BUSINESS ENVIRONMENT STRENGTHENING FOR TANZANIA (BEST) ADVOCACY COMPONENT (AC)

Reform of the Tanzanian Cashew Nut Business Environment

(TANZANIA CASHEW POLICY STUDY)

Final Report

Table of Content

The Tanzania Cashew Policy Study is supported by the Business Environment Strengthening for Tanzania - Advocacy Component (BEST-AC) and is implemented and managed by the nonprofit organization TechnoServe

TANZANIA CASHEW POLICY STUDY

Executive Summary

The cashew industry is strategic in Tanzania in terms of both poverty alleviation and economic growth. However, its development is hinder by an unsupportive operating environment. In order for this industry to realise its potential, comprehensive policy reform is required. Lack of it, on the other hand, could actually lead to the collapse of the industry in less than 10 years.

This report proceeds to the identification of 5 priority areas for reform:

1. Promotion of an industry of service providers for farmers
2. Reform of the crop board
3. Development of complementary markets, notably agricultural inputs
4. Regulated liberalisation of the trade of raw nuts
5. Promotion of an internationally competitive cashew processing industry

Importantly, all these recommendations are low-cost and low-risk.

The report also proposes an advocacy plan designed to push forward these reform proposals. It is constituted of two elements:

- Creation of multi-stakeholder pressure groups, that coalesce around specific policy recommendations, and collectively design and enact a lobbying strategy
- Media advocacy, both at national level, via the publication of articles on national newspapers in English and Swahili, and at local level, via the setup of local communication channels such as a farmers' radio or a low-cost periodic fact-sheet for manual distribution, sponsored by local stakeholders

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Introduction

The Tanzania Cashew Policy Study, supported by the Business Environment Strengthening for Tanzania – Advocacy Component (BEST-AC) and executed by TechnoServe (TNS) from January to April 2008, aims at providing industry stakeholders with an independent, market-driven analysis of the cashew value chain, and at identifying high-potential opportunities for policy reform that promote pro-poor development of this strategic sector. Furthermore, an advocacy strategy is proposed to communicate to policymakers the urgent need for reform, the specific areas of concern, and the potential solutions.

The project draws on TechnoServe's multi-year experience in cashew, primarily in Tanzania and Mozambique, but also in other African countries including Kenya, South Africa, Benin, Cote d'Ivoire and Ghana. TechnoServe has worked in all aspects of the value chain, from production to processing, policy and marketing, and is ideally placed to provide a well-informed, forward-looking and balanced analysis of the industry. This study is based on TechnoServe's experience, ad hoc interviews with key stakeholders and analysis of primary and secondary sources.

This paper represents the core outcome of the study, but is accompanied by four papers that address selected issues and possible solutions in four core elements of the value chain: production, input markets, marketing and processing.

This study runs in parallel with a capacity building effort, targeting three farmer associations in the cashew-growing regions, that aims at training farmers in managerial and advocacy skills. The results of this study will inform the training programme, thus enabling farmers to establish a dialogue with local and national policymakers.

Review of the cashew industry

Introduction to cashew

Introduction to cashew: Production

The cashew tree is an evergreen perennial, and can grow to up to 15m. While there are soils that are most suited to it,[1] this tree can adapt to most soils without productivity being affected. It is suitable for reforestation, which is the reason for much of its diffusion in West Africa, or to prevent erosion on the coast, as in parts of India.

Photo 1: A cashew tree

A cashew tree starts being productive after 3-5 years from its plantation, reaches its peak around its 15th year, and remains productive for approx. 2 decades.

[1] The best soils for cashew are deep, friable, well drained, sandy loam soils without a hardpan (Ohler, 1979).

Per-tree productivity varies greatly: the key variables include spacing between trees (due to their large foliage, 7.5-15m is best, or 70-200 trees per hectare), genetic type, soil, altitude, rainfall, moisture, temperature, age of tree, pests and fungi, and treatment of the tree. To illustrate the great level of variability, see chart 1 below, showing both that yield declines with the age of the tree, but also that the variance of yield among trees of the same age is very large.

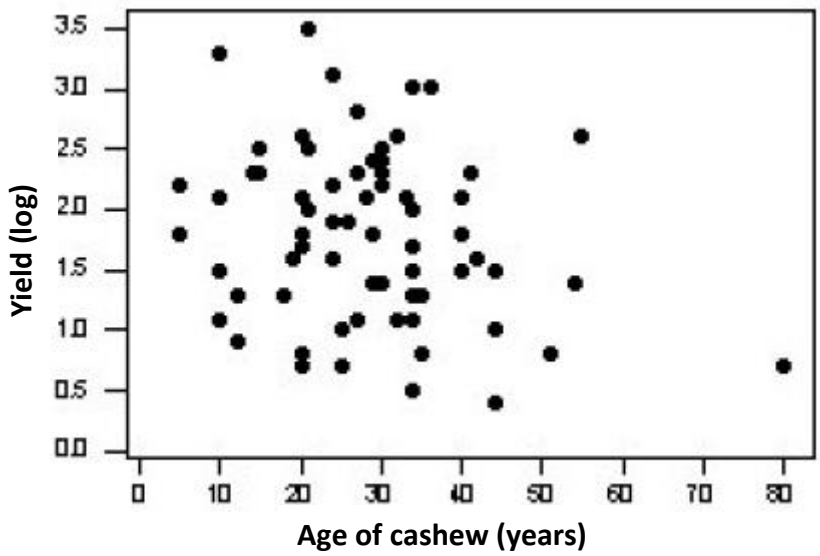


Chart 1: Tree productivity, over time
Source: Tolla, 2004

The cashew nut is the true fruit of the tree. It is attached to the so-called cashew apple, which is about five to ten times as heavy as the nut when ripe. Both the apple and the nut can vary significantly both in size and in shape. The nut is high in protein, oil and vitamins.[2]

[2] The nut makeup is 47% fat, 21% protein, and 22% carbohydrate (Ohler, 1979).

Photo 2: A cashew apple and the cashew shell

The cashew apple is a 'pseudo-fruit', as it is actually the swollen stalk of the true fruit, the nut itself. The apples are 5-10cm long, red or yellow in colour when ripe, fibrous, juicy, pungently sweet, and high in vitamins A and C[3]. Only a fraction of cashew apples are used in any way. They are highly perishable (they will rot within 24 hours of falling from a tree) and can only be used locally unless they are preserved in syrup, candied, sun-dried, or stewed. Apples can be made into jams, chutneys, vinegar, pickles, wine or brandy, and juices.

The cashew tree gives fruit throughout the whole year in different parts of the world:

- From January to March in Asia
- From March to June in West Africa
- From September to December in East Africa and Brazil.

Southern Tanzania is one of the traditional regions where cashew is grown, along with Northeast Brazil, Guinea-Bissau, Northern Mozambique and Southwest India. The Portuguese brought the tree from Brazil to many of their colonies, where in most cases the trees propagated by themselves, with little planning of their plantation. This still determines the modalities of production of cashew in many of these areas: new trees grow from fallen nuts, and have spontaneously grouped into 'clusters', throughout the farm, which is typically controlled by smallholders who don't actively take care of the trees.[4] In other countries (notably Nigeria, Benin and Cote d'Ivoire) cashew was introduced for reforestation purposes,

[3] Per 100g of fresh fruit, the cashew apple has more vitamin C than guavas, mangoes and oranges.

[4] Brazil and Vietnam are the main exceptions to this general pattern, as some industrial farming of cashew trees has taken place there.

and led to a similar type of occasional, haphazard farming practices. With smallholder farmers producing well over 90% of cashew,[5] this legacy is felt to this day, as the spacing amongst trees is one of the key drivers of per-tree productivity, affecting it by up to a factor of 10.

Global production of raw nuts has been flat at around 0.4-0.6m tonnes until the mid 80s, when it started growing at an average of 6% a year (see charts 2 and 3 below). Overall production growth is currently sustained by Vietnam, Brazil and West Africa, especially Cote d'Ivoire.

India has always been one of the main producers of the crop, contributing with between 25% (as in the 60s and in the most recent years) and 45% of it. East African production was dominant up to the mid 70s, when it collapsed in both the producing countries but for different reasons ('villagisation' and Powdery Mildew Disease in Tanzania, civil war in Mozambique), to then grow again and stagnate in the 90s.

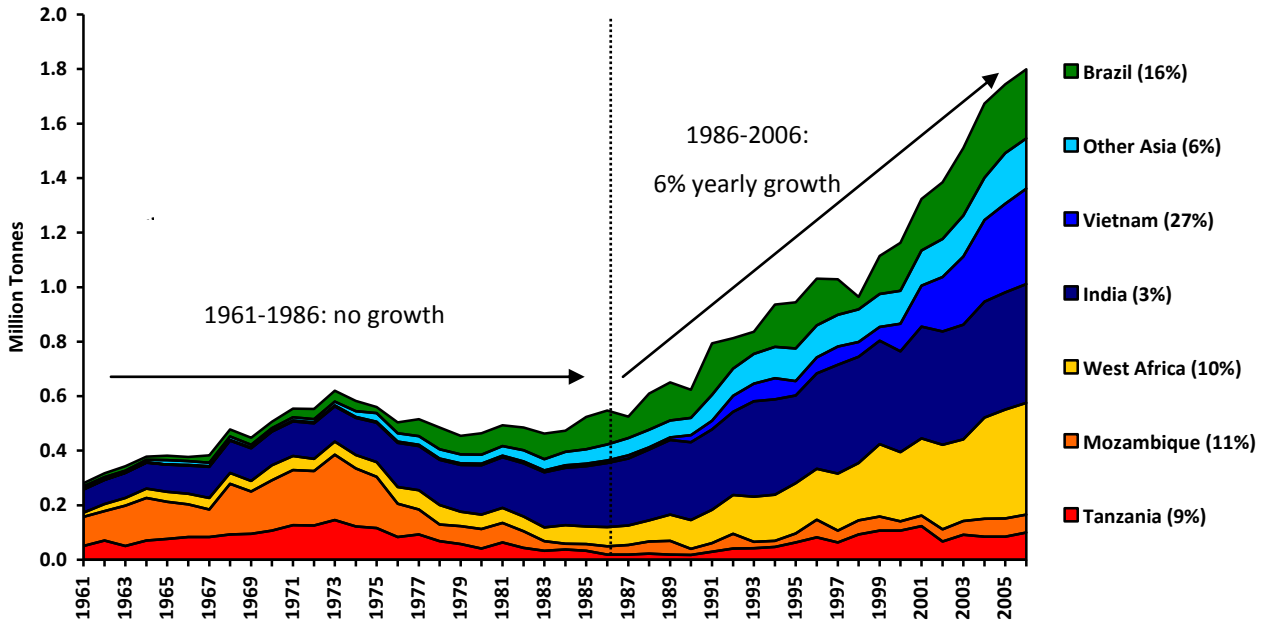


Chart 2: Production volumes over time, per main geography, totals (average growth 1986-2006)
Source: Cashew Export Promotion Council of India, Trade estimates, TechnoServe

[5] 97% in 1999 (Rosengarten, 1984)

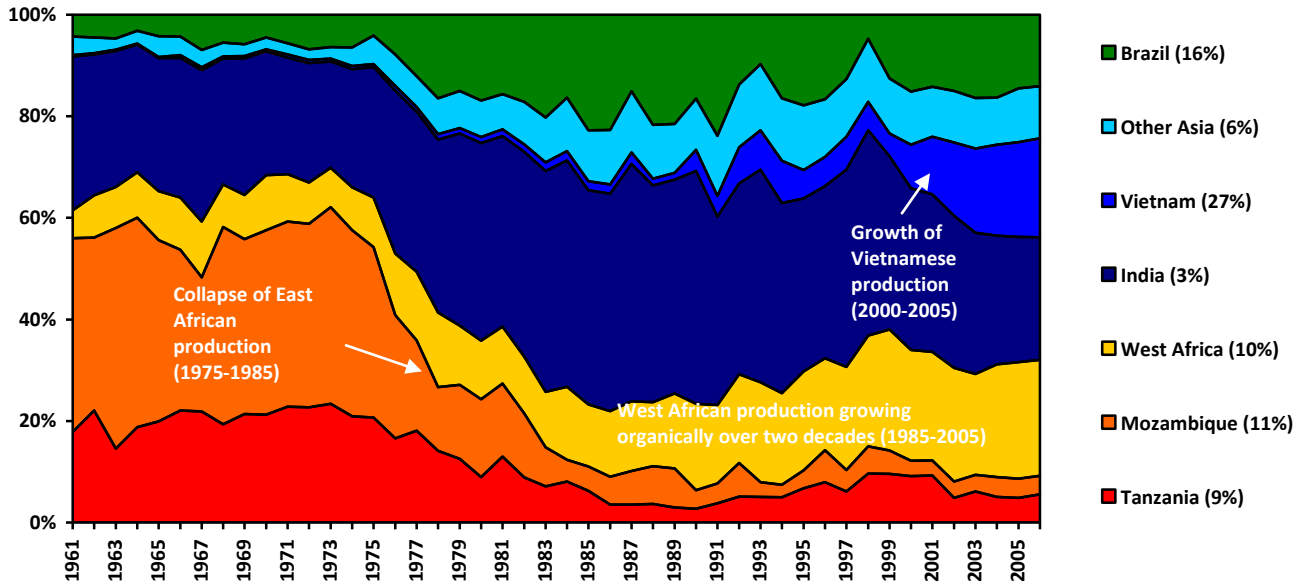


Chart 3: Production volumes over time, per main geography as percentage of total (average growth 1986-2006)
Source: Cashew Export Promotion Council of India, Trade estimates, TechnoServe

The global markets attribute a significant premium of the quality on the nuts, which drives the quality of the processed output. The outturn is the most commonly used cashew quality metric. The higher the outturn, the greater the quantity of kernels yielded by a bag of raw nuts.[6] The outturn is measured by appropriately sampling a batch of nuts, opening the nuts and weighing the kernels. It varies significantly from one country to the other, and so does the resulting value of the nuts: the best quality is paid 20% more of the lowest one.

[6] The outturn number is expressed by the ratio pound of kernels / bag of raw nuts (one bag is 80 kg of nut). An outturn of 48 indicates that you can expect to obtain 48 pounds of kernels per bag of raw nuts. It can also be expressed in a percentage (the weight of a pound in kg and the weight of a bag). For instance, an outturn of 48 is equivalent to a percentage of 27% (weight of kernels / weight of nuts). This metric is probably more intuitive but less commonly used.

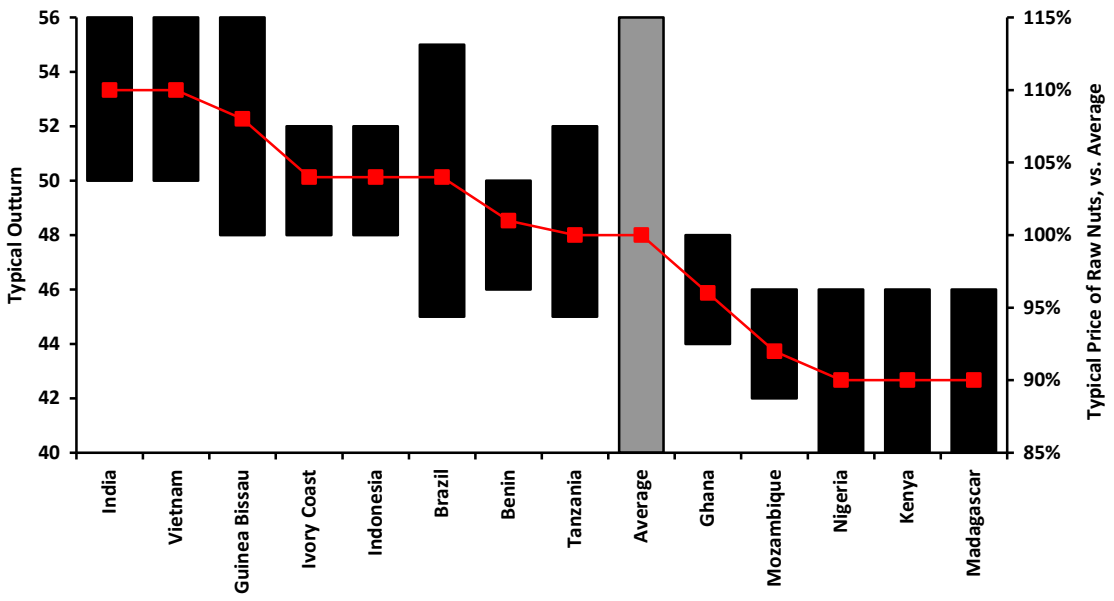


Chart 4: Typical outturn by producing country (left), and resulting typical value of the raw nuts (right)
Source: TechnoServe

Introduction to cashew: Processing

The cashew shell contains the cashew kernel. The kernel is covered by a thick reddish skin or testa. The shell contains a phenol like resin called Cashew Nut Shell Liquid (CNSL), which can be used in brake linings of cars because it absorbs heat efficiently. CNSL is also used in preserving and waterproofing, in paints, enamels and lacquers, and other industrial uses. The kernel constitutes approx. 20-22% of the weight of the nut.

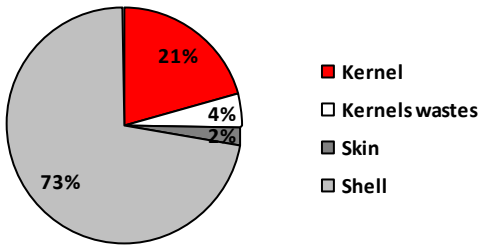


Chart 5: Composition of the cashew nut
Source: TechnoServe

The value of the kernels is determined by their size, colour, and whether it is broken into pieces of different sizes. All different types of whole kernels or pieces are called grades, of which there are up to 26. The most prevalent and most valuable ones are the white wholes, which typically account for almost two thirds of the income of a processor. They are worth 20% more than the average grade, and 3 times more than the lowest grades.

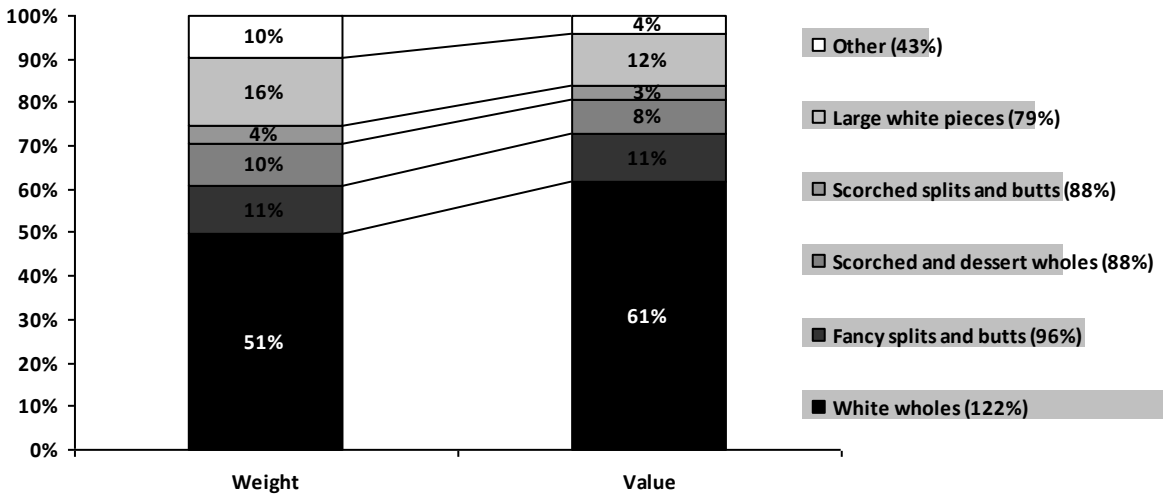


Chart 6: Typical frequency (left) and value (right) of kernel grades; Typical grade price vs. average (bar)
Source: Man Producten

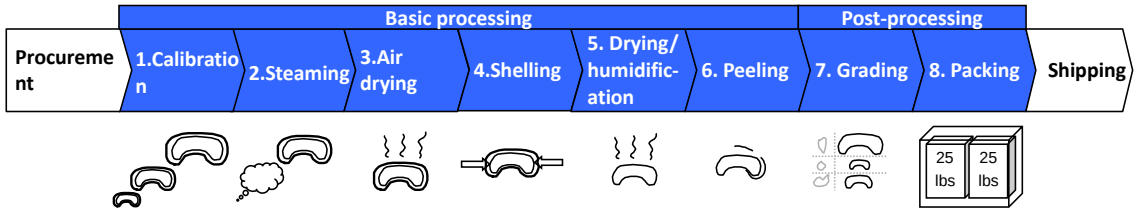
The successive stages involved in the processing of the cashew nuts take approx. 5-7 days and are as follows (see also chart 7 below), of which those requiring significant manpower are shelling, peeling and grading:

Procurement

1. Calibration
2. Steaming
3. Air drying
4. Shelling
5. Drying / humidification
6. Peeling

7. Grading
8. Packing

Shipping



Description	▪ Raw nuts are graded into batches based on nut size	▪ Raw nuts are steamed under high pressure	▪ Steamed nuts are dried, to make shell brittle and easy to crack	▪ Nuts are cracked (shelled), to free the kernel	▪ Kernels are oven-dried and then humidified	▪ Kernels are peeled	▪ Kernels are sorted and graded (size, wholes, butts, white, scorched)	▪ Kernels are CO2-flushed and vacuum-packed in 25 lbs bags (2 to a carton)
Equipment required	▪ Grader	▪ Boiler	▪ None	▪ Hand-operated shellers ▪ Tables	▪ Oven ▪ Humidifier	▪ Tables	▪ Tables	▪ Electricity generator ▪ Packing machine

Chart 7: Processing, step by step
Source: TechnoServe

This is referred to as 'manual processing', there exists another type, so called mechanised, where most of the activities are operated by automated machinery, and that requires very few labourers. We will generally refer to the manual type of processing, as it is the one that proved to be most sustainable in Africa, not only in Tanzania but also in Mozambique, Nigeria, Cote d'Ivoire, and Benin.

With regards to the geography of processing, while production is spread in a number of geographies, over half of the processing occurs in India, with Vietnam and Brazil also playing a significant role. India has also a large local market, although USA is the largest one. Other markets include Western Europe, East Asia and the Middle East. Even if it is locally grown and

processed, cashew is unaffordable for most people in developing countries: one portion can cost as much as the average daily income.

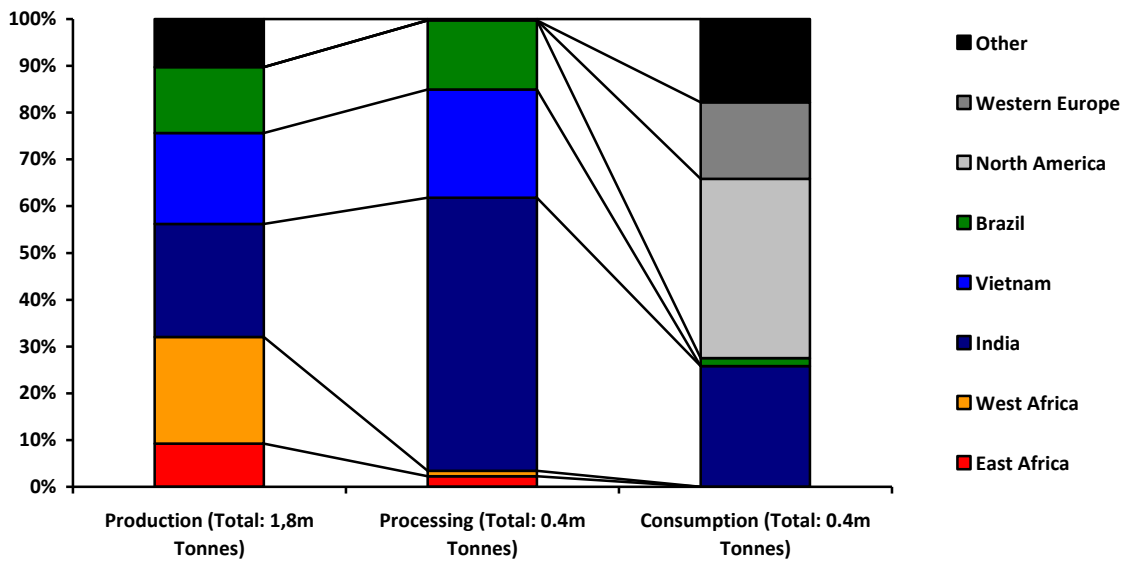


Chart 8: Production (left), Processing (middle) and Consumption (right), per Geography, 2006
Kraft, Olam, West India Cashew, TechnoServe

In short, one may summarise this picture (see chart 8 above) by noting that there are:

- 5 areas *producing* cashew (East Africa, West Africa, India, Vietnam and Brazil)
- 3 of them are also *processing* cashew (India, Vietnam and Brazil)
- 3 areas *consuming* cashew (India, USA and Western Europe), of which only India is also producing and processing

As the only country with large production, processing and consumption of cashew, and as the importer of over 80% of African-produced raw nuts, India plays a pivotal role in the industry.

Introduction to cashew: Consumption

Imports of kernel are expected to grow at approx. 5% a year. The USA is expected to remain the dominant import market, although it is more mature and thus growing less than average, and

then going from 50% to 43% of global imports (see chart 9). In Western Europe cashew markets tend to be least mature. Growth is also affected by the substitute products, as explored further below.

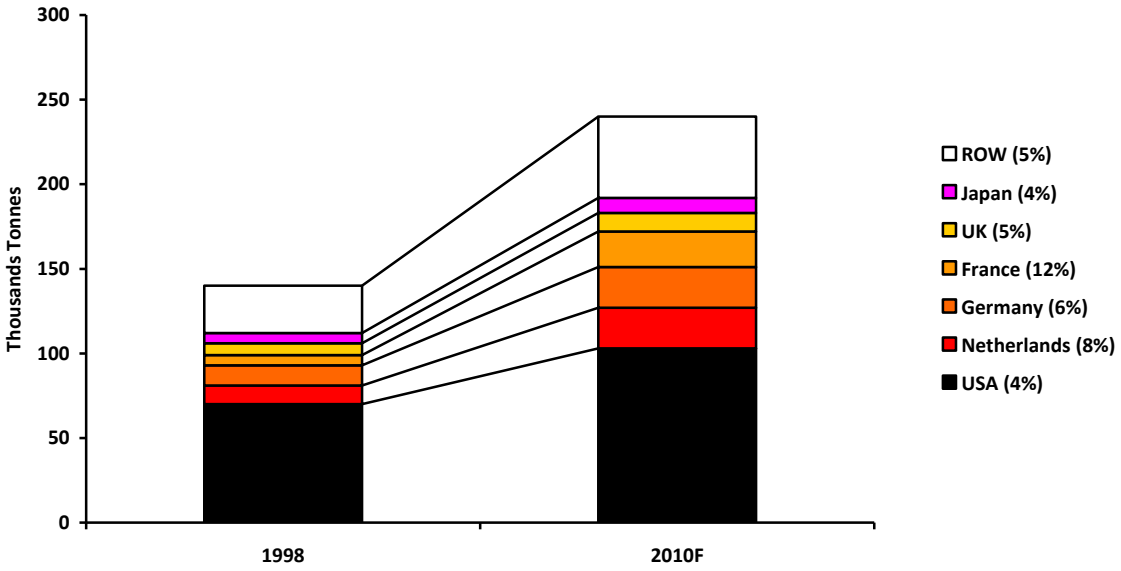


Chart 9: Kernel Imports, Percentage of Total in 1998 ad 2010 (Yearly Growth)
ECI Africa (DAI-PESA), Cashew Nuts Sub-sector Study (Oct 2003)

A fast growing niche is organic cashew, especially in the USA, Europe and Japan. Organic certification is less demanding in cashew than in other crops, as the cashew trees need no fertilizers and little other chemicals,[7] and the processing is done via natural processes. The premium for organic cashew can vary from 5% to 30%.

Another "niche" segment is the Fair Trade market which is mostly built for small scale processors at the village level. The Fair Trade Labelling Organization (FLO) has recently added cashew kernels on its list of possible "Fair Trade" Products.

Kernel price for the reference grade, W320, has varied markedly from year to year around its long term average of approx. USD 5000 per tonne, with fluctuation of over 40%. These fluctuations are normally clearly correlated to unforeseen circumstances taking place in large

[7] This applies also to East Africa, despite the fact that in that area trees do need fungicides.

producing countries, such as poor quality or low production. Price has been historically low in the past 5-8 years (see chart 10).

