Cashew Industry Potential in Mozambique

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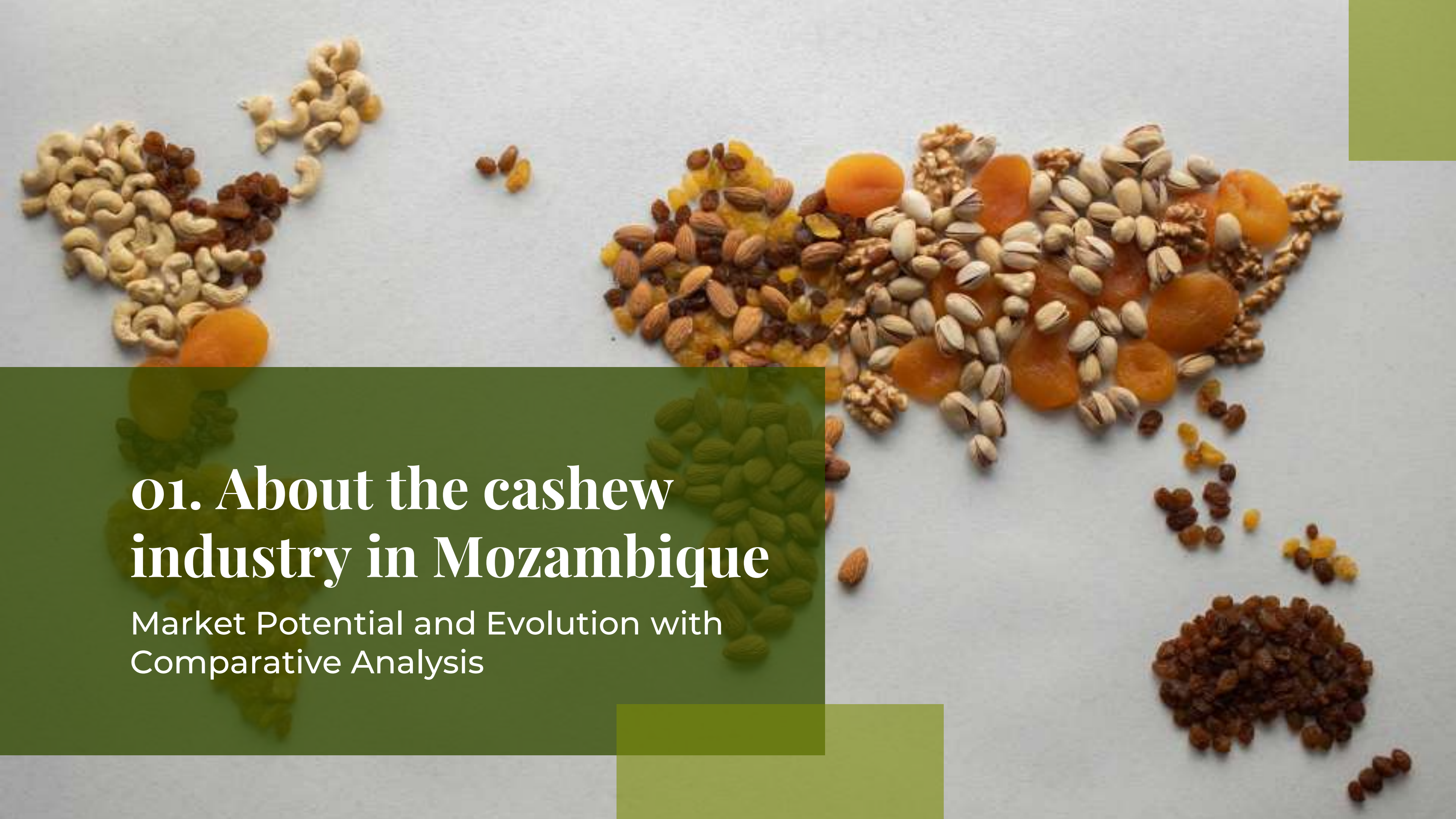
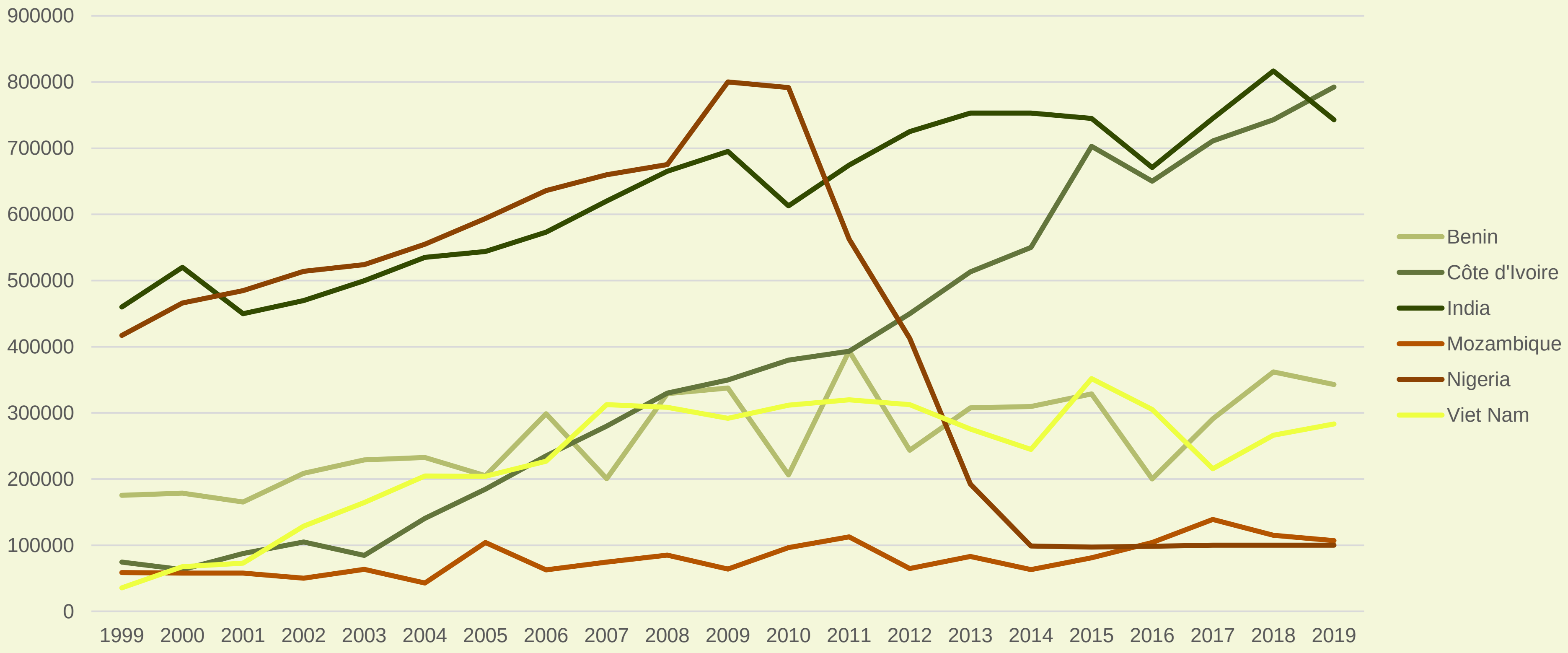


