

DECENT WORK, A TOUGH NUT TO CRACK? A MARKET SYSTEM ANALYSIS OF THE CASHEW PROCESSING INDUSTRY IN MOZAMBIQUE

May 2018



MOZTRABALHA

With support from the Government of Sweden, the ILO implements the MozTrabalha project, which seeks to create and improve employment outcomes in both urban and rural areas, by focusing on the implementation of employment-intensive infrastructure investments and green enterprise solutions, and by creating opportunities to access productive employment for women and female-headed households.

The project pursues a market systems development approach as the unifying framework. The application of this methodology has been supported by ILO's project The Lab.

This paper summarises the findings of the market system analysis of the cashew processing industry in Mozambique. To request the full report please contact: maputo@ilo.org

I. SETTING THE CONTEXT

Introduced in Mozambique during colonial times, cashew production is an export-oriented agricultural crop, essentially cultivated by smallholder farmers in marginal lands. However, the rising demand for cashews in high-value markets such as India, Europe and North America, has triggered an opportunity to revitalize the sector in Mozambique.

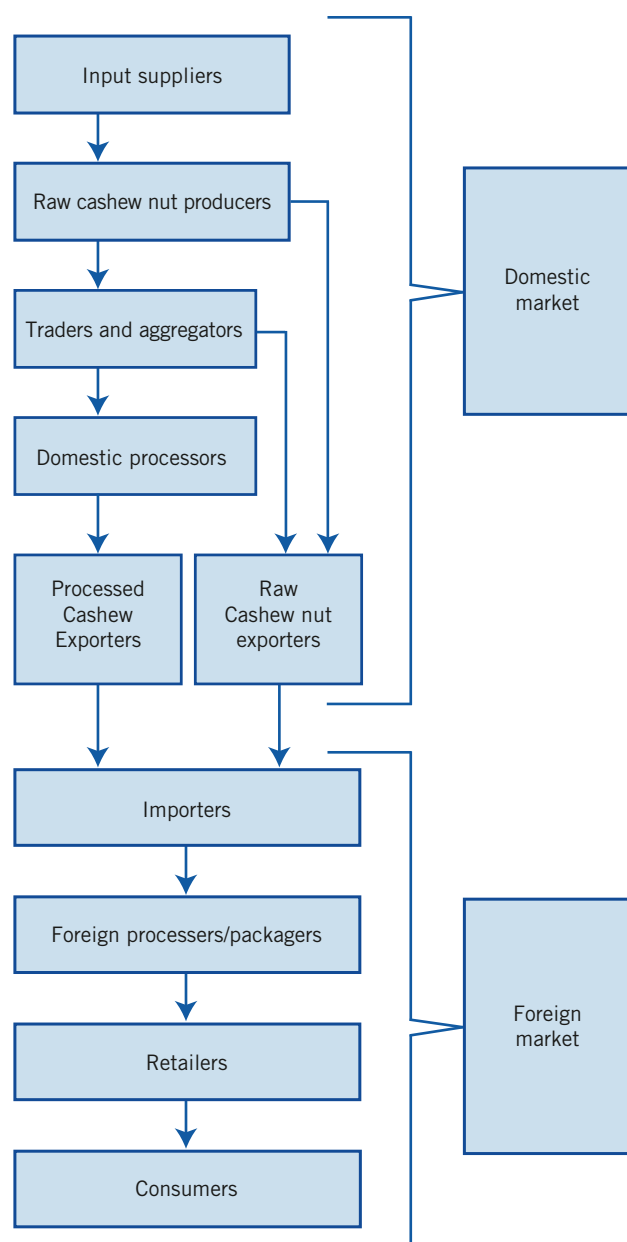
So far, development initiatives have been at the

forefront to help develop the sector. Despite these efforts, investments are needed to mitigate the current bottlenecks in knowledge systems, production, processing, marketing and, most importantly, employment conditions. Consequently, Mozambique has been losing market share to peers since the early 1990s, in part due to disruptions from the civil war and natural disasters. Nonetheless, there remains scope to implement major interventions that will boost output, revenues and employment outcomes in the sector.