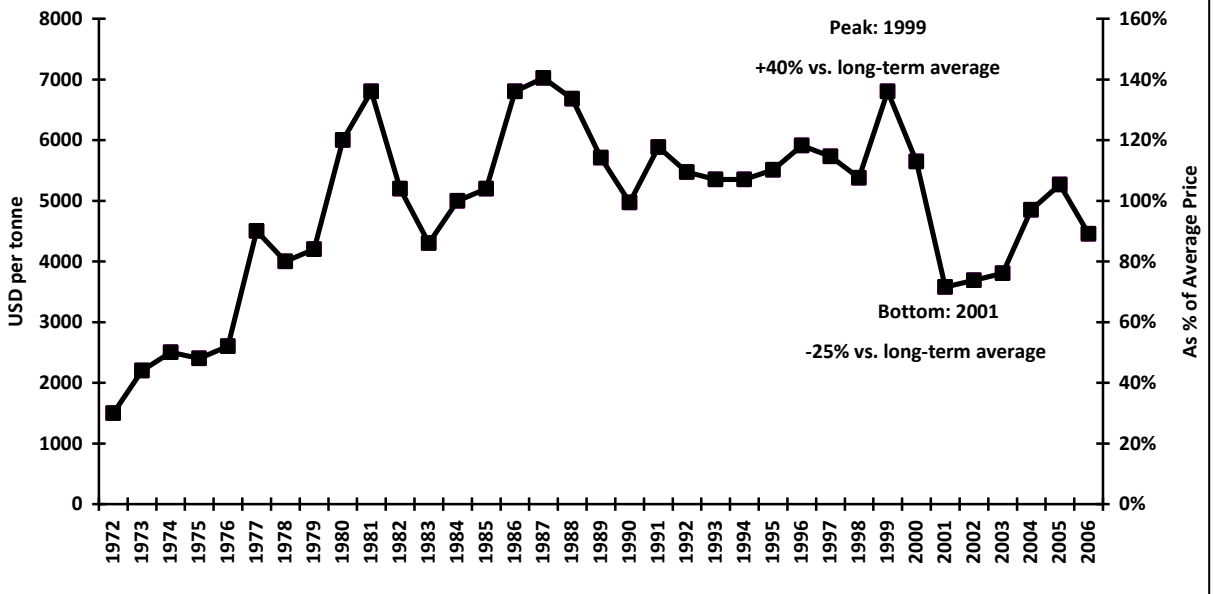


Chart 10: Kernel Price (FOB, W320, India, 1972-2006) absolute (left) and as % of average (right)
Source: TechnoServe, Industry interviews

Kernel prices don't tend to show significant seasonality: a simulation on daily prices from 2004 to 2006 shows that price doesn't move by more than 2% from its yearly average (see chart 11). A slight peak is to be expected in October, while December/January prices tend to be the lower.

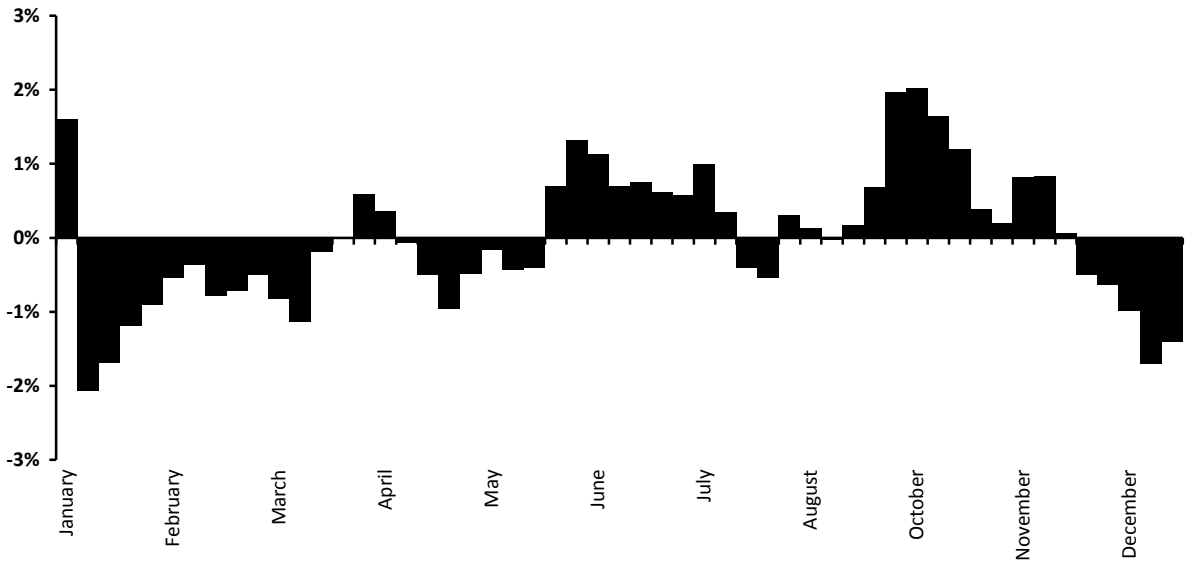


Chart 11: Seasonality of Kernel Price (FOB, W320, India), Weekly; Variation versus Average (2004-2006)
Source: Cashew Week

The price of the raw nuts is determined by the price of the kernel, and it follows it closely, with a gap of 25-35% of the price of kernel which covers for the costs and margins of processing (see chart 12). This, incidentally, indicates how processing must operate in a very tight value chain, where all costs must be minimised according to best practice in order to reach profitability.

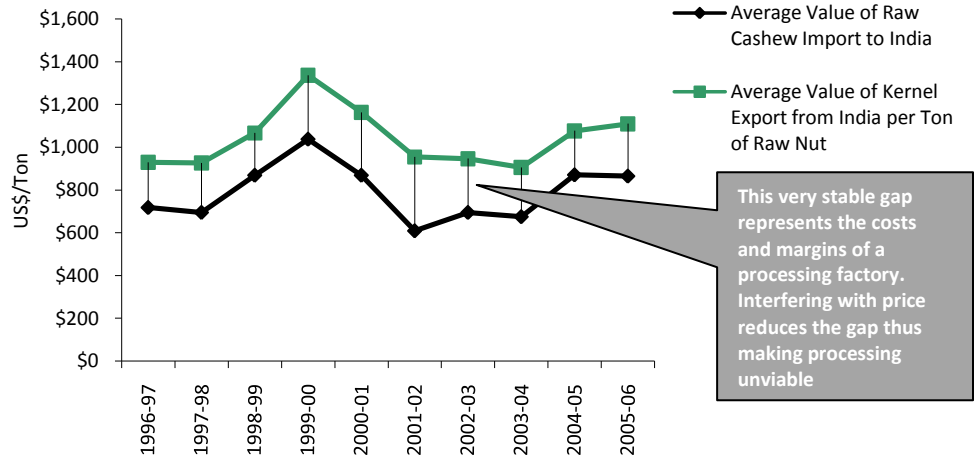


Chart 12: Gap between price of raw cashew and price of processed cashew, per unit of weight
Source: Indian customs, West India Cashew

When compared to its substitute products, cashew has a number of significant competitive advantages but, suggesting that there are large pots of untapped demand. Taking the USA, the most mature cashew market, as a reference:

- Cashew is by far the preferred nut and the second most well known one after peanuts (see chart 13)
- The nut with the best health profile[8]
- With the lowest price per kg (see chart 14)
- As a consequence, it is the leading nut in terms of value of sales, after peanuts (see chart 15)
- However, while health is the key driver of sales of nuts, and cashew has a competitive edge, it does not receive virtually any related coverage (see chart 16).

In summary, this indicates that there is much room for promotion of the industry in the USA, and even more in less mature markets in Europe. One possible reference is the Californian Almond board, which drove a comprehensive marketing campaign leading to extensive coverage of almonds, which in turn drove growth in the top-of-mind awareness (from 9% to 16% in 2 years) and preference (11% to 15% in 2 years), thus increasing both demand and prices for almonds, despite the fact that that nut is less competitive than cashew on all dimensions.

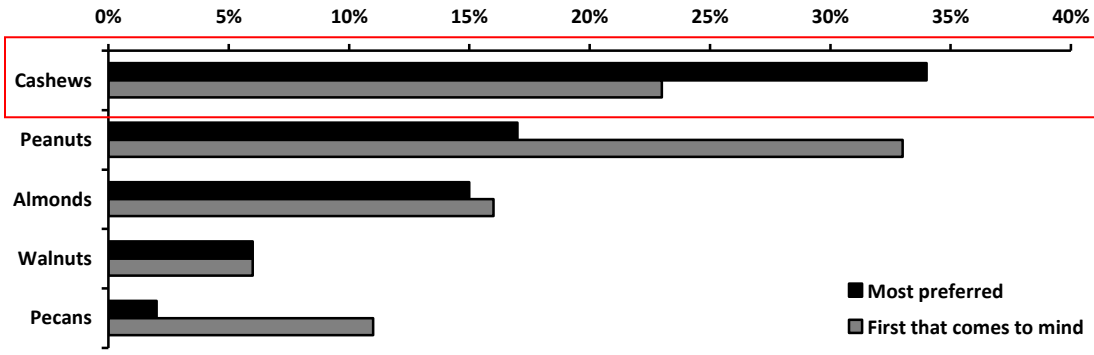


Chart 13: Preference and top of mind awareness of nuts, USA
Source: Almond Board 2004: Consumer AAU Top-line

[8] It is the nut with the lowest fat content, and the highest content of carbohydrates, of the low glycaemic, energy-boosting sort. It contains no cholesterol and is high in protein, like other nuts. it is a good source of vitamin B and K, and is high in phosphorus, magnesium and iron (Kraft et al, 2005).

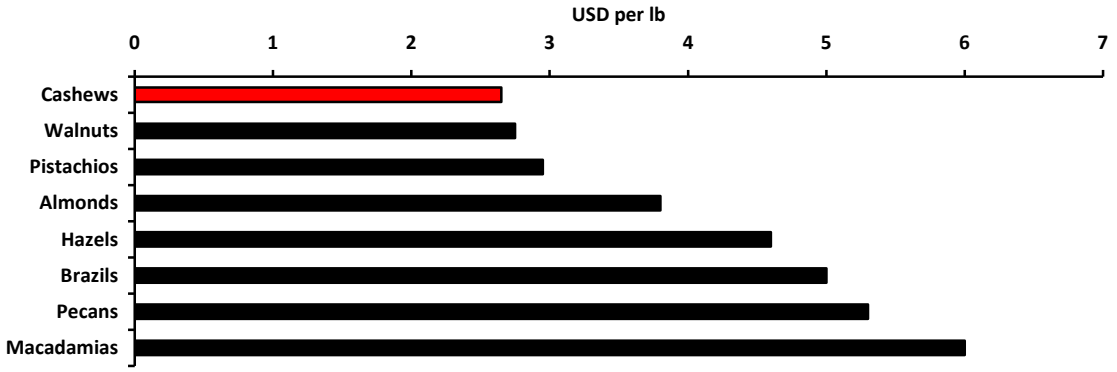


Chart 14: Price per unit of weight, USA
Source: Trade

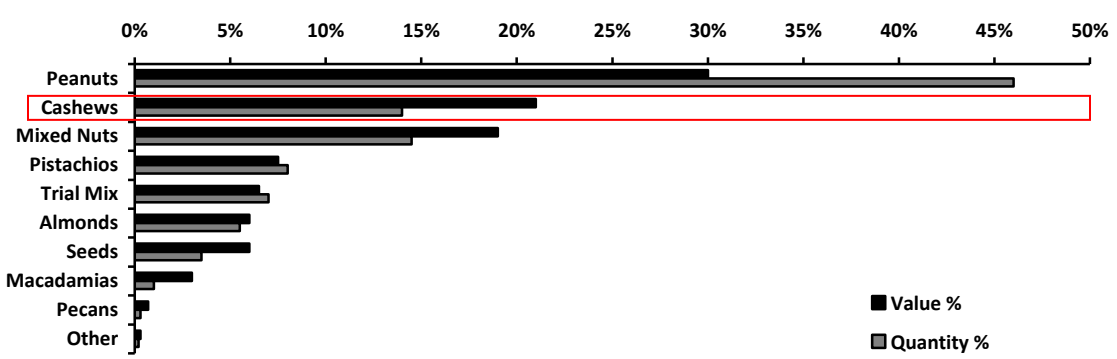


Chart 15: Market share, USA
Source: AC Nielsen, March, 2005

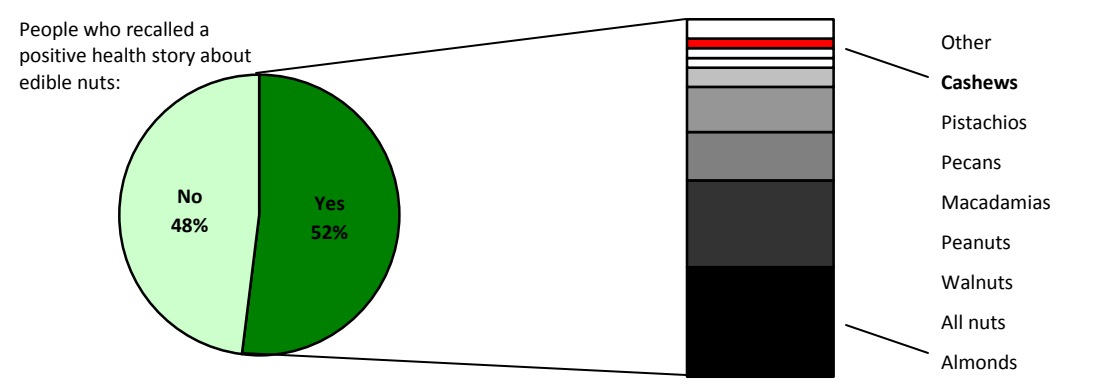


Chart 16: Press coverage, USA
Source: Almond Board 2004

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Overview of Tanzanian cashew

Overview of Tanzanian cashew: Production

Tanzania is one of 5 traditional cashew producing countries.[9] It used to produce over 20% of global production in 70s (see chart 17), peaking at 140,000 tonnes, but then in the 80s collapsed to some 3% (20,000 tonnes). The reasons for the drop are still being debated, but it is very likely to be associated to the villagisation programme, that drew farmers away from their land and trees, which ended up mostly abandoned; this is likely to have facilitated the spread of the Powdery Mildew Disease (PMD), which is typical of East African cashew and became widespread around this time. This in turn reduced production even more. In the 90s production picked up again, thanks to the return of farmers to their land, re-planting efforts, an increase in the use of fungicides to address PMD, and liberalisation of the trade of raw nuts, but as this momentum was lost, and as prices dropped in 2000-01 (see also chart 10 above), growth stagnated. As other countries have been growing their production, Tanzania has firmly moved from a first-tier to a second-tier producing country, far behind India, Vietnam, Brazil, and Cote d'Ivoire, and roughly at the level of Indonesia, Benin, Guinea Bissau, Nigeria, and Mozambique.

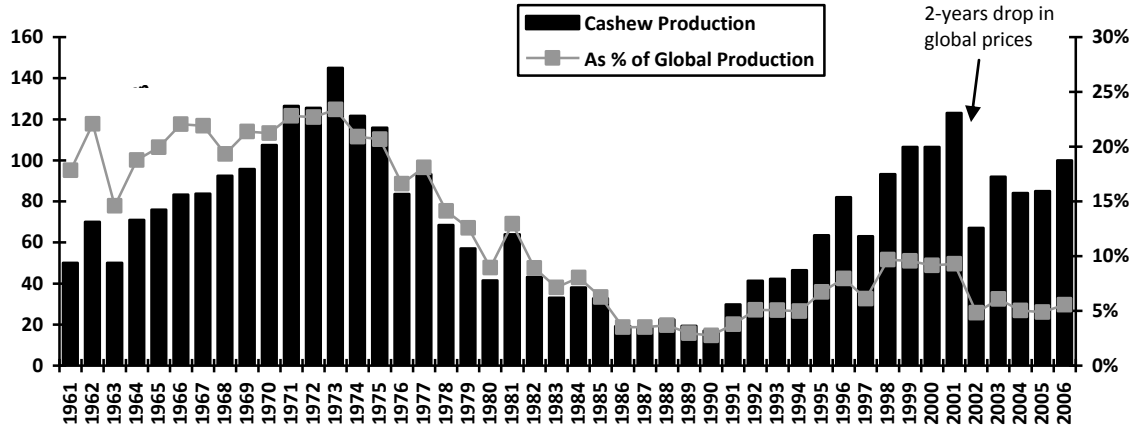

Chart 17: Tanzanian production volumes over time, total (left) and as % of global production (right)
Source: Cashew Export Promotion Council of India, Trade estimates, TechnoServe

[9] The other ones are Brazil, Mozambique, India and Guinea Bissau.

The main cashew producing regions are in the south, notably Mtwara and Lindi (typically accounting for more than 50% of national production) and the Tunduru district in Ruvuma; another 20-30% of production is spread along the coast (see chart 18). Altogether the cashew growing areas account for roughly a quarter of Tanzanian territory.

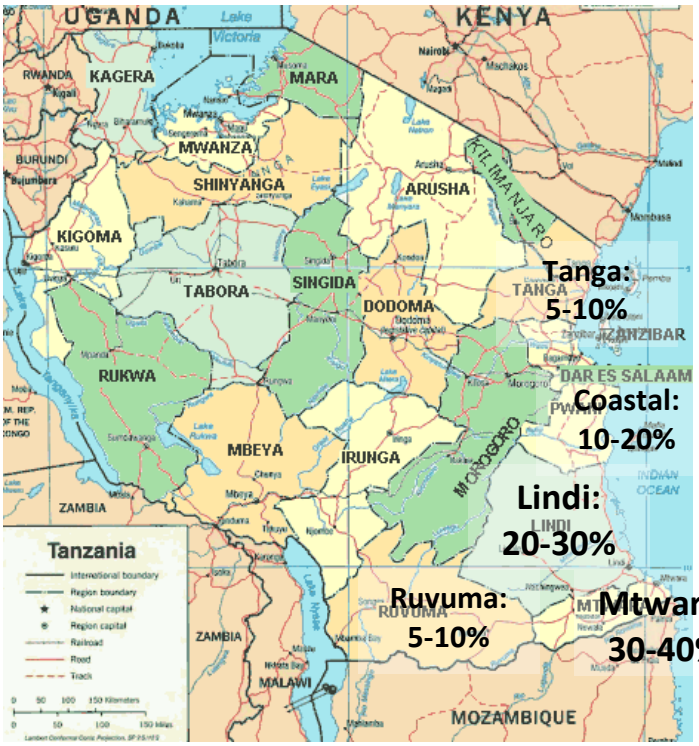

Chart 18: Tanzanian cashew production, per region
Source: TechnoServe

Cashew currently accounts for some 5% of total export earnings, and is consistently on of top 3 agricultural exports, along with tobacco and coffee (see chart 19). Approx. 25-30% of the export value of cashew comes from cashew kernels.

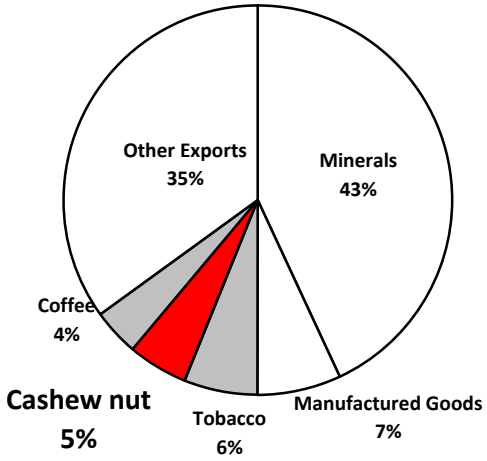

Chart 19: Tanzania export earnings
Source: Government of Tanzania, Economic Survey 2002

Cashew has a tradition of being an 'unmanaged' crop: for many farmers it merely involves picking the nuts of the trees that happen to grow in 'their' land when the season comes, typically amounting to 100-300 kg per farmer, storing them in occasional shelters and bags, and selling them as soon as possible, through whichever channel is available. Most farmers, in other words, take cashew as a 'godsend', as opposed to an asset they can invest on, in time, effort or resources, to maximise output. This is why typical yield per tree is at least 3-4 times lower than it could realistically be, and, due to a typically erratic distribution of trees, yield per hectare is up to 10 times lower than it could be. Once farmers collect what they perceive as their 'natural endowment' of cashew, they don't realise it is so many times smaller than it could be, but instead they are inevitably only preoccupied with the price per kg, which they simply hope to be as high as possible with no regard to global markets, and over which they always express dissatisfaction. The cashew apple, the large fruit of the cashew tree, or 90% of the yield of the tree, is mostly abandoned, only occasionally treated and consumed dried, as a jam or as liquor. At most it is used to trade in kind, e.g., as a reward for occasional labourers.

The price of the raw nut has historically been around Tsh 500-700 per kg, so the average farmer is unlikely to earn more than USD 200 a year, which can represent 60-100% of the cash income

of the whole family.[10] This profile is very entrenched as most cashew farmers are at least in their 40s (see chart 20 with a snapshot of an average cashew farmer).

• Age	47
• Family size	6
• Total farm size	4.7 hectares
• Cashew : non-cashew	95 : 5
• Trees per hectare	56
• Typical yield	2.5 kg / tree
• Annual total income / farmer	320,000TSh
• Farm : non-farm	70 : 30
• Annual cashew production 'profit'	183,000TSh
• Assets:	
• Mud house with iron sheet roof :	47%
• Radio	77%
• Bicycle	68%
• Other crops: maize, cassava, simsim, groundnuts, cowpeas, rice	

Chart 20: Profile of average cashew farmer
Source: TechnoServe survey, 2005

Most of the cashew trees in Tanzania have been planted in the 60s, with another small wave of replanting in the 90s (see chart 21). As a consequence, around 60% of the trees are above the optimal age, and only 20% are most productive. Many of the oldest trees should actually be cut: they produce almost no cashew, they are likely to be too close to other trees, thus reducing their productivity as well, some farmers may spray them with inputs, which is cost-ineffective, and the wood can actually be used for more profitable purposes.

[10] This doesn't include non-cash income, such as the produce of their land used for subsistence, typically maize or cassava

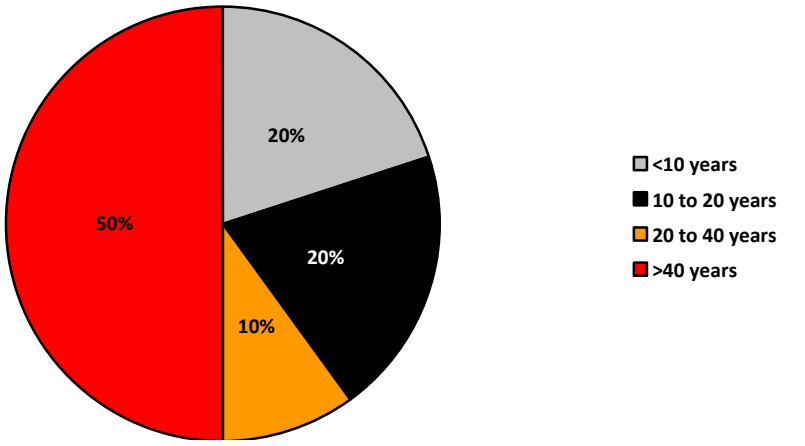

Chart 21: Breakdown of Tanzanian trees by age
Source: ECI Africa (DAI-PESA), Cashew Nuts Sub-sector Study (Oct 2003); TechnoServe

To stress the point about cashew being an 'unmanaged' crop, it is worth noticing that over 50% of year-to-year variance in production depends on the cashew price of the previous year (see chart 22, where every dot represents a year's production versus previous year's price).

This indicates that, if the season is good, the following year farmers will make a much greater effort to take care of the trees, and to collect the nuts of unexploited or 'wild' trees that are still to be found in cashew growing areas.[11] A 10% increase over typical price will increase production by approx. 5% (see "straight" line in chart 22).

Unsurprisingly, this effect diminishes with very high prices, and increases with very low prices (see "curved" trend line in chart 22), indicating that many farmers will essentially choose whether or not they make an extra effort with their cashew activities depending on whether the previous year was a 'good price' year or not.

[11] The CBT estimates that up to 50% of Tanzanian trees are not being consistently exploited. This is probably an overestimate but it offers a measure of the phenomenon.

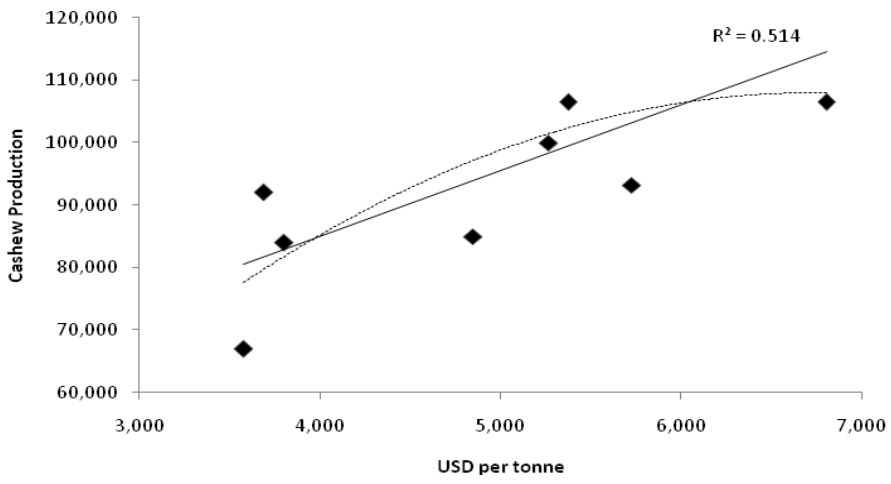

Chart 22: Tanzanian production as determined by previous year's raw nut price (1998-2006)
Source: Cashew Export Promotion Council of India, Trade estimates, TechnoServe

The main sort of association for farmers is the Primary Cooperative Society (PCS). The notion of cooperative has been recurrent in Tanzanian policy, probably because of its socialist inspiration. As such, the PCS has always been seen as the main form of aggregation for farmers. In its latest form,[12] they are democratic entities that can be established by farmers themselves, with the assistance of the District Cooperative Officer (DCO). All farmers contribute with some one-off fees[13] and own shares of it, and elect their representatives. The PCSs spread on the territory aiming at being one per village (not more and not less); even if the recent legislation removed the rule that forbids more than one PCS per village, it is still in place de facto.

PCSs have numerous privileges, from a dedicated resource in the local administration, as mentioned above, to a virtual monopoly in the distribution of agricultural inputs, to the right to measure the quality of the crop, to the monopoly in the trade of raw nuts (of which more below). They are also the most well known form of association, along with the credit cooperatives SACCOs. This state of affairs explains at least in part why other kinds of

[12] Cooperative Reform and Modernization Program (CRMP); the Cooperative Development Policy, 2002; the Cooperative Societies Act, 2003; the Cooperative Societies Rules, 2004
[13] Typically Tsh 12,000 per person, which is not cheap but affordable for most farmers.

associations, while legal,[14] are very rare and typically play a marginal role. Those that are active are typically supported by foreign Non-Governmental Organisations (NGOs).[15]

Overview of Tanzanian cashew: Agricultural inputs

Unlike the Latin American, Asian and West African sorts, since the 70s the East African cashew has been heavily affected by the powdery mildew disease (PMD), a fungus that makes trees unproductive and ruins the fruits. The productivity drop of a tree with PMD is estimated at 70-100%. Consensus around a solution, the spraying of sulphur dust prior to the blooming season, was reached soon after the disease had been identified, and so it was subsidised; however, efforts to broaden its use, such as those led by the donor-funded Cashew Production Improvement Pilot Project (CPIPP) in the 80s, were unsuccessful. New types of inputs emerged, such as water-based organic fungicides, in part because sulphur dust is thought to harm the land in the long run by acidifying it. In the early 90s the main channels for the distribution of inputs, credit-schemes managed by cooperative unions, ceased to operate with the liberalisation of the cashew market. Since then, a private-sector-driven effort, led by the bank CRDB, failed due to widespread defaults on credit and to an inefficient distribution process.

In 1994, the main cashew-producing areas introduced district-level Input Trust Funds (ITFs),[16] which collect revenue from a levy on cashew trade of approx. Tsh 30 per kg or 3-6% of farmers' revenue. These ITFs, topped up by central government funds that subsidise up to 50% of the purchase of inputs, are supposed to enable every farmer to get access to inputs for the following season.[17] In other words, the inputs are effectively pre-paid, and each farmer is supposed to receive a quantity proportional to her contribution to the ITF. Data from 2005-06 indicates that, in fact, approx. 25% of the funds collected for the ITFs was destined to other

[14] The Agricultural Associations Act, 1964
[15] Such as Concern, ActionAid, or TechnoServe
[16] The Agricultural Inputs Fund Act, 1994
[17] Sulphur dust is subsidised 'only' at 30% to disincentivise its use.

uses.[18] In 2004 the management of the ITFs, as well as the selection of the input providers, was centralised, going from the district administration to the Cashewnut Board of Tanzania (CBT), the national crop board. However, as things stand the CBT doesn't play a formal role, other than that of facilitator with regards to the distribution of subsidies.