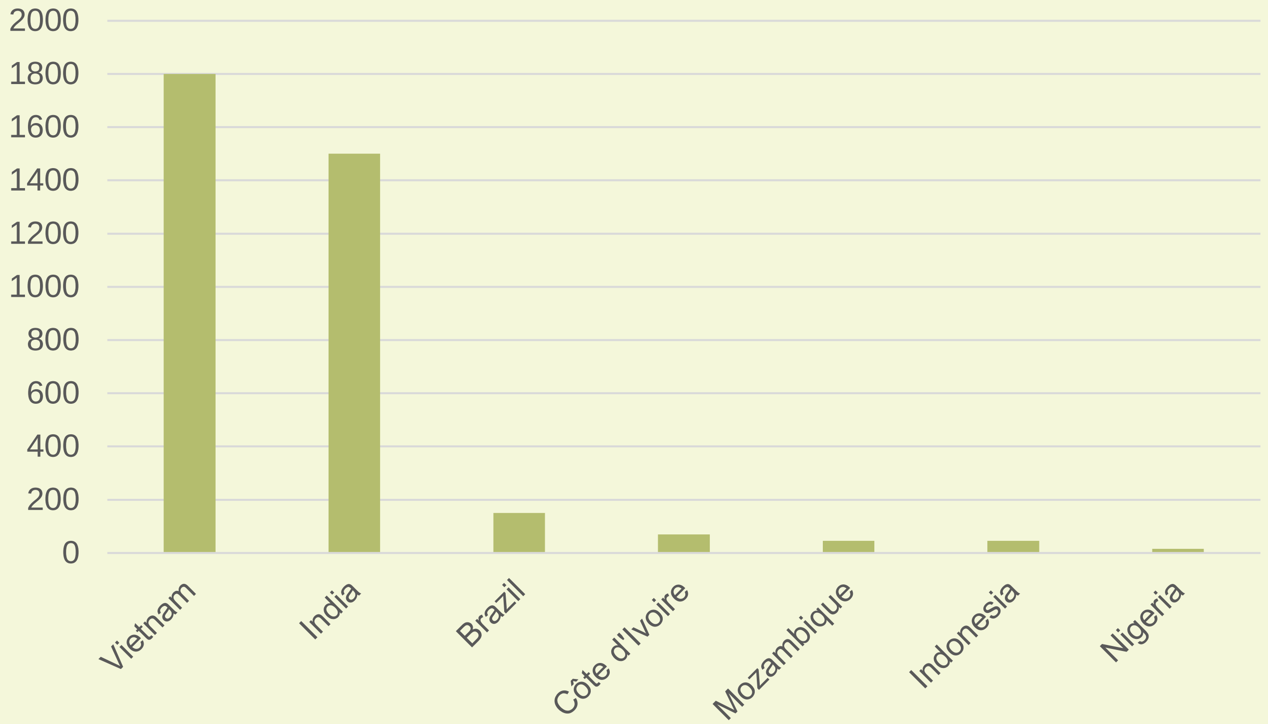
01. About the cashew industry in Mozambique