II. THE CASHEW PROCESSING MARKET

The overall cashew value chain in Mozambique is comprised of several broad areas of activities and performing players, ranging from input suppliers and domestic raw cashew nut (RNC) producers through processors and exporters, up to the final consumers.



A) PRODUCTION LEVEL

Although renowned for being ‘the poor man’s cash crop’, cashew production is particularly valuable in Mozambique. National outputs vary between 72,000-80,000 t/year, with around 80% coming from the smallholder farming sector. Nampula and Zambezia both are the main cashew-producing provinces in the North, hosting more than 40% of Mozambican farmers and representing over one million households.

Following the Southern production cycle (4 months from October to January) provides Mozambican producers with better market prices (approximately 15-20% premium for African RCN¹). Currently, Mozambique ranks 13th in global RCN production. Around 40% of its output is exported. However, Mozambique has recently suffered a loss of global market share due to its volatile and relatively stagnant output², in contrast with other competing African countries (see figure 2³ and 3⁴). Output levels have dropped and stagnated below 1970 levels, which also coincides with the start of the 1975 civil war and has persisted due to low investment. Additionally, 40% of orchards were wiped out by Cyclone Nadia in 1994. Their rehabilitation is critical considering the old age of the crop stand and its low productivity level, due to recurrent disease outbreaks⁵.

Figure 1. Simplified cashew value chain

1 Technoserve (2016)

2 FAOSTAT (2017), performance figures reported up to 2014

3 Technoserve (2016)

4 FAOSTAT (2017), performance figures reported up to 2014

5 As of 2016, total processing cost was USD 1339 per Mt, of which RCN costs accounted for 66% of the total cost; fixed costs (19%); financial costs (11%) and income tax (5%).



The poor quality of RCN output results in lower export revenues remaining below potential. An improvement of its productivity could easily quintuple its cashew export revenues as Mozambique's yields average 3kg/tree (versus a potential 11kg/tree with good agronomic practices). To double their yields, best practices encourage farmers to apply fertilizers and pesticides and to replace higher orchards. Due to its ability to grow on marginal land, cashew production can also be harnessed to improve the resilience of smallholder farming systems to the changing climate, reflected in recurrent intermittent droughts.

