

MUSIKA

NEWSLETTER EDITION 16 | THIRD QUARTER | 2018

Newsletter

**SOLAR
ENERGY**
IMPROVES LIVELIHOODS

PLUS

Warehouse operator
brokers partnerships
to increase access
to credit

SMALLHOLDER FARMERS IN LUAPULA BENEFIT FROM ZAMBIAN BREWERIES

CASSAVA PROJECT



Norad



MUSIKA

Musika is a Zambian non-profit company that stimulates and supports private sector investment in the smallholder market.

VISION

Our vision is a dynamic Zambian agricultural market that works for all stakeholders and in particular the rural poor.

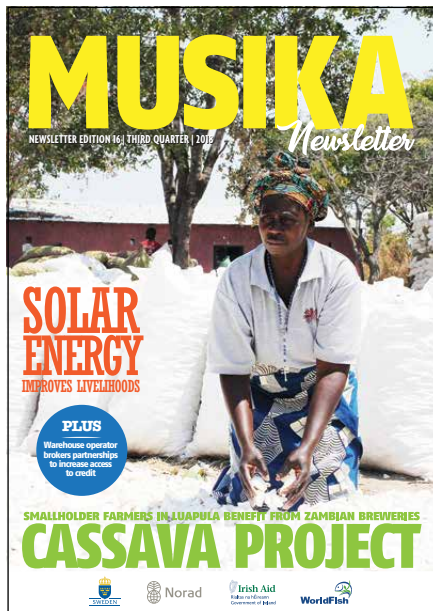
MISSION

To provide world class business development services to Zambia's agricultural markets to deepen and broaden the impact of economic growth to all levels of rural society.

STRATEGIC GOAL

Musika aims to "reduce rural poverty through integrating farming households in well-functioning agricultural markets".

Musika is owned and managed by Zambians, developing home-grown solutions for the Zambian market.



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Message from the Managing Director

The 2018/19 farming season is almost before us and we are hopeful that farmers, especially smallholder farmers, are ready and have put up necessary measures to ensure that they have a productive farming experience.

With climate experts indicating that Southern Africa will likely experience an El Nino phase, which will result in erratic rainfall during the 2018/19 farming season, it is cardinal our farmers consider to diversify and adopt technologies, practices and tools that can help them to cope with eventualities that may result from this climatic shock and help build their resilience.

This edition of our newsletter highlights experiences of how some farming households, through crop diversification, are spreading production and income risk over a wider range of crops, thus reducing livelihood vulnerability to weather or market shocks.

Through interventions implemented with over 80 private sector partners, Musika has contributed, to a larger extent, towards the development of a conducive environment for farmer behaviour change towards a more diverse range of production options.

This is supported simultaneously by a retail industry that provides relevant inputs, technologies and associated information and a commodities industry that offers assured markets, extension and other market services around the production of multiple crops including the more drought tolerant such as cassava.

The last quarter was particularly exciting for us here at Musika because we supported efforts aimed at building a firm foundation for the development of Zambia's horticultural wholesale markets by jointly organising an investors meeting with IAPPRI and the USAID Southern African Trade and Investment Hub.

We believe investments in Zambia's fresh fruit and vegetable markets will accord us the opportunity to contribute towards government efforts in diversifying the economy.

With best wishes,

Reuben Banda



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Farmers help protect Copperbelt forests by raising bees

By Charles Musonda, Manager - Environment Markets

Agroforestry demo at Rainlands nursery (Photo Credit: WeForest)

The cutting down of trees for charcoal and firewood, and use of fire to clear land for crop production has devastated large tracks of forests in Zambia.

It is estimated that Zambia lost an average 276,021 hectares of forests per year between 2000 and 2014 due to deforestation.

To help control this trend, Rainlands Timber Limited, a local firm operating on the Copperbelt Province is teaching farmers to raise bees for honey production as an alternative source of livelihood, and assisting them to replant trees in a bid to restore the natural forests.

John Mwelwa is one such farmer who has installed 10 beehives near his home and has planted half a hectare of pine trees. "I ventured into bee keeping for the very first time in 2018 and I am looking forward to selling the honey to Rainlands Timber and use part of the income to buy enough food to feed my family," explained Mwelwa..