Market Potential and Evolution with Comparative Analysis

Main Producers of RCN in the World



Main Processors of RCN in the World



Main cashew nut processing countries – Average processing over the last 4 years in thousands of Metric Tons of RCN/ year

Source: Service n’kalô and Incaju

Evolution of the Cashew Production in Mozambique

1982-2004

Significant decrease in the production of cashew nuts in Mozambique (4 years after the ban on exports of RCN in 1978)

2004-2014

Irregular growth

After 2014

Growth is expected to accelerate due to the creation of new plantations

Reasons for the recent increase in production:

- End of the ban on the export of RCN and end of civil war in 1992
- Increase in prices of RCN paid to producers due to an increase in world prices and due to the greater competition for access to nuts between exporters of RCN and local processors
- Supply of plant seedlings, seeds, and fungal treatments by INCAJU to support producers
- Support programs for the sector, in particular, for producers financed by international technical cooperation

Comparative Advantages

1

Lower RCN Price

The processors in Mozambique are able to pay a lower price for the RCN when compared to the prices paid by Vietnamese and Indian factories, due to the factories' proximity to production areas and a 20% tax on RCN exports.

2

Lower Labor Cost

Minimum salaries in Mozambique are lower than the ones in Vietnam and India, which means that the cost of unskilled labor is lower in Mozambique. This cost has been losing relevance with the mechanization of the cashew processing.

3

Productivity Levels in Manual Processing

Mozambican workers in cashew factories have good productivity levels in sheeling and peeling at one of the lowest wage in the world.

The average cost of labor for manual processing (peeling and shelling) is the lowest in comparison to India, Vietnam, and Ivory Coast. With the growing automation of cashew processing, the impact of low labor costs on the total competitiveness of the industry is decreasing.

Comparative Disadvantages

1. Higher Taxes
2. Less Incentives
3. Imported Machinery
4. Higher Financial Costs
5. Higher Labor Costs
6. Lower Yields
7. Barriers to Export
8. Higher Waste

Comparative Disadvantages

1 **Higher Taxes**

The taxes paid by Mozambican cashew processing companies are very high when compared to the ones paid in competing markets.

2 **Less Incentives**

Processing companies in India and Vietnam receive subsidies to export cashew kernels.

3 **Imported Machinery**

The machinery needed for the cashew processing needs to be imported to Mozambique, which can be considered a huge cost (transport, taxes, spare parts, need to stock)

4 **Higher Financial Costs**

The high cost concentrated in 2/3 months of the year requires financial support through loans that pay higher interest than the ones paid in competing markets.

Comparative Disadvantages

5 **Higher Labor Costs**

Labor costs are significant due to the lack of qualified and experienced people in Mozambique. However, unskilled labor is less costly.