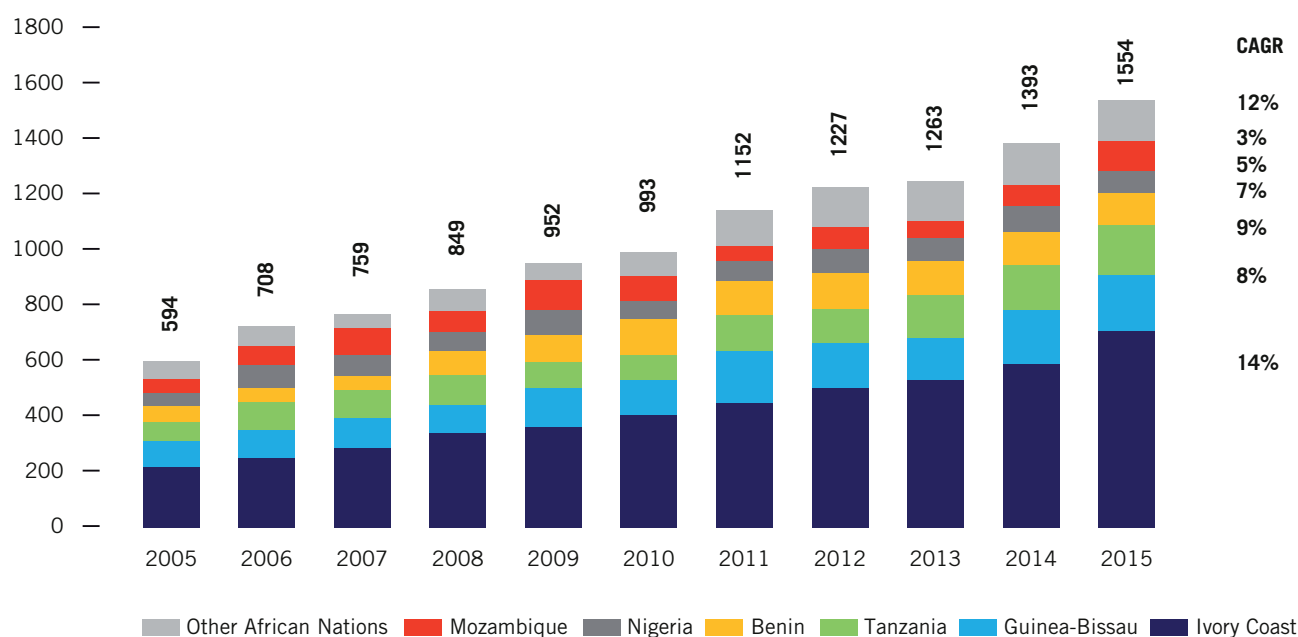


Figure 2. African RCN production by country

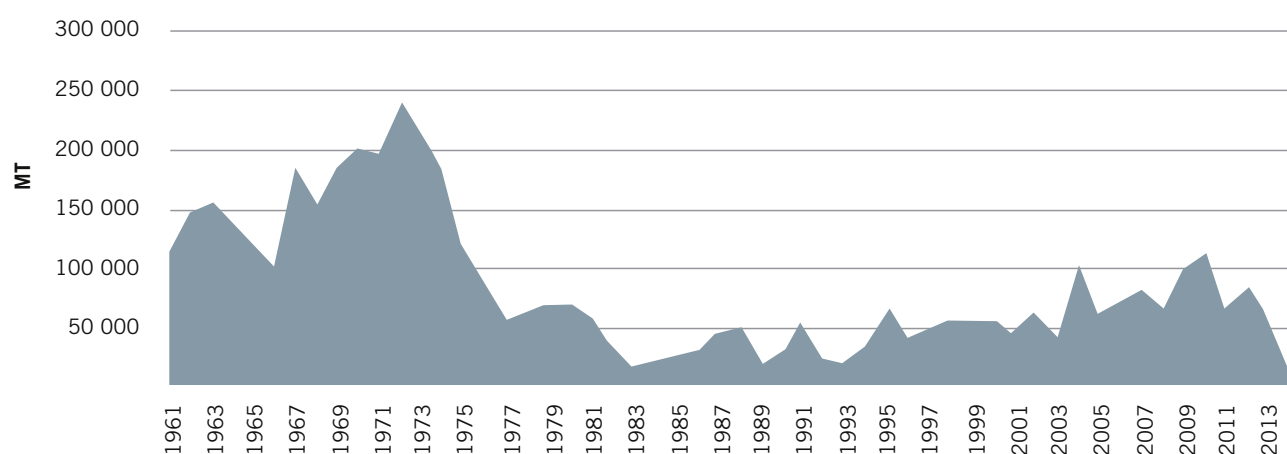


Figure 3. Mozambique RCN Production (historic figures)

B) PROCESSING LEVEL

Mozambique contributes only to 1% of the global processing market, dominated by India and Vietnam. Only 55% of the national RCN output is processed domestically⁶ due to poor and inefficient machinery, poor RCN quality, and lack of capital to procure raw material or invest. The overall domestic capacity utilisation, estimated at around 70% could be recaptured with policy fine-tuning.