In order to participate in the market, input suppliers must get their product approved by the Naliendele Agricultural Research Institute and by the Tropical Pesticides Research Institute (TPRI), which can take between 1 and 3 years. Once it is approved, they need to start distributing it on the territory. Every supplier typically does that by establishing its own network of agents negotiating with the extensive network of Primary Cooperative Societies (PCSs). These entities control the ITFs proportionally to the trade of raw nuts that passed through them during the previous season, and are in charge of choosing the suppliers, placing the order with them, and distributing the inputs to farmers, on the basis of information they gather about the production of each of the farmers they represent. The negotiation between suppliers and PCSs is unmonitored and obviously open to abuse. The chosen supplier delivers the required quantity of inputs to the PCSs and the share from the ITFs is paid by the PCSs via its agents, while the share from the state subsidies is paid by the CBT.

Once the inputs are with the PCS, they are supposed to be distributed to farmers on the basis of their contribution to the ITF from previous year. In reality what actually happens at this point is unclear: inputs appear to be scarcely available, distributed in quantities corresponding to widely varying prices,[19] and by a variety of outlets, including primary societies, district administrations, union branches, and even private shops. PCS members get privileged access to the inputs.[20] In some instances the inputs were actually sold, as opposed to distributed, meaning that those farmers were paying twice for them. There are no clear, explicit rules about

[18] Specifically, the enforcement of a policy requiring farmers to declare their cashew assets, which could be dispossessed if they are not used productively; incidentally, this policy induces farmers to consistently underreport the number of trees they own

[19] The prices at farmer level are not communicated, because the inputs are pre-paid, so the farmer simply goes to the PCS and receives a quantity of inputs that is supposed to be proportional to the farmer's contribution to the ITF. However, looking at the quantities received by farmers, and at their contribution from the previous year, equivalent prices from US $0.43 to US $0.68 per kg were observed in 2005 (REPOA, 2007).

[20] this is in fact the main reason why a farmer would join a PCS, as a PCS manager pointed out to us.

input distribution; hence, this state of affairs varies significantly from district to district and even from village to village.

To summarise the status of the input markets in cashew, different sources indicate that between 70%[21] and 80%[22] of farmers don't use inputs on their trees.

Overview of Tanzanian cashew: Trade of raw nuts

As noted above, the buyers of Tanzanian raw nuts have always been predominantly foreign, mostly from India, although in the past decade a small cashew processing industry, now purchasing some 20% of local production, has hesitantly emerged.

The operations associated with this trade are very challenging: efficiently getting several tens of thousands of perishable goods, produced in areas equivalent to almost a quarter of Tanzania and poorly covered by roads, from some 300,000 smallholder farming families to 2-3 dozens of foreign buyers, is no easy task. So is figuring out the most effective way of doing it.

At independence, as with all other export crops, this task was attributed exclusively to a national marketing authority. The precise role of this authority has varied over time, but up until its latest incarnation from 1993, the Cashewnut Board of Tanzania (CBT), this authority had a formal monopoly on the purchase and sale of raw nuts.[23] In essence, farmers would deliver their goods at a set price to the PCSs, which would transfer it, typically with the collaboration of cooperative umbrella entities or unions, to the marketing authority. This would sell to foreign buyers either via an auction or via an Indian trading association, India being the main market for raw nuts. Through the 80s and the 90s cashew trade went through a gradual liberalisation, essentially by permitting private actors both to purchase from farmers at local go-downs (typically managed by PCSs), and to export. The marketing authority lost its export monopoly in 1993,[24] and was transformed into the CBT, a sector-specific regulatory body. This liberalisation occurred unevenly both over time and throughout regions, but by the mid 90s it

[21] Agricultural census, 2003
[22] Voice Of the People survey, 2007, from REPOA, 2007
[23] The Cashewnut Industry Act, 1973; The Tanzania Cashewnut Marketing Board Act, 1984
[24] The Crop Boards (Miscellaneous Amendments) Act, 1993; The Cashewnut Marketing Regulations, 1998; Ministerial Circular on crop boards, 2006

involved the direct bargaining between farmers and buyers, typically middlemen acting on behalf of the actual final buyers.

The reasons behind this liberalisation were not specific to cashew, as other export crops were liberalised as well; one of the main reasons was the widespread disappointment with the operators of the monopoly, notably the PCSs and cooperative unions. In cashew, the dissatisfaction with the status quo was overshadowed by the industry's near-collapse in the 70s-80s, when, as seen above, production fell to a fraction of its peak and ambitious attempts to develop a local processing industry failed.

While in the first couple of years the liberalisation of the trade of raw nuts seemed a success, with the entering of many new buyers and an increase in farmers' revenues, soon disgruntlement started to spread again. Farmers, followed by public officers, started to claim that prices were kept artificially low, as buyers, mostly foreign, were colluding into a 'cashew cartel'. To tackle this issue, CBT started to organise a pre-buying season meeting supposed to allow buyers and farmers to agree on an 'indicative price'. This price was merely meant to assist farmers in negotiations, but most intended it as a return to the pre-liberalisation 'minimum price'. However, this minimum price was in practice unenforceable in a liberalised environment: this led to great confusion and exacerbated greatly the lingering conflicts within the industry. So, even if the industry was unfortunately plagued by numerous other very significant issues, from productivity at one fraction of its potential, to limited and fragile in-country processing, to farmers' dependence on cashew for their income, to scarce access to agricultural inputs and credit, at this point the attention of all stakeholders focused almost exclusively on the trade of raw nuts.

Hence, in October 2007, single-mindedly aiming at finally disintermediate the trade of raw nuts, the Ministry of Agriculture introduced what it called a 'Warehouse Receipt System' (WRS) for the trade of cashew in the main cashew-producing areas of Mtwara and Lindi. In a WRS, farmers deliver their crop in dedicated warehouses, and receive a receipt in return indicating the amount of crop.[25]

[25] The Warehouse Receipts Act, 2005

Typically a WRS's primary goal is that of 'collateralising' farmers' goods, that is, to permit farmers to borrow using their crop as collateral. This notion of WRS is behind the WRS legislative act introduced in 2005, as well as Tanzanian pilot programmes in coffee, cotton, rice and maize, and global and pan-African practice. This collateralisation, however, is profitable only if the price of the crop fluctuates both significantly and predictably, as in maize: farmers could borrow when the price is low, and then, by selling when the price is high, they can recover borrowing costs and make a profit. This is not the case with cashew, where intra-seasonal price fluctuations are very hard to predict (see chart 11) and, at some 20% of average price, too low to compensate for borrowing costs (see chart 23).[26]

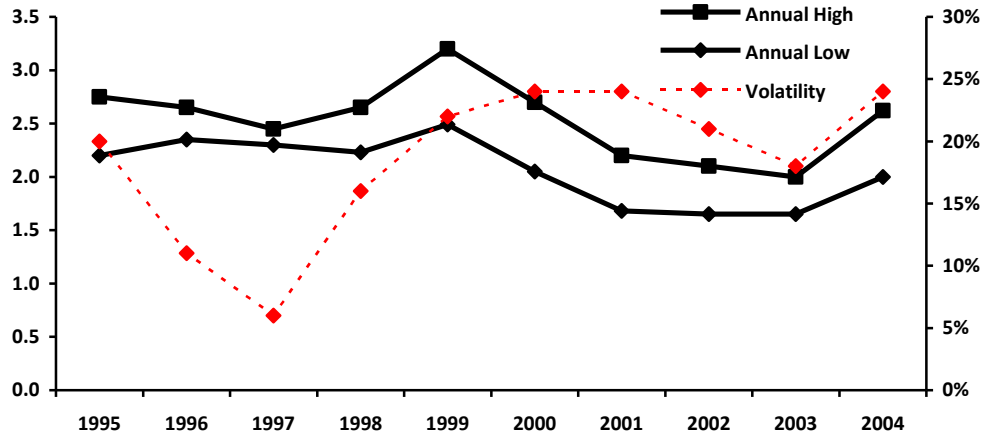

Chart 23: Kernel price: minimum, maximum (left), and volatility (right)
Source: West India Cashew, Kraft, Olam International

But, as already pointed out, the purpose of the introduction of a WRS in cashew was to by-pass the middleman. It did so by getting the farmer to sell exclusively to PCSs, which paid farmers a general base price with money loaned from a bank[27] and deposited the goods in authorised warehouses, typically processing factories.[28] Cooperative unions then organise weekly closed

[26] Worth pointing out that volatility tends to fluctuate with price. This indicates that
[27] National Microfinance Bank (NMB) for Mtwara PCSs, and CRDB Bank for Lindi PCSs.
[28] In the area the main industrial activity is that of processing of agricultural product, and the main crop is cashew, so it is not surprising that the largest facilities in the area, apt to operate as warehouses, are the cashew processing factories.

bid auctions for buyers, who must bid above a minimum price and have access to information about the quality of the crop they are bidding for; the winners pay the bank and collect the goods from the warehouse. This system is partially inspired to coffee trade in the North of Tanzania, where some coffee curing factories work as warehouses.

A WRS committee is due to analyse the performance of the system in the next months, and it will be discussed in detail in the following. At this stage we may point out that the pricing was based on the previous year running price for raw nuts (standard grade) paid to farmers of Tsh 600 per kg, increased to Tsh 610 per kg to account for inflation. The costs of the warehouses are estimated at Tsh 240 per kg, making the minimum bidding price for buyers Tsh 850 per kg. In the beginning of the season this price was deemed too high by most buyers: the typical Free-On-Board price for the previous year, which includes the cost of transportation from the warehouse to the port, was Tsh 700-750 per kg. However, the price of kernel and then of raw nuts shot up in November, due to poor production in Brazil. Eventually all Tanzanian cashew from Mtwara and Lindi was sold via the WRS at some Tsh 1000 per kg. Some of the gains from the auctions were returned to farmers. This led to much satisfaction among the policymakers, mirrored in articles in the local press.[29] Farmers initially were much opposed to it, because of the reliance on the PCSs. The farmers in Mtwara were especially aggravated, because their first payment was only 60% of the base price. However, with the end of the season most farmers received approx. Tsh 750 per kg, which was satisfactory as higher than previous year's price. Of course, most people do not realise that the higher prices have little to do with the WRS, as they are driven by global trends.

Overview of Tanzanian cashew: Processing of raw nuts

The first attempts to develop a cashew processing industry dates back to the 50s, and it focused on the manual sort. An analysis of its failure blamed it on to the shortage of adequate labour in the cashew-growing areas in the south, and recommended that Tanzania moved to mechanised

[29] Farmers to benefit from warehouse receipts, IPP Media, November 2008; Cashewnut farmers gaining from warehouse system, IPP Media, March 2008; "Warehouse receipts system successful in cashewnut purchase", IPP Media, April 2008

cashew processing, which relies only marginally on labour and whose imported technology is capital-intensive. This was then the main direction the industry took, and donors gave it a push by funding the establishment of several large mechanised units throughout the country. In the early 80s there were 12 large-scale mechanised factories in Tanzania, for a total capacity well over 100,000 tonnes, while cashew production at that time had collapsed to 20-50,000 tonnes. Because of raw nut supply shortages, as well as lack of necessary skills, erratic supply of energy, and logistical issues, none of those factories ever operated at full capacity, and all ceased to operate by the mid 80s. In summary, Tanzania ended up betting very heavily on the 'wrong horse' in cashew processing, thus consuming funds and decades of energies and goodwill.

As cashew production started to resume in the 90s, a new wave of cashew processing started to develop. This time it was led by local and foreign private sector actors, and based on the most successful operating model, Indian-style manual processing. To promote the development of this nascent and fragile industry, in 2005 the government signed a Memorandum of Understanding (MOU) with the three main cashew processors,[30] establishing a more favourable tax regime in exchange for a commitment to greater investments in their processing factories. This led to a year-on-year 150% increase in processing, which has been sustained so far. However, constant uncertainty in the policy environment, especially around the trade of raw nuts, has not permitted processors to fulfil the MOU and retain the momentum (see chart 24).

[30] Olam International, Premier Cashew, and Mohammed Enterprises Tanzania Limited (METL).

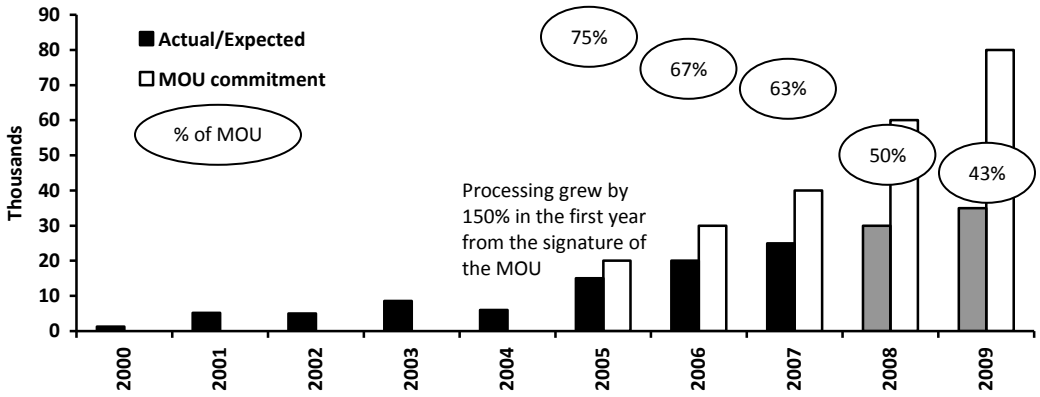

Chart 24: Processing in Tanzania, vs. MOU targets
Source: TechnoServe

At the moment it can be estimated that some 20-30,000 tonnes of local cashew production, or approx. 20-30% of the total, are being processed locally.

Overview of Tanzanian cashew: Policy

The cashew industry has always been highly politicised, because it affects 300,000 smallholder farming families concentrated in a few specific areas, who have grown to expect the state to help them deal with the problems of their cashew activities. At the same time, the majority of the revenue of the local administration in the cashew regions comes from taxation on cashew trade. Finally, the industry is open to a clash of cultures at the stage of trade, as the farmer is consistently Tanzanian, uneducated, poor and dependent on cashew, whereas the buyer is Indian, educated, wealthier and with cashew as one of his/her many activities. Table 1 presents a selection of the most significant processes involving regulation that may affect the industry (see the appendix for a comprehensive regulatory map).

Trade	The cashew WRS was introduced in October 2007. A WRS committee is expected to review the system and propose amendments on the basis of current performance. Two amendments that have been mooted are the opening of the bid system, currently closed and secret, and the extension of the right to deliver to the WRS to all farmer associations, not only PCSs. However, given that most policymakers declare themselves very satisfied with the WRS, it is unlikely that more radical change will take place by itself.
Crop board	All the Tanzanian crop boards have been under review since the beginning of the decade, and most have new legislation. This is not the case with cashew. In 2006 a ministerial circular was issued to regulate the funding of all crop boards, but was ignored. In March 2008, a stakeholders meeting took place to discuss how to implement the circular (following the work of government consultants) and what to include in a new cashew board act. The focus of the meeting was on how to fund the CBT, and who should be in the board; the activities and objectives of the CBT were not discussed. Another stakeholders meeting is expected to take place in April/May 2008.
Cooperatives	Since 2002, cooperatives have been a focus of the president. A "Presidential Special Committee on the Revival, Strengthening and Development of Cooperatives in Tanzania" developed a report in 2002 which was followed by a policy in 2002, an act in 2003, and a set of rules in 2004. The process to review the role of cooperatives in Tanzania is still ongoing.
Minimum wage	New legislation has been introduced to modify the minimum wage environment.[31] This led to much disruption and controversy, as the wages were generally steeply increased than previously. Lobbying from industry bodies[32] led to compromises, including that of using agricultural wages instead of industrial ones, which are 3 times higher, in cashew. However, more is likely to happen on this front, as many stakeholders remain unsatisfied with the current minimum wages.
Business registration	BEST-BRU[33] has introduced new legislation that makes it easier to register a new business: this may be relevant to farmer associations
Land titles	BEST BRU is also introducing new legislation with regards to land titles, that builds on top of recent acts[34] to regulate and facilitate the allocation and renewal of land titles

Table 1: Main legislative processes currently ongoing that may affect the cashew industry

[31] The Minimum Wage Act, 2008

[32] Including Business Environment Strengthening for Tanzania – Advocacy Component (BEST-AC), and the Confederation of Tanzanian Industries (CTI)

[33] The Business Environment Strengthening for Tanzania – Better Regulation Unit (BEST-BRU) aims at introducing legislation that is friendly to the private sector and inspired to international best practices. A donor-funded body embedded in the government, is at least in part stimulated by the World Bank's Doing Business unit.

[34] Notably National Land Policy, 1997, The Land Act, 1999, The Village Land Act, 1999, and The Land (Amendment) Act, 2004

Recommendations for policy reform

Challenges in Tanzanian cashew

We have seen so far that the Tanzanian cashew industry plays a strategic role:

- It is the main source of the yearly $200-300 cash income of some 300,000 poor farming households
- It is the economic backbone of much of Southern Tanzania, both in terms of GDP contribution and in terms of source of tax revenues
- It is one of the top 3 agricultural exports nation-wide

Most importantly, its potential is vast and largely untapped:

- Yield per tree is less than 20-30% of its potential, and most of the land where it grows is badly utilised, with trees 'clustered' together and little or no inter-cropping
- Value-adding processing is limited to 20-30% of total national production
- Given an appropriate operating environment, GDP contribution could triple within 10 years

What is even more puzzling, most policymakers would probably agree that cashew presents significant potential in terms of both economic growth and poverty alleviation. What stops the industry from moving forward?

The industry's needs

In order to answer this question, we will start by analysing what the key players in the industry, farmers and processors, need, and then we will look at the extent to which the current operating environment meets these needs.

As seen above, the typical cashew farmer is poor, uneducated, and not used to focus energies on cashew, yet dependent on it. She will need:

- Access to proper **agronomic training** to address productivity issues

- For the same reason, **agricultural inputs** in the right amount, at the right time and at an affordable price
- Expensive **machinery** to spray the inputs must be available
- A market for **high-quality seeds**: the current trees are often not of the best genetic quality, so their renewal should be encouraged
- To flexibly tap into low-skilled **labour**, occasional or seasonal
- Rural **financial services**, that would help farmers smooth their very irregular cash flow, with a spike during the cashew trading season, permitting them to invest in assets, such as inputs or other crops, which require cash during other times of the year
- **Land titling**, that would help the spread of rural credit by giving them collateral to borrow against, on top of a number of other benefits
- An **efficient and transparent raw nut market**, with buyers as committed as possible to the industry, and with farmers in the position of being able to negotiate with them
- Incentives to reap higher prices for their crop by focusing not only on productivity, but also on **quality**
- An appropriate **logistic infrastructure**, including storage and transport that is cheap, accessible and that retains the quality of the crop
- A **tax environment** at the service of the industry and of the local needs, promoting focus on productivity
- Consistence with special **requirements of the final consumers**, relating for instance to traceability or organic licensing
- Opportunities of **diversification**, in order to lessen her dependence on cashew and the unreliability of its price and productivity; cashew is very suitable to inter-cropping and there are already markets for those complementary crops in the cashew growing regions. It should become a rule of thumb that every cashew farmer must cultivate at least one other cash crop
- Markets for **by-products** which may offer diversification opportunities, from cashew apple, to cashew nut shell and its liquid (CNSL), to the cashew 'skin' that covers the nut,

to old cashew trees and, once cellulosic ethanol becomes a commercial reality, even the waste from the trees. Almost all of these by-products are currently thrown away

- The opportunity to **'vertically integrate'**, by either executing the processing themselves, or, more likely, by collaborating with processors in a number of ways for mutual benefit

Against all these needs, what do farmers actually receive at the moment? A stark answer to that question is provided by a recent survey, Voice Of the People 2007 (VOP), where, when asked what the state does to help them, 75% of farmers answered 'nothing'.[35]

Going through each of the points above:

- **Agronomic training**: a research institute, the Naliendele Agricultural Research Institute, exists to analyse genetic properties of the crop, farming practices, and inputs. However, due to entirely ineffectual extension services, its message hardly ever reaches farmers. There is no information dissemination mechanism, not only with regards to research, but also with regards to anything else, from raw nut trade, to input markets, to diversification
- **Inputs, machinery and seeds**: inputs should be available, with a 50% subsidy and the Input Trust Fund mechanism to transfer cash from the trading season to the input season, but instead they are scarce, very expensive, untimely, and arbitrarily and murkily distributed; blowers to spray inputs are rarely available to the poorest farmers, and if so they need to rent them for a fee; planting new trees largely relies on the use of old ones[36]
- **Labour**: this is only available via informal agreements with neighbour, and it is often rewarded in kind, thus representing a missed employment opportunity in a region that needs them
- **Financial services**: there are no rural financial services to speak of

[35] REPOA, 2007
[36] See the section about input markets for more detailed analysis

- **Land titles**: virtually all smallholders don't have title for their land, which is attributed to them due to informal legacy reasons[37]
- **Efficient raw nut market**: cashew farmers were for over a decade at the mercy of middlemen, but a Warehouse Receipt System (WRS) was introduced last season to tackle this issue. It is early to tell to which extent the system is effective and/or sustainable, especially as last season was benevolent bringing high global prices thanks to a drop of production in Brazil; it did eliminate farmers' dependence on middlemen; yet, being a monopoly, the WRS is by definition expensive and inefficient: as an illustration, the share of FOB price reaching farmers went from approx. 83% (2006/07) to approx. 75% (2007/08), and had it stayed the same, in the last season farmers would have earned an extra Tsh 100 per kg, or over 10% of their gross earnings
- **Rewards to quality**: the WRS doesn't reward quality: the crop is only roughly split into two quality categories, whose price differ by 20%; further, farmers are forced to sell via the WRS only, which makes it impossible for them to collaborate with processors on quality, thus missing the premium they could otherwise reap
- **Infrastructure**: there are some storage facilities in the area, but bad roads make transportation very difficult or impossible when the heavy rains come; cashew transportation is also often subject to armed theft
- **Taxation**: taxes are extremely high: local administration relies almost exclusively on cashew for their locally funded budget; A labourer is taxed at 2-3%, while a cashew farmer, that often earns less, is taxes at between 10-25%, depending on the district[38]
- **Link with final markets**: farmers have always been completely detached from the final consumers; implementing traceability would be a great challenge; the WRS is unfriendly to development of niches of demand for cashew[39]

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[37] in some regions, some of the funds supposedly collected to purchase inputs are diverted to monitor that farmers make use of their trees: if they are found lacking they can be fined or dispossessed

[38] District variations also lead to the paradoxical phenomenon of inter-district smuggling during the trading season.

[39] An entrepreneur has been attempting to launch an organic cashew business in Masasi, in the Mtwara region, but this has become virtually impossible because of the WRS, which mixes his certified organic nuts with the non-organic ones, and would forbid him to sell directly to organic-friendly exporters; a processor, Olam, had exactly the same experience with a farmer group they collaborated with for years. Again, in both cases the farmers have lost the premium of up to 20% because of the WRS.

- **Diversification**: there is no coordinated effort to help farmers lessen their dependence on cashew, and in fact the opposite is more likely to take place: the local administration is almost only familiar with cashew, so it is unlikely to promote any other crops, and locally influential institutions, like the CBT, have a vested interest in keeping farmers concentrated exclusively on 'their' crop
- **By-products**: there is no concerted initiative to explore the potential of cashew apple or other by-products[40]
- **Processing**: collaborations with processing used to be feasible, and some experiences proved to be very successful,[41] but the WRS made them all impossible

It should be clear that the operating environment could hardly be less supportive for farmers. Are there **institutions** devoted to identify and address these issues?

One obvious way to tackle these issues would be for farmers to organise in **groups or associations**, to pool resources and skills to drive change on at least some of these dimensions. The Primary Cooperative Society (PCS) represents the basic form of farmer association in Tanzania. In practice, unfortunately, PCSs are little more than storage places deputed to assist in the collection of local taxes and in the distribution of inputs. Especially in Southern Tanzania, they are renowned to be opaque power centres, and distrust in them is widely spread among farmers. As an instance of both their status and of their role in the industry, last year the leaders of six of the most egregiously dysfunctional PCSs of the cashew regions were fired by the ministry of agriculture and substituted with appointed employees of the ministry, despite the fact that cooperatives are supposed to be self-regulating bodies electing their own representatives: with that intervention, the ministry was in effect underwriting the failure of the PCS as an institution. Another example of the reputation of PCSs is the infuriated reaction of most farmers in Mtwara when they learned that the WRS mechanism would see them

[40] Some processors attempt to make use of by-products resulting from the processing, such as the shell, the CNSL, or the peel, but they are marginal efforts, and their gains, if any, do not filter back to farmers.

[41] Notably the TechnoServe's Farmer Business Groups (FBGs), see below and the box in the "Processing" section for more details.

delivering their crop to PCSs and receiving only 60% of the base price upfront, the rest following in subsequent payments: most assumed they would never see the second payment.[42]

Associations other than PCSs have a negligible role, both because farmers don't have or can't get access to the skills to manage them properly, and because associations are constrained in the types of activities they can perform, meaning that there is a state-controlled quasi-monopoly in farmers' groups, dominated by the entirely inadequate PCSs. Promising initiatives have taken place, such as TechnoServe's Farmer Business Groups (FBGs)[43] but the policy environment is very unfavourable to innovative projects: not only FBGs have been struggling to identify and adopt the most convenient legal framework to operate, but most of their activities were made impossible by the WRS, as they were based on collaboration with processors.

Similarly, an **industry body** should be capable of analysing the industry and identify this large set of unfulfilled needs, and propose ways to address them. A body exists that is supposed to do just this, the CBT, as advice on regulation is part of its scope. However this body is entirely dysfunctional: its impact on the industry is virtually absent, most farmers associate it with the (now ceased) practice of what they interpreted as price fixing, and it would be hard to pinpoint one initiative the CBT undertook that led to significant gain for the industry. This is perhaps not surprising, as, against the dedicated 1984 act, no farmer, and in fact no representative of the private sector sits on the board, and the CBT has no clear objectives other than the generic development of the industry.

With regards to processing, most stakeholders will agree that it should and could play a strategic role in the industry. It is possible for a cashew processing industry to flourish, as demonstrated by the case of Mozambique, where in 5-8 years some 20 new factories started, and processing went from 3-5% to 35-40% of total production, despite the fact that the quality

[42] The second payment did reach farmers eventually; this, however, should not be seen as a redeeming factor of PCSs, but as a sign of the commitment of the Ministry of Agriculture to the WRS, indicating that, when commitment is in place, the ministry can deliver. However, as noted below, the following payments were not quite as high as one would have expected.

[43] In the FBGs farmers are trained in agronomic best practices, get credit for inputs from buyers, who are repaid as they purchase the cashew nuts, and receive a premium for higher quality produce: as a result of these activities, farmer income grew by over 30% in one year.

of their nuts is lower than average. Also Tanzanian processing has grown in the recent years, but it is very fragile and every year could collapse. What is holding processing back in Tanzania? Like with farmers, we will list the needs of a processor, and then look at how these needs are being fulfilled.

- A consistent **policy environment** that provides incentives to long-term investments and helps to compete internationally[44]
- An **efficient, transparent raw nut market**: in the long term this would reward the most committed processors whilst penalising those who aim to take advantage of the low negotiating power of producers
- Opportunity to **purchase in bulk** from 'aggregations' of farmers and in easily accessible locations
- **Market linkages** to the international markets, and opportunity to aggregate with other processors, which, especially in cashew, permits to significantly improve their negotiating position
- Facilitation of the development of a **local market** for cashew kernel
- Market-friendly **taxation** environment
- **Access to credit** in large and reliable amounts, as well as other financial services, e.g., insurance
- **Storing and logistic infrastructure**, including the roads and the port; Logistics are particularly important, as every year some 20,000 tonnes of perishable produce need to be transported from some of the remotest parts of Tanzania to the processing factories, and, once processed, from there to the harbour
- Flexible and reliable access to cheap and productive **labour** that can be rewarded on the basis of their performance

[44] This point is the one that emerges most often from conversations with processors. Processing must achieve a certain scale to have a good chance of being globally competitive, with annual capacity of at least 2,000 tonnes of raw nuts. The minimum initial investment is in the order of magnitude of US$ 1 million, for raw material, machinery and facilities on lease. Processors then need to operate as effectively as possible on thin margins, to break even, in the best circumstances, in 5-7 years. Hence, an entrepreneur who invests these large amounts needs the absolute confidence that, in the long term, the key profit drivers, from cost of raw material to labour and taxation, are predictable, so to ensure that the margins are not being eroded. One year of adverse conditions can jeopardise the whole investment.