6 **Lower Yields**

Low yields are the cause of less mechanization, know-how, and organizational flow in Mozambique.

7 **Barriers to Export**

India is the first consumer of cashew in the world; therefore, Indian processors find a huge domestic demand protected against imports of other processing countries, which allow them to ask for higher prices and still remain competitive

8 **Higher Waste**

In Mozambique, there is not a significant market for by-products of cashew nut processing, so this waste generate evacuation costs and loss of a business opportunity.

Politics and Law

Obstacles for Processors

20% of the income from the cashew nut tax on RCN exports is supposed to be used to support the industry, however, **most of this income is only being used to support the production**.

Lack of Transparency

There is still **not much transparency** regarding the use of income generated by taxes on RCN exports.

Incentives to Manual Processing

The **taxes on wage payments are very low.**

Politics and Law

Hight Taxes

The **taxes paid by initial cashew processing factories** in Nampula in the first 11 years of business double the ones faced by the same factories based in Ivory Coast, India, and Vietnam. After the initial investment phase, **the taxes remain higher in Mozambique**.

Technical Councils

In 2019/20, **technical councils discussed the reference price, the impact of this price, and the need to maintain the preferential purchase window to protect the industry**. These technical councils have representatives from processors, exporters, and producers.

Regularization of the industry

It is important to work on the regularization of the cashew industry to **secure workers with stable paid work, and good working conditions** (right now there are some problems related to the seasonality of the industry and the labor conditions).

Producers against Processors

- In 2019, the **Cashew Law received a new policy proposal** to gradually eliminate the tax on the export of RCN. This was complemented with the opening of exports during purchasing period of processors and the establishment of a reference price policy
- This was **not implemented** since the Mozambican processors complained about not being considered and losing their advantage
- The **tax on RCN exports remains one of the main advantages for processors in Mozambique**

Producers

Producers support the elimination of barriers to export RCN. With low taxes, it is easier to sell RCN to external processors at prices that are not practiced in the internal market.

VS.

Processors

Processors demand barriers to export RCN. Without this taxes, it is impossible for them to buy RCN in Mozambique since their competitors in India and Vietnam can pay Mozambican producers higher prices for RCN, emptying out the raw material available in the country or raising the market price

People and Culture

Producers are willing to give major discounts to buyers that offer immediate cash, stepping down on previous agreements.

It is not possible to rely on pre-harvest contracts regarding production and prices because the producers/intermediaries do not respect them.

Thefts are common in Mozambique and the losses are significant.

The market information is not reliable since no one keeps track of the production.

02. Agriculture and Producers

Producer characterization, agricultural practices, pulverization, organic production and margins

Producer Characterization

SMALL

- <100 trees;
- Trees are old and dispersed;
- Production and harvesting is handled by family and neighbours, with no extra costs;
- ~80% of the farmers in the project are small farmers;

INTERMEDIATE

- 100 – 500 trees;
- Locals are hired seasonally to handle field clearing, pruning, harvesting and separation;

LARGE

- +500 trees;
- Fixed workers handle field and tree treatment;
- Machinery is used during production;
- Locals are hired for the harvesting and separation season;

Agricultural Practices in Mozambique

The average yield for a cashew tree in Mozambique stands at very low numbers, estimated at **2 – 4 kg per tree**.

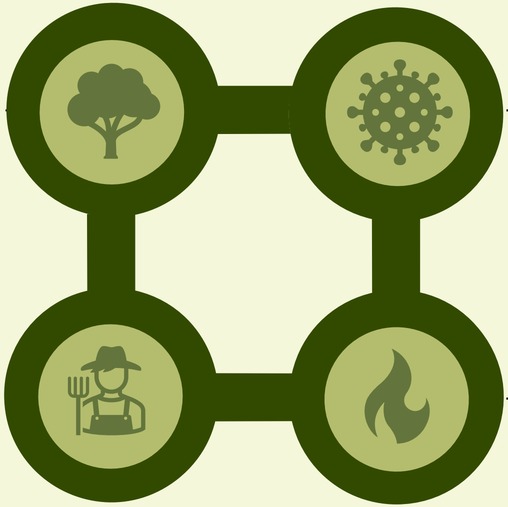
Little use of good agricultural practices

There is little knowledge on how to handle trees and fields to boost productivity