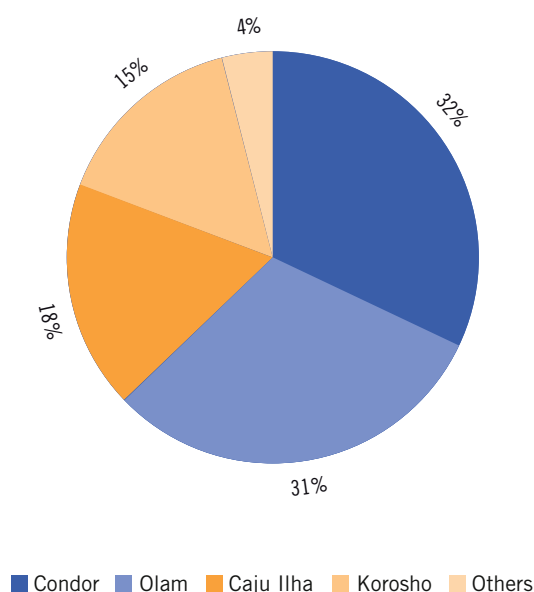


Figure 4. Major cashew processors and exporters (market share)

In Mozambique, as of 2017, only 12 out of 20⁷ processing facilities are at significant scale⁸. Around 78% of processing and exporting activities occur in the Northern provinces of Nampula and Cabo Delgado⁹. Four major players are present in Mozambique, namely Condor, Olam, Caju ilha and Korosho (ETG) (see figure 4¹⁰).

Providing employment for more than 12,000 individuals across the country, of which around 60-70% are women¹¹, cashew processing could have significant multiplier effects in the transformation of rural livelihoods.

All processing factories in Mozambique employ either manual or semi-mechanized processing models. In semi-mechanized factories, processing is supported by use of calibration, cutting, and peeling machines. However, manual labour is still required for scooping,

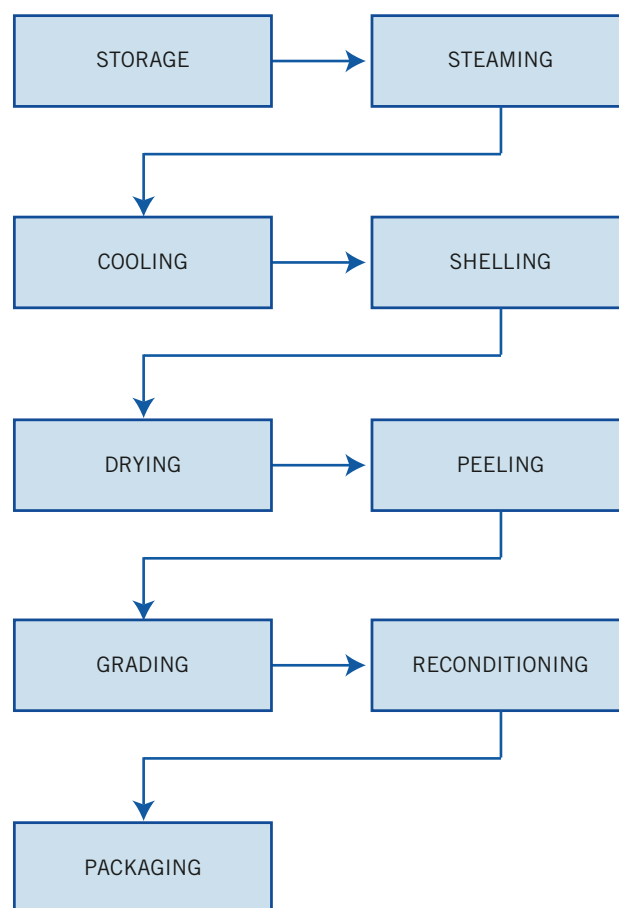


Figure 5. Cashew processing value chain

grading and oversight of machine operations. While the quality and efficiency of machines have improved greatly in recent years, there is still a lower breakage rate with manual processing. Consequently, many factories choose to process the largest, most valuable nuts by hand to ensure maximum retention of quality and profit. This high labour intensity and indispensability creates ideal opportunities to improve the level and quality of employment, remuneration and overall working conditions in the sector.

