

Cashing in on Cashew Nuts: Women Producers and Factory Workers in Mozambique

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1 Executive Summary

Portuguese traders found the cashew tree highly valued by the Tupi of Brazil for its fruit, juice and nuts. Traders brought cashew to northern Mozambique and India in the sixteenth century, and it was locally adopted and spread in both countries. Mozambicans have therefore grown cashew trees on deep sandy coastal soils for hundreds of years. Nuts have been exported from Mozambique since the beginning of the twentieth century and when World War II closed shipping to India, a local processing industry was born (Penvenne, 1997). After the war, numerous factories were built for processing the nuts for export, with women providing the majority of the labour. Production peaked in 1972 when 216,000 tons were marketed and Mozambique was the world's leading exporter of shelled cashew (kernels). Since then, drought, war and displacement, and inconsistent policies towards the smallholder sector, as well as aging and diseased trees have affected production.

After ten years of armed struggle, Mozambique won independence in 1975 and the Frelimo government came to power. Frelimo articulated a non-racist policy and positioned itself against private property-based privilege. A post-colonial exodus occurred and many properties and industries were abandoned. In 1979 a state company, Caju de Moçambique, was created to operate the cashew processing factories. Post-independence policies also included the formation of communal villages, which had the effect of separating people's

homes from their trees and decreasing incentives for smallholders to invest in them.¹ From 1982, Mozambique was subject to a South African-backed war of destabilization which lasted until the signing of the peace agreement in 1992, when the one-party system was dismantled. During the war, up to half the rural population was forced to leave their homes, moving to towns or becoming refugees in neighbouring countries. Even peasants who were not displaced were often afraid to go to remote cashew trees to clean around them and harvest the crop (Hanlon, 1996; 2000).

The war had a devastating effect on the economy and the government increasingly turned to international agencies for aid. In keeping with the policies promoted by the IMF and the World Bank in other countries in the South, Mozambique implemented its first Structural Adjustment Programme in 1987. Since then, Mozambique has followed an increasingly neo-liberal approach to development, reducing state intervention and pursuing greater liberalization and privatization in the 1990s. Eighty per cent of the population live in rural areas and are mainly dependent on natural resources for their livelihoods. Smallholder agriculture employs 89 per cent of women and 63.2 per cent of men. Agricultural production contributed 20.1 per cent of GDP in 2001, a proportion which has declined from 27.2 per cent in 1998. (UNDP, 2001). It is estimated that Mozambique has 26 million cashew trees, but that these are reaching the end of their productive lives and dying at the rate of one million a year (Deloitte and Touche, 1997).

In the mid-1990s, the World Bank made it a condition that the government should liberalize the cashew sector if it wanted further loans (it was a necessary condition of the Bank's 1995 Country Assistance Strategy). It recommended that the government should drop the requirement that traders sell raw nuts to Mozambican industries and that it should reduce export tariffs on raw nuts. By 1997 most factories had closed and about 10,000 jobs were lost. Although intense national debate led to a raising of tariffs on raw nuts in 1999, most factories have not re-opened.

Since the end of the 1990s, the government has put in place a strategy to revive the sector, with the participation of the private sector, NGOs and communities. The revival of the sector includes aspects of production, processing and commercialization and has to address a complex set of factors at local, national and international levels. Despite the decline, cashew is still the third most important export for Mozambique. Smallholder farmers are responsible for about 95 per cent of total raw nut marketed production and in total about one million rural households (40 per cent of the rural population) have access to cashew trees (Wandschneider and Garrido-Mirapeix, 1999). It is also important to note that cashew is a high value 'luxury' nut with expanding markets in the EU, US and other parts of the world, with the potential to

Box 1: Characteristics of Cashew

Cashew is an extremely variable plant. In Mozambique, trees can produce 25 kilos of nuts one year and nothing the next. This is partly due to the impact of the powdery mildew (*oidium anacardium*), but rainfall, insect infestation, humidity and temperature all affect yields in a variety of ways. The raw cashew nut is attached to and hangs below a false fruit or cashew apple. The fruit is sweet, juicy, pungent in aroma and high in vitamin C.

The most significant difficulty in processing cashew nuts is that the hard outer shell, which contains the edible kernel, contains a caustic oil which can burn the skin and produces noxious fumes when heated. The oil, referred to commercially as cashew nut shell liquid (CNSL), contains 90 per cent anacardic acid and 10 per cent cardol. For household consumption, nuts are typically roasted in shell over an open flame until the oil burns away in a thick black smoke. Kernels from raw nuts roasted this way remain high in protein for consumption and are sold in local markets.

Cashew nuts are kidney shaped and brittle, which makes it difficult to remove the shell without breakage. Whole white kernels are the highest grade, and the industry standard is such that wholes at packing should constitute at least 60 per cent or more of the sample. The higher the percentage of white wholes, the higher the price.

enhance the income and livelihoods of smallholder producers and workers in the processing sub-sector.

The chapter begins by describing the current policy context in which the fieldwork has been carried out. It then maps typical export chains in Nampula province and examines key issues and constraints in production and processing activities, drawing out gendered aspects. A new initiative for decentralized processing around one factory is also discussed. Finally, we consider the effects for women producers and workers of broader processes of economic and social change and suggest ways in which their participation and benefits can be enhanced.

2 The Policy Environment

Liberalization of cashew nut exports

The liberalization of Mozambican raw cashew nut exports has become one of the most contentious policy reform issues in Mozambique (Wandschneider and Garrido-Mirapeix, 1999; Cramer, 1999; Hanlon, 2000). The World

Box 2: Characteristics of Cashew Processing Technology

Mechanized processing, using hot oil baths or drum roasting, followed by the use of automated cutting or impact-shelling machines to separate shell from kernel, were favoured in the colonial period. This required expensive capital inputs and factories typically employed several hundred people. The labour-intensive processes were peeling and grading; women were the majority of workers. More recently, smaller-scale factories use the steaming and cutting method. Raw nuts are steamed, then cooled and cut with a hand and foot pedal-operated machine. The shells are then burned in the furnaces to produce steam and heat for drying the kernels. Semi-mechanized shelling increases the contact of the worker with CNSL. Workers are given oil to cover their hands which provides limited protection. Gloves wear out quickly and in any case are not favoured by workers paid on a piece rate basis, since they affect dexterity and slow down the work.