Apart from the bee hives, Rainlands also supplies farmers with cleaner, energy efficient wood chip stoves which consume less wood compared to the traditional brazier that uses large amounts of charcoal. Musika provided financial and technical support to the

smallholder engagement initiatives undertaken by Rainlands. This has resulted in the integration of 750 smallholder farmers in Luanshya, Mpongwe, Chingola, Kitwe and Lusaka into market structures offered by Rainlands and benefit from not just the presence of an environmentally friendly market, but also the delivery of other associated market services such as extension, training, access to agroforestry and fruit seedling inputs and access to honey services.

Musika supported Rainlands' efforts by providing a motor vehicle for extension provision and a wood-chipper for making wood chips for the stoves. The support from Musika has also enabled Rainlands to venture into the production of wooden beehives thereby increasing the profitability of its sawmill.



Agroforestry demo at Rainlands nursery (Photo credit: WeForest)



Farmers display plants received under a Rainland outgrower scheme (Photo credit: WeForest)



Farmers installing a bee-hive (Photo credit: WeForest)



Kalomo bulking centre spurs women participation in goat farming

By Enock Siankwilimba, Regional Manager - Southern



Main Image: Goats being loaded into a truck destined for Lusaka and the Copperbelt

Insert Image: Staff at KDDC load the goats into a truck destined for Lusaka and the Copperbelt

When Family Ndunda of Lwangunduma village, located about 120 kilometres on the outskirts of Kalomo town, in Southern Province was faced with financial problems in 2014, her husband would not let her travel to Kalomo to sell some of their goats due to the security risks involved along the journey.

"Trading then was conducted by the roadside under trees, exposing us farmers who had travelled long distances to sell our goats to serious risks such as thefts, harsh weather conditions at night, and sexual harassment in the

case of us women," Ndunda narrated .

But through a bulking centre for small livestock in Kalomo established in 2015 by Kalomo Dairy Development Centre (KDDC) with the support of Musika, small-holder farmers including women can now sell their goats and profit from their hard work in a safe and secure environment.

Musika provided both technical and financial support to KDDC in developing the Small Animal Holding and Marketing Centre aimed at promoting open and transparent transactions between

livestock buyers and small-holder suppliers, and to also serve as a service centre for livestock input suppliers and veterinary service providers. Between July and September this year, Ndunda sold over 68 goats and 75 chickens through the bulking centre. The 48-year-old mother of 10 used the income to pay school fees for her children. According to Ndunda, the bulking centre brings relief to farmers that use it as resting place for their animals and themselves as they travel longer distance to Lusaka and the Copperbelt. In a quarter, over 6,000 goats pass through the KDDC centre.



Chibombo woman secures rights to land in her own name

By James Luhana, Manager - Inclusive Business and Tidzitwa Zulu Ilubala, Gender and Rural Markets Manager.



Constance Kangende shows off the parcel certificate for her land

Constance Kangende is a single parent living in Mwachisompola village, in Chibombo district, 83 km east of the Zambian capital Lusaka.

To meet the needs of her two children, the 30-year old depended on farming on the small piece of land she had inherited from her parents.

But one day, she was shocked to find out that a church organisation had taken part of the land for a project without her knowledge.

Efforts to retrain the church from encroaching on the land proved difficult even after reporting the case to the traditional council.

"I was losing the battle because I had no document whatsoever to show that this piece of land belonged to me," Kangende said, adding that the dispute forced her to halt plans to double the area of land cultivated to 3 hectares.

She was able to regain use of the land after she got a land certificate, otherwise known as a ParcelCert, with the help of Medeem Zambia Limited, a company that works to make the land rights documentation process more affordable and accessible by everyone, including women and smallholder farmers occupying customary land.

In 2014, Musika provided Medeem with both logistical and technical assistance in scaling up its operations to the "lower end" of the market in chiefdoms located in Southern, Central and Lusaka Provinces.

To date, Medeem has issued over 465 ParcelCerts in Chief Liteta's Chiefdom, of which 111 are women. Chief Liteta has been instrumental in facilitating Medeem's operations and ensuring that his subjects such as Kangende own land that is properly documented.