Some small processors sell processed cashew nuts either plain, salted or seasoned with piri-piri, in small batches, to local supermarket chains. The domestic quality demands being accessible, other cashew by-products are being developed, such as sweets, juice and other beverages.

6 Technoserve (2016)

7 IGC (2014)

8 Incaju (2016)

9 Incaju (2016)

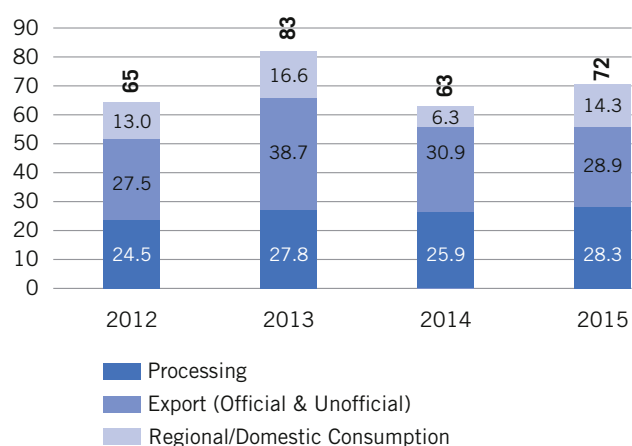
10 Technoserve (2016)

11 Incaju (Interview, 2017) ; CONSILMO (Interview, 2017)



C) TRADING AND EXPORTS

Moving forward in the value chain producers sell their output to traders (small and large). Most of the smaller traders act as aggregators for large exporters. From



there, the value chain enters three different streams: domestic consumption, in-country processing and RCN exports. For exports, a small number of large traders/exporters have an extensive network of small intermediaries who buy raw cashews directly from smallholder farmers, or from retailers (both small and large) who occasionally act as product aggregators. The commercialization of RCN stands at an average 70% of the total national output.

The domestic market's deregulation increased the number of small unlicensed traders. Therefore, a significant amount of exported RCN goes through informal channels to avoid the 18% export tax. The cashew exporting industry formally employs 1,500-2,000 people and is worth \$96 million in annual export receipts, making it a very relevant industry for Mozambique¹².

Figure 6. RCN commercialisation¹³

12 MozaCaju (2017) ; Technoserve (2016)

D) MARKET DEMAND AND CONSUMERS

India, Vietnam, Europe and United States are the major global importers, but the EU and US demands remain the most lucrative markets for Mozambique. As global cashew demand growth is outpacing supply, market prices get stabilised to a healthy price for African producers, when agro-merchants pay them ‘fair’ prices¹⁴. Considering the demand for kernels, there is a significant opportunity for Mozambique to increase its domestic processing capacity to harness the extra value-add. There is also another opportunity for the country to upgrade its production, processing, packaging and marketing systems to global standards.

Half of Mozambique’s cashew exports go to Europe and North America. These markets demand high product quality with stringent standards (i.e. ‘organic’ products and product testing among others). Their food standard agencies are also ardently keen on sanitation and food safety risks through applied codes of conduct and management systems such as Hazard Analysis and Critical Control Points (HACCP) and Good Manufacturing Practices (GMP). Mozambique still needs to build institutional frameworks to complement these demands at meaningful scale. To date, only four domestic processors have attained HACCP standards certification. Nonetheless, these markets have recently demanded better conditions for employees and supply chain traceability to mitigate the exploitation of smallholder producers.

E) WORKERS AND WORKING CONDITIONS

The complete cashew value chain employs approximately 1.4 million people in Mozambique, including 12,000 in the processing subsector¹⁵ (See figure 7). The rise of recruitment in the export sector despite a stagnant output confirms the declining sector’s productivity.