AMCANE

Farmer's mentality

Most farmers do not see cashew as a reliable income source so they are not willing to invest time and money in boosting their productivity



High disease prevalence

Oidium and Anthracnose are prevalent diseases, frequent in Mozambique

Poor agricultural practices

Illegal fires are frequently used to clear the fields, but these hurt the land's fertility

Pulverization in Mozambique

The government **subsidizes chemicals** to cashew farmers,

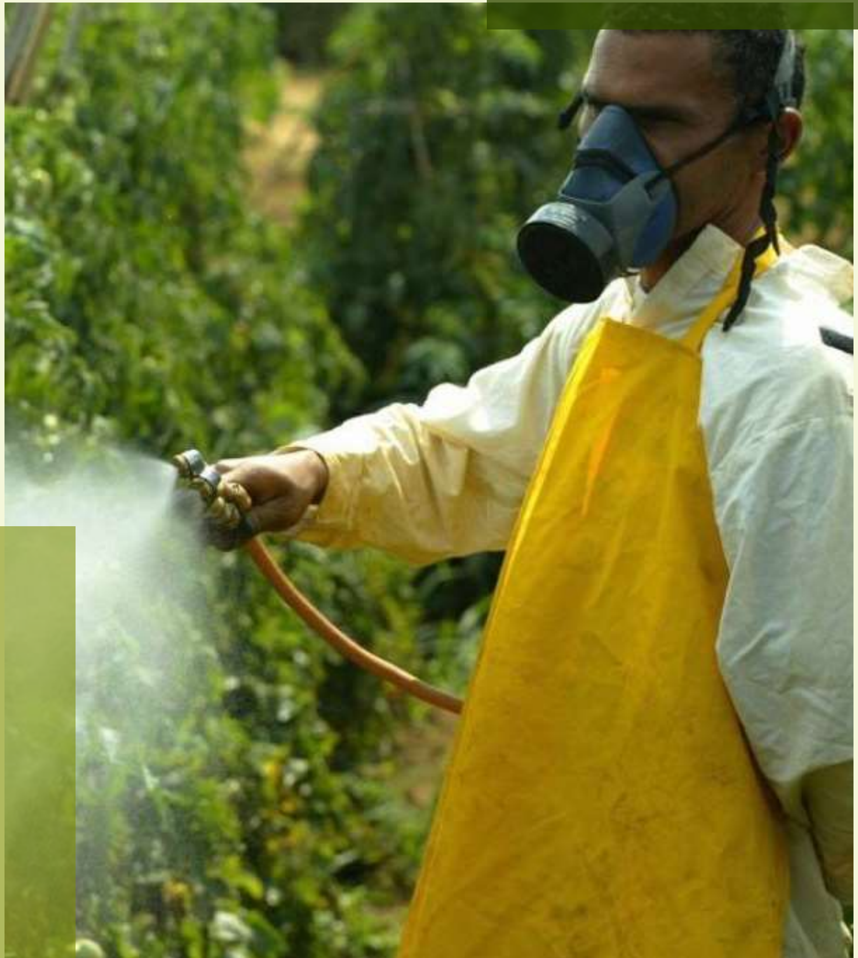
who still have to **hire a service provider** at the rate of **2 – 3 kg of RCN per tree**.

Official reports state that **8 out of 20 million trees** were pulverized in 2020,

but the **interviews' information** is **widely different**.

The programme is controversial, as it **hurts the private sector,**

and the government has announced that they will **start to phase it out**.



Pulverization in AMCANE

Biospray is the product developed and used in the project – it can be **homemade or purchased** from a laboratory.

Pulverization Costs are the same as for the chemical pulverization, but the **project currently assists farmers with these costs**.

Regarding Efficiency, a study evaluating it was shared with us:

1. **A comparison** between trees with which had been pulverized with **different concentration rates of Biospray.**
2. **No control group was established**, as no farmer was willing to not have their trees sprayed.
3. **Tree age was not accounted for**, which is a critical factor for cashew trees' productivity.