- Access to adequate **facilities**, either for purchase or for rent
- Access to high-quality **machinery**
- Means to measure and reward **quality** both when purchasing and when selling
- Access to **technical assistance** and international best practices
- Efficient **by-product markets**, incl. cashew nut shell and cashew nut shell liquid
- Opportunity to **diversify** to 'adjacent' products

How does the Tanzania cashew industry fare on those requirements?

- **Policy**: the operating environment in cashew is notoriously erratic and unreliable; the most notable swings on cashew policy in the past decade or so had to do with the trade of raw nuts, and specifically their price: see below
- **Raw nut marketing**: cashew processing operates on what may be described a very 'tight' and competitive value chain (see chart 12 above): the globally traded price of raw nuts and that of kernel follow each other very closely, with a gap of 25-35% of the price of kernel. It is in that narrow gap that a processor must work, by purchasing and selling at market prices, and squeezing all costs as much as possible in order to make a profit to sustain the business. When the Tanzanian market for raw nuts was liberalised in the 90s, the intention was to let market forces act. However, this didn't happen: despite early successes, as farmers were left alone to negotiate with often unreliable middlemen, discontent started spreading amongst them, and policymakers intervened by setting an 'indicative price' for raw nuts. This was an attempt to help farmers negotiate, but it soon became tantamount to price fixing, with policymakers punishing buyers or sellers who were trading at prices lower than the indicated one. This meant not only that processors saw their margin erode, as the price was normally set higher than market prices to appease farmers, but also that they couldn't plan their revenues for more than one year, because they didn't know what the price would have been for the following ones. By intervening on the one most important profit driver of a cashew processor, the cost of the raw material, which constitutes 75-80% of their revenues, policymakers made it impossible to establish a sizeable, sustainable processing business. As seen above, the

last season saw the introduction of a new trading system, so-called Warehouse Receipt System (WRS), where buyers bid for 'lots' of cashew, starting from a minimum bidding price. The WRS can work for processors if the bottom price it is based on remains low enough. This was not the case last year: in the beginning the minimum price was too high, and some processors were priced out of business. Only thanks to fortunate circumstances, namely a drop in Brazilian production that led to a 30% increase in global cashew prices, the WRS pricing ended up being economically viable a few weeks into the buying season. Many stakeholders do not realise that the system worked only thanks to luck. Hopefully next year's minimum bidding price will be more aligned with global markets. Further, the WRS doesn't permit processors to plan their inflow of raw materials to work at full capacity, as the result of the auctions is by nature unpredictable. The WRS has two convenient aspects from the point of view of the processors: it permits to purchase in bulk, avoiding the management of procurement at farmer level, and it provides detailed information about the quality of the crop that is being auctioned

- **Market linkages and local market**: processors have no support in the identification of buyers for their kernels; similarly, there is no concerted effort to develop local markets for kernels; these are areas where a strong industry body would add significant value
- **Taxation**: the tax environment is essentially neutral to processing; the main, important, exception, regards the export tax on raw nuts, driven by the 2005 MOU between processors and the government: it provided a significant incentive to processing, chiefly in two ways: it removed a 1% levy on export of cashew kernel, and it increased the levy on export of raw nut from 3% to 10%. As the price for raw nut is set globally, this meant that processors could source their nuts locally at a discount of approx. 10% on global prices. As farmers are thus the indirect providers of this incentive to local processing, the revenue from this tax is (supposed to be) channelled back to farmers in the form of subsidies to agricultural inputs and other services
- **Credit**: it is hard to access for smaller players, especially as the cashew industry has a reputation for being unreliable; soft loans have been available to well-connected

companies purchasing the disused large mechanised factories: however, most of them are not operating

- **Infrastructure**: it is notoriously poor, notably the port of Dar es Salaam and the road from Mtwara to Dar es Salaam; reliable energy is a particularly critical issue for mechanised factories in the south, which often must stop operations because of shortages in electricity supply
- **Labour**: it is the second largest profit driver for manual processing; new minimum wage rules, active from January 2008, not only erode margins, but make it difficult to incentivise the most productive labourers by offering them rewards for their extra output. Processors typically offer labourers a basic salary, plus a bonus driven by their productivity:[45] the new rules impose processors to increase the basic salary for all, thus forcing them to reduce the bonuses for the best performing workers. This clearly ends up reducing productivity and then profitability.
- **Facilities and machinery**: good facilities are not very common; what is worse, they are difficult to lease: recently a processors spent 2 years to get a permit to expand its activities; machinery for manual processing is generally available
- **Quality**: while thanks to the WRS processors have visibility over the quality of the crop being purchased, quality at farmer level is recognised only very crudely, with nuts being categorised as either 'standard' or 'under-grade', where the latter are valued 20% less than the standard ones. The WRS doesn't allow processors to work directly with farmers, as the WRS has a monopoly on the trade of cashew; this represents a missed opportunity for both processors and, especially, farmers
- **Technical assistance**: the state provides no technical assistance; it is only available via the private sector or via NGOs
- **By-products:** development of this opportunity is up to the processor; an industry body should assist in the development of markets

[45] This is true especially in the first stage of processing, where the nut is cut, which involves the largest number of workers and also the least skilled ones

- **Diversification**: the fact that cashew farmers depend on cashew makes it difficult to establish multi-crop units in the cashew areas; processors have opportunities to diversify only by moving into other regions

Like farmers, also processors would benefit greatly from strong **farmer associations**, with whom to partner to secure high-quality and reliable procurement, and an **industry body**, disseminating information and best practices and assisting in the development of market linkages and under-developed markets. As pointed out above, none of this is in place.

While a more consistent, market-driven, and supportive operating environment is essential to processors, still it may not be enough. Tanzanian and in fact African processors have three significant competitive disadvantages when compared to Indian players, which, by processing 80% of global output, set the benchmark in the global marketplace.

- They can **procure only for 3 months a year**, during the Tanzanian season from October/November to January, whereas Indian (and Vietnamese) competitors can procure internationally and thus all year round, from Asia, East Africa and then West Africa. Tanzanian processors can't do the same: India, Vietnam and Brazil have a ban on export of raw nuts, and transport from West to East Africa is prohibitively expensive. Tanzanian processors must then purchase in larger bulks, which requires larger storage and most importantly financing costs approx. 3 times higher than those of Asian competitors. This alone could reduce margins by up to 30%, or 5-10% of the value of the kernel
- The second issue is **labour productivity**. India has developed the manual processing practices that are being adopted in Africa, and its labourers have often being performing them for decades. For African processors to reach a level of productivity comparable to that of its Indian peers it may take 5-7 years. This factor cuts margins by another 20-30%
- India sells about half of its nuts on the local market. Because it is less competitive and less expensive, its profit on the local market is 10-20% higher than on the global one. Tanzania has **no local market**, thus local processors see a further 5-10% drop in margin

In summary, Tanzanian processors not only have to deal with an unreliable operating environment, but they face significant competitive disadvantages versus India, adding up to some 50% of their margins.

We have seen that things are already very difficult as they are, with both farmers and processors having to work in an extremely unwelcoming environment. However, the situation may actually get worse. So far most farmers have been more or less assured that, come the trading season, they will be able to sell their crop, even though perhaps at a low price. As global production and planting is growing faster than demand, especially in Cote d'Ivoire and Vietnam, and as India, which purchases some 80% of Tanzanian raw nuts, is aiming to fill its own processing capacity with own production, Tanzanian farmers may soon need to face a shortage of buyers. Furthermore, 'new' large cashew producing countries, such as Indonesia, Benin, Nigeria and Cote d'Ivoire, that originally planted cashew for reforestation purposes, are increasingly recognising the potential of cashew for economic growth and poverty alleviation, and thus are becoming more competitive. Other countries, like Ghana and Senegal, are starting to see cashew as a high-potential export crop and consequently invest in it. These trends will not merely shrink demand for Tanzanian raw nuts, but they will also make the current global increase in food prices less pronounced in cashew.

With regards to trends in cashew prices, the should be expected to be further reduced by the declining dollar, in which cashew is traded: after about a decade in which the Tanzanian shilling devaluated against the dollar by 6-8% a year, increasing accordingly cashew prices at Tanzanian farm gate, since 2006 the exchange rate has been flat or declining (see chart 25). Since 2000, cashew price has been globally flat, but it has been growing in Tanzania: this was only thanks to the devaluation of the shilling (see chart 26). As the exchange rate trend is inverting, devaluation can no longer be relied upon, so prices should be expected to stay flat at best (see table 2 for a set of scenarios).

On the other hand, the price of inputs keeps reaching new highs, and this trend is exacerbated by the weak dollar, thus making it more and more difficult for farmers to start applying them.

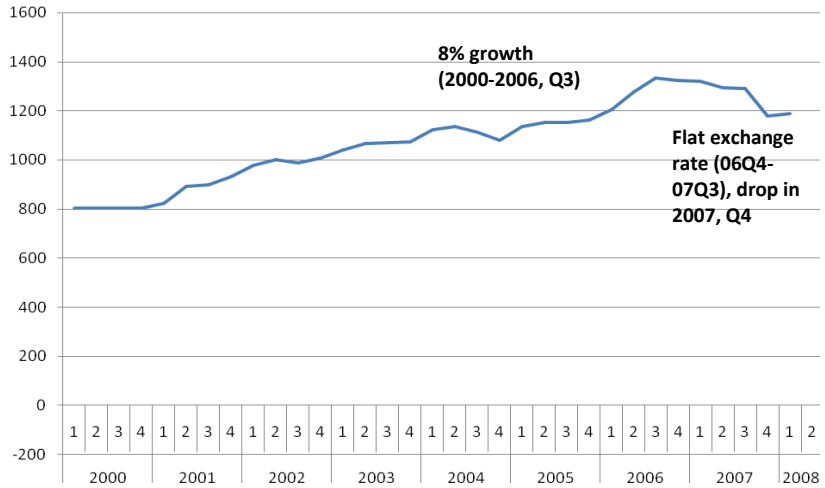


Chart 25: Exchange rate, quarterly, Tanzanian shilling vs. US dollar
Source: Oanda.com

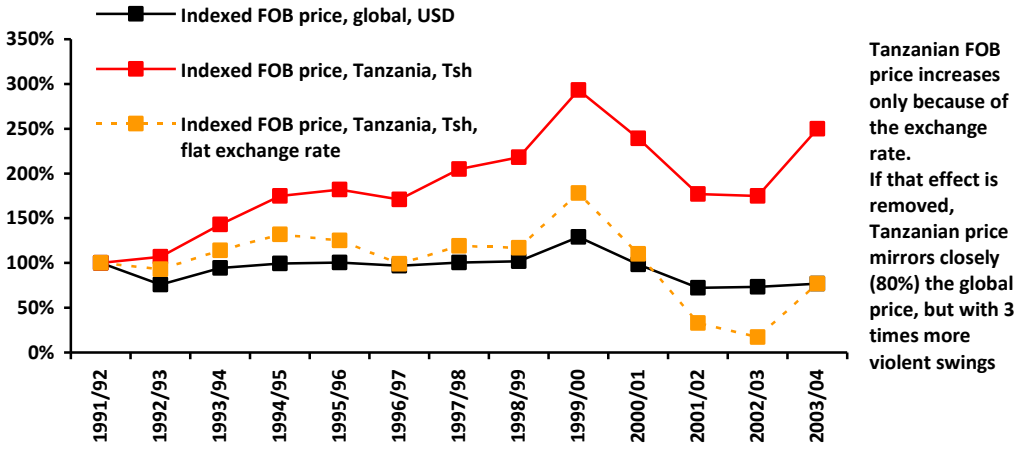


Chart 26: Indexed FOB prices global price (USD), Tanzanian price, Tanzanian price with flat exchange rate (Tsh)
Source: DAI-PESA, 2003

Scenario	Description	Global price Year 0	Exchange rate Year 0	Tanzania price Year 0	Inflation in final markets	Inflation Tanzania	Growth in price	Global price Year 1	Exchange rate Year 1	Tanzania price Year 1	Value of Year 1 / Year 0	Change in real price
Scenario 1	Global price grows with inflation, exchange rate grows 8% (2000-2006)	$0.51	1183	600	2.50%	7.00%	0.0%	$0.52	1278	664	621	**3.5%**
Scenario 2 (Most likely)	Global price grows with inflation, exchange rate flat (2006-2007)	$0.51	1183	600	2.50%	7.00%	0.0%	$0.52	1183	615	575	**-4.2%**
Scenario 3	Higher interest rate, inflation lower by 20%, exchange rate lower by 5% (end 2007)	$0.51	1183	600	2.50%	5.60%	0.0%	$0.52	1124	584	553	**-7.8%**
Scenario 4	Same as 3, with growth in price necessary to compensate fall (8.5%)	$0.51	1183	600	2.50%	5.60%	8.5%	$0.56	1124	634	600	**0.0%**
Scenario 5	Same as 4, with growth in price necessary to match growth in 1 (12.2%)	$0.51	1183	600	2.50%	5.60%	12.2%	$0.58	1124	656	621	**3.5%**

Between 2000 and 2006 global prices have been flat, but Tanzanian prices have grown thanks to currency devaluation…

…but if the recent trends continue, exchange rate may either stay flat, and as Tanzanian inflation grows, Tanzanian price will decrease…

…or, exchange rate may go down, leading to an even further drop in Tanzanian cashew prices

In order for Tanzanian prices to stay flat or even keep increasing, global prices would need to go up by 8-12%, which is an unrealistic expectation.

Table 2: cashew price in various monetary (exchange rate / inflation) scenarios

Ways to address these challenges

Prioritising and enacting initiatives to address all the needs mentioned above may be a daunting task. The typical approach adopted so far by policymakers has been as follows: single out one specific issue, and increase the role of the state, in the form of government, local administration, or a state-controlled entity, to solve that specific issue by enforcing new rules that constrain the operations of the agents of the value chain. The introduction of the WRS is a perfect example of this approach: the trade of raw nuts was singled out as the main plague of the industry; to address it, the role of the PCSs and the cooperative unions was expanded, and a new entity, the warehouse, was introduced. In order to finance the operation, a guarantee was offered from state coffers to the banks involved, despite the fact that they were facing little risk[46] and had the prospect of significant gains. A similar approach was used for the setting of an 'indicative price', the introduction of Input Trust Funds, etc.

This process is flawed for several reasons, as the example of the WRS illustrates in table 3.

This approach should be contrasted with a systemic approach, which looks at the whole value chain and identifies common patterns of intervention that respond to the needs of its actors already listed above. It will typically rely on the 3 I's of market development, namely **Institutions**, **Incentives** and **Infrastructure**. It has been stressed how the role of infrastructure is crucial both to farmers and to processors, but in the following the focus will naturally be directed on the previous two I-drivers, because they are less expensive, more likely to have an impact in the short term, and, most importantly, once in place they can drive the development of infrastructure.

[46] The two banks involved in the WRS lend funds sufficient to cover trade for only one week, typically equivalent to $500,000-1,000,000 at most, and with risk spread across all the several PCSs in the region.

Flaw	Example from the WRS
It ignores that a value chain is a complex system with parts interacting with one another, and thus **neglects the effects** that a single intervention can have on the whole value chain, both "upstream" and "downstream" to it	The WRS was conceived to disintermediate the market for raw nuts and avoid farmers being exploited by middlemen and colluding buyers. However, it missed the effect this would have on farmers, who (1) would receive no rewards on the quality of their crop, (2) would pay for the inevitably high price of the monopoly the WRS is, and (3) can't collaborate with buyers to their benefit; and on processors, that (4) again need to deal with an erratic minimum price (the minimum bidding price) that, if the first season is taken as an example, promises to be too high; and (5) can't operate at full capacity because of the unpredictability of the auction system
By singling out specific issues, it will consistently fail to push forward **systemic solutions** by missing the patterns that are recurrent in many of these issues	The 'middleman' problem was merely the manifestation of a problem, so the WRS addresses the symptom but not its cause. Farmers are exploited because they are not in the position to negotiate, as they lack all the resources necessary for it, such as information, the opportunity to bulk, logistics, skills, etc.; their position is further weakened by the fact that, unlike their buyers, they depend on cashew. All these issues are still in place, and still affect farmers in the form of low productivity and high costs.
It **relies on the state** and its institutions, which, on one hand, often prove not to be up to the task, and, on the other hand, undermines the development of a vital private sector	The WRS is conceived and run by the state and its institutions, such as the CBT, the PCSs, and the cooperative unions. Even the warehouses were identified by government officers, and the banks loans are guaranteed by the central bank. Associations and groups other than PCSs are cut out of the industry as they can't assist farmers in selling the crop. What is worse, the WRS is a monopoly, so it doesn't need to face competition from private sector actors, and for its services it can charge to farmer prices that, like last season, risk to be outside market rates.
A typical feature of this process is that it **does not include farmers**, and often doesn't even include any other private sector actor	The cashew WRS was introduced suddenly and without debate by the ministry of agriculture right before the beginning of the season. This brought much disconcert among farmers as well as many processors, who saw once again their margins put in jeopardy by erratic policy; consultation may have permitted to set a more plausible minimum bidding price, and to allow much-needed collaboration between farmers and processors.

Table 3: The flaws in the current approach to policy reform

The establishment of institutions was already identified above as likely to have a strong impact on the industry. In table 4 are listed the ways in which two central entities, a farmer association and an industry body, would address the needs listed in the previous section. In general terms, the former acts at local level as a conduit of services to farmers, while the latter acts at national level as a facilitator of the development of the necessary markets and services. Of course, their effectiveness still depends on an effective policy environment.

	Need	Association	Industry Body
Farmers' needs	**Agronomic training**	**Delivery of training**	**Establishment of best practices**
	Inputs, machinery and seeds	**Enables farmers to access to inputs in bulk and pull resources such as blowers**	**Facilitates development of new policy and of input markets**
	Labour	Labourers to be found within the membership or through it	None
	Financial services	Association as a vehicle for microfinance and, in time, as a borrower by itself	Facilitation
	Land titles	One-stop shop for titling; coordination with local administration	Coordination with ministry and other boards
	Efficient raw nut market and rewards to quality	**Key conduit to the markets, permitting bulking, giving negotiating power, and leveraging quality**	**Establishment, and monitoring and evaluation, of a raw nut trade system**
	Infrastructure	Lobbying	Determines priorities
	Taxation	**Lobbying and ideally tax collection**	**Advises on tax environment**
	Link with final markets	Coordinates the implementation of the targeting of niches	Helps identifying niches and develop market linkages
	Diversification	**Identifies opportunities and provides necessary training and assets**	**Helps identifying opportunities and best practices, and develops markets**
	By-products	Provides training and access to markets	Assists in the development of markets
Processors' needs	**Consistent policy**	**Contribute to lobbying**	**Develops recommendations and lobbies for them on behalf of all stakeholders**
	Raw nut marketing	**Collaborate with processors via bulking and quality**	**Establishment, and monitoring and evaluation, of a raw nut trade system**
	Market linkages and local market dev.	**None**	**Identifies linkages and coordinates development of a local market**
	Credit	Soft credit for farmer-friendly processors	Lobbying for establishment of dedicated development fund
	Taxation	None	Recommendations for ad hoc legislation
	Infrastructure	Lobbying	Determines priorities
	Labour	**Provides source of reliable, committed labour**	**Lobbies for cashew-friendly labour policies, e.g., regarding minimum wage**
	Facilities and machinery	Some processing taking place in facilities managed by the association	Coordination of access to facilities and market linkages
	Quality	**Collaboration rewarding quality of crop**	**Training and trading system**
	Technical assistance	None	Best practices and service providers
	By-products	None	Best practices and market development
	Diversification	Collaboration on a set of crops	Market development

Fully meets need	Partially meets need	Marginally meets need	Does not meet need

Table 4: How associations and an industry body respond to the industry's needs (main needs bolded in red)

Table 4 shows that these two categories of institutions can go a long way in meeting the needs of the main actors of the value chain. However, this hinges on two conditions:

- These institutions must be efficient

- The policy environment must be conducive to their activities

In the following we will discuss these two points in much greater detail.

In the next two sections we will analyse how to ensure that **services for farmers** are delivered effectively and comprehensibly, via associations but also via other entities, and that the **industry body** does perform in line with stakeholders' expectations.

The following three sections will analyse 3 specific areas that are both (1) central to the industry and (2) in strong need for policy intervention:

- **Input markets**
    1. Can at least double productivity
    2. Only 20-30% of the farmers use them
- **Raw nut markets**
    1. Drive the price that farmers get for their crop, and enable processors to procure at low cost
    2. Currently dominated by a state-controlled double-layered monopoly[47]
- **Processing**
    1. Can add up to 40% in value, can employ up to 25,000 low skilled workers, provides a reliable market for farmers, and establishes hubs where farmers have the opportunity to find access to some of the services they need, such as rewards to quality, access to inputs, training, and vertical integration
    2. The industry exists but is very fragile as it depends on 2-3 large players and on a volatile policy environment; Tanzania is competitively disadvantaged against Indian processors

Clearly these 5 items do not aim at covering all the issues of the industry, but can be prioritised as the most strategic and systemic ones. A set of other issues, including taxation, infrastructure and financial services, is discusses at the end of this section.

At the end of each sub-section is a brief summary outlining the basic argument and the steps forward.

[47] It is double as the farmers must sell to the PCSs, who in turn must sell to the WRS.

Services to farmers

We have noted how cashew tends to be an 'unmanaged' crop, with farmers typically ignoring the trees and just picking the nuts when they fall. Yet, compared to other crops common in the cashew-growing area, cashew actually require little attention and resources, and very small efforts can lead to great improvements in productivity, especially when starting from a very low base as in Tanzania. Pruning the trees, clearing the farm, collecting the cashew at the right time, store it appropriately, keeping a minimum space of 5-7 metres from tree to tree, and re-planting trees as the old ones become unproductive: these activities are unlikely to take more than 10% of the time of a farmer and require no resources, and would go very far in closing the gap between actual and potential yield. The farmer could then dedicate her time to inter-cropping, that is, to grow crops that are suitable to the spaces in between the trees, such as sesame, ground nuts, paprika or pigeon peas, and whose seasonality is different from that of cashew. Further, a slightly more entrepreneurial farmer could invest some 10-20% of her earnings to purchase subsidised inputs that need to be sprayed on the trees to protect them from PMD: this alone would at least double productivity.[48] While traditionally cashew farmers don't see their trees as requiring their own time and resources, in the past 1-2 decades more and more farmers have started to become increasingly aware of the potential of their trees, and engaged in their production. However, in order to do so, they need to work in the extremely unwelcoming operating environment described in the previous sections.

It should be clear that at the centre of all these issues is the fact that cashew production is dominated by smallholder farmers, who are poor, low-skilled, live in remote areas, and are abandoned to their means by the institutions. They are prevented both from being an active player that can take advantage of available opportunities, and from vocally promoting change and reform, because of their lack of:

- Skills
- Critical mass
- Influence

[48] This is possible in theory; in practice farmers have little access to inputs.

We have already discussed how farmer associations, along with a strong industry body, would help farmers improve on these three items. Farmer associations already exist, however, and are far from delivering even a fraction of what is needed. There is great reliance on state-controlled PCSs, who have proven inefficient and resistant to change.

Key to change this state of affairs is the development of an effective market for services to farmers, services that aim to respond to the needs listed above. Not only the institutions devoted to them do not work, but, even if these institutions turned out to be less reluctant to positive reform than they have been so far, and even if they managed to effectively serve farmers (two very large 'if's), they would still only represent one particular model of services to farmers, a 'one size fits all' approach which is unlikely to be the optimal one for all farmers, regardless of their wealth, location, skills, priorities and reliance on cashew. Thus, while reform of the PCSs must be pursued, at the same time the emergence of alternative entities at the service of smallholder farmers should be actively encouraged. Of course, competition is not only about choice: it would also help incentivise institutional service providers like PCSs or the CBT to improve their performance in order to retain 'market share'.

The central entity at the service of farmers should be the farmer group, or any aggregation of farmers aimed at the pursuit of business activities. This is the basic instrument to allow farmers to move from their current plight to an entity with size, skills and a voice to respond to their needs. Many models of aggregations are possible. Currently, for reasons linked to its socialist legacy, Tanzania has 'picked its winner', the cooperative, which is essentially a farmer group with a specific, distributed, ownership structure, and democratically elected leadership. While this institution has many merits, it certainly is not the only one that can provide services to farmers.

Ultimately any service provider is defined at its core by how it is funded, how decisions are made, and what particular services it provides. This constitutes its 'business model'. The key recommendations here are to promote the development of service providers regardless of their specific business model, and let the markets adapt to local circumstances so that farmers can choose what serves them best.

The one essential requirement for any of these service providers is managerial skill. This may be available either among farmers themselves, although probably scarcely so, or within institutions, that have been found lacking, or within the private sector. Entities that may possess the necessary skills include:

- Entrepreneurs
- Consultants
- Non-Governmental Organisations (NGOs)
- Processors
- Buyers
- Input providers
- A small minority of well educated, wealthier cashew farmers.

What all these agents need is a motivation to serve smallholder farmers. This motivation can be given by a business model that would make it sustainably profitable to provide services to farmers. They could make a profit either by selling their services, or by entering an agreement with farmers that is beneficial to both of them. It should be noted that the market for these services exists: farmers already pay local administration and PCSs a share of their income for services they actually do not receive.

The proliferation of farmer groups may be perceived as a risk: a common failing of farmer groups, which applies to PCSs as well, is the lack of accountability of its managers, who, regardless of whether they are elected or appointed, once they find themselves in a position of power they often take advantage of it. While effort must be dedicated to establish precise and enforceable rules to prevent this, the best defence against this risk is for farmers to be able to 'vote with their feet', that is, to be in the position to choose an alternative service provider if they are not satisfied with their current one. This is another reason why a lively market for these services is required, with many providers competing in the same area. This is possible also in remote areas: a service provider would probably cover a broad rural area, say, a few districts, while its office is based in the main urban centre. More farmer groups would also be perceived as a threat to vested interests, of course, such as those of PCSs, district

administration, and some private sector actors (notably input providers) who gain from this murky status quo.

What services should they provide? Like the specific ownership structure and the business model, also the offering should be tested on the ground. Obvious candidates would be those services that respond to the most pressing needs, such as training, input provision, linkages to markets, and diversification. Typical scenarios would include:

- A cooperative hiring external consultants, who assist them in the immediate needs, while building internal capacity to make them self-reliant
- An entrepreneur that establishes and manages groups of farmers who are offered a set of services for a regular fee
- An NGO working on capacity building with farmer groups to make them independent in the long term
- Processors partnering with groups of farmers with a mutually binding agreement regarding procurement of high-quality nuts
- Input providers supplying inputs and training
- Two associations partnering to provide complementary services
- A PCS with skilled managers going beyond its traditional scope to grow

Contract farming, which is now garnering the attention of policymakers, would be one particular type of arrangement between buyers and farmers. The PCSs would operate within this environment, and would compete with the other providers, and their managers should be rewarded if they are successful in acquiring and retaining 'clients', that is, the farmers. The long-term vision would see different service providers competing on the same territory for the 'acquisition' of farmers, constantly focusing on improving on their performance and their pricing, so that farmers can choose their preferred provider, and switch from one to the other when they are dissatisfied.

This vision is undoubtedly ambitious and may take years to realise. What can the state do to promote the development of a competitive farmer services market?

First of all, it should remove any obstacle to them. It shouldn't allocate any preferential treatment to PCSs: for instance, up to 4-5 years ago only one PCS could exist per every village, a deliberate block to any form of competition even among PCSs, which fortunately has been removed with the recent legislation relevant to cooperative, although some local officers appear to be resistant to this change. Yet, PCSs still retain a number of advantages, including:

- A network of local administrators, the District Cooperative Officers, to support them
- The monopoly on the trade with the WRS, thus making it impossible for any other service provider to offer the crucial trading services
- Local tax collection
- Verification of quality
- Quasi-monopoly of distribution of inputs to farmers

With regards to the WRS, we understand that its steering committee is considering extending that privilege to other farmer associations. However, other obstacles remain:

- The WRS' monopoly on trade makes it impossible for processors and buyers to work directly with farmers, thus eliminating an important category of actors from the farmer services market: farmers should be allowed to sell directly to buyers if they are offered a good price and extra services
- Farmers do need help in cash flow management to source their inputs, but this is done automatically, and very inefficiently, at district level via Input Trust Funds (ITFs)
- Associations and PCSs are normally limited to a specific, small, territory, limiting their incentives to grow
- Farmers are not allowed to be members of more than one PCS; this is done to prevent conflicts of interest, but it mainly stifles competition

In short, all these limitations should be identified and removed, to permit service providers to sell comprehensive 'packages' of services to their farmers. This would be more convenient both to farmers, who can choose to have only one reference for all their needs if they want to, and to providers, who can flexibly choose their business model and take advantage of the economies of scale inherent in selling, or 'cross-selling,' many services to the same farmers.