Worker absenteeism remains one of the major challenges in the sector. According to AICAJU, processors reported an alarming rate of 50-60% absenteeism, partly due to:

a) Low wages: salaries are output-based in all factories, established at 14 MZN/kg. The average worker output is 12 kg/day, which translate into an estimated 3,696 MZN monthly salary, equal to the established minimum salary at 3,642 MZN. Nevertheless, workers are paid based on their daily outputs.



b) Poor workplace conditions: Lack of protective clothing, rights and protection.

c) Prevalence of part-time employment with no formal contractual obligations: a reported 90% are temporary, many of which do not contain any contractual benefits such as social security coverage or maternity leave¹⁷.

d) Diverse livelihood activities: workers are also producers in their own right, and commit to their own smallholder farms, which often offer more attractive incomes than working at factories.

Inflexible working arrangements, resulting in most shift work being 10 hour-plus under challenging environments, are an additional drag to labour availability. Some processing factories are even forced to close operations because of their inability to replace labour with more mechanisation, due to the lack of available capital. Furthermore, women dominate the informal sector, mainly using traditional processes. Therefore, minimum standards should be enforced, especially around hygiene, requiring licensing and training.

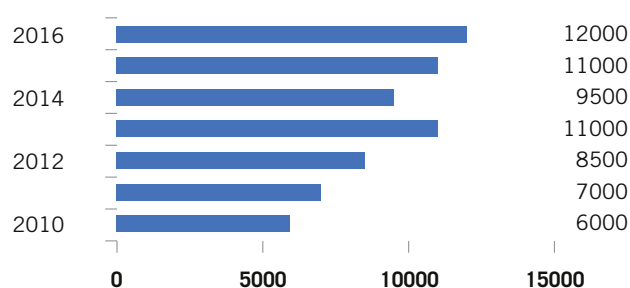


Figure 7. Number of jobs in cashew processing in Mozambique¹⁶

13 Incaju (Interview, 2017) ; CONSILMO (Interview, 2017)

14 Technoserve (2016)

15 Mozacaju (2017)

16 Technoserve (2016)



A GENDER LENS INTO THE CASHEW PROCESSING MARKET

Although women have frequent contact with markets, they do not have any decision-making power to set the prices, because of deeply entrenched discriminatory socio-cultural values. They do not have access to land property, mostly owned by male-headed households. In addition to their long working days in cashew collection and processing factories, they face arduous working conditions, without perceived benefits. For example, although they often work for more than ten hours daily and travel long distances to reach their factories, they are not provided with a living wage nor any social protection against the shocks they are much vulnerable to.

Because of their gender-based duties at home, women achieve less output production than their male peers, thus they earn a much lower revenue. Besides this “productive work”, they are meant to fulfil their own caring work domestically (i.e. housekeeping, cooking, children care), as well as the processing of other cashews for the household’s own consumption, or to sell them on informal markets. Similarly, due to prevailing cultural norms, they have low education levels, determining their career progression opportunities in factories, and furthering their difficulty to discuss their rights and controversial topics (i.e. sexual harassment, patronage). Nonetheless, their concerns seem to be overlooked as the few existing workers’ associations are ruled by men, hence remaining exclusive.



III. SUPPORTING FUNCTIONS AND REGULATIONS

A) SUPPORTING FUNCTIONS

Association of Cashew Industries (Aicaju)

Hosting 12 large cashew processors (counting 300-1200 workers), AICAJU is the most supporting association. Nonetheless, small-scale processors are not represented nor organised. Despite the association’s interest in including them, only a few small companies do participate in meetings as observers, without even having a decision-making power.

Agro Industriais Associados (AIA)

AIA is an association of processors, focusing on exporting and marketing for processed nuts, offering quality monitoring, transportation and the management of international contracts. Through this holding company most processors in Nampula province market their processed kernels. The group has established its own brand (Zambique), and offers quality monitoring and transportation as well as managing multi-year contracts with international buyers.