"To date, Medeem has issued over 465 ParcelCerts in Chief Liteta's Chiefdom, of which 111 are women..."

Kangende's plight is a common one in Zambia, although she was more fortunate than most other women. Many never regain access or rights to matrimonial land lost after divorce or the death of a spouse.

In the rural areas, most land is under a traditional or "customary" tenure system where women's direct access to land through purchase or inheritance is often limited.

There are usually customary provisions for indirect access to land in terms of use rights acquired through kinship relationships and their status as wives, mothers, sisters, or daughters.

These use rights, however, may not grant enough security for women and other dependents when traditional family structures dissolve.

Through labour mobility, divorce, separation, or death, an increasing number of women are becoming the heads of households. They are thus making many of the day-to-day decisions affecting shelter, food production, and household economics. Yet only a small proportion of these women hold secure land rights.

Similarly, there are instances where access to land stems from the female line, and in this case male partners and children may be disadvantaged as societies change.



DEC Commissioner, Alita Mbahwe, hands over a fully signed copy of the MOU to Musika Managing Director, Reuben Banda, at the end of the signing ceremony

Smallholders and agribusinesses to benefit from Musika & DEC partnership

By Pamela Hamasaka - Head Corporate Affairs

Musika and Drug Enforcement Commission (DEC) signed a Memorandum of Understanding (MOU) to strengthen their collaborative efforts in building capacity of smallholders and agribusinesses to comply to laws governing the illegal cultivation of narcotic and psychotropic substances, and money laundering activities.

Speaking at the signing ceremony held on 31st July, 2018, DEC Commissioner, Alita Mbahwe, stated that the partnership will create multiple opportunities for the Commission to increase its reach into the smallholder market, and provide a platform for joint awareness and sensitisation programmes.

"Small scale farmers are among our key focus groups as they are prone to the temptation of cultivating illicit plants such as cannabis instead of other cash crops. The high prevalence of illicit crop cultivation is evidenced by the seizure of a total of 54.1 tons of fresh cannabis from farmers in 2017," she pointed out.

Musika Managing Director, Reuben Banda, explained that the partnership was an effort towards improving the functionality of the agricultural supply chain by supporting the delivery of better services by micro, small and medium sized 'intermediaries' to large agribusiness partners, and delivery of a range of market services and information to smallholders to help improve and diversify their production systems.

"Musika will provide technical expertise in the area of smallholder market development and utilise its vast network of agribusinesses..."

"Musika will provide technical expertise in the area of smallholder market development and utilise its vast network of agribusinesses as a platform for information sharing and training in sound business and farming practices," he said.

The two organisations will complement each other's efforts in carrying out joint community awareness and sensitisation programmes to assist farmers and agribusinesses to comply with national laws that prevent and control illegal cultivation of narcotic drugs and engaging in money laundering activities, respectively, Mr. Banda added.

Under the MoU, the DEC's role as a law enforcement agency will provide technical expertise and information within its mandate, and where commercially appropriate, make investments in developing the lower end of the agricultural market to enhance alternative cash crops cultivation.



Musika managing director, Mr Reuben Banda, and DEC Commissioner Alita Mbahwe signed off a Memorandum of Understanding.

Smallholder farmers in Luapula benefit from Zambian Breweries cassava project

By Gift Chanda, Communications Officer

In the midday heat of September, a dozen women of Koselela farming Group in Mansa, Northern Zambia, sit peeling a heap of cassava roots as men gather stems from the field.

As time goes by, the pile of cassava peels grows slowly at their feet. It's easy to work out that cassava is a staple crop here and every household probably has a field or two.

Delphister Kanfwa, 49, is one of the farmers peeling the cassava that will later be washed and dried before it is delivered to Fimpulu depot – one of Zambian Breweries' cassava aggregation points in Mansa.

In previous years, Delphister, who has been growing cassava for more than 25 years, harvested a few bags that she struggled to sell, and like most of the farmers in Luapula Province, Delphister had a major problem: "There was no proper market for the crop. We would grow the cassava for home consumption. If we are lucky to have a market, it was on a barter system where we exchanged cassava for fish," she explained.

If she wanted to raise cash from the sale, she had to put the bags on a bus to markets on the Copperbelt, which meant transport, lodging and

food costs, all eating into her profits.