Secondly, the state should perform efficiently its foremost role, that of regulating the market. Farmer service providers may not always be well-intentioned, and while, as mentioned above, the best defence against that is an efficient, competitive market, especially in the short term it is crucial that the government sets up both a regulatory framework and, most importantly, a monitoring mechanism to make sure that farmers get what they pay for and are not exploited. This, however, should not consist in limiting the fees paid by farmers for the services: this measure would only slow down the progress of the market by attracting fewer entrants. It should instead, for instance, give farmers the places where to react to perceived misdeeds. Only entities that meet these criteria would be treated as service providers to farmers, and reap the related privileges.

Thirdly, the state should incentivise this industry while it is at its nascent stage. Providers should be supported with information and legal services, for instance via the already existing chambers of commerce. They should also be given financial incentives that encourage desirable behaviour: for instance, tax relief or even subsidies for those who manage to get a large share of inputs, or a good selling price, to their farmers.

Realistically, as many unforeseen details will need to be addressed only once this new market already exists, it may be advisable to test this strategy in one particular region or in a few districts.

This wouldn't need to start in a vacuum: in the past 10 years the government has been increasingly focusing on cooperatives, initially with the "Presidential Special Committee on the Revival, Strengthening and Development of Cooperatives in Tanzania", then with the Cooperative Development Policy from 2002, the Act from 2003 and the Rules from 2004, as well as with the Cooperative Reform and Modernization Program (CRMP). This indicates that there is already widespread awareness that farmer groups have great potential as an instrument for economic growth and poverty alleviation. However, the focus of these efforts is exclusively on a specific ownership structure, that of the cooperative: ideally it should be recognised that the end goal is to provide much needed services to smallholder farmers, and that a variety of structures, or business models, can contribute towards that goal.

In summary:

- Farmers need a set of services, especially at local level
- State-controlled entities such as PCSs and extension services officers have proven incapable of delivering them, and even if they could, it would only be via one operating model
- A market for services to farmers should be promoted via:
    1. Removal of all the obstacles to their development
    2. Definition of clear criteria that service providers must comply with
    3. An incentive package to support the growth of the industry
- This market would benefit greatly other private sector actors, such as processors (who could secure a source of high-quality crop) and input providers (who could get access to a new channel to farmers, more effective and thus less expensive than the PCSs)
- A regulatory workstream is already in place to analyse the role of cooperatives; this should be tapped into by extending its scope to the delivery of services to farmers
- While all private sector actors are expected to be favourable to it, the obstacles to this process are likely to come from the administration, including:
    1. Resistance to market-driven solutions
    2. Fear of undermining cooperatives
    3. Fear of mismanagement and abuse of farmers
    4. Vested interests of PCSs and local administration
    5. Vested interests of some private sector actors profiteering from the status quo
- Success would be measured by the fulfilment of the points 1-to-3 above; it is fundamental that point 1 and 2 are acted upon at the same time (or 2 before 1); the system could be tested in a selection of districts to minimise risk

Industry body

Returning to the notion presented above regarding the satisfaction smallholder farmers' needs, we have seen how farmer aggregations are complementary to a crop board, that is best positioned to comprehensively deal with systemic issues that affect the whole industry. A farmer association can't, for instance, identify the most appropriate tax environment, or prioritise the most urgent infrastructure development, or organise information dissemination, structure the input markets, or even determine the most appropriate incentive structure for the farmer aggregations themselves.

A strong industry body must be in place with the clear and explicit mission of facilitating the development of the industry, by:

- Providing **research and information** about markets and best practices, in collaboration with other relevant institutions
- Analysing and **recommending policy** to government and local administration
- **Facilitating the trade** of raw nuts
- Aiding the creation of **complementary markets**, such as inputs, by-products, and financial services
- Establishing **linkages** with local and international markets
- Identifying and promoting **diversification** opportunities, ideally in collaboration with sister bodies active in other sectors
- Participating in regional and global **cashew industry** activities.

Crucially, this industry body should be fully accountable to all the stakeholders of the industry, and explicitly aim at the development of the industry as a whole. All actors of the value chain should find representation in it.

We know that a body that should fulfil the role is already in place: the cashew crop board CBT. Originally a marketing authority mostly dedicated to purchasing and selling raw nuts, since the 90s it has slowly transformed into a regulatory body, and a new law that is being discussed at the moment is meant to seal that new role, essentially by preventing it from doing trading, and by clarifying how it should fund its activities. While this is a welcome development, serious

doubts remain that this could suffice to enable CBT to competently and reliably deliver most the services listed above. Even without considering the issues related to the staff currently with CBT, this legislation only dictates what it can and can't do, but not what it should do. Therefore, it is impossible for any stakeholder to tell whether the CBT is fulfilling its role, to evaluate its performance, or even to have any expectations about what it can deliver. Further, its agenda and activities are not public.[49]

This state of affairs is grounded in decade of relationship building and cronyism within the government, the national and the local administration. Only strong political momentum can change this state of affairs. Yet, some small, incremental changes could signal a move in the right direction and could be implemented at almost no cost: if, for instance, the CBT accepted to publish a public statement listing what it aims to achieve beyond the generic 'development of the industry', and how it hopes to deliver that, providing specific, **measurable objectives**, stakeholders could then hold it accountable; even less threateningly, the CBT could publish a **regular bulletin**, including all information that is relevant to the cashew industry, from data about production and trade, to a review of current projects pertinent to the industry. For any of this to happen, **new skills** would need to be made available and new procedures would need to be set up, for instance with regards to data gathering or information dissemination, which would require the involvement of the local administration. If the CBT could identify a set of specific objectives with its stakeholders, it could then make a compelling case with the government to provide it with the funding to acquire the necessary skills and resources. While working on the short term objectives, it should also build capacity to perform the tasks listed above.

The CBT should also work with its sister institutions from other countries, such as Mozambique, where InCaju, the local crop board, has been effective in a number of endeavours, for instance in disseminating information about prices and markets via a regular radio presence.

[49] Unlike other crop boards, it doesn't even have a website

In summary:

- The industry, notably farmers and processors, needs a large set of services that affect all stakeholders
- The CBT has proven incapable of providing them, and is resistance to change
- A path to re-building the CBT so as to make it more effective would be as follows:
    1. Organise a stakeholder meeting to identify measurable short-term targets for the CBT, as well as a long-term vision
    2. Consult with the government to acquire the skills and resources to fulfil the needs that the industry's stakeholders have jointly identified; the government should hold accountable the CBT for all the objectives for which skills and resources have been provided
    3. Develop channels to communicate its objectives, how it is tracking on them, and to share all information that is relevant to the industry; these may include a website, a regular bulletin, participation in radio programs, etc.
    4. Build capacity to move towards the long-term vision
- A workstream is currently ongoing to review the status of the CBT and draft a new dedicated act; effort is required to include objectives and necessary resources in this discussion
- Resistance is most likely to come from inside the CBT, especially its board; however, the workstream mentioned above has already passed resolutions that would essentially lead to the dissolution of the current board; government's inertia, and lack of coordination among stakeholders, are likely to be other obstacles
- Success will be measured in the short term by the definition of agreed, measurable objectives and of channels to disseminate information; in the longer-term, by the extent to which the CBT meets its objectives, and whether the government acts on disappointing performance

Input markets

The effective use of inputs is a notorious challenge in all African countries, which consistently lag behind the rest of the world with regards to efficient usage of inputs, and more generally agricultural productivity. Causes of this state of affairs range from inefficient markets that make inputs unavailable and expensive, to poor 'technologies' (be it fertilizers, pesticides or seeds and seedlings), to low take up by farmers, to distorting policy practices. Input markets are a typical example of a 'trap', or a developmental problem re-enforcing itself: flawed markets make inputs expensive and thus less used, in turn reducing the incentive to develop the markets, and so on. On the other hand, once a virtuous circle is commenced, the opposite effect takes place, where, given a reliable, competitive operating environment, input markets will tend to move towards realising their potential.

Tanzanian cashew provides a stark illustration of this phenomenon. Productivity in cashew is a tiny fraction of its potential, while experience from a pilot project in 2006/07 in Mtwara and Lindi has proven that the appropriate application of inputs could double the cash income of a cashew farming household from one year to the next.

The failure of the current organisation of the inputs market is arguably uncontroversial and apparent to all parties involved. It can be clearly illustrated by a 2007 Voice Of the People (VOP) survey, indicating that 70-80% of cashew farmers have never used any input, and that 85-90% of cashew farmers claim to have had 'major problems' with price, availability, timeliness and quality of inputs: this is 15-20% more than the average farmer.[50] Anecdotally, farmers also complain about how the inputs are shared amongst them, which is unsurprising because there is no procedure for it, and about the fact that inputs are distributed too late to be effective. The funds collected to purchase inputs, even if they were distributed properly, at current prices would cover no more than 10-20% of farmers' input needs. Inputs are notorious for arriving too late, making them less effective: this is often due to the PCS that haggles with the input supplier until the last minute to get more of what it wants. Last but not least, despite both their potential to increase yield by a minimum of a factor of 2, and the subsidy of up to 50%, the

[50] REPOA, 2007

application of inputs could represent a straight loss for a farmer due to their high price, especially when they are sprayed on unproductive trees.[51]

If this were not enough, blowers to spray those inputs cost can cost up to 3-4 times the yearly income of a cashew farmer, so (while no accurate statistics are available) there are probably on average 1-3 blowers per 100 farmers, while each farmer should use blowers 4 times in the same 2.5-months period. This average in reality varies greatly: some areas will have plenty, some will have almost none. This means that most farmers, especially the poorer ones, will not have access to blowers in the measure they need it: even if a farmer miraculously manages to get some inputs on time, she is typically unable to apply them. Typically poorer farmers can only rent blowers from the richer ones, adding extra costs to those most in need. Finally, training on how to apply inputs is very scarcely available, if at all. Probably it is not surprising that the same VOP 2007 survey mentioned above indicates that fully 75% of all farmers can't think of anything that the government does to help them.

Inputs, in short, are scarcely, unevenly and ill-timely available, too expensive, poorly applied, and subject to murky and market-unfriendly administrative practices: this is a textbook collection of all the most commonly observed plagues that affect the usage of agricultural inputs in developing countries.

The most immediate focus of policymakers should probably be directed on addressing the most blatant faults of the current system. If the political momentum is found, appropriate measures are within reach, inexpensive and would start to have an impact in the very short term. The following step should then be a review of the possible approaches to input markets, drawing from international best practices, and bearing in mind that, even in more conducive settings, the efficient usage of inputs by smallholder farmers is a very complex challenge with no 'one size fits all' solutions.

[51] Another issue is that, as we have seen, the inputs that cashew requires are fungicides, which, according to the current subsidy policy, the state does not generally subsidise at 50% (that percentage is typical of fertilisers). The fact that an exception is made for cashew shows that authorities do recognise the especially dire conditions in which the industry verses. However, those same inputs are theoretically subsidised only if they are used in cashew, but they can be used for other crops: the inevitable informal inter-crop 'smuggling' reduces even further the availability of inputs to cashew farmers.

In line with this two-steps approach, at first we assume that the basic skeleton of the current system is retained: a levy on cashew trade, plus a large subsidy, funds the provision of inputs for the following year; authorised input suppliers distribute the inputs to local networks, which in turn distribute them to the farmers. Given this structure, seven measures are most urgent:

- Competition must be instilled in the **selection of the suppliers**, to lower the price
- A **voucher mechanism** must be in place to track how much a farmer has already paid via the ITF in the previous season to permit the farmer to claim the rightful quantity
- Farmers should be allowed to **contribute voluntarily** to the input fund, above a minimum level
- Distribution should occur at **pre-selected points only**
- Distribution should be **timely**
- All the transactions, from the selection of the supplier to the distribution of inputs, should be performed in **full transparency**
- Farmers must be made **fully aware** of the mechanism and of the price they are paying for their inputs

These points could be implemented at marginal or no cost, and with limited organisational complexity. In fact, the last five items should be seen as 'low-hanging fruits', and nothing, other than institutional apathy, should prevent from implementing them straight ahead.

With regards to the first point, the selection of the supplier should also be very undemanding, in theory; however, the fact that de facto monopolies in the distribution of inputs are very common in the industry does not bode well. Further, attracting new entrants can be a challenge: it may take 1-3 years to get approval by both Naliendele and the TPRI, and an extensive network of contacts with the PCSs is necessary to gain market share. Yet, provided the political willingness is in place, it would be possible to execute this item too.[52] One commonly used instrument to instil competition is an international public tender: however, this is likely to turn out to be a double-edged sword, because, while it can lower prices, it tends to

[52] For instance, last season the agronomic requirements were relaxed for inputs demonstrably similar to those already approved; this was not uncontroversial, as some argued that the new products in reality didn't comply with the standards, and that they had to sustain the costs of the thorough test, while new entrants were only reaping the benefits.

disincentivise input providers from establishing a strong local network. This is the most crucial element to the development of the market, as it would lower the cost of distribution and ultimately the cost to farmers, while lowering barriers to entry and making the market more liquid and efficient. In Mozambique, the only country where cashew trees have the same needs in terms of inputs, providers are chosen via an industry-wide tender, the industry is more transparent and less open to abuse, but input prices are no lower than in Tanzania and inputs are as uncommonly used. A tender is likely to be effective only when numerous providers can distribute inputs at low cost, without having to sustain a proprietary local network: this is unlikely to come about before a decade. At this stage, the priority should be directed to simply engage as many input providers as possible, and helping them to negotiate directly with local distributors. The state could best assist competition by enabling providers to identify channels alternative to the PCSs, such as other farmer associations,[53] or processors, or for-profit networks of agents that act non-exclusively in order to lower barriers to entry of new providers. Local administration and chambers of commerce should be responsible for facilitating this process. Alternative providers, such as 'generic' ones, could significantly lower the cost of inputs and their testing should be prioritised. In short, the development of input markets happens in two ways that reinforce each other: involvement of many providers, and development of local distribution networks, and both can be assisted by the state.[54]

With regards to the second point in the list above, the mechanism to attribute inputs proportionally to each farmer's trade is the only one that requires the establishment of a new, but very inexpensive, procedure, a voucher system. An example could be as follows:

1. As the farmer sells the cashew, she is given a voucher indicating her cash contribution to the input fund
2. Her name and contribution is also recorded in a public registry, maintained by the district and, in copy, accessible by the CBT as well

[53] This is clearly in line with the "Services to farmers" recommendation.

[54] The Tanzanian market is most likely to be too small to permit the flourishing of viable local producers of inputs, so we will assume that inputs must be imported throughout this paper, although all the recommendations apply even in presence of local production.

3. The following year the farmer can use that voucher, whose value should be increased to account for inflation, to claim her share of inputs
4. The actual quantity she receives will depend upon the input prices offered by that provider, as selected by the entity that she uses to get access to inputs (all providers will be contractually required to accept those vouchers)
5. Once the farmer claims her share of inputs, it gets recorder on the public registry

If the voucher gets lost or damaged, she can refer to the public registry, while being slightly sanctioned to disincentivise losses. As an added benefit, farmers who don't want to use inputs, for instance because they want to divest from cashew and their trees are too old, could be allowed to sell their vouchers at a profit to those who need extra inputs. This would also make it possible for different farmers to contribute different amounts per kg, as from the third recommendation above. As we will see in the following, vouchers present a number of other benefits.[55]

The measures that have been illustrated so far could be implemented starting from next season. Their likely impact would include:

- Some reduction of input prices
- Improvement in their timeliness
- Increased accountability of the system which would encourage the trust and the engagement of farmers

However, a number of fallacies wouldn't be tackled, including:

- More potential for reduction of price
- Quantity of inputs
- Logistics
- Farmer training.

Thus now we will look at input distribution starting from a blank slate.

[55] An input supplier active in Tanzania, Nutricare, has already developed a sophisticated voucher system in collaboration with Celtel.

The general goal is clear: getting the most cost-effective amount of inputs, at the right time and an affordable price, to all farmers who need it and are willing to use it.

The success of a policy should be **measured** by the percentage of farmers who use the appropriate amount of inputs for their trees, and ultimately by the increase in productivity per tree and in farmer income. Other proxies include the price of inputs, their volumes, the number of suppliers, and the level of satisfaction of farmers.

One basic instrument to serve this goal is a **productivity function**, which shows, for various quantities of input, the consequent typical increase in output. By overlaying the price of raw nuts, the cost of inputs and that of their application, it is possible to estimate an optimal amount of input. Real agronomic tests should take place to draw an input/productivity curve that varies on a number of factors, such as age of tree or genetic profile. Many of these tests are likely to have been performed already by the Naliendele research institute, which is devoted to agronomic research in cashew, but have not been disseminated due to lack of efficient extension services.[56] These considerations would help to assess the appropriate amount of input per tree, information which should then be transmitted to farmers.

The same tests would also help to assess the **government's return of investment** of its activities in input distribution, notably of its subsidy, to evaluate its optimal set up. One metric is simply government budget: the funds injected in the input markets, such as the subsidies, are partially recovered by the tax revenue deriving from the trade of the extra cashew produced thanks to the application of inputs. Taking this into consideration, with reference to the typical scenario described above, over 20% of the subsidy would be recovered by the extra tax revenue of the incremental production. Further, the government's investment should also be seen as an instrument for economic growth, so the other metric to assess the return on government's investment is the overall extra income to farmers generated thanks to each of the government's initiatives (see table 5 below).

The government should also investigate the **farmers' elasticity** to input cost: the state should subsidise as little as possible, but so that it encourages as many farmers as possible to use the appropriate amount of inputs. This elasticity will vary markedly depending on the farmers'

[56] Another example of the role of services to farmers.

income. The identification of this curve can be done via so-called 'randomised trials', as further illustrated below.

So far we have referred to return on generic government expenditure in the input market. Its core investment in the market, and in fact in the whole cashew industry, is the **input subsidy**. Its rationale is that inputs are too expensive for farmers, but a partial subsidy would encourage them to use them, and, crucially, the farmers' gain is greater than the subsidy itself.

Below we discuss the effectiveness of a specific input subsidy policy, but first we want to discuss whether giving input subsidies at all is a sensible policy. It is undeniable that, in the current situation, almost no farmers would use inputs without a subsidy: after all, even with a subsidy, only 20-30% of the farmers use them. As an instrument to lower prices and increase adoption, a well executed subsidy is certainly immediately effective. But, decisively, it should be used only as the very last resort: although no precise calculations are available, its return on investment is likely to be orders of magnitude smaller than that of systemic reforms. As a case in point, the price of inputs is very high also because of the complete lack of competitiveness in the market, and the high cost of delivery of the input from the port to the farm gate due to dysfunctional distribution networks, as noted above. Ensuring the efficiency of input markets is the absolute first priority, and, only if that fails to make inputs affordable, should subsidies be considered.

This is likely to take at least 2-3 years: in the short term, subsidies are a necessity to ensure at least some usage of the inputs. However, it must be stressed that they should be seen as an expensive necessary evil, and their share should be reduced over time as input markets become more measurably competitive, which would increasingly make subsidies both less necessary and more evil.

	Base case: no inputs	Application of inputs	Comment
Input price (Tsh/kg)	1040	1040	
Subsidy (%)	50%	50%	
Quantity of input (kg/tree)	-	1	
Cost of application (Tsh/tree)	-	200	
Price of raw nuts to farmer (Tsh/kg)	750	750	
Yield (kg/tree)	2	4	Yield doubles thanks to input
Other costs (Tsh/tree)	300	300	
Tax (Tsh/kg)	55	55	
Trees per farmer (#)	200	200	
Contribution to input fund (Tsh/kg)	30	30	
Input purchased (kg)	-	26	
% of necessary input (%)	-	**13%**	Current policy covers 13% of need
Total production per farmer (kg)	400	452	
Government gross revenue per farmer (Tsh)	22,000	24,860	Extra revenue is 20% of subsidy
Government subsidy per farmer (Tsh)	-	13,520	
Government net income per farmer (Tsh)	22,000	11,340	Income per farmer halves
Government cost of subsidy per farmer (Tsh)	-	**10,660**	
Farmer gross revenue (Tsh)	300,000	339,000	
Total cost of input to farmer (Tsh)	0	**18,720**	
Farmer other costs (Tsh)	60,000	60,000	
Net income per farmer (Tsh)	206,000	221,860	Farmer income up by 8%
Net increase per farmer due to input (Tsh)	-	**15,860**	
ROI of subsidy per farmer (%)	-	**49%**	Tsh 10,000 produces Tsh 15,000

Table 5: Subsidy, allocated as % of price or as a flat amount per kg
Source: TechnoServe

Firstly, looking at the execution of a medium-term subsidy policy, the government should first of all look at the **return on investment** of the subsidy, make sure that the farmer's extra income due to the subsidy is at the very least greater than the subsidy itself, plus its administrative costs, as mentioned above. It may be optimal to subsidise less than the appropriate amount of inputs per tree: the cost of a full subsidy, all components considered, may be higher than the

benefit. This is likely, as many trees are too unproductive, because of their age or their position, to make it profitable to spray them with inputs. Further, considering the current trends in input prices, there are realistic scenarios in which, instead of subsidising inputs, farmers would be better off by receiving those funds directly, for instance by lowering taxes. For reference (see table 5), the current setting would provide a farmer with 200 trees with enough inputs for 26 trees, or 13% of what she would need, at a net cost of Tsh 13,520 to the government. However, the farmer total extra gain would be 15,860, or 49% more than the subsidy. Thus, as things stand, the farmer is indeed better off using inputs, but only just. Overall value (farmer's income + state income) grows by only 2% thanks to the subsidy (see chart 27). An entirely realistic scenario, where input prices increase by 20% while price of raw nuts stays stable, would suffice to make subsidies cost-inefficient (i.e., ROI below 0%). This is the result of a simple simulation, and as such it has only illustrative purposes, but it shows how necessary it is for the government to evaluate the impact of its investment in the industry.

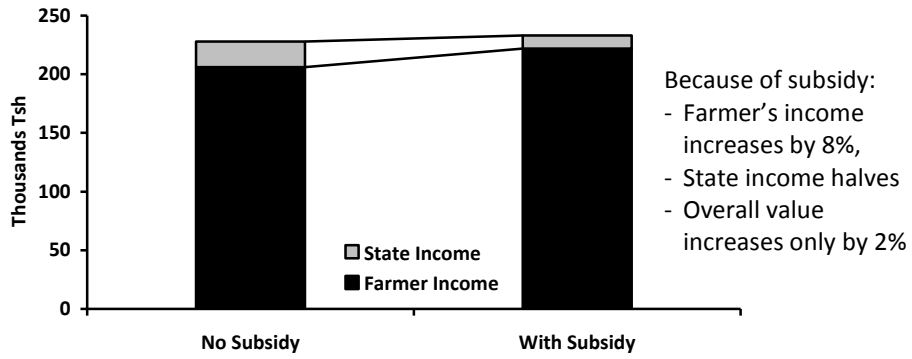


Chart 27: Overall value generated by subsidy
Source: TechnoServe

Secondly, having discussed the average effectiveness of the subsidy, it must be noted that the **per-farmer allocation of the subsidy** leads to a significant redistribution issue. In the current state of affairs the government subsidises a percentage of the inputs purchased, and this input is, or should be, distributed proportionally to the raw nut production. This setting has a very strong regressive effect: the largest producers are the ones who benefit the most from the state subsidy. The scenario above assumes a subsidy of approx. Tsh 520 per tree: while most

cashew farmers have some 100-200 trees, the wealthiest ones can have up to 1000 or more, which means that, even if they all got inputs for only 13% of their trees, as from the scenario in table 5, the subsidy they receive is 7 times larger than that of the average farmer, or by over Tsh 40,000 a year (see table 6).

	Average farmer	Wealthy farmer
Number of trees	200	1000
Net income from cashew	Tsh 221,860	Tsh 1,109,300
Subsidy per tree	Tsh 520	Tsh 520
% of trees subsidised	13%	13%
Total subsidy received	Tsh 10,660	Tsh 53,300 *(+Tsh 42,640)*

Table 6: regressive role of proportional subsidy
Source: TechnoServe

On the other hand, an argument in favour of the current proportional subsidy, given on a per-tree basis, is that, in order to maximise total production, and thus tax revenue, inputs need to be sprayed on that basis. Yet the wealthier farmers are those who need subsidised inputs the least: they are more likely to purchase the inputs with lower or even no subsidies. Plus, at the moment all farmers receive, at best, inputs for 15% of their trees, so most trees are not sprayed anyway: this being the case, these scarce subsidised inputs should be directly mostly to the trees of the poorer farmers.

In summary, input subsidies can be designed with three different purposes in mind:

- A *redistributive* purpose, aiming at alleviating poverty by focusing on the poorer farmers
- A *growth-oriented* purpose, aiming at allocating inputs on a per-tree basis to grow overall production of cashew
- A *market-boosting* purpose, incentivising farmers to invest in their trees via a discount instead of a full subsidy

The voucher system mentioned above could address each of them

- To advance redistribution, each farmer could be allocated a small 'flat' subsidy. The 'flat' subsidy should be sufficient to cover the needs of the poorest farmers, say, approx. Tsh 30,000
- The second component of the subsidy, 'proportional' to the farmer's production, would then double the contribution to the ITF, just like it is now. The farmer's contribution

could be voluntary and set to a minimum of, say, 5% of the value traded. The voucher would permit to track the details of the transaction. This component is proportional to the number of trees, and thus focuses on the second aspect, that of growth of production

- Thirdly, if a farmer wants any extra input amount, the government could make available inputs that are only partially subsidised, or sold at a discounted price of, say, 50%. Farmers with access to funds would then be able to invest in their cashew trees

This system, in short, would permit the poorest farmers to get as much as possible out of their trees, thanks to the flat component; all would contribute in proportion to their trees, thus improving productivity, thanks to the proportional component; finally, farmers would also be incentivised to invest more of their own money in inputs if they can afford it, thanks to the discount. All the parameters should be set to optimise the return on investment of the subsidy.[57]

Admittedly, this comprehensive set up is rather complex, because it tries to combine productivity, the exclusive focus of the current system, with both equity and with incentives to investments in productivity. Still, it would not be unmanageable, and it is possible to fine-tune it by running experiments, or 'randomised trials', that test different settings of the subsidy system in different districts, evaluate the results, and moving towards the settings that guarantees the best outcome in terms of economic growth and poverty alleviation. Yet, if this is deemed too complex, a simple, but more redistributive policy should be tested, as most cashew farmers tend to be in the very low income bracket, for instance by retaining the current system with, say, a 45% subsidy, while using the extra 5% to fund a flat amount, equal for all farmers.

Having looked at the return on investment and at the per-farmer distribution of the subsidy, there is another, even more paradoxical distortion due to subsidising inputs on a percentage basis that needs to be discussed: by lowering the difference between the more expensive inputs and the cheaper ones (for instance, the 'generic' ones), it **decrease the incentive to focus on cheaper inputs**. For instance (see table 7), if the average input costs Tsh 1,000 per

[57] The current setting is actually a particular case of the system above, with no flat subsidy, no discount, and a 50% 'proportional' subsidy with contribution to the input fund set on a per-kg basis.

tree, a 50% subsidy makes it Tsh 500 to farmers. The same subsidy will shift a generic input from Tsh 700 to Tsh 350: the gap between the expensive and the cheap type halves from Tsh 300 to Tsh 150, and the pricier one gets 43% more subsidies. An alternative would be a flat amount per kg of input: subsidising both types of input by Tsh 400 would cost less in total, it would retain the gap, and the generic input, now at Tsh 300 per kg, would be half the cost of the expensive one, thus making it much more appealing.

	'Expensive' input	'Cheap' input	Gap
Full price (Tsh/tree)	1000	700 (-30%)	300
Price to farmer, 50% subsidy (Tsh/tree)	500	350 (-30%)	150
Value of 50% subsidy (Tsh/tree)	500 (+43%)	350	150
Price to farmer, Tsh 400 flat subsidy (Tsh/tree)	600	300 (-50%)	300

Table 7: Subsidy, allocated as % of price or as a flat amount per kg
Source: TechnoServe

Lastly with regards to subsidies, we have seen that the current funds on average suffice to cover some 10-15% of the needs of most farmers. Inputs are scarce, and **extra funds** are needed. One solution mentioned above is to permit farmers to increase their contribution to the ITFs, although that would also increase the total funds devoted to the subsidy. A source of funds that should be tapped into is the revenue from the export tax. Exports of raw nuts are taxed at approx. 10%, as a result of the MOU between government and processors stipulated in 2005. This measure is aimed at incentivising in-country processing, inspired to the Mozambican experience, where also thanks to a similar tax processing has grown manifold from 5% to 40% of total in-country production; it has proven effective, as processing in Tanzania has grown from 5% to 20-30% of total production. As global markets set the price of raw nuts, this tax means that processors can source raw nuts at approx. 10% discount. However, this discount is effectively funded by farmers, who are sustaining the processing industry by getting lower price for their crop. In order to make this tax equitable, the revenue of tax must reliably be directed back in the farmers' pockets. As some 80% of the crop is exported and thus generating revenue via this tax, the effective discount on their crop would go from 10% to 2%. Yet, at the moment farmers see little of the export tax revenue: what is traceable of it is used for a number of

purposes that, at best, are supporting farmers only indirectly. The most limpid way to use this revenue is to feed it into the ITFs, provided, of course, that the ITFs are transparently managed as discussed above. This would both make the export tax more equitable, and it would give a much needed increase to the funds dedicated to inputs. If, everything else staying the same, all the export tax were to go into the ITFs, they would roughly triple them, bringing availability of inputs from 10-15% to 35-45%.