The processing steps in the newer factories are:

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

These small and medium-scale factories are much less capital intensive and employ more people per ton of processed cashew than the highly mechanized ones. Since people remain better than machines at separating the nut from the shell, kernel breakage rates are much lower in these factories. But, as Hilton (1998) argues, even small-scale processing plants are not suitable for small investors. One of the biggest costs is stock-piling sufficient cashew to keep the plant working for 200 days a year. The cashew harvesting season lasts for two to three months, so even the smallest plants require 100 tons of stock-piled raw cashew.

Bank's promotion of liberalization policies in the cashew sector, which included price and trade liberalization (and the lifting of protectionist measures for industry), has to be understood within the broader international mainstream arguments for 'free' trade and market-led development. The argument is that all countries reap the benefits of freer trade, whether they specialize in labour-



Cashew nut tree.

PICTURE: LUIS ARTUR

intensive primary commodities or capital-intensive manufactured products because liberalization enhances the free movement of goods at international market prices, as such increases outputs and thereby benefits all countries according to their 'comparative advantage' and (the theory asserts) also results in poverty reduction.³ For Mozambique, this represented an enormous change from post-independence, state-led, development.

The World Bank's rationale for liberalizing the trade in raw nuts is as follows:

- The reduction in export tariffs on raw nuts would boost demand and spur competition among traders who export;
- Eliminating trader licences would increase the number of traders;
- Traders would compete for raw nuts and pay higher prices to smallholder producers;
- Higher prices to farmers would increase the incentive to market nuts and further increase farm income;
- The price incentive would encourage more farmers to enter cashew production and current farmers to improve tree management and plant new trees.

The policy's stated aim was to revive the smallholder cashew sector: '*As the second [now third] largest export earner, and as a vital source of hundreds of thousands of poor farmers, revival of the cashew sector is a key to economic development and poverty reduction in Mozambique*' (World Bank, 2001: 51). The Bank's view was that export restrictions meant that peasants were, in effect, subsidizing the factories. This approach embodies the neo-liberal view that industries must be left to compete internationally and fail if they cannot compete without government support. The loss of jobs in the pro-

cessing sector is offset against the gains which, it was asserted, would accrue to a much larger group of smallholder farmers (Cramer, 1999).

The World Bank (2001: 51) concluded that real producer prices were, on average, 55 per cent higher in post-reform years and that the farmer's share of the export price has gone up significantly. These conclusions are contested by others. The first point is that prices of food and basic consumer goods need to be taken into account and increased (Wandschneider and Garrido-Mirapeix, 1999). Farmers' interests in selling cashew depends on its relative prices vis-à-vis other crops and consumer goods, as was also evidenced at the end of the 1980s when prices rose but there were few goods in the market. In our fieldwork, farmers often referred back to the time when the sale of cashew allowed the purchase of relatively expensive items such as bicycles, whereas now it bought them very little, even in terms of basic consumer goods. The Bank acknowledges that these terms of trade are low in comparison to what producers in countries such as India and Vietnam are able to buy with the proceeds of their cashew (World Bank, 2001: iii).

The second important point is that although prices increased, the main gains have been retained by the trading sector. The number of effective traders has remained restricted, due to their dependence on trader-based credit, and the major exporters are organized and coordinate prices. This has allowed continued control of farm gate prices, and therefore the greater share of additional profit from higher cashew prices has been retained by the trading sector (Hanlon, 2000; INCAJU, March 2002). The most recent economic study,



Woman smallholder pruning a cashew nut tree.

PICTURE: LUIS ARTUR

entitled 'When Economic Reform goes Wrong: Cashews in Mozambique' (McMillan *et al.*, 2002), echoes the findings of earlier studies and concludes that the net gains of farmers were disappointingly low and largely offset by the costs of unemployment caused by the collapse of the processing sector.

The final World Bank objective of liberalization, as stated above, was for expanded grower investment in trees. However, there has been limited evidence of increased planting (World Bank, 2001; Wandschneider and Garrido-Mirapeix, 1999:61). The World Bank also identifies greater tree care and use of fungicide sprays as potential means of improving productivity. The irony is that these technologies – which may increase nut production – may in fact *not* be economically advantageous. The farmers who put in the extra labour and pay for the spray will always assess marginal and potentially negative returns more closely than researchers and advisors. Mole (2000:245) shows that employing technology is related to the price of nuts, but with prevailing input and cashew prices the different technology packages, including chemical control, *were not profitable* under sole cashew cropping conditions. He argues that price incentives must be combined with improved technology and marketing infrastructure for production to increase (Mole, 2000:248). There is an additional point here. Unprotected market integration also exposes farmers to price fluctuations. The collapse of raw nut prices in the 2000–2001 season (World Bank, 2001:iii) should be expected to have as much negative impact on the incentive to invest as the occasional high price has positive effect. This is one reason why farm subsidies began in currently developed countries.

What then, is our assessment of the liberalization policies promoted by the World Bank? Promoting trade liberalization is unlikely to increase benefits to producers in Mozambique without a range of supporting policies ensuring marketing infrastructure, availability of goods and fair prices, appropriate technology for growing and storing the nuts, and extension services. It is increasingly recognized, even by some parts of the international financial institutions, that a much broader range of factors, including institutions at local level and a range of policies and resources, material and social, affect the outcomes of trade liberalization (Kanji and Barrientos, 2002). This wider contextual analysis was lacking in the World Bank's policy advice.