"It was a real struggle! We would spend two weeks waiting to sell the cassava. Each day spent waiting to sell the cassava there meant one more day of paying for accommodation and food. If you did not have transport money, it meant the cassava going to waste," she narrated.

Then, Delphister suddenly found herself in the vanguard of a quiet cassava market revolution; in 2017, Zambian Breweries launched its cassava project and has since bought over 10,000 tonnes of dried cassava chips from over 6,000 small-scale farmers in Luapula Province, with a total farm gate value of over US \$1.5 million.

The dried cassava chips are a key ingredient in the manufacture of Zambian Breweries' affordable Eagle Lager beer.

The price Zambian Breweries pays for cassava of K1.40 per kg is higher than the local price farmers receive for maize and, with significantly

lower input costs, gross margins for cassava farmers can be as high as seven times those of maize.

"This is a big boost to our livelihoods because cassava farming is now profitable," Delphister said, having sold 5 tonnes of cassava to Zambian Breweries last year to earn slightly over K7, 000.

She used the money to pay for her children's school fees and to buy iron roofing sheets for her house.

Another cassava farmer in Mansa District, Trudy Musanshiko, 50, used the income from cassava to acquire her own 10 hectare piece of land.

Previously, Trudy used to rent a half hectare piece of land to grow her cassava, but access to a transparent and reliable market has given her the confidence to invest.

"Back then it was difficult to sell more than 10 bags of cassava but now one is able to sell up to 500 bags. It is easy to make money off cassava and that is why I am positioning myself for this market

Zambian Breweries has created for us,” Trudy added.

To assist Zambian Breweries to establish a firm presence in Luapula, Musika has provided the company and its intermediaries with technical assistance, logistical support for transporting cassava from the rural areas and for the provision of outreach and extension support to farmers, and some funding for improved variety trials.

In 2018, it added to this support with financial assistance to pilot a cloud-based digital commodity origination, traceability and payment solution, and is also working on an additional level of support to the development of farmer-based trials of improved varieties of cassava, driven by a Zambian Breweries agronomist and Zambian Agricultural Research Institute.

“After the successful piloting of a cloudbased digital commodity origination, traceability and payment solution this year, we plan to have this running by next year. The aspect of using Blockchain and SMS technology will enable us trace our farmers at each purchase and reach back to these suppliers and build

skill base with our agronomic team. The aim is to train farmer not to grow more hectares of cassava but to grow better cassava. This way the farmer will not have more work but have the skill to work better and get higher returns,” explained Zambian Breweries Agricultural Manager, Chris Nicolle.

“By having a ledger based technology at the core of our platform we will be able to start to build up financial solutions that the farmers can start to be part of, as they now will have a record of their transactions and thus become bankable,” he added.

With Musika support, Zambian Breweries and its intermediaries have developed buying points in Chembe, Mansa, Kawambwa, Nchelenge, and Samfya district.

This has elated the government and traditional leaders in the area such as Chief Mabumba who believe the readily available market of cassava facilitated by Zambian Breweries will help improve living condition of many small-scale farmers in Luapula.

The traditional leader was also happy that the attitude of growing cassava for consumption had changed due to the company’s initiative of buying cassava, and he said he can see a tangible impact at farmer level.

“I am happy that grass thatching of houses in my chiefdom is slowly disappearing as farmers are now able to build good houses with iron roofing sheets. The livelihood of my people is gradually changing,” he said.

Patrick Chama is one such farmer whose life has been transformed tremendously by supplying cassava to Zambian Breweries.

The 66-year-old farmer has managed to purchase building materials to complete his house using the income from the cassava sales from his 15 hectare plot of cassava, which he planted to sell to Zambian Breweries. Now that he has confidence in the market, Patrick has invested in a new variety cassava that matures in less than a year, twice as fast as the traditional varieties.



Oswald Lukonde, a depot clerk at Fimpulu depot, receiving cassava deliveries from farmers



Farmers weighing their cassava at a GroAfrica depot in Mansa



Patrick Chama shows off his improved variety cassava



Cassava farmers in Luapula prepare their crop for sale to Zambian Breweries.