There are a number of other longer term issues that need to be addressed:

- We have already discussed how well functioning input markets are essential to lowering prices and then promoting their own growth, and the role that an **efficient distribution network** would play. Instrumental to it is permitting other entities, such as farmer associations or buyers, to collect the funds and distribute vouchers. This would need to be tightly regulated, but similar systems are very common: for instance, the Beninese agricultural markets in cotton, and increasingly in cashew, are based on the notion of buyers advancing credit; in Tanzania Olam has advanced credit to farmer groups and got repaid in raw nuts.[58] The distribution costs, which represent a large share of the input costs to farmers, differ significantly by region: this may mean that some inputs are economically viable only in the most accessible areas, and should be treated accordingly
- **Training** is another important driver: inputs must be applied appropriately and at the right time. Again, the role of farmer associations is central. Farmers need assistance to evaluate the amount of inputs that is optimal for them, how and when to distribute them properly, and to actually applying them. If they spray inputs efficiently, they will be more productive, making inputs more profitable and thus creating a virtuous circle of economic growth. Extension services are supposed to assist on this front, but, as mentioned above, their performance is strongly questioned by farmers, and they shouldn't be counted on to represent the most effective solution to the problem. Farmer associations could help to fill this gap, at least by complementing the training

[58] Now this is no longer possible because of the WRS, that makes it impossible for processors to collaborate with farmers.

offered by extension services officers. They could also assist with the actual distribution of the inputs, and they could coordinate the usage of those rare input blowers, which, as mentioned above, are a limit to input usage.

- **Availability of credit** is necessary to expand the input markets. Farmers need funds to purchase inputs before the trading season, that is, when they typically do not have any cash. The current policy is that of creating ITFs that allocate a portion of the money from trade to the purchase of inputs for the following season. This solution has a number of advantages: it doesn't depend on an effective credit market, which is notoriously hard to implement in rural areas; farmers don't need to pay for credit, increasing their profits; there is no need to deal with farmers defaulting on their credit. It may allow farmers to earn some interest on their funds. However, for it to be effective, ITFs need to be executed flawlessly and transparently: we have seen the extent to which that is not the case currently. Rural credit would represent an alternative, and additional avenue to input markets. A rural credit market remains a priority for other purposes as well: the government should actually consider investing in input distribution to help develop the penetration of rural credit
- A prominent impediment to efficient markets is represented by the **logistic** challenges involved in transporting large amounts of goods to the farm gates, because they increase costs, but also because they represent a barrier to new entrants who don't have a local network. The facilitation of the distribution of inputs can be encouraged via promotion of local transportation services, infrastructure development, incentives to economies of scale, collaborations among competitors, and market linkages
- **Hidden obstacles**, such as fuel taxes or licenses to distributors, are charged to farmers
- **Packaging** may also affect farmers' take up: they may wish to purchase small portions of inputs at a time, while the available packs weigh some 25 kg. Smaller packages may be more expensive, but also more effective, as shown in other countries
- **Research** into more effective types of inputs should continue: the Naliendele institute, which is responsible for it, may be asked to provide regular, e.g., yearly, bulletins to update policymakers and stakeholders about the state of the research

In summary:

- Inputs could more than double productivity, and increase cash income accordingly
- However, only 20-30% of farmers use inputs, and over 80% are very unsatisfied about their quantity, price and timeliness
- This state of affairs is due to under-developed input markets and a highly inefficient and murky policy, involving the mismanagement of subsidies and dedicated input funds
- There are a number of quick wins to start addressing this situation:
    - Competition to be instilled in the selection of the suppliers
    - A voucher mechanism must be in place to track farmers' contribution to the ITF
    - Voluntary contribution to the ITF, above a minimum level
    - Distribution to occur at pre-selected points only and be timely
    - Transparency of all transactions and processes, to be communicated to farmers
- In the longer term, the government should:
    - Provide stakeholders with instruments such as productivity and elasticity curves
    - Analyse the impact of its current subsidy system, while planning to phase it out, namely: its return on investment, its redistributive effects, its market distorting consequences, and its size, tapping into the export tax
    - Promote the development of an efficient local distribution network and the collaboration of buyers and farmer associations
    - Facilitate the involvement of farmer associations not only in distribution, but also, for instance, in training and access to credit
    - The development of credit markets would complement the ITFs
- Making the system more efficient can start a virtuous circle leading to more efficient markets, lower prices, and higher take up
- The main obstacles are represented by PCSs, that are likely to be gaining from their current de facto monopoly on input distribution, along with some private sector actors; all institutions are likely to resist feed the export tax into the ITFs
- The implementation of some of the short-term initiatives would show government's commitment to tackling this issue

Trade of raw nuts

Trade in agricultural commodities is often conflictive and politicised:

- It is logistically challenging, due to the remoteness of the areas involved
- It is subject to high volatility, owing to the compounded effects of weather, pests and global prices
- It is the locus where drastically different economic agents, farmers and buyers, meet and often clash
- Attempts to regulate and coordinate the whole process often end up making things even more complicated

There is probably no better illustration of these controversies than the trade of cashew in Tanzania.

We have discussed above how Tanzanian cashew moved from a trade monopoly to a 'liberalised' market, where buyers could source their cashew directly from farmers. Despite showing early promise, we noted that this system failed, with farmers complaining, mostly with reason, of being exploited by middlemen and, more speculatively, by colluding exporters.

In hindsight, it should be clear that the particular brand of liberalisation that took place in Tanzania was very likely to encounter this type of problems. If cashew farmers have to negotiate directly with buyers, it is doubtless that they will hold the weaker position, for several reasons:

- Unlike buyers, their livelihoods depend on their crop
- If they refuse to sell to a buyer, they risk to never sell the crop
- They can't move to seek better prices
- They have no information about the current terms of trade and about prices

Hence, it is unfortunate but only to be expected that buyers and middlemen would take advantage of the situation, and blaming them for acting 'unfairly' seems quixotic as they are economic, profit-maximising agents.[59] This state of affairs is in place because the move from

[59] Most people in the same position would do the same: as pointed out by the CBT, very often the middlemen are the younger relatives of the typically aged cashew farmers.

monopoly to free markets happened without empowering farmers to play on a level field, where they'd have access to the services they need to negotiate, such as effective associations and market information. Real liberalisation should be regulated: it combines freedom of trade with rules, services, infrastructure and institutions to sustain it and make it efficient. It should not be intended as a regulatory vacuum. Yet, this is the way it turned out to be in cashew, a sector especially ill-suited to it, because farmers are so strongly disadvantaged in dealing with buyers, and because most of them derive almost all their cash income from cashew.

To understand the dynamics of the industry, it must be appreciated that farmers act as so-called 'price takers': the price of their produce is set by the global markets, as Tanzania, representing less than 5% of global cashew production, cannot influence them. In a properly functioning market, farmers trade at the global price, after having deducted all the costs to get their produce from the farm to the 'global marketplace', or, in this case, the port, where the price is so-called Free-On-Board or FOB.[60]

In this 'price-taking' context, for the farmers to get the highest possible price, the priority should be to reduce to its minimum the cost 'wedge' from farm to 'global marketplace', i.e., the difference between FOB price and farmer price, which includes transportation, financing, trading costs, as well as taxes. This is a cost that is mostly independent from the price of cashew, and acts as a fee per kg of production. The only way to drive this costs down is by making the trade of raw nuts as competitive and as efficient as possible. Sadly this liberalisation did exactly the opposite, by effectively creating the conditions for buyers and middlemen to charge whatever price they wanted for their services, thus inflating the cost 'wedge', and pocketing the margins.

These problems are not unique to cashew, nor is it unique to Tanzania: in Mozambique, where the cashew industry is most similar to Tanzania, the trade of raw nut is also unregulated as it used to be in Tanzania. This, like in Tanzania, does lead to a large gap between farmer price and FOB price, but it has not prevented the development of a thriving processing industry, that in less than 10 years went from 5% to 40% of processing of local production, and, more

[60] As a matter of fact, this logic was the one adopted by the CBT when calculating the 'indicative price' mentioned above: it looked at the price of cashew in the main Indian markets and then deducted all the costs to get the cashew there from the local go-downs.

importantly, it has not led to a conflictive and politicised operating environment such as the Tanzanian one.

Unfortunately instead of blaming these problems on the flawed implementation of market liberalisation that took place in Tanzania, which went only half-way in that it freed trade but didn't provide the necessary services and institutions, many stakeholders still blame the general notion of liberal markets; this partially justified the return to the central planning that we will describe below.

As we have seen, in order to tackle the 'middleman' problem, the state introduced the WRS, which makes farmers sell via PCSs and via warehouses. The similarities with the pre-liberalisation system should be evident: farmers deliver their crop to a central, state-owned and -controlled entity, which manages the marketing, and get paid whatever it is negotiated by that central entity. In fact, it is possible to describe the development of trade of raw nuts as quite typical of a long-term process of effective liberalisation of a planned economy: it starts out as a state-owned monopoly, then it swings all the way to the other side, as a free-for-all type of liberalisation with no institutions and services to support it, and then goes back to a more market-friendly state-controlled monopoly, such as the current 'cashew WRS'. This paper, in fact, will recommend a slight move back in the opposite direction, by building on the recent reform and thus combining the undeniably positive aspects of the WRS with the extra transparency, flexibility and efficiency provided by adequate liberalisation.

What are the positive aspects of the 'cashew WRS'?

- The most notable one is that, as long as private sector buyers are available, farmers are guaranteed that their produce will be purchased at a known price, which is connected to global prices. Farmers are thus no longer dependent on middlemen to sell their crop, who charge arbitrarily overblown margins. This was the goal of the WRS, which was accomplished
- If the auction is effective, it will ensure that prices at the warehouse are in line with global markets

- From the point of view of the buyers, they will appreciate that they no longer need to purchase at village-level, as the bulking of the goods is done by the state. This could lower significantly barriers to entry and then increase competition for Tanzanian nuts.
- Buyers will also benefit from knowing in detail the quality of the product they are bidding for

These positive aspects come with negative ones. Logistic and organisational issues related to implementation of the WRS are likely to be due to the system being new. The most notable ones include:

- Mtwara farmers were paid only 60% of the set price as they delivered the crop: this was done to reduce the flow of cash moving at the PCS level, but, provided that some internal controls are in place, it unnecessarily upsets farmers (in fact, in Lindi farmers were paid 100%)
- All the details of the WRS, from the catalogues of every auction, to the costs of each step of the process, to the details of all payments to farmers, should be publicly available, ideally online. This is important because the success of the WRS is based on trust, which can be attained only if all its aspects are open to public scrutiny. Notably, if farmers could appreciate that, thanks to the auctions, they can reap higher prices, all actors involved in the WRS would stand to gain much in credibility and goodwill
- With regards to the auction, the closed bidding system is not only intransparent, but it actually helps buyers to form a cartel, which is exactly what the WRS was meant to dismantle. An auction should drive the final prices up over time. A closed system permits buyers to collude by agreeing on one another's bids. As the bids remain undisclosed, it is impossible to publicly assess the impact on prices of auctioning the crop. An open bidding system would permit a comparison of Tanzanian prices with international ones and identify anti-competitive behaviour if it's there. The WRS committee is fortunately considering opening the bidding for the next season
- The handling of price is also likely to stifle the development of markets: a base price is offered to farmers, and a minimum bidding price is set for the auctions; in last season they were Tsh 610 and Tsh 850 respectively. The difference is the cost of the WRS. This

approach is inflexible in two ways: the price should differ both from district to district and over time. In the first case, that is because the transportation costs vary significantly depending on the remoteness of the growing area, in the second one it is because, as noted above, cashew price can vary up to 20% within a season. In theory this can be accommodated easily by the current system: by setting both the 'farmers' price' and the 'bidders' price' at a sufficiently low level (i.e., the lowest seasonal price in the remotest area), the auction will then increase price according to both dimensions. This is already taking place, but it doesn't filter down to farmers: the 'auction premium' they get is informally calculated as an average across all regions and the whole season. The seasonal effect is probably less important, as, in order for farmers to take advantage of it, they should forecast fluctuations in cashew price through the season, something they are not in the position to do in the short term. On the other hand, the per-district variations are not negligible (the cost of transport from a remote area to the neighbourhood of the port can amount to Tsh 100 per kg, or 15% of the price to farmers), and currently the WRS distorts the market so as not to capture them: this means that, even if for farmers in the remoter areas cashew may be uneconomical, they will keep cultivating it thanks to what is essentially a subsidy they receive from the farmers in the more accessible areas. One may argue, not without reason, that the remotest areas do require extra assistance, but currently they receive it in the form of an implicit subsidy funded by their colleagues nearer to the distribution network: this is clearly not the fairest and most effective way to assist them

- Last season's minimum bidding price was set as too high, leading some processors to stop procuring the crop. Only once a drop in Brazilian production fed into the markets, increasing the price of kernel and of raw nuts by some 30%, the minimum bidding price became economically viable for a Tanzanian processor. This means that this season the WRS functioned largely thanks to good luck, which may not be repeated next year. Many processors are already considering stopping operations if the minimum bidding price remains at the same level of the past season. Hence, while this is a tactical issue, it may cause the collapse of the industry, just like any sort of price fixing

- An increase in the number of warehouses would reduce transportation costs and increase competition amongst them: these advantages must be set against potentially higher management cost to find the right number and distribution of warehouses
- One option that could be considered, perhaps in the future, is to use the WRS also for other locally grown export crops, such as sesame or groundnuts

Yet, while these issues have to do with the specific implementation of this WRS, the most deep-rooted problems are closely related to its status as a monopoly on the trade of cashew. In summary, there are four problems:

- The WRS is costly and inefficient
- It doesn't permit farmers to collaborate with processors
- It doesn't reward farmers if they want to improve the quality of their crop
- It doesn't permit processors to predict their intake of raw nuts

We'll look at each of these points in this order.

The cost of the WRS is approx. Tsh 200-240 per kg, or 20-25% of the price buyers pay. Various sources indicate that the services provided by the WRS were previously executed at approx. Tsh 100-150 per kg (based on an analysis of every step of the supply chain). To reinforce this point, in the 2006/07 season, typical farmer price was Tsh 600 per kg, or 83% of typical FOB price of Tsh 720 per kg (see table 8). This gap is the cost of marketing and logistics and, at Tsh 130 per kg, it is in line with the analysis mentioned above. In the 2007/08 season, the two prices are respectively Tsh 750 and Tsh 1000: the gap is approx. Tsh 250 per kg, and the ratio is 75%. This is the cost 'wedge' referred to above, which should be as low as possible to grant higher prices to farmers. In other words, the extra cost of the WRS is currently being charged to farmers.

Tsh/kg	2006/07	2007/08 (WRS)
Farmer price	600	750
FOB price	720	1000
Gap (Cost of trade)	120	250 (**+130**)

Table 8: Cost 'wedge', before and after the WRS
Source: Industry interviews

What matters more, however, is not whether in the past season the WRS provided its services at a good price, although it probably didn't. The problem is that by its very definition as a monopoly, the WRS has no incentive to operate cost-effectively. For instance, the managers of the WRS don't need to negotiate as best as they can on the cost of transportation, insurance or warehousing, because it is not them, or the institution they represent, who pay, but the farmers. Further, if the crop is grown near a processing factory, it is inefficient and unnecessarily expensive to transport it to a warehouse and then back again to the processing factory.[61]

This leads to the second point: if a processor wanted to work directly with farmers, for instance by rewarding them if they meet certain quality criteria, or if they want to offer credit for the purchase of inputs (both initiatives were taken by Olam in 2006-07), or if they wanted to explore niche markets such as organic (as an entrepreneur is attempting to do in Masasi), or if they want to collaborate in any other way, they can't.

With regards to quality: while the crop of a farmer is evaluated by the PCS as 'standard' or 'under-grade', all the more detailed quality criteria that are relevant to buyers are assessed at the warehouse. Buyers are ready to pay up to 10-20% premium for better quality nuts, but farmers are not incentivised to work to capture that premium, as at the PCS their crop gets diluted with that of several dozens other farmers. Farmers, in other words, miss an opportunity to get a better price for their crop.

The fourth and last issue affects the processors: they can't know whether their bids will be successful, thus they will not be able to plan precisely the activities of their factory to keep it at full capacity. Considering their already thin margins, this can be a significant issue, which some processors have already faced in the past season. They also risk that the minimum bidding price is set too high, as it was in the beginning of the past season, which would drive them out of business.

All these issues have one thing in common: they stem from the fact that there is a monopoly on the trade of cashew. The solution suggested here is not, however, to go back to the wild liberalisation of the past decade. The WRS has provided tangible benefits and has already

[61] Some processing factories had to go through this process as they didn't act as warehouses.

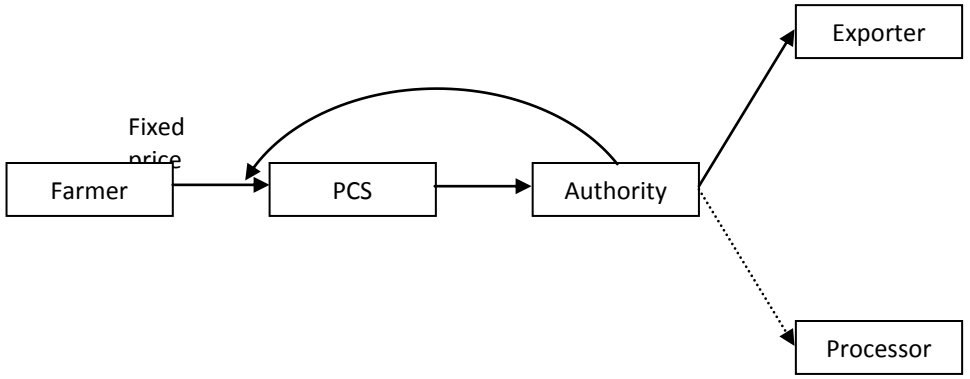
gathered much political consensus. What we recommend is thus to preserve the WRS, and in fact extend it to other regions and invest to make it as efficient as possible in the ways mentioned above, but at the same time permit farmers to sell directly to buyers if they want to, of course following appropriate procedures. This simple 'hybrid' system retains all the benefits of the WRS, helps to solve the issues listed above, and does not introduce any new noticeable cost or risk. See chart 28 for an illustration of the marketing systems discussed so far.

First and foremost, in this hybrid system farmers can still be confident to sell at a known price, as the WRS is still in place. Not only: they can get even higher prices, as they finally have the upper hand in negotiating with buyers. The WRS price would effectively work as an actual, and enforceable, minimum price: if buyers can offer more, farmers will sell to them; otherwise, they can always sell to the WRS. Buyers and middlemen would thus deal with farmers without being able to exploit them. Given that the global price is the reference for all actors, this means that a buyer will prefer to purchase directly from farmers only if the buyer's costs to get the goods from the farmer to the final destination are lower than the WRS costs. If that's not the case, the buyer will prefer to purchase from the WRS. Only established buyers or processors will find it convenient to set up their own buying network, while foreign or occasional buyers will trade via the WRS. If the WRS is the most efficient solution for all buyers, the current situation will re-propose itself, with all buyers purchasing raw nuts from the WRS. Another way of looking at it is that the WRS would act as a much needed 'safety net' for farmers, guaranteeing them they can sell their produce at a reasonable price, thus addressing the market failure which made 'liberalised' cashew markets ineffective in the past decade, while at the same time permitting a healthy competition among private sector actors.

This competitive environment would push the WRS to become as cost-effective and efficient as possible, in order to offer a good price to farmers and thus to get as much trade volume as possible to go through its system. The more a WRS is inefficient, the more buyers would find it convenient to go directly to farmers. All in all, this would reduce the overall cost 'wedge' and then permit farmers to get better prices.

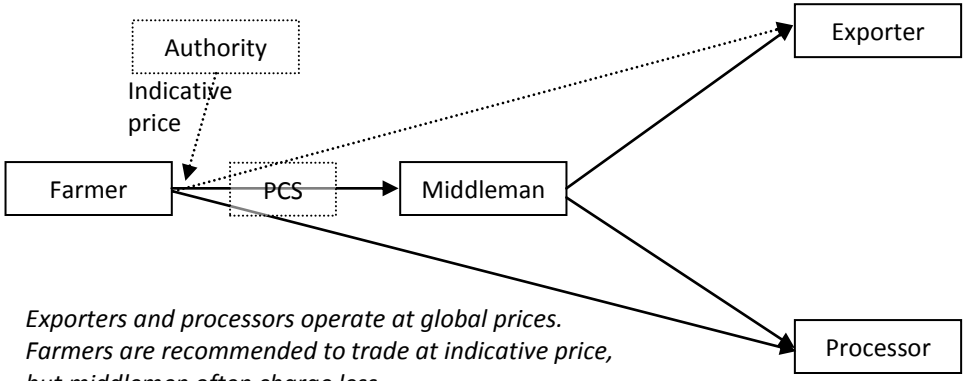
Chart 28: Raw nut marketing: Trading models

Marketing Authority (till 1993)



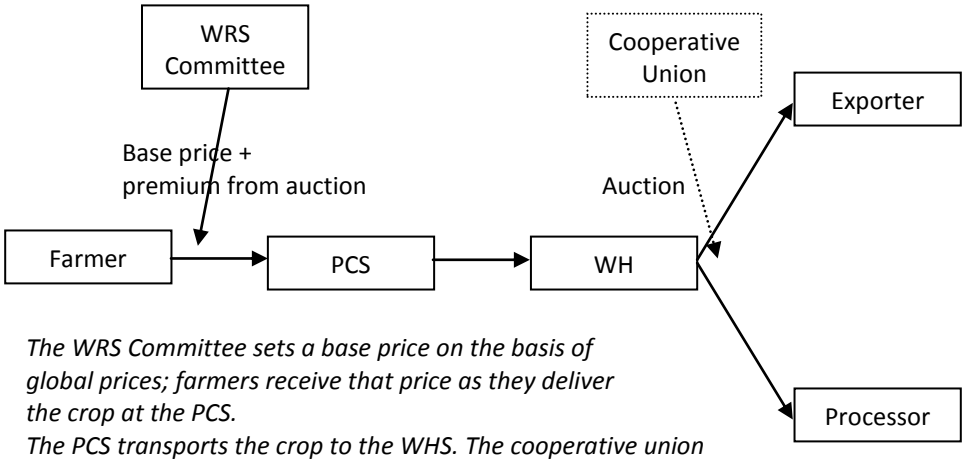
The Marketing Authority sets a fixed price on the basis of global prices; farmers receive that price as they deliver the crop at the PCS. When this model was active the in-country processing was minimal

"Liberalised" Market (1993-2006)



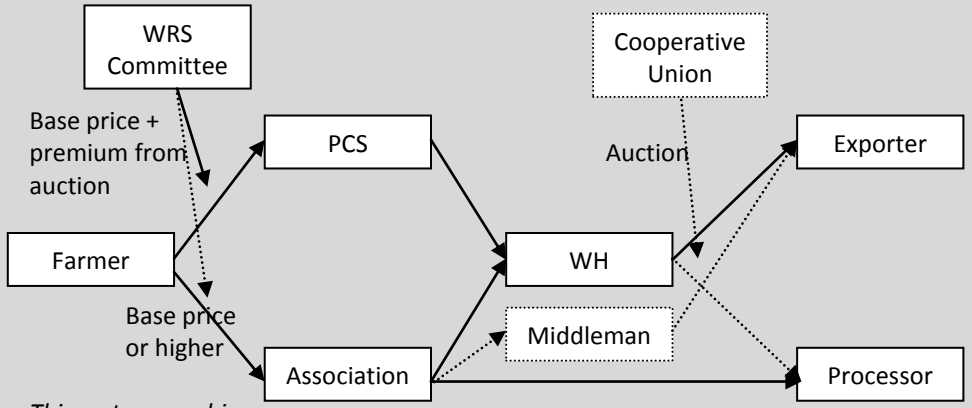
Exporters and processors operate at global prices. Farmers are recommended to trade at indicative price, but middlemen often charge less. Processors may develop a network to purchase directly from farmer; most exporters will purchase from middlemen. PCSs are only used as go-downs, and middlemen can go to farm gate if they wish

Warehouse Receipt System (2007-)



The WRS Committee sets a base price on the basis of global prices; farmers receive that price as they deliver the crop at the PCS. The PCS transports the crop to the WHS. The cooperative union runs regular auctions for processors and exporters. The highest bidder collects the crop. The premium from the auction is averaged and in part redistributed to farmers.

Hybrid System (Recommended)



This system combines the best aspects of the WRS and the free market: farmers are sure to get the WRS price, but can reap more; WRS and PCSs face competition so must be efficient; farmers can benefit from collaborations with processors; middlemen can't exploit farmers but can contribute positively

It should be clear that under this 'hybrid system' farmers and buyers, notably processors, could work together if they wanted to. Farmers could for instance work with selected processors who would reward them for the better quality of their crop. The WRS could, and perhaps should, introduce a farmer-specific quality tracking system, for instance by giving quality certificates to farmers, who could then claim higher prices for their crop when the earnings from the auction are distributed. But, again, the WRS would be motivated to add this extra element of cost and complexity only if it made it more competitive: it wouldn't do it as a monopoly.

Finally, in this system processors would have an additional reason to work directly with farmers: in order to get a reliable, steady inflow of raw material. They would be likely to pay extra for that, which again would benefit the farmers.

Farmer groups or associations would have a very important role to play in this 'hybrid system'. They could negotiate with buyers on behalf of their members, in fact it would be expected that, in this system, buyers would typically deal with associations as opposed to single farmers. Alternatively, associations could sell directly to the WRS if they found that was the most convenient option. This would give farmers an extra incentive to organise in associations. Further, this system would in turn put pressure on PCSs to become more effective and competitive: another important and very attractive consequence of this 'hybrid system'. Farmers who can organise in associations to trade directly with buyers would do so, and those who can't or don't want to would always have the 'safety net' of selling to the WRS. Research shows that marketing is one of the areas where farmer associations can add most value.

The WRS committee is in fact already considering permitting all farmer groups, not only PCSs, to deal with the WRS. One may describe the WRS as a double-layered monopoly on trade: PCS are at the first layer, the warehouse at the second one. Effectively the WRS committee is already considering removing the first of the two layers of this monopoly: here we recommend removing the second one as well.

Farmer Business Groups (FBGs) leverage on the expertise of all stakeholders in the cashew value chain to deliver real value to farmers.

The model: the nonprofit TechnoServe helps groups of approx. 100 farmers to organise the FBG, which involves legal recognition, a constitution, a leadership, managerial training, and a set of procedures. Other NGOs such as Concern and ActionAid have contributed as well. Throughout their life, TechnoServe will assist FBGs in liaising with all other stakeholders, and will also provide agronomic training in collaboration with extension services officers, CBT and the Naliendele research institute, who also provide planting material.

The private sector is crucial to the FBGs: farmers get much needed agricultural inputs on credit from the input provider Syngenta/Mukpar, and they repay them when they sell the crop at market price to the collaborating processor Olam. The private sector actors share the credit risk and provide training. Olam incentivises farmers' focus on quality by offering a premium to farmers meeting pre-specified criteria. Banks provide credit as necessary, with TechnoServe's facilitation.

In summary, with TechnoServe acting as a catalyser, farmers get access to what they need the most: training, inputs, a guaranteed buyer at good price, and an incentive to quality. What is more, the FBG model is sustainable, as the partnership is in all parties' interest, and TechnoServe can phase out as FBGs become increasingly independent, and replicable, once the operating model has been proven.

The results: after one year, in the season 2006/07 the 8 FBGs participating in the programme increased their income by over 30% on average, and repaid over 90% of their debt. Even more impressively, the most committed groups managed to nearly *double* their income.

However, in the past season the FBGs could not operate. The WRS makes it impossible for farmers to get input on credit from buyers, as they are forced to sell via the WRS. So the 1200 farmers participating in the programme couldn't get inputs, and their opportunity for extra income, as well as the momentum garnered, was lost.