Revival of the cashew nut sector

The current government strategy for the cashew sector recognizes the need for a broader approach and calls for active participation of government, private sector, communities and NGOs to revive the cashew sector. The government's Institute for the Promotion of Cashew (INCAJU) has developed an

integrated strategy which tries to stimulate activities in the three interlinked areas of production, processing and commercialization (INCAJU, 1998).

New initiatives in the last few years have been undertaken to revive the sector, including:

- **Production:** Subsidies, implementation and coordination of treatment of trees against powdery mildew disease by spraying trees; new plantations; nurseries with new varieties training; extension work including, cultivation techniques and pruning and research (INCAJU, 1998);
- **Processing:** Stimulation of the construction of small-scale factories through loans to the private sector because, according to INCAJU, small-scale factories using semi-mechanical cutting technology give a better quality output, have less management problems and have fewer problems in acquiring raw material (INCAJU, 2001);
- **Commercialization:** Setting the export tax on raw cashew between 18–22 per cent; grading the quality of nuts (INCAJU, 2001).

At present, marketed production is only about 50,000 tonnes as against over four times that amount in the 1970s. Processing initiatives provide only about 2,000 jobs compared with 10,000 before liberalization, although this does not include many small unregistered processing initiatives for domestic and regional markets, which need further study. Factories only purchased 6,000 tons of raw nuts in 2002 as compared with 25,000 tons in 1995–96.

So far, we have discussed the liberalization process and the government's strategies to revive the sector. In this wider current context, we will now analyse from a gender perspective the cashew export chains, production and processing in Nampula province.

3 Cashew Nut Commodity Chains

Who does and gets what in Nampula Province?

The government no longer buys or sets the prices for raw cashew nuts. Prices are now based on the level of supply and demand in international markets. A few major exporters (eight or ten) control the trade in Mozambique and they tend to roughly fix the purchase price at the beginning of the year (Matule, cited in McMillan *et al.*, 2002: 15). In order to have price indications, a Cashew Committee (Comite do Caju) was established, in which various stakeholders such as Customs, INCAJU, private producers and association representatives of smallholders are represented. In fact, since India is the main buyer of Mozambican raw nuts, the price level is mediated by the situation of supply and demand (of Indian processors), which in turn is linked to international

market prices for kernels (Matule, 2003). We will return to the international ends of the chain at the end of this chapter. However, it is important to note that smallholders are used to the government setting prices and that the indicative price, which some district administrations provide at the beginning of the marketing season, is often interpreted as a set minimum price.

In Nampula, at the time of the research, there were only two functioning medium-scale factories which bought raw nuts. Almost all the rest are exported to India through Nacala, the main port serving the northern provinces. A small number of large traders/exporters have an extensive network of small intermediaries who buy the raw cashew for them. This is bought directly from farmers in rural areas or from retail shopkeepers usually based in small urban centres, who buy from the farmers. Two such companies in Nampula with which we had contact and which export raw cashew are Joao Ferreira dos Santos (JFS) and Gani Comercial. Both have strong contacts in India and as Leite (1999: 5) points out, liberalization has involved the renewal and strengthening of old merchant networks between Mozambique and India. These large companies deal in many different commodities and also own cashew plantations.

The number of mobile (and unlicensed) traders has increased as a result of liberalization and they have motor vehicles to travel to areas of production. However, the situation is variable depending on several factors, including road access. In the two sites where we looked into marketing, key informants reported that there had been an increase in the number of itinerant traders in one of the sites, the Namige area, but this was not the case in the other, Itoculo, which is further from a main road.

At the local level, there is some flexibility and prices are also shaped by supply and demand. If farmers are able to store and wait to sell their raw nuts, prices are higher at the end of the season than at the beginning (the season runs from October to January in the north of Mozambique). Prices can double, for example 7,000 meticaïs (US\$0.35) per kilo as against 3,500 meticaïs (US\$0.17) per kilo.⁴ An NGO, Assistance to Development for the People by the People (ADPP), working to support the cashew sector in Itoculo, advises farmers to hold on to their nuts in order to obtain a better price. However, when cash is desperately needed and/or the harvest of other crops is low, farmers will sell early or consume them instead. The quality of the nut is also assessed by the buyer and is increasingly judged to be an important factor on the international market. Larger, well-dried nuts command a better price.

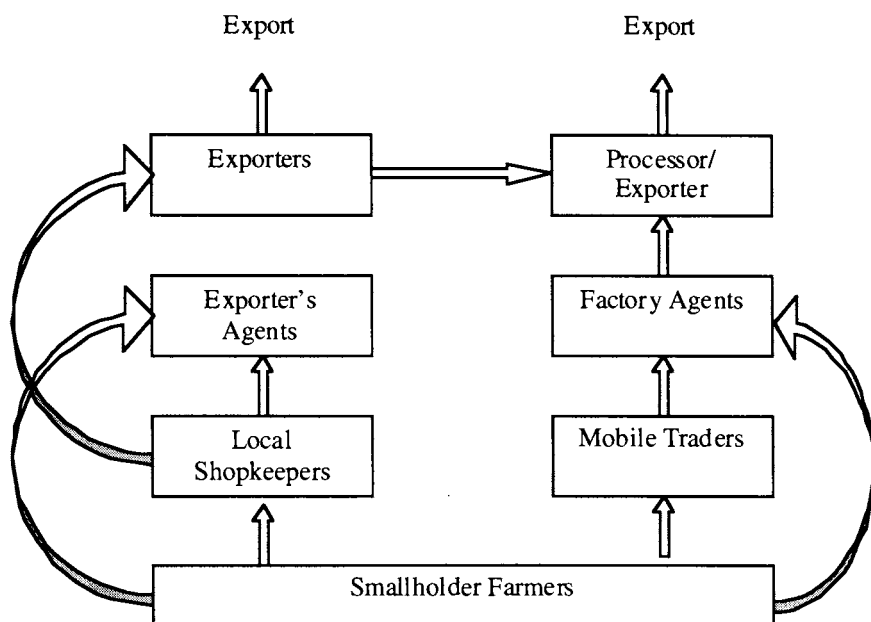
Prices are also influenced by the turn-around period required by Indian importers. When containers for a ship in Nacala port needs to be filled quickly, we were told that prices could go as high as 10,000 meticaïs (US\$0.5) per kilo, which exporters had instructed their intermediaries to pay.