Solar energy improves livelihoods of smallholder farmers

Erock Siankwilimba, Regional Manager - Southern



The Simuvwenze family can now watch satellite TV using solar energy

For a farmer that owns a herd of 50 cattle, 38 goats and 40 sheep, Patrick Simuvwenze decided to invest in solar lighting to enhance security at his homestead to protect his investment against theft which is prevalent in his community.

However, the technology has brought additional benefits including the use of clean and sustainable energy that has proved to be healthier and is produced at a much lower cost.

Simuvwenze, 53, lives in Kayuni village in Zimba District with his three wives and 20 children, and also grows maize, Sunflower, and cowpeas.

He was introduced to the solar energy system supplied by Kazang, a company supported by Musika, through an agent Stephen Sikalinda who lives in the community.

"I have never liked using paraffin-Kerosine system by my family because of the smoke or even candle lighting due to numerous deaths resulting from fire accidents. So the only alternative for me was to use a car battery to light up only one house for one of my wives," he said. Simuvwenze would spend over K3,000 to purchase a car battery including servicing costs every year to light his home using conventional bulbs with a high energy consumption rate. The Kazang solar kit comprising 4 solar bulbs, one torch, 5 phone chargers, solar panel and solar battery costs about K2,600 on credit payable over a year at a rate of K200 per month. This has enabled him to connect his

wives' three houses, and his children can now study at night and are no different from others in boarding school. "We have extended working hours at our home and feel that we're treated equally since all our houses are connected to the solar lighting system. Our children are able to follow current affairs at both local and international level after we had satellite TV connected to our home," said Simuvwenze's first wife, Lisa.

Simuvwenze plans to purchase additional solar technologies including irrigation equipment and cooking stove to help reduce the use of firewood which will reduce pressure on the forests.

Musika provided support to Kazang Zambia to develop a sustainable rural distribution model for renewable energy products in unserved markets of Zambia.



Patrick Simuvwenze with his wife Lisa standing below the solar lighting control panel and holding a portable radio set

Smallholders embrace new mango varieties in Luapula district

By Mabvuto Chisi, Regional Manager - Northern

The mango fruit remains a highly valuable product and a source of income, especially among women farmers in Luapula district. Therefore, the introduction of improved mango varieties by Chankwankwa Limited, supported by Musika, has increased the prospect of better incomes for women like Dorothy Kanyembo who lives in Kazembe village of Mwense district.

Kanyembo, 55, has been supplying mangoes to Chankwankwa since 2015 and because of the ready market she decided to plant improved varieties in 2016.

According to Kanyembo, the extension support and training received from Chankwankwa extension staff on various techniques for mango production, she managed to double the production of local mango varieties from 0.3 tonnes in 2015 to 0.5 tonnes during the 2016 season

This increased further in 2016/2017 season to 1.2 tonnes of both the local and improved mango varieties supplied to Chankwankwa at K35 per 25kgs and earning her a total income of K1, 680.

"Chankwankwa needs to be



Kanyembo has been supplying mangoes to Chankwankwa since 2015

commended for bringing the mango market at our doors because in the past we never thought that mangoes could be a reliable source of income. The company has also given us the opportunity to plant new varieties that will give me better yields," she said.

Kanyembo uses the income realised from her mango sales to buy fertilizers for other crops, and also to meet her children's school requirement.

Since 2014, Musika has provided technical and financial support to

Chankwankwa to help the scale up of the 'improved' mango market opportunity for smallholder farmers that has been developed by Chankwankwa, with a focus on developing a strong market for producers in Luapula, where commercial market opportunities were scarce and where the impact of an improved market for fruit was to be more significant on rural households.

" Chankwankwa's investments in this process have led to the integration of over 900 smallholder farmers in Central and Luapula Provinces ..."

Chankwankwa's investments in this process have led to the integration of over 900 smallholder farmers in Central and Luapula Provinces into the market structures offered by Chankwankwa, who now benefit from not just the presence of an assured market for their produce but also the delivery of other associated market services such as extension, training, access to inputs and access to financial services.