Quality Standards

National regulation on quality standards, as well as organisations providing adequate training, advice or certification are lacking. The support of factories' capacity-building in standards compliance has positive implications on working conditions and workers' livelihoods, in view of the implementation of occupational safety and hazards principles.

B) RULES AND REGULATIONS

Mozambique's National Cashew Institute (INCAJU) – Public support services

INCAJU is responsible for policy setting, definition of strategies to support the development of the cashew nut industry and coordination of its stakeholders. Although it provides inputs and support services to producers, its limited capacity creates inefficiencies to raise cashew production's productivity. Furthermore, the poor regulatory environment has discouraged the private sector and foreign investors, thus sharply reducing business and investments intentions. Despite INCAJU's initiatives, its support activities are planned to be scaled down to allow more private sector participation.

18% tax on RNC exports

Approximately 20% of the revenues are allocated to development projects within the cashew processing industry, including creation of guarantee funds, and 80% is geared towards support of the development and expansion of the national production capacity of RCN.

The overall tax framework includes: prohibition of RCN exports from October to mid-December; in the period when exports are allowed, domestic companies exercise a right of option on raw cashew nuts; support for a replacement programme of cashew seedlings; and support for a research programme and the introduction of new varieties of cashew.

Nonetheless, the industry perceives the current policy framework to be poorly understood, designed and coordinated; weakly monitored and enforced; and a significant constraint in future development. More specifically, these flaws push the informalisation of the sector, negative wealth effects on smallholder farmers and ill-advised policies among others.

A constraints analysis was performed to find the key underlying issues in the functions, rules and regulations restricting improved working conditions within the sector. For each core constraint, the associated systemic causes are identified below (see Table 2).





IV. ANALYSIS OF CONSTRAINTS TO DECENT JOB CREATION

Constraints	Systemic causes of constraint
Difficulties for processors to procure RNC	Lack of organised small processor associations/groups ■ Poor linkages of small-scale processors to transporters, collectors and distributors ■ Lack of aggregation/collection points ■ No incentive for transporters, collectors and distributors to purchase more RCN quantities Weak agro-dealer support systems with little outreach ■ Few agro-dealer networks who can act as agents of knowledge systems, input distribution agents and product aggregators ■ Low key component linkages within the value chain Low tree productivity, weather-related risks, recurrent pest, disease outbreaks and lack of good agricultural practices
Lack of affordable finance	Lack of scale among processing factories to lend against ■ Risk-averse domestic credit institutions ■ Difficult collateralization requirements for financing Weak organisation of processors into associations where some form of borrowing could be structured ■ Processors bankruptcy due to lack of financing for raw materials ■ Capex for appropriate investment is constrained
Poor labour retention and productivity, coupled with high rates of absenteeism	Inflexible working hours and long shifts which prohibit higher participation, particularly of women ■ Inflexible labour laws ■ Women's commitment compromised by their household commitments ■ Poor working conditions Lack of incentives such as social security benefits, or child-care facilities, which results in poor retention ■ Lack of enforcement of employee rights (particularly for women and girls) ■ Lack of sector productivity and profitability ■ Lack of access to finance
Poor quality standards	Lack of knowledge systems and platforms available to processors with key data and strategic sources of assistance ■ Poor quality of yields ■ Low export prices and low revenues Lack of capacity within AICAJU to support the implementation and enforce quality standards due to their typical high cost ■ Poor availability of organisations providing standards advice or certification ■ Solely supported by few donor-led projects (Technoserve)
Obsolete technology and equipment	Poor collateral and limited credit history ■ Lack of finance to procure newer and more efficient toolkits. ■ Lack of trust from risk-averse domestic commercial banks ■ Lack of mass from non-bank and MFI channels
Failure to invest in green business practices such as using waste for energy production	Lack of business development opportunities to engage in new value-added activities ■ Underutilization of cashew apple processing for the market of cashew by-products ■ Lack of information about the waste of cashew shells with high-energy content.
Lack of information networks and decision-making platforms for women's participation in value-added cashew activities	Existing associations do not appropriately represent women in decision-making activities and processes ■ Lack of access over resources for women ■ Lack of decision-making power for women against men. ■ Lack of leveraging power for women ■ Lack of education and training
Low levels of female entrepreneurship in the cashew industry	Societal roles imposed on women to remain in the household ■ Gender-based discrimination ■ Sexual harassment ■ Heavy workloads due to reproductive roles ■ Lack of education and training ■ Lack of support regarding child care