At least one local buyer, who owns a local processing factory, stops acquiring nuts until the ship is filled and prices fall again, but the farmers who can market their nuts at this time do much better than others. Prices therefore vary greatly depending on the quality of the nuts, the location of sale, the number of intermediaries, proximity to ports and the time of the sale in relation to the marketing season.

In this study we found that women are actively involved in the marketing of raw cashew nuts. Our findings contradict those of some previous studies in Nampula (including CASCA, 2002:19), that most income-generating activities, including the marketing of cashew nuts, is dominated by men. For example, 87 per cent of our sample households in Namige did sell raw nuts (39 out of 45). Seventy-four per cent of women (in the sub-sample of households which sell nuts) are directly involved in marketing the nuts. However, the study also shows that cashew remains an important crop for household consumption and as such contributes to household nutrition and food security. Ninety-three per cent of the women interviewed said that they processed nuts themselves (at home) for consumption, with only one woman reporting that her husband did this work. Sixty-four per cent of the women process the fruit in some way, making juice and alcohol which may be consumed, sold or given as gifts or payment in kind, for example, for help in their fields. Women are therefore highly involved in both the processing of fruit and nuts at the household level and in the marketing of raw nuts. Although production for the market is important, due importance should be given to the production of cashew for consumption and for sale in local, as opposed to international, markets. The use of cashew at the local level has a role in household food security, provides income and strengthens social relations (in today's terms, it builds social capital). A typical cashew chain in Nampula is summarized in Figure 1.

The chain illustrates the vertical links between different actors in the chain. Although women smallholder producers do market cashew, the higher and more lucrative ends of the private sector chains in Nampula do not directly involve women.

Initial research on the international trade in cashew kernels suggests that considerable value is captured at the northern end of the chain and that the market is buyer driven (Eapen *et al.*, 2004). Cashew imports into the UK, for example, are dominated by a small number of big buyers, with a series of economic and non-economic barriers to entry. Large profits are concentrated in the final stages of processing at the northern end, that is, roasting and salting the shelled nuts, and by retailers, particularly the large supermarkets who do their own packing and sell to the final consumers. For these reasons, Mozambique should also pay attention to potential domestic and regional

Figure 1: Typical Cashew Export Chains in Nampula Province

markets for cashew nuts), as well as to the quest to capture a share of the international market. Local markets can also make a valuable contribution to livelihoods, particularly of women producers, and the consumption of nuts at household level is also important. Much depends on the location of production and processing in relation to existing markets. In the north of the country, exports through Nacala are likely to dominate for some time, particularly for producers who are close to the main roads. Cashew produced in the southern provinces may find an important outlet in markets such as that of South Africa, which does not produce cashew, provided cashew processing in Mozambique can be increased.

The next sections will focus on women smallholder producers and workers (men and women) in the processing sub-sector, and discuss the gender and institutional issues which affect production and processing,

Smallholder producers

All land in Mozambique belongs to the state. Citizens are legally permitted to use the land they occupy under customary tenure systems. Communities in large areas of northern Mozambique, including Nampula province, follow a tradition of matrilineal succession and inheritance (Braga, 2001; Waterhouse and Vijfhuizen, 2001). While land tenure patterns are diverse and the rela-

tionship between land and tree tenure is complex, our study found that women have considerable security of tenure in relation to both land and trees.

Previous studies have tended to interview men and have asserted that most land and trees are owned by men. The World Bank financed a gender study in the cashew sector in Mozambique between 1996–98 (Ministry of Agriculture/World Bank, 1998; Hirvonen, 1998). The study generated a wealth of data on numbers of trees, local processing and commercialization, but the information was only gathered from ‘heads of households’, predominantly males. The concept of headship and its use in surveys is contested by feminist researchers. The designation of men as ‘heads’ fails to recognize the many spaces in households where women participate in and have control over resources and resource use; it ignores the complementarities that may characterize the division of labour in households with couples, and it marginalizes the majority of women by referring to women in so-called ‘female-headed households’ at the expense of other women (Pitcher, 1998). As Vijfhuizen (2002:97) puts it, ‘... women and men are heads of specific domains from which they derive their gender identity and authority and are able to wield power’ and it makes more sense to speak of multiple headship, which often goes beyond husband and wife, to include sisters, brothers and other members of extended families. In the World Bank study, of the 1,400 households in the sample, 77 per cent was considered to be headed by a male and 23 per cent by a female. The study found an average of 68 trees per household and allocated them to ‘heads’. Hence, in 77 per cent of the households, the women (as wives) were not interviewed about their role in the cashew sector, let alone daughters and sisters who may also have had cashew trees.

A study carried out in the Namige area (CASCA, 2002:8) states that most of the trees (an average of 80 per family) are owned by men (60 per cent), while the other 40 per cent are divided among women (10 per cent), the family as a whole (15 per cent) and grandparents (15 per cent). Once again, men were interviewed and women’s views were not represented. We carried out our study of women producers in the same area, Namige, and found that most women inherit land which they cultivate. This practice of land allocation to women provides them with considerable security of tenure, although this is stronger when a marriage is uxorilocal (the husband moves to his wife’s place), rather than virilocal (the wife moves to her husband’s place). Hence the patterns regarding the planting of trees also vary. The answer to the question of who ‘owns’ the trees goes back to who planted them, usually grandparents; the present ‘owners’ are the ones who inherited them. ‘Ownership’, particularly in an African setting is enormously complex and it is preferable to refer to tenure. Lastarria-Cornhiel (1997:2) defines land

tenure as the social relations established around land that determine who can use what land and how. Similarly, social relations influence who can use which trees, who takes care of them and who decides about their produce. We found that women in Nampula tend to have use rights to cashew trees, both where they are born and where they are married, if this is different (though in the latter case of virilocal marriage, we did find cases in which women did not have use rights). We also found that there is no distinct gender division of labour in cashew, apart from pruning, which in most cases is only done by men. In activities such as weeding, clearing, planting and sowing, both women and men participate, albeit in different proportions.