Biospray Efficiency Study

Biospray Effeciency Study	
Trial in Nacoma	
Concentration Rate	**Average Tree Yield (kg)**
5%	4.80
7.5%	3.90
10%	4.00
15%	2.70
Trial in Itoculo	
Concentration Rate	**Average Tree Yield (kg)**
5%	4.73
7.5%	2.17
10%	3.35
15%	3.40

Producer Margins

Most smallholder producers have a "100% margin", since they **use no inputs** can **rely on the work of family** and neighbours – however, this **would change with pulverization**;

Intermediate and large producers will have costs. However, these are used to enhance scale **and do not have an effect on the final price.**

Producer Margins (MZN/kg)	Producer 1	Producer 2	Producer 3	Producer 4	Producer 5	Average	Average (USD)
Selling Price	47	42	44	45	45	45	$ 0.70
Pruning & Field Cleaning	15.2	15.8	10.1	25.0	25.0	18	$ 0.29
Tree Pulverization							
Pulverization machine	7.5	7.5	7.5	6.7	8.3	8	$ 0.12
Bio Spray	*AMCANE*	*AMCANE*	*AMCANE*	*AMCANE*	*AMCANE*		
Harvesting & Separation (MZN/ha)	3.1	2.0	8.3	5.0	2.0	4	$ 0.06
Profit (Loss)	21.2	16.7	18.1	8.3	9.7	14.8	$ 0.23
Operating Margin	45.2%	39.9%	41.1%	18.5%	21.5%	33.2%	33.2%

Assumptions: 55 trees in 1 ha | Cashew tree yield ~3kg (national avg.)

AMCANE Organic Production

The source of this information was **very unreliable**, and it was hard to obtain **credible numbers**.

Other sources from AMCANE (specifically, the report and different interviews) claimed there were **780 farmers** in the organic certification process.

The **fair-trade process had not started.**

Farmers obtaining organic certification in 2020-2021			
	Nampula	Cabo Delgado	Total
# Farmers	172	352	524
# Trees	2,440	8,628	11,068
Production (kg)	14,923	37,602	52,525
Tree Yield (kg)	6.1	4.4	4.7
Trees per farmer	14	25	21

Average production per farmer (kg)	100
Farmers needed to make 80t of RCN	798
Conventional production* (kg)	298,310

**assuming a total of 3500 farmers in the project*

Nonetheless, one thing is certain: **in 2021 there will not be enough production** with the required certifications.

In 2022, it is likely there will be **enough organic production** (together with Ouro Verde). However, **significant progress has to be made in the fair-trade certification**.

03. Intermediaries

Intermediaries characterization and their impact on the supply chain

Intermediaries

Collecting RCN: Since each farmer produces a small quantity of cashew, intermediaries **play the roll of collecting the production from multiple farms**

Selling to processors: These agents **buy from farmers and sell to processors or traders**, adding an **extra step to the supply chain**

Independent Workers: Usually, **intermediaries have no previous arrangements with processors** and try to obtain the best deal going door to door after gathering production. However, some processors have established contracts with intermediaries they can rely on to collect RCN.

Unknown final destination / price of RCN: Due to the presence of these actors, **farmers do not know the destination** of their production **nor the price that will be charged to processors and traders**

04. Processors and Purchase Season

Results from interviews, challenges faced by processors and its margins, and purchase season description

Processors

Processors have been facing a huge **challenge regarding the purchase season**, leading to **several shutdowns and financial problems**

Example: CONDOR

One of the biggest cashew processors in Mozambique has **shutten down the 2 processing units** in the northern part of the country, with a combined capacity of **1400 tn.**

List of processors Interviewed:

- Condor
- Caju Ilha
- ADPP
- ETG

The costs and margins for processors vary depending on production capacity. Most of these agents were not comfortable sharing detailed information regarding their margins.

According to Nitidiae 2020 for an automated factory with 5000 tones of capacity

	Total Costs		%
Inputs	MZN	51,0	68,1%
Fix Costs	MZN	14,1	18,8%
Variable Wages	MZN	2,5	3,4%
Financial Costs	MZN	5,2	6,9%
Other Costs	MZN	2,2	2,9%
Total	MZN	74,9	100,0%

*at the time of the study USD to MZN was 64.51

5 kg of RCN	MZN	374,5
Converted to USD	$	5,81
Selling Price	$	7,70
Margin		25%

Challenges of Processors

Price Instability

The international price of cashew nuts is very volatile and this brings instability to the processing activity

2017-2020 Price of Cashew Nuts droped from 70 MZN/kg to 37 MZN/kg

Lack of Machinery and Specialized Work

Most of the processing of RCN into cashew nuts is done manually with seasonal workers since machinery and specialized resources need to be imported.

