



BIOTAN GROUP LIMITED

Organic Cashew Nuts from Tanzania

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Executive Summary

BIOTAN is a start-up company which started operations in 2016 in the cashew nut industry in Tanzania. While Tanzania has a huge potential in growing cashew nuts and the country is the eighth largest producer of cashew nuts in the world, almost 80% of the value chain from the farmers to the consumer is made outside of Tanzania, mainly by Indian and Vietnamese companies, which buy the raw cashew nuts and ship it to India for further processing.

BIOTAN is facing this challenge and in a first step the company will implement a cashew nut processing plant with a capacity of 2.000 tons of processed cashew nuts per year which will be sold mainly to European buyers.

A key component of the planned investment is the involvement of local partners which hold 10% of the company's shares. Additional benefits within the project area are access to labour in the surrounding villages, and in return it is estimated that the project will provide over 20 new salaried jobs and up to 100 seasonal positions as well as support of up to 20,000 local farmers. Within Lindi and Mtwara Regions cashew is widely grown and the area is known for its high yielding soils and trees and big sized varieties of the nuts. It is a goal of the company to get raw cashew nuts from organic farming.

In the future BIOTAN is also planning to exploit the full potential of the cashew nut plant/fruits which is widely unused at the moment and which include the production of cashew nut juice, oil and medical substances.

The world market for cashew nuts is growing and the demand of high quality products is increasing. In Tanzania cashew nut is a cash crop cultivated in Mtwara, Lindi, Coast, Tanga, Morogoro, Iringa, Mbeya, Ruvuma and Dodoma regions of mainland Tanzania (CBT, 2010). There are 734,144 households in the Southern Zone (Mtwara, Lindi, and Ruvuma) that grow cashew.

World production	2.1 Mill tonnes
Tanzanian production:	158,000 tonnes from that a maximum of 26.000 tonnes processed
Planned BIOTAN production within one year:	2.000 tonnes processed

Table: Cashew nut production World, Tanzania and BIOTAN

Prices of the raw cashew nuts vary between 0,75 USD and 1,3 USD kilogram. For one kg of processed cashew nuts ready to sell to consumers you need around four kg of raw cashew nuts. Processing includes shelling, drying, peeling and grading.

In a first step BIOTAN plans to establish a factory for processing the nuts including storage of the raw material and packing of the high grade end product. The planned production capacity of the factory is 100 kg per hour which leads to an output of 110 tons of cashew

nuts ready for shipping within the first year. Export and shipping is done via Dar es Salaam. Extraction of nuts is a robust, low tech, well-oiled and managed process.

Using a selling price of € 9.5/ton WW (White Whole Kernels) and € 7 for lower qualities and pieces the company will generate a yearly turnover of € 1 Mill. within the first investment period. The business plan foresees a triplication of the production within 3 years.

In order to assist the process of organic certification BIOTAN plans to establish a close cooperation with farmers. This should also be accompanied by the setup of a demo farm for research, best practice and as a training center.

The company has been already established with a full active team on the ground in Tanzania for the last two years. The team has already established rapport with players on the ground since Jan 2014. The political strategy in Tanzania is to establish a cashew nut industry including the whole value chain in Tanzania. The Investment Team has secured strong local, regional and national support and has established all the professional support required for operating in Tanzania. Additionally, the project is also supported by the Austrian Development Agency.

The founders of BIOTAN have over 20 years of experience in private equity and similar projects in Tanzania including sustainable development and community integration. In addition, a well experienced local management team has been identified.

Highlights

- Production of Cashew nuts from organic farming as a niche product with very high demand in Europe and worldwide.
- The BIOTAN concept is quality driven. Volumes start at medium sizes and will be increased continually.
- Cooperation with local farmers assures high quality and continually improvement of the product.

Statement: From Nature with Love

The stakeholders of BIOTAN are convinced that the concept of organic farming has advantages for nature, farmers and clients. To avoid the usage of pesticides and chemical fertilizers leads not only to a healthier environment but it also has economic advantages. The demand for cashew nuts from organic farming in Europe and worldwide is very high.

BIOTAN will produce high quality organic certified products.

Our principles are based on

- Sustainability
- Fair trade
- Long term thinking

Keys to Success

The BIOTAN team is the perfect combination of partners from Austria and Tanzania. It includes two local partners who are young and motivated and with strong entrepreneurial background. The Austrian partners are strong companies, one as the market leader in Germany and Austria in the field of packaging of organic certified nuts and fruits. The financing of the project is already secured with private capital and sales of the whole production is already secured.