As has been mentioned, value is added to the cashew apple as well as to the nuts. Women tend to decide how much of the harvested cashew nuts and other cashew products should be allocated to consumption. Both women and men are involved in marketing the nuts. However, in discussions with farmers (both women and men) about the value of cashew in their livelihoods, it became clear how little the trees were producing compared to the past and how much more they felt they could pay for in the past with cash from selling cashew nuts and alcohol – school fees, hospital visits, clothes and agricultural inputs were all paid for by the sale of cashew.

Despite efforts by INCAJU to promote production, our study found that very little information on the *causes* of low production have been disseminated to smallholder farmers, both women and men. The various strategies and interventions, from preventing bush fires to effective pruning, chemical treatment and replanting have not been adequately discussed with farmers, nor have their views and constraints been solicited. So far attempts to promote fungicide spraying on smallholder farmer trees, sometimes through farmers' associations, have not been effective. The intervention is technically complex and small farmers have often been unable to pay the required contributions to the costs of spraying, although spraying has been more successful with the few larger producers. New improved strains of cashew have not been bought from the nurseries. Farmers are reluctant to travel long distances and to use their limited cash for buying strains that have not been *shown* to be beneficial in their context.

INCAJU, with limited staff and resources, has been trying to learn from experience. Thus, spraying programmes in Nampula have now begun to work with private operators with their own groups of farmers who are able to pay for this service. However, as some NGOs have argued, it is difficult for poorer and smaller farmers to implement a regular fungicide spraying programme. Alternative low-input cultivation improvements again rely on good information and extension, which is lacking, although NGOs could at least provide support to promote pruning, weeding at the base of the tree

(which also creates a fire break) and the identification of superior trees for grafting of new shoot material to young seedlings. These methods would also avoid the use of chemicals which are potentially hazardous, particularly if they are not used correctly.

Women farmers are even less likely than men to have access to information and inputs. They are less likely to belong to farmer associations, which are male-dominated, or to attend village meetings. Spraying contracts through associations are signed by men and the operators of the spraying machines are always men. Extension workers are usually male and tend to contact and pass on information to men. Despite the fact that women are important actors in cashew production, interventions to promote production have so far largely excluded women. If women are to really benefit from cashew income, and if they are to contribute effectively to the revival of the sector, then organizations have to actively recognize them as primary actors in cashew production.

Cashew processing workers

Our study in Nampula province included interviews with women and men who used to work in large factories in the coastal town of Angoche, which are now closed, as well as interviews with workers in the two functioning factories, Cageba and Namige. This section discusses working conditions for women and men in the old and new factories.

Angoche

In Angoche, cashew processing in three large factories was a major source of employment. Former workers from two of these factories were included in our study, namely Angocaju and the Companhia do Caju de Nacala (CCN), Angoche division, with a sample of 25 women and 25 men from each plant. Both factories were privatized in the first half of the 1990s and were closed by 1999.

In Angocaju, for which we have full data, privatization increased the percentage of male workers. In both factories, men secured more jobs than women, not only by doing the shelling (100 per cent men), but also by entering into all the other areas of work in the factory. Although women remained dominant in the peeling and selection sections, 14 per cent of the workers in these sections were men, doing work that was stereotypically seen as women's work, requiring patience and dexterity. Women and men sometimes worked on different tasks but women worked more hours than men in the Angoche factories, yet received the same wages.

In our sample of 50 women, 38 per cent were widows or divorced women and had families larger than the average five members. Paid work was critical

for them. Some married women also pointed out how factory income was a valuable source of independence from their husbands. Women have been particularly affected by the loss of jobs because they have fewer sources of income and are less mobile.

Cageba

The factory in Geba was established in 1995 by Joao Ferreiro dos Santos (JFS), a large company which is involved in other commodities. It is located in the district of Memba which is close to the port of Nacala. The factory was set up in buildings that were previously used for cotton and sisal processing by the same company. It uses steam heating and pedal-operated cutting technology, using equipment that was purchased in India. It is important to note that this company has the purchasing power to stock large quantities of nuts and the factory has a capacity of 2,000 tons a year. The company sub-contracts traders to buy raw nuts. It employs large 'brigadas de comercializacao', groups of people who are contracted to buy nuts between November and January, when farmers harvest them. Nuts which are processed in Cageba are exported by JFS, almost all to the United States.

In 2002 there was a total of 642 workers (538 men and 104 women, 84 and 16 per cent, respectively). Men work in all the sections, shelling (100 per cent), peeling (more men than women) and they are also involved in selection. Women do not work in shelling. Peeling, often perceived to be 'women's work', is being done mainly by men. This illustrates clearly that when paid employment is scarce and there is huge competition over jobs, men will readily move into areas that were dominated by women. Factory owners do not show any resistance to this and furthermore, women are not encouraged to learn to use the cutting machines, which are used to shell raw cashew. Both women (98 or 41 per cent) and men (140 or 59 per cent) work in the peeling section and both women and men (about two-thirds of the workers) are very young. Hence both women and men seem to be perceived as having 'nimble fingers' in youth.