Box 1: An effective partnership between private sector, public sector, civil society, and farmers: the Farmer Business Groups

It is worth noticing that this 'hybrid system' is effectively an example of that 'regulated liberalisation' that was mentioned above: farmers would be free to sell as they choose, but they wouldn't depend on buyers and middlemen as they could rely on an institution, the WRS, that should be in place with the explicit purpose of making them active participants of the free markets. In the long term this could represent a competitive advantage for Tanzanian raw nuts in this otherwise somewhat commoditised market: thanks to efficient local raw nut markets and all related services, Tanzanian cashew could get a premium over global prices that could be channelled back to farmers.

Is all well with this 'hybrid' system? We can think of three possible objections to it, none of which refutes its benefits:

- The first one is the classic defence of any monopoly: a unique provider of a service could be more efficient and cost-effective than many. This is typically true only if there were very large economies of scale, that is, if a large portion of the costs were fixed; however, this is not the case in a warehouse, as their managers confirmed: over 90% of the WRS costs are variable, i.e., depending on the traded volumes; only overhead and security costs are fixed. In other words, this means that the WRS does not need to be a monopoly in order to be viable and efficient
- The second objection is that in a 'hybrid' context buyers may still be able to exploit farmers. This doesn't seem credible: if the farmers are given clear instructions, and if they trust the WRS, they could certainly understand that, if a buyer offers them less than a given, and widely advertised, WRS price, they should refuse the offer and sell to the WRS instead. So the critical factor would be a pervasive information-distribution programme to farmers, combined with efforts to inspire trust in the system, as discussed above with reference to transparency
- The last objection is: if most buyers go directly to farmers or farmer associations, would the WRS collapse? This is very unlikely to happen, because running the WRS is very cheap, as the volumes it needs to trade to 'break even', or to survive, are probably less than 10% of total Tanzanian production, and it doesn't require any expensive infrastructure to be kept up over time: as the warehouse space is amply available, the volumes going through it can fluctuate without significantly affecting the WRS. A rather paranoid scenario would see buyers artificially increasing their buying price for a sustained period of time to make the WRS collapse: not only this is unrealistic given both the two points above, but for buyers it wouldn't be financially viable or sensible. However, even this highly improbable circumstance could be dealt with, by supporting the WRS with some small earmarked extra funds, from the government's coffers, to increase the farmers' price on an ad hoc basis, which would attract higher trade volumes. Again, this scenario is extremely unlikely, and is mentioned here only to point out that, even in the most adverse conditions, the 'hybrid' system would survive.

In summary:

- Raw nuts marketing is central to the industry and to the needs of its main stakeholders
- Tanzania has attempted more than one solution to manage raw nut trade, none of which has proven compelling; however, the recently introduced WRS has the potential to solve some of the industry's problem: its main advantages include:
    - Excludes the middlemen, often exploiting farmers
    - By auctioning the crop, it trades at prices in line with global markets
    - It provides a bulking service to buyers
    - It provides detailed information about crop quality for buyers
- However the WRS, presents significant issues related to its implementation, including:
    - Lack of transparency
    - Closed bidding system
    - Unpredictable minimum bidding price
- Furthermore, the WRS is a monopoly on trade, and as such
    - Is demonstrably costly and inefficient
    - Prevents much needed collaboration between processors and farmers
    - Does not reward focus on quality at farmer level
    - Prevents processors to manage procurement to work at full capacity
- A 'hybrid system' recommended here is a form of regulated liberalisation that permits farmer to choose whether to sell via the WRS or directly to buyers:
    - It retains the role of safety net of the WRS
    - It pushes both WRS and PCSs to be more effective
    - It incentivises collaborations farmer/processors, which would reward quality
    - It doesn't present notable costs or risks
- Most resistance is likely to come from policymakers who already publicly praised the WRS and from PCSs who gain from it
- The relaxation of the WRS monopoly requires minimal action other than communication to farmers, and could be implemented starting from next season

Processing of raw nuts

Processing plays an especially central role in the cashew industry:

- Its value added is between 30% and 40% of the value of the raw material, or over US$ 25 million of yearly extra export earnings at the current level of production
- A large share of these extra earnings would go to the least privileged ones: the most competitive type of cashew processing is so-called 'manual', and employs large numbers of low-skilled labourer, of which typically 90% are female. Processing all current cashew production would employ over 25,000 people. The capital requirements are low, and the machinery necessary for manual processing is cheap
- Perhaps most importantly, processors would represent an efficient, reliable and accountable end market for the 300,000 smallholder farming families who produce cashew in Tanzania. This is actually not merely a welcome bonus: India, the main buyer of Tanzanian nuts, is expected to fill its processing capacity with locally grown cashew in the next few years: Tanzania may soon find itself without a market for its raw nuts
- Processors could play a strategic role by collaborating with farmers in a number of ways, including access to credit, input distribution, logistics and storage, productivity, and quality. Examples of this collaboration already exist.

In short, processing is an opportunity for farmers, low-skilled labourers, local entrepreneurs, and, by increasing tax revenue, for local and national administration. So, why is this opportunity not being seized? The problems of the industry have been already illustrated in a previous section: in short, Tanzanian processors need to deal with a business-unfriendly policy environment and with fundamental competitive disadvantages.

As already pointed out above, the chief obstacles to the industry is the volatile policy environment. The first priority should thus be for processors and government to sit together and agree on some basic aspects of the operating environment that can be counted upon. This is possible, as the 2005 MOU proves.

In the following, the focus will be on ways in which policymakers can make the Tanzanian cashew processing industry more globally competitive. Below we'll look at all the key profit drivers, and review what opportunities each present, starting from the cost drivers. However, we want to stress that this is inevitably an incomplete list, and that the most appropriate levers should be chosen collegially with industry representatives.

- The main cost for a processor is that of **procurement of the raw nuts**, typically representing over 80% of total costs. This is actually the lever that is already being pulled in Tanzania, like in other African countries, notably Mozambique: the tax on export of raw nuts mentioned above is for processors a discount on their price. In both Tanzania and, especially, Mozambique this has proved to be effective, increasing in-country processing of local production from 5% to 20-30% and 35-40% respectively in less than 10 years. This discount is being funded by farmers, who get a lower price for their crop. As some 80% of the crop gets exported, farmers are supposed to get back this share of their funds in the form of subsidies to inputs and extension services. An increase in this tax could be considered, but we would urge to do so only once the mechanism that returns tax revenue to farmers is guaranteed to be as efficient and transparent as possible, otherwise farmers stand much to lose. This is not the case at the moment. Import of raw nuts from Mozambique should be allowed, with a bilateral agreement: this would make the market for raw nuts more liquid and efficient.[62] Another tactical option is to open the trade of cashew to certified processors a few weeks earlier than to buyers, as in Mozambique: this may help them get access to the highest quality crop at a lower price
- **Labour** is the second largest cost in manual processing. As mentioned above, it is crucial that processors can incentivise labourers to increase their productivity. A very effective measure, applied in Mozambique, would be to relax minimum wage rules for processors, at least for the first years in which they are striving to reach break even.

[62] The main processing countries, India, Brazil and Vietnam, have a ban on the export of raw nuts. This, however, is not an option in Tanzania, as there is not enough capacity to process all local production.

Processors should also be facilitated to get access to facilities where large pools of labourers, ideally female, are available

- **Financing costs** are also sizeable, and a dedicated development fund could certainly be helpful. As scale is crucial to the sustainability of the business, financing should be available not only to start up but also to scale up
- Linkages to help processors get access to the **machinery**, typically produced in India, are already present but could be strengthened
- Processors have already had preferential access to **facilities**, especially the large-scale mechanised factories mentioned above, but the process to buy or lease state-owned facilities should be formalised and made more transparent: the mechanised factories are all privately owned now, but most of them are not operating; further, recently one processor had to negotiate for 2 years to be able to use some otherwise unexploited facilities
- Processors should always be able to **run at full capacity**, which should be reflected both in procurement (the current WRS is an obstacle to it) and in the provision of labour, energy and financing; reliable availability of all these is thus very important; access to reliable energy is especially important for mechanised factories
- **Infrastructure** is another significant driver: when investments in infrastructure are prioritised, the development of the processing industry, especially in the south, where there are few other industrial opportunities, should be taken into consideration
- The **fiscal environment** could be improved significantly: an easily implementable example would be the inclusion of cashew processing in the list of 'cottage' industries. Notably, any tax reduction on profit would probably be ineffective in the first few years of the life of a factory, as it is striving to make a profit. Labour taxes on low-skilled workers are already very low. Creative forms of tax incentives are possible and should be actively pursued: some may be effective but would require a strong budgetary commitment, as in Nigeria, that provides a 30% tax rebate on value addition (Nigeria's processing capacity of 20,000 tonnes would not exist without it); others may pay for

themselves, like the Indian one, where exporters obtain a 3% duty drawback on the taxes they pay, which can be used on imports and, crucially, can be traded: this could increase exports and then ultimately generate extra tax revenue.

- Processors should have access to high-quality **technical assistance** in order to learn international best practices: 'lean' management of a factory is often what permits it to be sustainable

With regards to revenue drivers:

- The main one is the price of kernel. That price is set globally, so there is limited scope of intervention. However, cashew comes with significantly different grades, whose price differentials are in the order of 40% from benchmark. Kernel buyers reward scale, by preferring containers with only one grade of cashew. **Incentives to bulk sales** of kernel would then be beneficial, and the development of an apex group, and of a brand, like in Benin and in Mozambique, could be very successful
- Assistance to the establishment of **market linkages** with international buyers would also drive up kernel price. Market linkages have much room for improvement especially for the lower grades of cashew, which are less liquidly traded
- **Quality** is the other key revenue driver. Permitting processors to measure quality as they purchase is crucial, and the WRS system does that satisfactorily. However, it doesn't incentivise farmers to focus on it, which means that Tanzanian raw nuts' quality will not improve over time. Processors should be allowed to collaborate with and reward farmers with regards to quality
- **Cashew by-products** may present some potential, especially cashew nut shell, cashew nut shell liquid (CNSL), and cashew skin. While some of these by-products are fully exploited elsewhere (e.g., CNSL in Brazil), attempts to take advantage of these opportunities in Tanzania have led to little so far, and altogether this is likely to represent a second order effect, improving profits by some 5% at best
- Another opportunity would be to work on developing a **local market for cashew**. Cashew nuts are typically deemed luxury products in Tanzania, thus their local market is

very limited. However, niches could be identified, for instance for use of lower grades for packaged snacks or for cooking. A study conducted in West Africa in 2007 provides some insight on this front, identifying opportunities in under-exploited channels such as hotels, airlines, or large employers such as the government, and in selling lower grades, either as broken nuts as a cheaper snack, or in other cashew-based products such as bars, butter, cookies, etc; other opportunities include African-themed branding (as in Benin with the "Pride of Africa" brand), development of wholesale distribution, and greater focus on appropriate packaging

In summary, at this stage the most promising areas of intervention include relaxation of minimum wage rules, preferential financing, tax incentives, technical assistance, bulking and potentially branding of kernel, a quality-focused trade of raw nuts, and development of local markets. However, a number of other options are available, some of which have not been contemplated here; only a comprehensive consultation with stakeholders, including both current and prospective investors, is likely to lead to the most effective incentive package. The experience of Mozambique, where in-country processing purchases some 40% of national production via some 20 processing units, should be taken into consideration: flexible raw nut markets, technical assistance, an active industry body and network of entrepreneurs, a 18% export tax, and the creation of strong market linkages via an export apex group and brand are the main factors behind this success. It should be encouraging that this happened despite the fact that typical quality of raw nuts in Mozambique is much lower than in Tanzania, making Mozambican processing less profitable.

As pointed out above, the key beneficiaries of a striving local cashew processing industry are the farmers, who would secure a long-term market for their crop. Furthermore, processors could benefit farmers also by establishing mutually advantageous collaborations. There are a number of collaborations that are possible, many of which have been already proved successful in Tanzania: here we list a few examples. For all of them the key requirement for their success is

that both parties benefit from the collaboration. Notably, none of this is possible at the moment, because the WRS forbids farmers from selling directly to processors.

A processor could guarantee a market for a group of farmers, or a farmer association: the processor could say that they will buy all their produce at a given benchmark price. This pact could be either exclusive or an option for farmers to sell there if they want to. In the former case the price paid by the processor would probably be slightly higher. Further, the processor could provide an incentive to quality: if farmers meet some objectively measurable criteria, they would get a premium. The processor may find it convenient to provide farmers with the training to produce higher quality crop.

Access to input and related machinery is often a key issue for farmers. They rarely have the cash to purchase inputs when they need them, that is, 3-4 months before the buying season starts. Further, most farmers are far from being able to afford input blowers: often there are only 2 o 3 per village, though they all need them at the same time. As a consequence, only some 20-30% of cashew farmers report to have ever used inputs. This damages them greatly: their cash income could more than double if they could adequately spray inputs on their trees. Processors could give farmers inputs on credit, and be repaid when farmers sell them their crop. This way, farmers would also have a guaranteed market for their crop. Olam had an agreement of this type in 2006-07 with 8 farmer business groups in Mtwara: as a direct result of it, farmer income increased by over 30% in one year, and some of these groups saw their cash income almost double.

Similarly, processors also need access to credit. They often can have it, but at a 10-15% interest rate. If farmers were willing to be paid a portion of what they are owed, say, 3 months later, reducing processors' need for credit, they could earn a 3-4% premium on it.

Lastly, farmers could participate in processing: processors often struggle to find extra space where to expand their operations, so they could outsource to the producers themselves the first stage of manual processing, the cutting, which requires simple machinery and no specific skills: an average farmer, producing 200kg of raw nuts, could earn an extra US$20 by cutting them, or 10% of her average cash income.

The participation of farmers in various stages of processing is very rare of in Africa, but it is very common in India and Vietnam: for example, a Vietnamese region processes some 50,000 tonnes with the collaboration of farmers, who over time learn to move upwards in the processing chain, from cutting, to steaming, peeling and grading. All of this works thanks to a local large processing factory that guarantees a market for the semi-processed nuts.

For several years one option has been mooted as an attractive opportunity for farmers: farmers groups to perform the processing from beginning to end. This is often referred to as small-scale processing, because it would typically need to happen at the village level, where, if all farmers were to pool their crop, they would probably accumulate the equivalent of a yearly volume of 200-500 tonnes max, approx. a tenth of an average viable factory. On paper, this is very attractive indeed: it would permit farmers to reap all the added value from processing, offer employment opportunities in areas where there aren't many, and give them a steadier, more manageable cash flow. Unfortunately, small-scale processing has proved to be very difficult to execute profitably. As noted above, processing margins are thin and must be managed very carefully. Managerial skills are likely to be an issue in farmer-level processing, and so would the logistics. Some capital is necessary for the machinery, which would need to be subsidised by the state. Even if all these issues were taken care of, as mentioned above, processing presents significant economies of scale especially at marketing stage: even a large farmer group wouldn't be able to fill one container with one grade, thus it would get lower price for its processed nuts. It is then unsurprising that, despite numerous attempts over the years, essentially nowhere has full-blown small-scale processing been proved to be viable.

The national industry body, the Cashewnut Board of Tanzania (CBT), is developing plans to tackle these issues by clustering several farmer groups to reach scale, and by identifying international markets that can pay higher prices for their nuts. A success on this front would indeed benefit the affected farmers greatly. However, the risks of being unsuccessful are also tangible. A cautious approach is then recommended, with small pilots to identify best practices and then progressive scaling up only if some the pilots succeed.

In summary:

- Processing is central to the cashew industry:
    - Source of value addition
    - Low-skilled employment opportunities
    - A reliable market for farmers
    - Hubs that provide services to farmers
- Tanzanian processing is limited and fragile for both contingent reasons, including:
    - Erratic policy environment
    - Inefficient raw nuts trading systems
    - Unhelpful labour laws
- And systemic reasons, which require extra incentives for the industry to strive:
    - 3-months of procurement a year
    - Low productivity
    - No local market
- Processing thus needs sector-specific incentives; the most promising options include:
    - A long-term commitment to a consistent policy environment
    - Relaxation of the WRS monopoly
    - More favourable labour environment
    - Incentives via taxation
    - Development of a local market
    - Market linkages and bulking and branding of kernels
    - Preferential financing
    - Technical assistance
- Resistance is likely to be specific to each recommendation: the liberalisation of the WRS may be opposed by PCSs, while friendlier labour laws would be opposed by workers
- The most far-reaching success would be the agreement about the basic shape of the policy environment; the other items are more tactical but acting on them would show goodwill

Other areas of reform

As discussed in the beginning of this section, there are two fundamental areas of reform, which involve the establishment of effective institutions local and national institutions. The additional 3 areas discussed above are instrumental to the success of the main two, and all are in urgent need for reform. However, there are several other aspects of the industry that would deserve extra attention. The expectation is that, if reform is initiated on at least some of the recommendations proposed so far, momentum would be gathered to start tackling those other issues as well. Yet, here we discuss two of them that do deserve to be mentioned.

Taxation of farmers

The fiscal environment for processors has been briefly covered in the dedicated section, and, thanks to the 2005 MOU, it can be improved but it is not business-unfriendly. The tax environment for farmers, on the other hand is noticeable for its inefficiency. This is probably not surprising: the local administration is eager to tax the main measurable economic activity in the area, and, as we have seen, farmers are not in the position to vigorously react to it, both because they may not understand the overall system of taxes and levies, and because even if they did, they don't have the channels and the skills to make their voice heard.

Chart 29 displays the basic breakdown of tax revenues: local taxes dominate being approximately 80% of it. Thus, maintaining the focus on farm gate taxes:

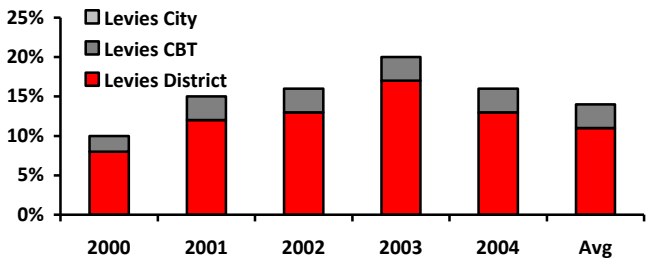


Chart 29: composition of cashew tax revenue, as % of export value
Source: Presentation to Task Force for Tax Reforms, March 2004, Interviews

- Farm gate taxation is well above that of other cashew producing countries directly competing with Tanzania (see chart 30). These taxes erode directly farmer's income

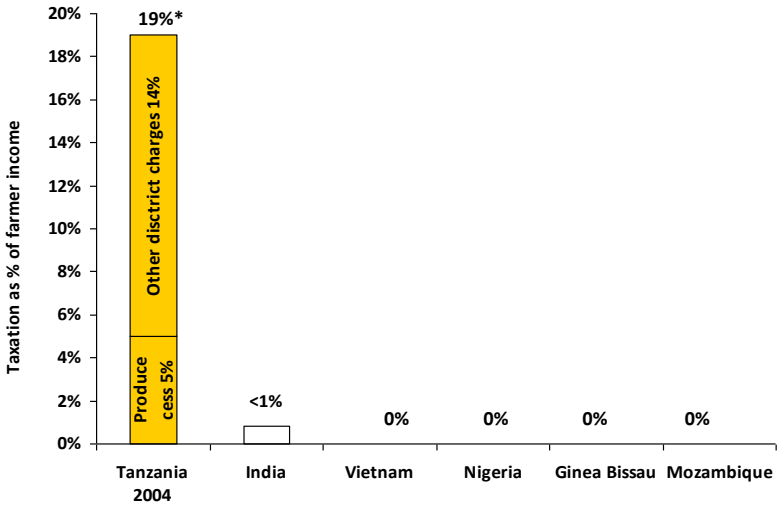


Chart 30: Farm gate taxes, international comparison

Source: Presentation to Task Force for Tax Reforms, March 2004, Corber Investment Company, Interviews

- Of that tax revenue, only less than 40% goes back to the industry (see chart 31), and there is no accountability over the effectiveness of its use

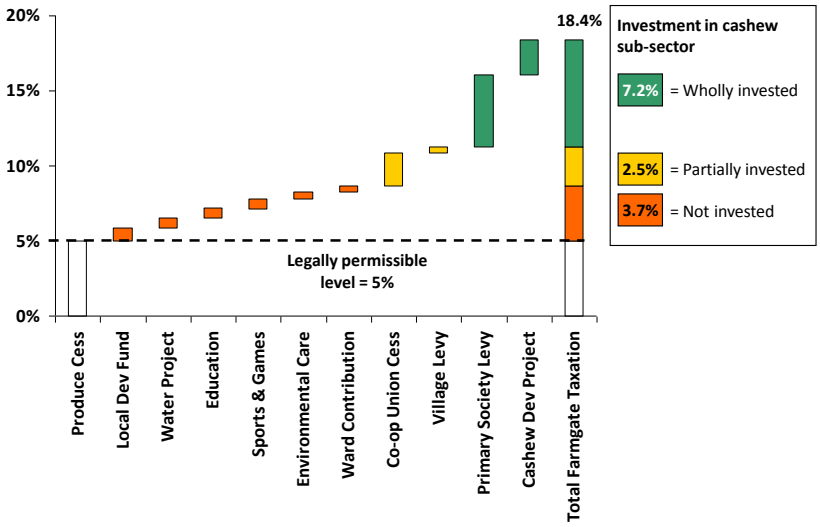


Chart 31: Composition of farm gate taxes, and contribution to industry

Source: Presentation to Task Force for Tax Reforms, March 2004, Corber Investment Company, Interviews

- Lastly, as we have seen above (see chart 22), farmers are very sensitive to the price they reap for their cashew, and so is production and then trade (see chart 32); farm gates taxes directly depress production, so that lower taxes may actually lead to greater tax revenues

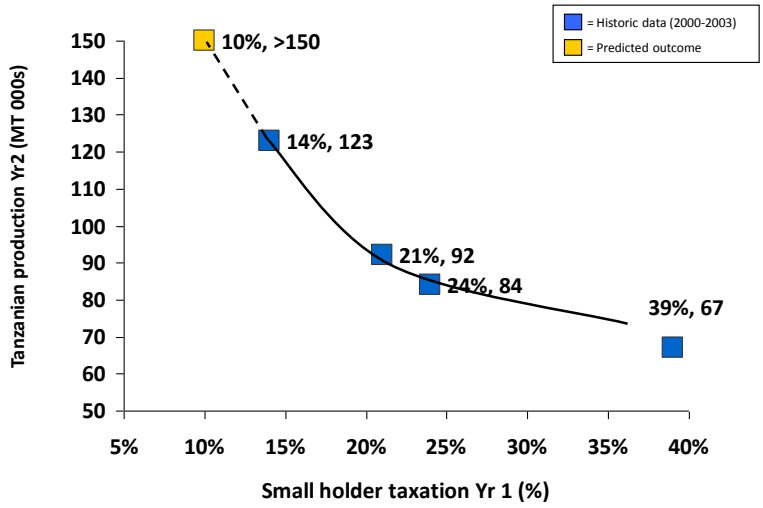


Chart 31: Taxation versus production
Source: Presentation to Task Force for Tax Reforms, March 2004, Interviews

In short, despite the fact that the Agricultural Sector Development Programme explicitly mentions 'nuisance taxes' as a plague of the industry, the farm gate taxation appears driven by political considerations as opposed to economic and pro-poor ones. Unfortunately, while a review of the tax environment has been requested by many stakeholders for years, the overall situation hasn't changed. This is a good example of where a strong industry body, combined with effective farmer groups, could add much value to the farmers. This is where the local administration is most likely to show much opposition: not only does it survive on these local taxes, but it is possible that some profiteers from it.

Lastly, it is worth referring again to the export tax, that, while it is not a farm gate tax, it is ultimately funded by farmers. We have discussed already above the importance of accountably

addressing these funds back to the farmers, in the short term as a contribution to the input funds, and in the long term as a reduction on overall taxation.

Umbrella association for farmers

One important focus of the recommendations contained here was that on institution building, namely of farmer 'aggregations' and an industry body. Those institutions are best places to account for local and national requirements respectively.

Another kind of association is possible: an apex of farmer associations that aims at representing farmers at a regional or national level. There are similar associations already, such as the Union of Peasants of Tanzania (UPT), but they are largely ineffectual.

In what ways would an apex organisation add value to farmers? One may argue that one of the key roles of a cashew industry body is that of representing farmers, making the apex unnecessary. However, the industry body must represent all stakeholders, thus an implicit national apex is already active every time farmers participate in a debate with the crop board, and its chief role is that of advocacy. Given that farmers must be represented at industry meetings, one role of the apex organisation would be that of coordinating the voice of the farmers.

Thus advocacy would be the primary role if the industry were in presence of an effective industry body. As that is not the case, in the short/medium term an apex could add value by performing the tasks that the crop board neglects, including:

- Lobbying with regard to input markets, raw nut markets, and taxation
- Identification of diversification opportunities
- Establishment and management of linkages with processors and with foreign buyers

Overview of recommendations

The opportunity:

- ~300,000 households earning almost all of their ~$200 yearly cash income from cashew
- Much of Southern Tanzania dependent on the crop
- Cashew as one of top 3 agricultural foreign exchange earner nationally
- Policy reform can help it to reach its potential, and at least increase 3-fold its contribution to GDP within 10 years, most of which would reach poor farmers and low-skilled workers
- Lack of it can lead to the industry's collapse

Focus areas	Why	Reforms	Obstacles
Services to farmers	- Cashew farmers need, among other things, training, access to inputs and credit, access to efficient markets, and opportunities to diversify to lessen their dependence on cashew - They receive none of the services they need: ~75% of them say the state does "nothing" for them, and 70-80% never used much needed inputs on their trees	- Define explicit, stringent criteria that an organisation must meet in order to qualify as a provider of services to farmers, in terms of governance and transparency - Extend the privileges enjoyed by Primary Cooperative Societies (PCSs) to all providers meeting the criteria - Design an incentive package, with focus on taxation and credit, to attract private sector actors	- While all private sector actors are expected to be favourable to these recommendations, obstacles are likely to come from the administration, due to: o Resistance to market-driven solutions o Fear of undermining cooperatives o Fear of mismanagement and abuse of farmers o Vested interests of PCSs and local administration o Vested interests of some private sector actors profiteering from the status quo
Crop board	- An industry body is needed that provides services such as information dissemination, market linkages, regulatory advice, advocacy - The Cashewnut Board of Tanzania (CBT) cannot fulfil this role as things stand	- The CBT, in consultation with stakeholders, should declare measurable yearly objectives and a long-term plan - The Ministry of Agriculture should provide CBT with the skills and resources to achieve those objectives, and hold CBT's management accountable via appropriate performance incentives linked to their objectives	- Resistance is most likely to come from inside the CBT, especially its board; an ongoing legislation process has already passed resolutions that, if respected, would lead to the dissolution of the current board - Government's inertia, and lack of coordination among stakeholders, are likely to be other obstacles

The Tanzania Cashew Policy Study is supported by the Business Environment Strengthening for Tanzania - Advocacy Component (BEST-AC) and is implemented and managed by the nonprofit organization TechnoServe

Focus areas	Why	Reforms	Obstacles
Input markets	- Inputs can double per tree productivity - Despite large ad hoc subsidies, only 20-30% of farmers use them, as they are expensive, scarcely available, and farmers are largely unaware of their benefit - Funds collected to purchase inputs are poorly and opaquely utilised	- Help to build efficient distribution networks, involving entities other than PCSs, such as farmer associations - Introduce competition in the selection of suppliers - Make ITFs transparent, and then increase their size, for instance via export tax - Introduce vouchers to manage input distribution	- The PCSs, that are likely to be gaining from their current de facto monopoly on input distribution - Private sector actors sharing the gains - All institutions are likely to resist to feed the revenues from the export tax into the ITFs
Marketing of raw nuts	- In an unregulated market, farmers are likely to be exploited by middlemen - The Warehouse Receipt System (WRS) helps to solve that problem, but introduces new ones, such as high management costs, no rewards to quality, impossibility of collaboration between processors and farmers, unreliable procurement for processors	- Address issues of the WRS itself: open the closed bidding system, make public all data related to its management and costs, provide rewards to quality - Break the monopoly of the WRS: permit farmers and their associations to sell directly to buyers or processors, which they will do if they are offered a price that is higher than that of the WRS	- Most resistance is likely to come from policymakers who already publicly praised the WRS - PCSs who gain from it will fight against losing clout - Some private sector actors who participate in the WRS, such as transport firms, will also have much to lose
Processing of raw nuts	- Processing can add 30-40% in value - It employs mostly female low-skilled labourers in deprived areas - It provides a reliable market for farmers currently relying on foreign buyers - Only 20-30% of the crop is processed in country, and its status remains fragile due to erratic policy environment and strong foreign competition	- Government to make a public commitment to a consistent policy environment for cashew processing, as agreed with stakeholders - Provide assistance to new entrants via technical and financial assistance - Agree with incumbents a package to increase competitiveness of Tanzanian processors, with a focus on labour, taxation, and infrastructure	- Resistance is likely to be specific to each recommendation, for instance: - The liberalisation of the WRS may be opposed by PCSs - Business-friendlier labour laws would be opposed by workers and parts of the administration - Inexpensive incentives are of course most likely to go through

Table 9: Summary of recommendations

	Crop board	Input markets	Raw nut marketing	Processing
Services to farmers	As shown in table 4, farmer associations and crop board can cooperate on several topics, from development of markets (raw nuts, inputs, by-products, other crops) to advocacy, to policy advice. The crop board will also assist farmer aggregations in performing market discoveries	Input markets will benefit greatly from diversifying away from PCSs in input distribution, thanks to aggregations. Input distribution will be one of the main value propositions of service providers, as is the case now for PCSs.	Assistance in the trade of raw nuts is the most basic service that farmers need; associations can add much value by identifying trade opportunities and establish partnerships; the marketing will be cheaper and more liquid with effective aggregations	Farmers will have much to gain by collaborating with processors, in terms of guaranteed markets, higher prices, training, inputs on credit, incentives to quality, etc. Processors will be able to secure reliable, high-quality crop, and potentially also collaboration in the initial phases of processing
Crop board		The crop board is instrumental in the development of input markets, via policy advice, market linkages, coordination of the distribution networks, etc.	On top of policy advice and lobbying, the crop board can add value by creating market linkages and coordinating the collaboration between farmers and processors	On top of policy advice and lobbying, the crop board can add value by creating market linkages, prioritise infrastructure development, identify diversification opportunities (see also table 4)
Input markets			A liberalised trade environment permits input providers to work with processors and farmer groups (as with the FBGs) for mutual benefit; the networks relevant to input distribution can also be utilised in raw nut marketing	Input suppliers can collaborate with processors and farmer groups (as with the FBGs) for mutual benefit; processors and input suppliers can also share distribution networks
Raw nut marketing				A liberalised trade environment permits processors to secure reliable high-quality supply; raw nut trade benefits greatly from the presence of committed buyers, such as processors

The most central area of reform is that of services to farmers, followed by the crop board. Then follows raw nut trade, and finally input markets and processing.