BIOTAN is working on a step-by-step approach. The concept is based on solid research and a pilot project including a feasibility study which has been conducted from 2016-10 to 2017-03. The BIOTAN project is also supported by the Austrian Development Agency.

Company Ownership/Legal Entity

BIOTAN GROUP LIMITED has been registered with BRELA in October 2016. Certificate of incorporation, s. attachment

Name of Directors/ Shareholders	Nationality	Number and Value of Shares	Residential Address
BGIS GmbH	Austria	90%	Franz-Josef-Strasse 19, 5020 Salzburg, Austria
Moses Joel Shimba	Tanzania	5%	P.O. Box 338, Dodoma
Bahati Sosthenes Mayoma	Tanzania	5%	Shangani West, P.O. Box 528 Mtwara

Staff

The operation of a Cashew processing plant requires not only the management but also personnel in the areas of administration, technology, quality assurance and / or organic certification as well as for the actual production.

The key positions are:

General

- CEO
- CTO

Quality Management / Organic Certification

- Quality manager (ICS, certification)
- Expansion Manager

Production

- Machine and house technicians
- production manager
- foreman in the fields
- grading
- Steam cooking
- Shelling
- Drying
- Peeling
- Sorting
- Packaging

Administration

- Office
- Human resources / payroll
- Logistics / Purchasing
- Driver

This results in approximately 15 to 20 employees. For the production, about 100-150 workers are employed depending on capacity needed and seasonal fluctuations. The most labor-intensive areas are dependent on the degree of automation of shelling, peeling, sorting and grading as well as packaging.

The availability of personnel is a decisive factor for every production plant. Correspondingly, local partners have already made contacts and talked to potential key personnel. A Qualified Production Manager has already been found and employed.

Organic certification - Cooperation with farmers

Farming

Cashew trees have been cultivated in Tanzania for several decades by many mostly small farmers. In the vast majority of cases the farms consist of only a few hectares, where the cashew trees are planted in open and closed stands and often in mixed cultures with vegetables and fruit, as well as with oil and coconut palms. Plantation-like plantings are rather to be observed in exceptional cases.

Products and Services

A. Cashew Kernels - White Wholes						
Grade Designation	Trade Name	Colour/Characteristics	Count/454 gms	Max.	Broken	NLSG
			size description	Moisture%	Max%	NLG max%
W-180	White Wholes	White/pale ivory/light ash. Characteristic shape	170-180	5	5	5 (NLSG & SW together)
W-210	do	do	200-210	5	5	do
W-240	do	do	220-240	5	5	do
W-320	do	do	300-320	5	5	do
W-450	do	do	400-450	5	5	do
W-500	do	do	450-500	5	5	5(SW)
Remarks: Kernels shall be completely free from infestation, insect damage, mould rancidity, adhering testa and objectionable extraneous matter. Scraped and partially shrivelled kernels also permitted provided such scraping/shrivelling does not affect the characteristic shape of the kernel.						

B. Cashew Kernels - Scorched Wholes						
Grade Designation	Trade Name	Colour/Characteristics	Count/454 gms	Max.	Broken	NLSG
			size description	Moisture%	Max%	NLG max%
SW	Scorched Wholes	Kernels may be scorched/slightly darkened due to over-	N.A	5	5	7.5 (SSW)

		heating while roasting or drying in drier/borma				
SW-180	do	do	170-180	5	5	7.5 (NLSG & SSW together)
SW-210	do	do	200-210	5	5	do
SW-240	do	do	220-240	5	5	do
SW-320	do	do	300-320	5	5	do
SW-450	do	do	400-450	5	5	do
SW-500	do	do	450-500	5	5	7.5(SSW)
Remarks: Kernels shall be completely free from infestation, insect damage, mould rancidity, adhering testa and objectionable extraneous matter. Scraped and partially shrivelled kernels also permitted provided such scraping/shrivelling does not affect the characteristic shape of the kernel.						