Sixty workers were interviewed in this factory (30 women and 30 men). Many workers expressed enormous fear of the 'chefes' (heads) and there seemed to be considerable lack of information about rights and obligations on both sides, which caused great insecurity for the workers and arbitrary decisions by those who were heads of sections or in other management positions. Access to healthcare also seemed arbitrary, since it appeared to depend on the type of relationship the worker had with his or her superiors. From the point of view of the workers, the union was more of a tool of the employers to control the workers, rather than an organization which would defend their interests. There is no *crèche*.

This factory, viewed as particularly efficient and competitive (Abt, 1999) is not viewed positively by the workers, and provides far fewer job opportunities for women than for men.

Namige

The factory in Namige opened in April 2002. It was set up by a private entrepreneur with a one-year low-interest (18 per cent) bank loan, guaranteed by the government cashew institute, INCAJU.⁵ The factory was designed with the help of TechnoServe, a US NGO which aims to promote entrepreneurial women and men in poor rural areas. It uses the steaming method (see Box 2) and semi-mechanical cutting machines, but a key difference from the Geba factory is that all the equipment, including the ovens, was manufactured locally. The owner reconstructed a ruined building and the factory has a maximum capacity of 1,000 tons of raw cashew per year. In 2002, the factory began by processing 120 tons. The owner of the factory has two cashew plantations in the area with a total production volume of approximately 50 tons per year (CASCA, 2002: 16). The kernels produced are graded and vacuum packed for export. The Dutch NGO, SNV, has assisted the owner to contact a Dutch buyer who operates from Rotterdam and exports to various parts of the world.

At the time of this study, the factory employed 92 workers (56 men and 36 women, 61 and 39 per cent, respectively). When the factory opened, about 1,000 people turned up to apply for jobs, illustrating the need for cash income in the area. Male workers in the factory are mainly married, whereas almost half the women workers (47 per cent) are divorced and/or widowed. This percentage is high because it was used as a selection criterion, based on the view of the management that 'female heads' are most in need of cash and are therefore more likely to work hard. Again, the women workers in the factory look after larger families than the men.

Workers receive a free meal at work and according to their contracts they have access to health assistance, paid annual holidays and severance pay in case of illness caused by the job or work accidents. There are plans to set up a trade union and a crèche is also under construction – that is, a clean, sheltered area where mothers can arrange for someone to look after their babies, but with no provision of food and trained child carers as in the old government-owned factories.

Men are found in all the leadership roles in the factory. Only men (43) work in shelling. Peeling and selecting is mainly done by women (peeling 32, selecting 4), but men have also managed to get work in these sections – there are six men in the peeling section and one man in the selection process. The owner of the factory says that the door of the shelling section is open to women, but that they prefer to work separately. One thing is clear: the men

started work a few days before the women did and were trained to use the machines. According to one manager, before the factory opened he called a few women to try and use the machines, 'but the women said they could not handle the machine'. However, when the authors tried to use the machines, it was obvious that while it is a skill that may require some time to acquire, no issue of strength is involved. Women are often excluded when it comes to the use of machines, but this case is complicated by the fact that shelling involves contact with CNSL, which burns the workers' hands. What were the reactions of women themselves to their exclusion from shelling? Some explained they do not want to burn their hands, adding that it would affect their farming work, but other women said they want the jobs in the shelling section because 'it is also work through which money can be earned'. Interestingly, there are now plans to import castor oil to protect workers' hands since this is more effective than coconut oil, which is currently used (Pal, 2003).

Both women and men work long hours, but more women worked the longest hours per day. At the time of this study, in our sample of 34 workers (17 men and 17 women), ten women worked more than ten hours a day as compared to five men. Women tended to earn less than their male counterparts, that is, more women than men reported earning the lowest wages: four women and only one man earned between 100,000–300,000 meticaïs (US\$5–15); only men earned the highest wages – six men earned 600,000–700,000 meticaïs (US\$30–35). Wages are not fixed, but are paid on a piece-rate basis. Piece rates are worked out using the minimum monthly wage for industrial work and then dividing this by expected kilogram outputs. The outputs set at the time of the study were 35kg per day for shellers, 12.5kg per day for peelers and 60kg per day for those who work on selection (Pal, 2003). These benchmarks were set using the productivity levels of workers in another factory in Mozambique, Cageba, but set at lower targets for new workers. At the higher end, part of the difference between women and men is explained by two men in supervisory posts. The fact that more women than men earned the lowest wages may be based on productivity (as some factory managers argued) but may also be because women took more days off work because of illness or domestic responsibilities.

There is currently no minimum wage for workers in rural industries. The industrial wage, which tends to relate to urban areas, was about 800,000 meticaïs (US\$40) per month at the time of the study (2002), so in fact none of the workers in the sample earned this minimum. The rural agricultural minimum wage was about 560,000 meticaïs (US\$28) per month, but many workers did not earn this amount either. One of the recommendations of this study is the setting of a minimum wage for rural industries such as cashew processing units.

4 A New Intervention: Decentralized 'Satellite' Processing

Within the national strategy to promote the cashew sector, SNV, with support from TechnoServe, has developed the CASCA programme (Support Programme for the Cashew Sector). The programme involves ADPP-Mozambique and the Mozambican Association for Rural Development (AMODER). It entails support for cashew production and small-scale cashew processing. It has a training component for production and processing which will be implemented by ADPP. A micro-finance component for processing will be implemented by AMODER. SNV will provide advisory and facilitation services. Namige has been chosen as the first intervention zone because of the new factory we have just discussed: the CASCA programme intends to develop small-scale processing units (so-called satellites) around that factory; the owner is willing to buy produce from the small units.

It is planned to establish 12 units over the period 2002–2005, each with the capacity to process 24 tons of raw cashew. A Brazilian expert has helped develop the selected model for the processing units (Medeiros, 2002). The units will buy the raw cashew, steam, crack, dry and peel it, and pack it for transport to the factory. In the factory, the nuts will be sorted, graded and packed for export. The owner of the factory is responsible for finding the buyers, although in the case of Namige, he already has a good relationship with a Dutch buyer who can absorb high volumes of processed nuts for export to various parts of the world.