Significant interplay | Some interplay | Marginal interplay

Table 10: The long-term interaction amongst the selected areas of reform

Advocacy strategy

Approach to advocacy

In this section we look at what can be done to push for the set of reforms described so far.

Firstly, the final decision makers must be identified: that is the government, and the presidency with its influence over the government. The main target ministries are:

- Ministry of Agriculture, Food Security and Co-operatives (MinAgr) [main one]
- Ministry of Industry, Trade and Marketing (MinTrade)
- Ministry of Regional Administration and Local Government (MinLocGov)
- Ministry of Finance and Economic Affairs (MinFin)

Other interlocutors, on the setting on the minimum wage and on infrastructure development, include the Minister for Labour, Employment and Youth Development and the Minister for Infrastructure Development, respectively.

Within the ministries, on top of the leaderships, the direct interlocutors will tend to be senior employees with a technical background who are in charge of policy, trade and economic development.

While the decision makers are within the ministries, clearly all stakeholders play a role in pushing for reform. They may favour it, by endorsing it, or they may be an obstacle to it, because they perceive the reform to be against their interest or the interest of those they represent.

Below is a table that lists recommendations against stakeholders to assess what their role is likely to be.

	Farmers	Farmer groups	PCSs	Trade brokers	Input providers	Processors	Exporters	Local Admin.	Current CBT admin.	Government
Services to farmers	Inertia and diffidence is likely at first	Eager to gain, less to change their ways	Major obstacle: they stand all to lose	Most will be threatened, some may contribute	Eager to participate, possibly lead	Eager to participate, possibly lead	Affected positively	Obstacle: mostly diffidence to change	DG may be willing to assist	Will see risk but also electoral gain
Crop board	Generally detached, some interest	Some interest, could be supportive	Marginal role	Marginal role	Eager to contribute, and to sway agenda	Eager to contribute, and to sway agenda	Eager to contribute, and to sway agenda	Obstacle: affected in its interests	Reluctant; eager to retain privileges	Little electoral gain
Input markets	Very keen once they see benefits	Very keen once they see benefits	Major obstacle: much to lose	Eager to participate in distrib. network	Incumbents will be against competition	Mostly observers	Mostly observers	Obstacle to developing networks	DG may be willing to assist	Positive, but reluctant to contribute with funds
Raw nut marketing	Collaborative, some inertia at first	Very keen once they see benefits	Major obstacle: much to lose	Eager to abuse the system	Marginal role	Eager to contribute, and to sway agenda	Eager to contribute, and to sway agenda	Obstacle	Eager to contribute, and to sway agenda	Reluctant given stake in it
Processing	Marginal role	Marginal role, some may see benefits	Marginal role	Marginal role	Marginal role	Eager to contribute, and to sway agenda	Marginal role	Marginal role	Eager to contribute, and to sway agenda	Positive, but reluctant to contribute with funds

Major role

Table 11: Stakeholders' role with regards to selected area of reform
(with reference to the way they are likely to act now, not the way they should act)

Thus, for all stakeholders, there are three general objectives to be achieved:

- Remove or overcome potential **obstacles** to the implementation of the recommendations
- Convey the **urgency** of the need for change
- Persuade the decision makers that those are the **most appropriate measures** to address the issues that the industry is facing

The main general challenges to a reform of this sector, that tend to apply to most stakeholders, include:

- Its operating environment is very conflictive, with all players having large stakes, long consolidated positions, and grudges and misconceptions about one another
- There is a complex message to convey, that is based on market dynamics, which most of the stakeholders, including most policymakers, simply do not have the skills and background to fully appreciate
- The top priority of elected policymakers will be to be perceived as doing their best to help one particular actor, the farmers, constituting a large electoral base, especially with the election in 2 years
- The administration that is appointed, including the local governments, the CBT and the PCSs, is very risk-adverse and has so far displayed no interest in taking innovative and politically bold positions

Three channels are available to advocate this policy reform:

1. Lobbying directly with policymakers, aimed at getting them to appreciate the need for reform, what needs it should satisfy, and what direction it should take
2. Lobbying with industry stakeholders, aimed at creating a climate conducive to reform
3. Advocacy via the media, aimed at helping the public, especially farmers, understand why and how the reform must proceed, both to push them to become actors of change and to prepare them to accept change when it happens

The core message that is being conveyed will oscillate between two poles: a bare minimum that is absolutely necessary for the industry to survive, such as ceasing the price setting practices and creating transparent tax processes, and an ideal scenario that purports to tackle every problem of the sector, such as that described in the previous section. A possible realistic approach may involve describing the reform as an incremental path to a shared vision for a competitive cashew sector, where the initial focus of the advocacy strategy would be on the first steps of this path.

A channel of communication can be retained with the government at all times, but the advocacy effort is most compelling if it is perceived as multi-stakeholder. Fortunately most of the recommendations will please most actors in the value chain (see table 11), with the exception, in many cases, of PCSs, local administration, and potentially CBT. However, some of the reasons behind this resistance may be difficult to share in public.

Thus we recommend opening dialogue first with stakeholders to find some common ground, and then with the decision makers.

The approach could be as follows, for every selected topic:

1. Identify an initial strategy (such as the ones recommended in this report)
2. Determine an initial core group of stakeholders that are: committed to that issue, are among the main actors affected by it, and likely to play a constructive role (see table 12)
3. Develop the strategy to find a compelling compromise in which all participants can believe
4. Extend the group to all willing partners who want to coalesce around the strategy and are willing to and can help influencing the decision makers
5. Collectively design a communication strategy targeted to the final decision makers

Thus the core of this advocacy strategy is represented by these “pressure groups”, which should be as inclusive and cohesive as possible, and represent all actors involved in the issue at stake, to show how the recommendations actually benefit all parties.

TechnoServe’s role may be that of catalysing consensus at all stages as a honest broker.

Mass media is another vehicle to influence stakeholders and policymakers. It should operate in parallel with the lobbying workstream described above, namely by start operating only once an agreed strategy has been developed (point 3 above). That is the message that will need to be conveyed, in various ways, via the media.

Two targets should be distinguished: decision makers and core stakeholders on one hand, and the cashew farmers on the other hand. One effective mass media instrument to reach the former group is the press: it is thus recommended to convert the 4 short papers that come with this report, into as many articles that could be published both in English and in Swahili on selected publications, with the signature of a group of concerned stakeholders, i.e., the pressure groups.

At the grassroots level, one low-cost solution would be to develop a "farmers' radio", potentially managed by a group of farmers and assisted by a larger, experienced radio. MAFAMA have already expressed interest in this opportunity. Another grassroots channel is the publication of free leaflets to be distributed by hand.

Potential partners

Table 12 includes a list of entities whose management either already expressed interest, or are likely to be interested in collaborating in the lobbying and advocacy work.

	Entity	Role	Interest
Public sector	TechnoServe	Economic development NGO with extensive experience in cashew	All value chain
	BEST-AC	Advocacy body	All value chain
	BEST-BRU	Regulatory body embedded in the government	All value chain, especially related to development of new legislation
	World Bank	Donor / provider of technical assistance	All value chain, especially crop boards
	CTI	Representative of industrial interests	Processing, potentially input supply
	ACT	Public body devoted to market-driven development of agricultural value chains	All value chain, especially input supply
	DESEMP	Donor, funding TechnoServe	All value chain, especially input supply, marketing and potentially processing
	IFAD / AMSDP	Donor, funding TechnoServe, with project on marketing systems	All value chain, especially input supply and marketing
	CFC	Donor, focus on marketing systems	All value chain, especially input supply and marketing
	Coffee/cotton WRS	Crop-specific CFC-funded WRS project	Marketing
	seco	Donor, funding TechnoServe	All value chain, especially processing
	USAID	Donor, funding TechnoServe	All value chain
	Concern	Advocacy NGO	Services to farmers, marketing, input supply
	ILO	Labour-focused UN body	Services to farmers, processing
Private sector	Olam	Processor and exporter, frequent collaborator with TechnoServe	Processing, marketing, crop board, potentially services to farmers
	Premier cashew	Processor	Processing, marketing, crop board
	METL	Processor	Processing, marketing, crop board
	BUCO	Mechanised processor	Processing, marketing, crop board
	Agrofocus	Mechanised processor and in CBT board	Processing, marketing, crop board
	Micronix	Mechanised processor	Processing, marketing, crop board
	Export trading	Mechanised processor and exporter	Processing, marketing, crop board
	NMB	Bank focused on servicing farmers, involved in the WRS	Marketing, services to farmers, input supply, processing
	CRDB	Bank involved in the WRS	Marketing, services to farmers, input supply, processing
Administration	MinAgr	Ministry of agriculture	All value chain
	MinTrade	Ministry of trade	Raw nut marketing, input supply, crop board
	MinLocGov	Ministry of local government	All value chain
	MinFin	Ministry of finance	All value chain
	CBT	Industry crop board	All value chain, especially crop board
	Naliendele	Research institute based in Mtwara	Services to farmers and input supply
	TPRI	Research institute based in Arusha	Services to farmers and input supply
	Local administration	Regional and district administration	All value chain
	Sokoine university	Agricultural university	All value chain
	MAMCU	Cooperative union	Marketing, services to farmers
	TANECU	Cooperative union	Marketing, services to farmers
	PCSs	Central administrator of PCSs	Services to farmers, input supply, marketing, crop board

Table 12: List of potential partners

Focus for the capacity building workstream

It is clearly a priority that these recommendations are filtered to farmers via the capacity building workstream.

Four core messages were isolated that are both urgent and directly relevant to farmers, and per each of them we identified (a) the key points that need to be clearly conveyed, (b) what as a farmer group they need to do about them, and (c) some immediate requests that they need to put forward with the relevant institutions:

1. What farmers need:
    a. List and prioritise the core needs of cashew farmers. Discuss what actors are best placed to provide those services, recognizing how the state is often unlikely to be the solution, as the past has amply proven
    b. List and prioritise the services that their farmer group should provide, what skills they have and what they need to build, what partners may assist them, and how they could fund the provision of these services (see also point 3)
    c. Lobby to end the special status of the PCSs, by extending their privileges to all associations meeting set criteria, in order to create a level playing field
2. Access to information:
    a. Identify all the types of information that farmers or farmer associations need for their activity
    b. Identify how they could disseminate this information to all their members, and how they could collaborate with institutions and other stakeholders on this front
    c. Push to make information publicly and easily available, including use of input funds, taxation (reason, use, effect, comparison with other districts), prices and costs of WRS and how the funds are distributed (see also point 3); push to introduce vouchers to track each farmer's contribution to input funds

3. Warehouse Receipt System:
    a. Discuss what works and what doesn't work with the WRS, i.e., how it helps them (it prevents middlemen from exploiting farmers) and how it hinders their activities (it is expensive; it stops them from working with processors; it doesn't reward quality)
    b. As a farmer group, would they be able to work directly with the WRS if they were given the possibility? What capacity building, in terms of skills or resources, would they need? (see also point 1)
    c. Push to make all WRS costs and processes transparent (see also point 2), to introduce incentives to quality at the level of the single farmer, to permit farmer groups to sell directly to the WRS, and to sell directly to buyers (especially processors) if they want to (see also point 4)
4. Collaboration with processors:
    a. Appreciate that collaborating with processors is a significant opportunity, but it needs to happen at one condition: that it is for mutual benefit; this will need to determine their expectations with regards to possible collaborations
    b. Discuss ways in which they could collaborate with processors, and what kind of skills/assets they need to do it effectively
    c. Push to permit farmer groups to sell directly to processors (see point 3), and ask local administration (e.g., DCO or DALDO) to facilitate collaborations

A general understanding of the policies, and the regulatory processes, that are relevant to farmers would help them to appreciate the challenges of these reforms.

The training modules will comprise of two elements: 'guided brainstorming' sessions, to enable participants themselves to arrive to the main conclusions; and workshops or visits to relevant external parties, such as large associations, FBGs, processing factories, input providers, local administration, etc. A well argued advocacy strategy is a significant differentiating factor when compared to other associations and especially to PCSs. In fact, these groups should aim at join forces with other groups and take a leadership role to gain bigger voice.

Conclusions and next steps

This report aims at demonstrating the urgent need for policy reform in the Tanzanian cashew industry. This industry has great potential for economic growth and poverty alleviation, but as things stand it is running the risk to collapse within 10 years.

After having provided an overview of the cashew industry globally and in Tanzania, and then analysed the trends of the industry and the needs of the main actors of the value chain, this report identifies five high-priority opportunities for policy reform: two of them focus on building necessary institutions at local (services to farmers) and national (crop board) level, aiming to ensure that the resulting organisations are consistently effective and supportive of the industry. The other three opportunities aim at developing markets that are central to the development of the industry: agricultural inputs, the trade of raw nuts, and processing. The reforms identified here are all low-cost and low-risk, and any stakeholder genuinely interested in the sector would stand to gain from them. Yet, obstacles to them clearly exist and have been identified.

An advocacy strategy is also introduced to push forward these recommendations. It is centred on the notion of pressure group, i.e., a comprehensive group of stakeholders that share common ground on specific topics and are willing to advocate for them with the policymakers. An initial list of potential partners is also included. A media strategy, to be run in parallel with the lobbying effort, is sketched out.

The next steps include:

- Building a core advocacy team leading the overall effort
- Finalising the set of recommendations with this team
- Identify possible participants in the pressure groups
- Establish pressure groups
- Agree on common platforms
- Design and implement a groups-led advocacy strategy

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Appendix I: Regulatory map

Area	Main legislation	See also
Production		
Cooperatives and associations	- Cooperative Societies Rules, 2004 - Cooperative Societies Act, 2003 - Cooperative Reform and Modernization Program (CRMP) - Cooperative Development Policy, 2002 - Presidential Special Committee on *the Revival, Strengthening and Development of Cooperatives in Tanzania*, 2002 - Cooperative Development Policy, 1997 - The National Apex Organization of Tanzania (Formation) Act, 1990 - The Agricultural Associations Act, 1964	- Overview of cooperatives - Overview of SACCOS - R193 Promotion of Cooperatives Recommendation, 2002 (ILO) - Tanzania's cooperatives look to the future (ILO) - Cooperative Facility for Africa (COOPAfrica) Project (ILO) - Simplified guide to policy and act, from TFC - Summary (from agriculture.go.tz)
Inputs	- Agricultural Inputs Fund Act, 1994 - The Pesticides Control Regulation, 1984 - The Tropical Pesticides Research Institute Act, 1979 - Fertilizers And Animal Foodstuffs Act, 1962	- USAID MSU project here
Land	- The Land (Amendment) Act, 2004 - The Seeds Act, 2003 - The Protection Of New Plant Varieties (Plant Breeders' Rights) Act, 2002 - The Land Act, 1999 - The Village Land Act, 1999 - National Land Policy, 1997 - The Plant Protection Act, 1997	- BEST-BRU activity in Land Registration - "Land policies for growth" report - "Land Distribution and Financial System Development"

Trade		
Warehouse Receipts System (WRS)	- The Warehouse Receipts Act, 2005	- Article on WRS, IPPMedia, November 07 - Article on WRS, IPP Media, March 08 - Article on WRS, IPP Media, April 08 - Inventory credit, FAO - IMF on trade liberalisation, 2000 - US Warehouse Act, 1916 (USWA), and amendments - NRI project in Tanzania: general and FAQ -
Pricing	- The Regulation of Prices Act, 1973, and Amendments (1975, 1981)	- Workshop on price risk management, DFID
Services	- Trade Policy, and Matrix, 2003 - The Fair Competition Act, 2003	- Farmers able to get instant market price over Mobile Phone SMS, NRI, Feb 2006 - USAID MSU on information here
Processing		
Wages	- The Minimum wage act, 2008 - The Setting Of Sectoral Minimum Wages, 2007 - The Employment and Labour Relations Act, 2004 - The Labour Institutions Act, 2004 - National Employment Policy, 1997	- 2006 Survey on minimum wage, IOE - Overview of legislation in human resources, (Tanzania.go.tz) - Article about employers against minimum wage, with review of other countries, AllAfrica, Jan 08 - Article on rescission of minimum wage, Daily news, Jan 08
Industry	- Sustainable Industries Development Policy SIDP (1996-2020) - MOU between government and processors, 2005Small and Medium Enterprise Development Policy, 2002	
Purchasing / licensing	- The Business Activities Registration Act, 2007 - Companies Act, 2002 - The Civil Procedure Code Act, 1966	- Guide to establish a business in Tanzania (tanemb.se)

Sector-specific		
Cashew and crop board	- Ministerial Circular on crop boards, 2006 - The Cashewnut Marketing Regulations, 1998 - The Crop Boards (Miscellaneous Amendments) Act, 1993 - The Tanzania Cashewnut Marketing Board Act, 1984 - The Cashewnut Industry Act, 1973	- World Bank on crop board reform - Document: "Reform of Coffee and Cotton Crop Boards in Tanzania" - Review of crop board legislation - CBT reform and issues in cashew here
Agriculture	- Agricultural Sector Achievements Of The Third Phase Government 1995 – 2005 - Agricultural Sector Development Program (ASDP) [see also here (agriculture.go.tz)] - Agricultural Sector Development Strategy (ASDS) - Rural Development Strategy, 2002 - Agricultural and Livestock Policy, 1997	-
Investments / Financing	- Banking and Financial Institutions Act, 2006 - Bank of Tanzania Act, 2006 - Export Processing Special Economic Zone (SEZ) Act, 2005 - Zone Act, 2002 - Tanzania Investment Act, 1997	- List of incentives to investments, UDSM - Legal and Regulatory Framework (TIC) - Investment Incentives (TIC) - National Investment Promotion Policy, 1996 - Private sector (Tanzania.go.tz) - Licensing (NDC) - Legal framework (NDC) - Incentives in India
Other sectors	- The Tobacco Products (Regulation) Act, 2003 - The Coffee Industry Regulations, 2002 - The Coffee Industry Act, 2001 - The Cotton Industry Act, 2001 - The Tobacco Industry Act, 2001 - The Tea Act, 1997 - The Tanzania Cotton Marketing Board Act, 1984	- Tanzania Coffee Board - Tanzania Cotton Board

Other		
Poverty reduction and development	- Tanzania's Development Vision 2025 - National Poverty Eradication Strategy (NPES) - National Strategy for Growth and Reduction of Poverty NSGRP or PRS-2, or MKUKUTA (Mkakati wa Kukuza Uchumi na Kuondoa Umaskini Tanzania) - Poverty Reduction Strategy Papers (PRSP)	- All docs here (Povertymonitoring.go.tz)
Taxation	- Finance Act, 2003-2006 - Income Tax Act, 2004 - Value Added Tax Act, 1997 - Customs Tariff Act, 1976 - Income Tax Act, 1973	- Main acts summarised here (UDSM)
Macroeconomics / monetary policy	- Macroeconomics Policy, 2004	- IMF Letters of intent (2005-2007) - Quarterly Economic Reports - Biannual Monetary Policy Statements - Macroeconomic Policy Framework for the Plan and Budget 2004/05 -2006/07 - Exchange rate impact on Vietnamese processing
Local government	- The Local Authorities Provident Fund Act, 2000 - The Local Government Laws Amendment Act, 1991, and Amendments, 1992-1999 - The Local Government Finances Act, 1982, and Amendment, 1983 - The Local Government Service Act, 1982	

Appendix II: List of relevant institutions and programmes

Agricultural Council of Tanzania	ACT	www.actanzania.org
Agricultural Marketing Systems Development Programme	AMSDP	www.amsdp.org
Agricultural Research Institute	ARI	[no site]
Agricultural Sector Development Program	ASDP	www.asdp.go.tz
Bank Of Tanzania	BOT	www.bot.go.tz
Business Environment Strengthening for Tanzania - Better Regulation Unit	BEST-BRU	www.best.go.tz
Business Registrations and Licensing Agency	BRELA	www.brela-tz.org
Cashew Association of Tanzania	CAT	[no site]
Cashew Industry Development Fund	CIDEF	[no site]
Cashew Management Unit	CMU	[no site]
Cashewnut Board of Tanzania	CBT	[no site]
Cashewnut Improvement Programme	CIP	[no site]
Centre for Agricultural Mechanisation and Rural Technology	CARMATEC	www.tanzania.go.tz/carmatec.htm
Confederation of Tanzania Industries	CTI	www.cti.co.tz
District Agricultural Development Project	DADP	[no site]
National Development Corporation	NDC	www.ndctz.com
Savings and Credit Cooperative Union League of Tanzania	SCCULT	[no site]
Small Industries Development Organisation	SIDO	www.sido.go.tz
Tanzania Chamber of Commerce Industry and Agriculture	TCCIA	www.tccia.co.tz
Tanzania Development Information Centre	TDIC	www.tdic.or.tz
Tanzania Industrial Cooperative Union	TICU	[no site]
Tanzania Industrial Research and Development Organisation	TIRDO	www.tanzania.go.tz/tirdo.htm
Tanzania Agriculture Input Partnership	TAIP	see ACT
Tanzania Investment Centre	TIC	www.tic.co.tz
Tanzania National Business Council	TNBC	www.tnbctz.com
Tanzania Private Sector Foundation	TPSF	[no site]
Tanzania Revenue Authority	TRA	www.tra.go.tz
Tanzania Social Action Fund	TASAF	www.tasaf.org
Tanzanian Federation of Cooperatives	TFC	www.ushirika.coop
Trade Union Congress of Tanzania	TUCTA	www.tucta.org
Vocational Education Training Authority	VETA	www.veta.go.tz

Appendix III: List of acronyms

AMSDP	Agricultural Marketing Systems Development Programme
ASDP	Agricultural Sector Development Programme
BEST-AC	Business Environment Strengthening for Tanzania - Advocacy Component
BEST-BRU	Business Environment Strengthening for Tanzania - Better Regulation Unit
BRELA	Business Registrations and Licensing Agency
CBT	Cashewnut Board of Tanzania
CTI	Confederation of Tanzania Industries
DALD	District Agricultural and Livestock Development Office
DC	District Commissioner
DC	District Cooperative Officer
DED	District Executive Director
FBG	Farmer Business Group
IMF	International Monetary Fund
MAMCU	Masasi/Mtwara Co-operative Union
METL	Mohammed Enterprises Tanzanian Limited
MinAgr	Ministry Of Agriculture, Food and Co-operatives
MOU	Memorandum of Understanding
MUCCoBS	Moshi University College of Co-operative and Business Studies
NMB	National Microfinance Bank
PCS	Primary Cooperative Society
RC	Regional Cooperative Officer
TAIP	Tanzania Agriculture Input Partnership
TANECU	Tanzania/Tandanhimba and Newala Districts Co-operative Union
TCRA	Tanzania Communications Regulatory Authority
TNS	TechnoServe
TPRI	Tropical Pesticides Research Institute
UPT	Union of Peasants of Tanzania
WRS	Warehouse Receipt System

Appendix IV: Scope of work

SERVICES:

1. Identify and assemble existing body of knowledge about the Tanzanian and global cashew industries relevant to the issues in the Tanzanian cashew policy environment.

2. Identify and map all laws, regulations and levies affecting the whole cashew nut sector value chain. This will include interventions, both long and short term, including the Cashew Nut Board, Local Authorities, Cooperative Unions, Private Sector, Farmer Associations, NGOs and central Government. It will cover inputs supply systems, sales/marketing (ware house receipt system to serve as collaterals to farmers and fair market), processing, establishment of farmers' banks and so forth.

3. Assess the appropriateness of the current Cashew Nut Act and the degree to which it has been implemented.

4. Assess the short and long term impact of the legal and regulatory environment on the cashew nut sector, and in particular its growth, investment in the sector, and impact on the revenue potential of key Government and private sector players: TRA, the Cashew Nut Board, local authorities, farmers, buyers, processors and input suppliers.

5. Make comparisons with other markets in Tanzania (e.g., coffee) and cashew nut industry study abroad especially in Mozambique to identify where improvements on processing could be made.

6. Using the above analysis, make recommendations for restructuring the cashew nut sector in Tanzania, with particular emphasis on the legal and regulatory environment and the roles of the main Government players. Recommendations for reform to the Cashew Nut Act and its 2005 regulations should be included

7. The above research and analysis will be conducted in close collaboration with a representative from Masasi Farmers and the Marketing Association and other Farmers Associations.

8. Develop a clear strategy for persuading the Government to implement priority recommendations. The strategy should detail: a) the relevant decision making bodies (and individuals/possible champions) both within and outside the Government, and how they inter-relate; b) the key messages; and c) specific strategies and techniques for achieving change; and d) the role of the main advocacy groups, such as Farmers Associations etc.

DELIVERABLES:

1. An inception report, which will describe the approach to be adopted and a detailed work plan, within one week of starting the assignment.
2. A brief progress report in month two
3. A final report covering all research and analysis findings, subsequent recommendations for change and a strategy for influencing the relevant government bodies, due at the end of month three
4. Short papers of not more than four to five pages on at least four priority issues on Tanzania cashew industry to be written over first 3 months
5. A framework for the formation of a national umbrella association, due at end of the third month

Appendix V: Workplan

Week From	Week 1 14-Jan	Week 2 21-Jan	Week 3 28-Jan	Week 4 04-Feb	Week 5 11-Feb	Week 6 18-Feb	Week 7 25-Feb	Week 8 03-Mar	Week 9 10-Mar	Week 10 17-Mar	Week 11 24-Mar	Week 12 31-Mar
Cashew body of knowledge	Gather and categorise all available knowledge		Deliver system to organise / maintain body of knowledge									
Map of regulatory environment	Gather all sources of information about regulatory environment and interview stakeholders			Prepare and present map of detailed regulatory environment		Review map of detailed regulatory environment						
Evaluation of regulatory environment					Develop and present evaluation of regulatory environment (incl. Cashew Nut Act)		Review evaluation of regulatory environment					
Benchmarking	Gather all sources of information about regulatory environment in other relevant countries and sectors and interview stakeholders					Develop and present benchmarking report		Review benchmarking report				
Recommendations	Early assumptions							Develop recommendations and four short papers			Review recommendations and four short papers	
Advocacy strategy	Early assumptions							Develop advocacy strategy			Review advocacy strategy	

Deliverables (by end of week)	**- Inception report** (and assumptions about outcomes)		- Body of knowledge		- Map of regulatory environment	**- Progress Report** - Workshop with stakeholders	- Benchmarking report		- First version of Final Report	- First version of Four short papers		**- Final Report** **- Four short papers**