C. Cashew Kernels - Desert Wholes

Grade Designation	Trade Name	Colour/Characteristics	Count/454 gms	Max.	Broken	NLSG
			size description	Moisture%	Max%	NLG max%
SSW	Scorched Wholes Seconds	Kernels may be over-scorched, immature, shriveled (Pirival), speckled (Karaniram) discoloured and light blue.	N.A	5	5	7.5 (DW)
DW	Dessert Wholes	Kernels may be deep scorched, deep brown, Deep blue, speckled, discoloured and black spotted	N.A	5	5	-
Remarks: Kernels shall be completely free from infestation, insect damage, mould rancidity, adhering testa and objectionable extraneous matter.						

D. Cashew Kernels - White Pieces

Grade Designation	Trade Name	Colour/Characteristics	Count/454 gms	Max.	Broken	NLSG
			size description	Moisture%	Max%	NLG max%
B	Butts	White/pale ivory or light ash. Kernels broken cross-wise (evenly or unevenly) naturally attached	N.A	5	5	5 (SB)

S	Splits	White/pale ivory or light ash. Kernels Split naturally lengthwise	N.A	5	5	5 (SS)
LWP	Large White Pieces	White/pale ivory or light ash	Kernels broken into more than two pieces and not passing through 4 mesh 16 SWG sieve/4.75mm. I.S.Sieve	5	Nil	5 (SW & SP together)
SWP	Small White Pieces	White/pale ivory or light ash	Broken Kernels smaller than those described on LWP but not passing through 6 mesh 20 SWG Sieve/2.80 mm I.S. Sieve	5	Nil	5 (BB & SSP together)
BB	Baby Bits	do	Plemules and broken Kernels smaller than those described as SWP but not Passing through a 10 mesh 24 SWG Sieve/1.70mm I.S. Sieve	5	Nil	1% (cashew powder)
Remarks: Kernels shall be completely free from infestation, insect damage, mould rancidity, adhering testa and objectionable extraneous matter. Scraped and partially shrivelled kernels also permitted provided such scraping/shrivelling does not affect the characteristic shape of the kernel.						

E. Cashew Kernels - Scorched Pieces

Grade Designation	Trade Name	Colour/Characteristics	Count/454 gms	Max.	Broken	NLSG
			size description	Moisture%	Max%	NLG max%
SB	Scorched Butts	Kernels broken crosswise (evenly or unevenly) and naturally attached. Kernels may be scorched/slightly darkened due to over heating while roasting or drying in the drier/borma	N.A	5	5	7.5 (DB)
SS	Scorched Splits	Kernels split naturally lengthwise. Kernels may be scorched/slightly darkened due to over-heating while Roasting or drying in drier/borma	N.A	5	5	7.5 (DS)

SP	Scorched Pieces	Kernels may be scorched/slightly darkened due to over-heating while roasting or drying in drier/borma	Pieces passing through a mesh 16 SWG sieve/4.75 mm I.S. Sieve	5	Nil	7.5 (SSP & SPS together)
SSP	Scorched Small Pieces	Kernels may be scorched/slightly darkened due to over-heating while roasting or drying in drier/borma	Pieces smaller than SP but not passing through a 6mesh 20 SWG Sieve/2.80 mm I.S. Sieve	5	Nil	5 (DSP)
Remarks: Kernels shall be completely free from infestation, insect damage, mould rancidity, adhering testa and objectionable extraneous matter. Scraped and partially shrivelled kernels also permitted provided such scraping/shrivelling does not affect the characteristic shape of the kernel.						

F. Cashew Kernels - Dessert Pieces

Grade Designation	Trade Name	Colour/Characteristics	Count/454 gms size description	Max. Moisture%	Broken Max%	NLSG NLG max%
SPS	Scorched Pieces Seconds	Kernels may be over-scorched immature, shrivelled (Pirival) speckled(Karaniram) discoloured and light blue	Kernels broken into pieces but not passing through a 4 mesh 16 SWG sieve/4.75 mm I.S. Sieve	5	Nil	7.5 (DP & DSP together)
DP	Dessert Pieces	Kernels may be deep scorched, deep Brown, blue, speckled, discoloured and black spotted	Kernels broken into pieces but not passing through a 4 mesh 16 SWG sieve/4.75 mm and I.S.Sieve	5	Nil	7.5 (DSP)
Remarks: Kernels shall be completely free from infestation, insect damage, mould rancidity, adhering testa and objectionable extraneous matter.						
NLSG denotes: Next Lower Size Grade. NLG denotes: Next Lower Grade.						