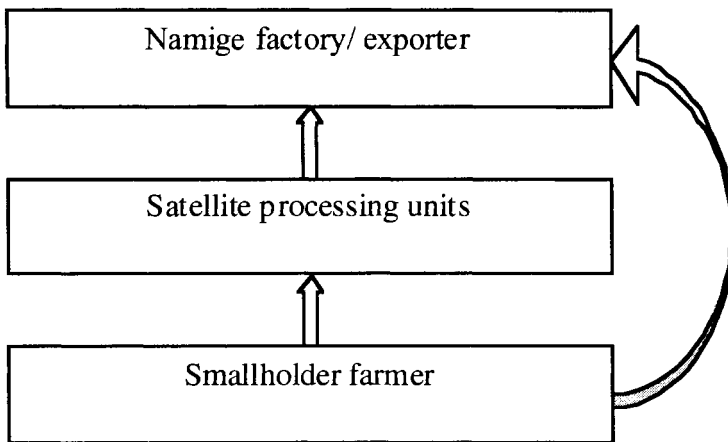
To minimize risks of management failure and to test technical and economic viability, the first three units in the first year will be run by individuals who have an entrepreneurial background and experience in buying and marketing cashew. The idea is that if the units show viability, they can be owned by less experienced individuals or run by interest groups, associations or family groups.

During our second round of interviews in September 2002, we learned that three individuals had been chosen for the first three experimental units, one being a woman. The latest information we have (Pal, August 2003) is that all three units have started operating, two of them owned by men and one by a woman. The owners have received support from TechnoServe with the machinery and its installation. AMODER has provided loans for initial working capital at 2 per cent interest payable over one year. ADPP is providing training and the units each employ 12 people. However, so far only men have been employed to work the cutting machines. One view is that it will only be possible to recruit women when there is better protection from CNSL through the import of castor oil (Pal, 2003).

The Namige factory provides an interesting example of a 'partnership'

approach between government, NGOs, communities and the private sector, with potential to increase the quantity of nuts which are processed as well as the employment generated for local people. In these cases, the chain becomes much shorter (Figure 2), minimizing the number of intermediaries between producer and exporter and adding value locally. This is a positive initiative, which should provide greater benefits to rural communities than the more typical chains (Figure 1). However, it remains to be seen whether the satellite units will benefit women directly through employment. It also remains to be seen if the satellite units are economically viable. At present, the owner of the Namige factory and TechnoServe have some reservations about the financial viability and sustainability of the satellite units, because quality and productivity has been low (the appearance of the nuts and the proportion of ‘whole’ nuts produced), costs are high and prices of kernels on the international market have remained low (Pal, 2003).

Figure 2: Namige Factory and Satellite Processing Export Chain



Efforts to shorten the marketing chain at the provincial level may be important in providing greater returns to smallholder producers and processing workers. However, the constraints posed by extremely powerful northern actors in the chain should be recognized.

5 Lessons Learned

Main findings

Rural livelihoods in countries like Mozambique are becoming ever more dependent on a variety of sources: small-scale farming, agricultural labouring,



Peeled cashews.

PICTURE: LUIS ARTUR

petty trading and service provision, migration and remittances (Bryceson, 2002; Francis, 2000). Diversification into several income sources is seen as a major strategy to decrease vulnerability, because it allows households to spread the risks they face. Weak and poorly developed local markets can represent one further source of uncertainty rather than an additional means for managing risk (Whitehead and Kabeer, 2001) and this is certainly the case in most parts of Mozambique. We found that access to raw cashew markets was very variable and that prices were largely controlled by a few large traders.

Although the government has made efforts to promote cashew production, our study found that the various interventions, from preventing bush fires to effective pruning, chemical treatment and replanting, have had limited success. The strategies have not been adequately discussed with farmers, and their views and concerns have not been solicited. Women in Nampula's predominantly matrilineal culture have considerable access to and control over land and trees, but they have had even less access to information and inputs.

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The closure of three cashew processing factories in Angoche in Nampula province resulted in the loss of critical sources of regular income for both women and men. Almost no ex-workers have found other employment. Women have been particularly affected by the job losses because they have fewer sources of income and are less mobile than men. There is enormous competition over jobs in the two new, smaller and semi-mechanized factories that we studied in other parts of the province. The wages and working conditions in the liberalized environment have deteriorated in relation to the earlier government-run factories and CNSL is much more of a problem with semi-mechanized technologies than it was with mechanized impact shelling, although initiatives are underway to ameliorate the situation through better protective oil for workers' hands. Men have entered into sections of the factory, such as peeling, which were previously seen as the domain of women, while women do not work in the sections which use semi-mechanical shelling machines.

Our study shows that although women are key actors in the cashew sector, interventions to promote production have usually excluded women, and they have lost jobs to men in the processing sector. A gendered approach is important not only from an equal rights perspective, but also in order to improve the effectiveness of interventions, since women have considerable

knowledge of cashew production and processing. A gender perspective is also important in reducing income poverty more effectively, since women tend to be over-represented in poor groups, and because women have greater domestic responsibilities than men and tend to direct their earnings towards improving household welfare.

In Mozambique, post-independence state policies were not particularly favourable to smallholder farmers and neither was liberalization, in the way that it was initially pursued. Social and institutional factors, in Mozambique's historical context, have been critically important. As Pijnenburg and Nhantumbo (2002:199) put it: 'Decades of (often brutal) colonial rule, top-down socialist policies, civil strife and now political strife do affect trust and confidence within communities and between them and external agencies'. This history takes time and political will to address.