Warehouse operator brokers partnerships to increase access to credit for smallholders

By Enock Siankwilimba, Regional Manager - Southern

Moomba Investments Limited, a grain trading and input supply company, embarked on a rigorous awareness campaign to sensitise smallholder farmers on the company's new warehouse receipt model that offers input credit against grain deposited in its seven ZAMACE certified warehouses located in Choma, Pemba, Monze and Kalomo districts of Southern Province.

The company has since signed MOUs with SeedCo, Pannar, and MRI Syngenta to enable farmers access inputs on credit using the warehouse receipt as security. This follows the technical and financial support received from Musika to establish an

inputs credit system.

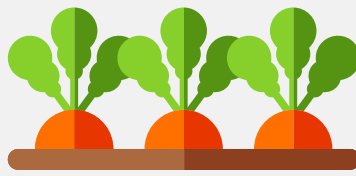
"Within one week of receiving the motor vehicle support from Musika in August, we conducted three meetings in Pemba and Mabombo shed of Chikanta in Kalomo district attended by 250 farmers. So far five farmers, among them two females and three males, deposited a total of 47 tonnes of maize, 8 tonnes of cowpeas and 0.3 tonnes of groundnuts," explained Moomba Investments proprietor, Armin Scherrer.

One of the farmers in Mapanza, Mr Malambo, managed to access 0.5 tonnes of D-compound fertiliser using the warehouse receipt that was issued

against the 15 tonnes of maize grain deposited.

"I am delighted with this system because it allows us farmers to borrow inputs without necessarily having to sell our produce completely. The same grain you deposit acts as collateral against the input loan," said Malambo. Moomba Investments Limited has also brokered a trade partnership with Emerging Cooking Solutions (ECS), a company providing home solar systems, that allows farmers to purchase these on cash basis or in exchange for grain using the warehouse receipt.





Zambia – A new gateway for fresh produce trade into Africa

By Gift Chanda, Communications Officer

As part of its efforts to support agricultural diversification, Musika organised a high profile investors' meeting to explore investment opportunities and facilitate possible commercial partnerships needed to trigger investments into formal and commercially viable fresh produce wholesale markets in Zambia.

The meeting was organised in collaboration with the Indaba Agricultural Policy Research Institute (IAPRI) and the USAID Southern African Trade and Investment Hub, and brought together 77 local and international investors, policymakers, senior government officials and cooperating partners. Speaking during the meeting held on September 13th, 2018 in Lusaka, Minister of Works and Supply, Hon. Felix Mutati called on the investors to consider investing into a fresh fruit and vegetable wholesale markets.

"Look at the profits that can be derived from the tomatoes that is currently going to waste. You can make money out of that but not on a platform of disorder. We need to create order," he said. At the same event, IAPRI Chief Executive Officer, Mr Chance Kabaghe said the establishment of a modern, transparent and competitive fresh fruit and vegetable wholesaling market would be key in addressing the challenges smallholder farmers face and cholera epidemics especially in the rain season. The meeting followed a feasibility study that was commissioned by Musika and IAPRI early this year, on the establishment of a structured Zambian Horticultural Wholesale Market.

In his presentation on the state and potential of the fresh produce sector in Zambia, Mr Coillard Hamusimbi, a consultant on the study, observed that Zambia's horticultural sector is rapidly growing.

In Zambia, annual consumption is estimated at over 1million metric tonnes (MT) worth more than US\$ 330 million. Consumption is expected to increase to 1,4 million metric ton with a worth of some US\$ 0,5 billion by 2020.

According to Mr Hamusimbi, production in Zambia is currently at over 1,4 million tonnes (US\$ 235 million) and expected to increase to 2,2 million tonnes by 2020. Net fresh fruit and vegetable farm sales on the local market is just under 1 million metric ton, worth more than US\$200 million. Furthermore, it is expected that net farm sales for the sector will increase by an astonishing 50% in 2020.

According to Hamusimbi, the study shows that the prospects for the fresh fruit and vegetable sector remain confident in Zambia. The population growth is at 2,8% and will almost double by 2035. Urbanisation is changing rapidly from at an estimated 4% annually and is expected to increase by 121% and an estimated 12,4 million people living in urban Zambia by 2035.