Independent Intermediaries

Even if there is an initial agreement with intermediaries, processors cannot rely on those since loyalty is difficult to guarantee.

External Competitors

Processors from India and Vietnam buy RCN in Mozambique, offering producers/ intermediaries higher values than the ones being practiced in the internal market. Mozambican processor face difficulties to buy RCN or match those offers

Purchase Season

RCN is bought over the purchase season and processed during the year. When the price of cashew drops, the initial investment in RCN might lead to financial problems

Challenges of Processors

Few Access to Credit

When facing financial problems, processors mention the difficulties in accessing credit to recover and restart their activity, being forced to shut down factories.

Different Currencies

Processors buy RCN in MZN and sell them in USD. Since the purchase season until the moment of sale, there can be fluctuations in the value of both currencies. When MZN depreciates, processors loose money.

Compromised Quality

Some producers rip out the RCN before its time to have access to immediate cash, compromising the cashew nuts quality

Disloyal Competition

The current legislation states that internal demand should be fulfilled before exporting RCN to other processing countries. However, some processors are also traders and buy RCN to export instead of processing.

Illegal Practices

Some illegal buyers of RCN entry the country through the borders before the beginning of the purchase season with bags of cash to offer to producers in exchange of illegal deals.

Purchase Season

We have heard from multiple sources that the RCN purchase season is highly **competitive**, **hostile** and **unpredictable**.

"People come from all **neighbouring countries** before the purchase season with cases of money – and they will try to **buy RCN illegaly at all costs**, stolen or not."

- Bank employee, specialized in financing the cashew industry.

"I have seen farmers **make deals to sell products the following day**, but when the buyer arrives, they have **already sold it** to someone with a **25% discount**, just because they had **cash**."

- Administrator of reference agricultural company in Mozambique

"There is a weakness in the **customs agencies** – they don't see, or they pretend not to see, the **high volume of illegal RCN exported**."

- Owner of industrial cashew processing factory

"The cashew purchase season is **like the wild west, everything goes**."

- Ouro Verde

"There are lots of obscure interests – **capital exports to other countries**, **money laundering**, …"

- Director of industrial cashew processing factory

05. Ouro Verde

An organic processor and its current situation

Ouro Verde

Their goals is to act as **Lead Farmers** – have their **own plantation and processing factory** and **support surrounding community** by teaching them best practices and acting as a purchaser.

Current Situation

- **3,000** matured trees
- **12,500** recently planted trees
- **4 kg/tree** of average matured tree yield
- Collaborating with **300 smallholder farmers**

Their 2028 predictions

- **67,000** matured trees
- Collaborating with **800 smallholder farmers**
- Total production of **100 tonnes of kernel** per year

“This year we cannot fill a container, but **next year it will be possible**.”

“**Being organic** is a real cost – it is at least **25% more expensive** than being non-organic.”

Ouro Verde

Expected Kernel Price

10 to 15
USD per kg

- Likely has a **negotiating margin**;
- **Financial support for purchase season** would help diminish these costs;
- **Pre-production contracts** could also help with price.

⚠

One major concern we have is the **lack of incentives for farmers** to sell their organic products to Ouro Verde. They are convinced that **by paying 5 – 10% over market price** they will **guarantee the purchase**, but from the information we gathered this is **not necessarily the case**.

06. Recommendations and Conclusion

To reach a deal

16 tonnes of cashew kernels, with **organic & fair-trade** certification, at **9.2 USD/kg**

Farmers have organic certification

Farmers have fair-trade certification

AMCANE produces 80 tonnes of RCN

Processors have enough margin to sell at desired price

Farmers sell the RCN to specific processors

Processors have organic certification

Processors have fair-trade certification

Long Term

Farmers are incentivized to stay organic on their own.

Conclusions

Incentive to the use of Chemicals

Having an average production of 3kg/tree, there is an incentive to the use chemicals and fertilizers to increase productivity, compromising the organic quality of the product

Unstable Legislation

Legislation in the cashew market in Mozambique is constantly changing, particularly regarding taxes and limits to exports. With such uncertainty, it is difficult to predict the next steps on this sector.

Dangerous Business Culture

The lack of commitment along all the cashew value chain is a dangerous problem for anyone who’s planning to start a business. Thefts, lies and urge for cash transforms this industry in a very uncertain business with high risks.

Thanks!

Do you have any questions?

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