A wide range of studies have already shown the ways in which liberalization, and particularly agricultural liberalization in sub-Saharan Africa, tends to benefit those with greater power, information, access to land, financial assets and markets (Whitehead, 2001; Grown *et al.*, 2000; Oxfam, 2000; Mehra and Gammaye, 1999; United Nations, 1999; Kanji, 1995; Afshar and Dennis, 1992). Liberalization tends to widen the gaps between socio-economic groups and between women and men, unless disadvantaged groups become organized to defend their interests and/or specific policies and interventions are put in place. Some of this research has also pointed to an intensification of women's work as the state withdraws from the provision of basic services, and health and education fees rise. Women, in particular, struggle to balance a multitude of activities: domestic work, childcare, caring for the sick, farming and income-generating activities.

At the macro-level, competition between countries in the South for shares of the international cashew market has increased. Some Indian states are working hard to increase production to meet their huge in-country processing capacity needs, which would reduce their imports of raw nuts from Mozambique. The market in kernels also faces competition from new entrants, such as Vietnam, where the government protects the sector and is now investing heavily in research and development. All this makes it even more difficult to maintain decent returns for smallholder producers in Mozambique and to ensure decent wages and working conditions for cashew processing workers, both women and men.

Recommendations for the future

The comprehensive strategy which the government has recently put in place recognizes that much more needs to be done if Mozambique is to revive the cashew sector. Agricultural extension, credit, roads for market access, prices

and local processing are all important factors which can stimulate the small-holder sector. However, the political will to really implement this strategy, the *way* in which programmes are implemented and the *ideas and values* of those with considerable power will influence how different groups in rural areas, particularly women, respond to new opportunities.

In the predominantly matrilineal setting of northern Mozambique, women have considerable control over land and trees and there is no doubt that women are important actors in cashew production. Without recognition of these facts, the effectiveness of interventions will inevitably be undermined. Communication between researchers, extension workers and small-scale producers, particularly women, has to be improved. It is essential that interventions such as the CASCA programme, which provides training for cashew production and processing through the 'satellites', take a gender-aware approach.

A more differentiated approach is needed to implement the government cashew strategy effectively. In terms of cashew production, policy needs to distinguish between the few larger-scale producers and the vast majority of small-scale producers. A production strategy which is centred on the use of fungicides and pesticides, which are difficult to apply correctly and relatively costly, may be inappropriate for the majority of producers. Good agricultural extension services (currently lacking), which emphasize what can be done without significant outlays of cash (or free provision of inputs) are critical if smaller, poorer farmers are to benefit. There are limitations to the proposed 'privatized' solutions to such problems, which may favour large producers. For example, a new strategy in the liberalized context is to devolve extension work to private companies and NGOs which are interested in cashew production, but it is questionable whether they will opt for time- and communication-intensive paths to increasing production for small farmers. The role of the government in funding and regulating extension services is therefore essential. Improved marketing is another key priority. Ironically, much of Mozambican cashew production is organic and could benefit from growing niche markets for organic products at a global level. However, the institutional capacity to organize such marketing and 'branding' is lacking and the transaction costs of acquiring certification are high.

Turning now to processing, as we have discussed, minimum wage levels for rural industries in Mozambique have not been set. Workers and unions are currently in a weak position, and the government should be an important arbitrator in defending the rights of workers to decent wages and living conditions and the right to negotiate with employers for reasonable wages in a competitive liberalized environment. Women are losing much-needed income-earning opportunities to men in the processing sector. This trend can

only be reversed if policies are put in place to encourage women to work in any section of factories and other processing units. The social construction of what constitutes 'appropriate work' for women is very clear in cashew processing; in India, women comprise 95 per cent of the entire processing sector, using the very same machines as those used in Mozambique. However, in that context, too, men hold the leadership positions and the wages in this sector are even lower than in other 'traditional' processing sectors such as coir (prepared fibre from the husks of coconuts).

The promotion of local grassroots organizations can bring women together as producers and workers to defend their interests, and to begin to participate actively in other parts of the cashew chain, although this is usually a slow process. Producer associations are increasing in Nampula province and a key challenge is to enable women to be well represented or to form their own organizations to promote their access to market-based livelihoods.

It remains to be seen whether Mozambique can increase its share of the international market in both raw nuts and cashew kernels. It is essential that in-country processing is supported in Mozambique, both for the economy as a whole and because it provides an important source of employment. The volatility of the international market and the difficulties in gaining access to kernel markets mean that strengthening local and regional markets may have an important role to play in enhancing livelihoods.

Notes

- 1 Sherilyn Young provides a historical overview of the way in which contextual and policy shifts in Mozambique relate to the cashew sector (see Kanji *et al.*, 2002).
- 2 The research included interviews in four sites in Nampula province: Namige (Mogincual district) to examine production and marketing by smallholder women farmers, the functioning of a new, small scale semi-mechanized factory and its workers' livelihoods; Itoculo (Monapo district) to assess government and NGO interventions to increase production, improve marketing and provide training and extension; Geba (Memba district) focuses on the functioning of a medium-scale factory, wages, working conditions and livelihoods; and finally Angoche (Angoche district) to follow-up ex-workers from two closed factories and examine the changes in their livelihood strategies. The authors would like to thank all those numerous individuals and organizations who made the research possible, the farmers and workers who gave us their time, our research assistants and the Irish and Netherlands Embassies in Maputo for funding the research. Finally, thanks to Joe Hanlon for useful comments on an earlier draft of this chapter.
- 3 However, this does not mean that the US and EU have 'freed' their markets and there are still huge subsidies to farmers and selected industries in the North.
- 4 US\$1 was equivalent to approximately 20,000 meticaïs at the time of the research. The exchange rate in May 2003 was 24,100 meticaïs to US\$1.
- 5 Since this study, three more factories have opened in Nampula province: the owner of the factory in Namige has opened a second factory in Angoche and other entrepreneurs have opened factories in Namialo and Murrupula. Incaju and TechnoServe have provided support for these ventures. The physical conditions of the Namige factory have been improved and workers now have overalls (Pal, August 2003).

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