached 145,000 tons (about 30% of total world production) and exports were among the highest in the world. Cashews were the country's fourth largest source of foreign exchange and provided an important source of income to some 250,000 smallholder farmers. This trade was initially developed and organized by private traders (of Indian and Arab origin), although during the 1960s a multi-tiered marketing system--involving local cooperative societies, regional cooperative unions, and a marketing board-- was imposed, with private traders progressively being removed from the marketing system.

The steady rise in production and trade during the 1950s and 1960s has been mirrored by a dramatic and steady decline of the industry since then. Despite a buoyant international market, Tanzania's cashew nut production fell to less than 17,000 tons by the late 1980s and its prior reputation for a high quality product was badly damaged. As examined here, several factors contributed to this downward spin, including the country's villagization program, a sharp and virtually continuous decline in real producer prices, and major inefficiencies in cooperative and marketing board crop collection and downstream activities. Government 'education' campaigns (and threats) were insufficient to counter the loss of farmer incentives due to declining services and incomes. The massive decline in production has not only had a sharp adverse affect on living standards in the southern regions, but has led most of the large-scale, donor-funded, government-owned, state-of-the-art processing factories to become 'white elephants'.

With the industry on the brink of complete collapse, the Tanzanian government announced in 1991 that the cashew nut market would be liberalized with private firms permitted to undertake trade once again. As analyzed here, the reform process has been extremely confusing and messy, although there are signs that the industry may be set for a recovery. Whether by design or default, the policies of liberalization were poorly communicated by the central government, leaving local authorities to use their own discretion and ad hoc procedures in implementing the new set of rules regarding trade. The first year of the reform (1991/92) was largely a failure with few private traders licensed, virtually no competition, continued controls over prices and crop movements, and poor results when private and cooperative enterprises sought to market cashew nuts outside of the TCMB.

The second season of the 'liberalized' market featured some improvements, yet still considerable confusion. Private traders were widely licensed, yet there was little commercial bank finance available either to them, to cooperatives, or to the marketing board. In order to insure that official loans extended to the cooperatives and marketing board were recovered, an agreement was reached between these parties and the regional governments to set 'indicative' producer prices at levels 10-15% lower than the previous season. Private firms, which had been paying farmers considerably higher prices at the beginning of the

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<sup>46</sup> Neither private firms nor cooperative unions have much confidence in TCMB's ability to process nuts on an efficient basis. For its part, the TCMB was requiring firms to deliver a minimum of 1000 tons before it would consider custom processing activities.

season, complied with the 'indicative' prices by reducing their own prices and pocketing the windfall. Government and commercial bank interventions thus resulted in a huge transfer of income from poor farmers to a combination of banks, cooperatives, and private firms.

Some positive trends are emerging, however. With the entry of private traders, farmers are having their crop collected soon after harvest and are being paid promptly (not only by private traders but also by cooperatives which are feeling the competitive heat). This is leading farmers to harvest rather than neglect their cashews and has led some of the better endowed farmers to rehabilitate their farms and plant new cashew seedlings. Over the past two seasons, marketed production has averaged 37,000 tons and export revenues have recovered to their level of the early 1980s.

More and more private firms are entering the trade and collectively, they accounted for 43% of the purchased crop during the 1992/93 season. Most individual firms are very small and have undertaken the low risk activity of buying from farmers and selling to the TCMB at a guaranteed price. The larger players are firms which are generally active in domestic and export marketing of a wide range of non-traditional commodities. Some have excellent international trading contacts which they are using in developing their own cashew nut exports. Besides a few cooperative unions (whose export operations have mostly been a failure), each of the emerging private exporters belong to ethnic minorities.

Due to uncertainty about government policies (and their possible revision or reversal), private firms have not yet made any investments in production or marketing infrastructure for cashews. They are still utilizing trucks, warehouses, and other infrastructure used for other commodity trade. With the confidence gained and profits earned during the 1992/93 season, this is likely to change, with some firms also likely to begin to develop their own cashew farms and/or develop closer links with producers. Some firms have expressed an interest in processing the nuts locally.

Under the current policy environment, and with considerable uncertainty as to whether Tanzania's highly-mechanized processing factories can be financially viable even if operated on a commercial basis by private firms, the most appropriate strategy is to enable interested private firms to lease selected TCMB factories while at the same time encouraging these or other firms to investigate alternative, semi-mechanized technologies. Leasing of the large-scale factories, for periods of one to five years, would expand the resources available to the private sector without significantly increasing its exposure to policy reversal risk. This approach would signify the government's commitment to the continued liberalization of trade, plus provide the government with some return on its factory investments. Still, the long-term competitiveness of Tanzania's industry will likely require changes in the technologies used, toward a lower degree of mechanization and toward reduced dependence upon fuel oil as an input. While some adaptations can be made within the existing factories or by combining certain features of the Oltremare and Cashco systems, it would be expedient for would-be processors to explore and test alternative technologies.

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