V. RECOMMENDATIONS FOR INTERVENTION TO STIMULATE SYSTEMIC CHANGE

Based on the findings of the Market System Analysis contained in the previous section, a set of interventions with their corresponding market system facilitation activities are outlined in this section.

INTERVENTION 1: ENABLING ASSOCIATIONS/GROUPS OF SMALL-SCALE PROCESSORS

It would facilitate product aggregation to foster economies of scale and other business linkages, benefiting stakeholders along the value chain. Such associations would establish contractual arrangements with producers, traders and transporters to enable business relationships and trust.

INTERVENTION 2: ESTABLISHMENT OF AN AGRO-DEALER NETWORK TO ACT AS PRODUCT AGGREGATORS, AND AGENTS OF KNOWLEDGE SYSTEMS AND INPUT DISTRIBUTION

This intervention would create collection centres, where farmers' production (inputs) could be gathered and distributed, to enable agro-dealers to act as buying agents for themselves or major exporters. The intervention is also meant to include training for agro-dealers in primary processing.

INTERVENTION 3: INTRODUCTION OF GROUP-LENDING PROGRAMME

The programme could be part of associations' list of services to provide commercial banks and MFIs with a more cost-effective delivery channel, thus easing credit access. Supporting the broker of linkages with commercial banks, it could facilitate technical advice to optimize the design of pilot projects, as well as financial education training for groups and associations.

INTERVENTION 4: INTRODUCE FLEXIBLE TEMPORARY CONTRACTS

In collaboration with AICAJU and the Ministry of Labour of Mozambique, the introduction of more structured labour contracts could confront the issue of labour retention, productivity and high levels of absenteeism. Women would particularly benefit from

this intervention, as it would support their time management between their work in factories and at home.

INTERVENTION 5: CONSTRUCTION OF CHILD-CARE FACILITIES

Child-care facilities can be built within "women's co-operatives/associations" (See intervention 9) or target selected factories.

INTERVENTION 6: EMBEDDING A TRAINING OF TRAINERS FOR QUALITY CERTIFICATION:

Part of AICAJU's enlisted services, this training of trainers would target independent quality auditors, food inspectors and trainers. In addition, the intervention would include the support to elaborate a central information platform and roadmap for certification, being customized to the needs of members, individually or by groups.

INTERVENTION 7: DEVELOPMENT OF AN EQUIPMENT LEASING SCHEME

In collaboration with financial institutions and intermediaries, the scheme could consist in the establishment of a processing centre for small processors and farmers to access machinery.

INTERVENTION 8: DEVELOPMENT OF NEW BUSINESS LINES AND SUPPORT TO DOCUMENT THE FEASIBILITY OF PRODUCING BIOGAS TO OFFSET ENERGY COSTS

This intervention would first intend a study on the feasibility and potential of developing new business lines and of producing biogas out of cashew waste.

INTERVENTION 9: FORMATION OF WOMEN'S ASSOCIATIONS

The associations would entail services and activities designed to address women's needs both as workers and carers. One of their main functions would be to act as a platform for information exchange and to deliver services including crèches and children caregivers.

INTERVENTION 10: DEVELOPMENT OF WOMEN'S ENTREPRENEURSHIP PROGRAMME

This programme would train women in processing cashew fruit for the production of cashew by-products (e.g. drinks, recycling), for them to earn an additional revenue, to support their households. It could potentially be embedded as part of women's associations.