Interestingly, low income households doubled expenditure on fresh fruit and vegetables (14-32%). This segment of the market now spends 25 ngwee of every K-1 spent on food buying fresh fruit and vegetables. The medium income and wealthier households have increased their fresh fruit and vegetable consumption by 11% and 5% respectively.

According to the study, consumption is also expected to increase due to the rising healthy-eating momentum among higher per capita households. Mr Hamusimbi warned that while the fresh fruit and vegetable sector is growing, opportunity to reach its full potential is hampered by the "unregulated, non-transparent and uncompeti-

tive informal open-air markets". Supply inconsistencies are high and the unpredictability and quality of fresh produce volumes result in high price volatility. It is estimated that 43% of imported fresh fruit and vegetables can actually be produced locally.

According to Mr Hamusimbi, the sometimes unhygienic trading conditions at fresh fruit and vegetable markets turn these into potential "disease hubs" and raise food safety concerns.

Another hurdle to cross is huge post-harvest losses. "Sometimes it goes up to 30%. Limited cold chain facilities and chaotic marketing systems hamper the feeding of more people and the stabilisation of prices," he said.

However, these challenges create vast opportunities for private investors, he added.

The study results indicate that the RSA Group's sales commission-based model was found most appropriate for Zambia. The model is aimed at protecting all players, stimulates competition, transparency, efficiency and security of all transactions.

The model facilitates predefined commissions for regulated agents and market authority and help provide the much-needed modern trading infrastructure and software.

The RSA Group based in South Africa, has grown from a single agency on the Johannesburg fresh produce market to a company that owns market agencies in all major markets (Bloemfontein, Cape Town, Durban, Johannesburg, Pretoria and Springs) and two regional markets at Mooketsi and Polokwane.



*Better World Zambia Site Manager,
Kawewe Mwiinga*



*The mobile Chicken Tractor in the
Pongamia pinnata plantation*

Better World Zambia makes progress in reclaiming disused mining dump site

**By Pamela Hamasaka -
Head Corporate Affairs**

Significant progress has been made in developing a strong foundation for elite Pongamia pinnata biodiesel production in Zambia through a partnership between Better World Zambia (BWZ) and Konkola Copper Mine (KCM), supported by Musika.

The 5ha plantation for the Pongamia pinnata tree species; a high yielding nitrogen fixing non-edible plant that produces oil seed, has survived two years under extreme conditions with a survival rate of 99 percent.

The trees will revegetate a disused dump site, improve soil fertility and produce biodiesel. Pongamia is regarded as an 'ideal' plant for recovering a variety of waste burdens, such as saline soil reclamation. The plant restores soil to life as the nitrogen and carbon feed rich soil microbial communities, enabling other plants to grow on previously dead soil.

According to BWZ Site Manager, Kawewe Mwiinga, the plantation is the first-of-its kind in the World that has been established on disused land on a tailings dam site.

"The trees have yielded pods and we expect to start harvesting the first oil seed next year. The plantation has provided the proof of concept to attract commercial investment to expand the plantation to the targeted 650 hectares," said Mwiinga.

To incorporate local community participation, BWE is testing the

first mobile Chicken Tractor that will involve the participation of local women's groups in chicken and egg production within the plantation area. In addition, a 250,000 litre fish pond for supply of fertigation water has been established which will further contribute to local employment of peri-urban populations through fish production.

"The Chicken Tractors will be moved around the plantation to allow the incorporation of chicken manure in the soil to help improve its fertility. The chicken

**“
The chicken
and fish
production
initiatives are
being tested...”**

and fish production initiatives are being tested in order to provide a source of income for the local community, especially women groups," he explained.

The BWE project will enable peri-urban and rural communities to participate in the production of local bioenergy and bio-agricultural products (biopesticides, biofungicides, mosquito larvicides, organic fertiliser).



Agriculture Minister Hon. Michael Katambo (second from right) launches the *Zambian Breweries' Chembe project in Mabumba village in Mansa*

Agriculture minister hails *Zambian breweries* cassava project

**By Gift Chanda,
Communications Officer**

Agriculture Minister Hon. Michael Katambo has hailed the *Zambian Breweries (ZB)* cassava project in Luapula Province, saying the inclusion of ICT under the scheme will enhance smart agriculture efforts for small-scale cassava farmers.

On August 29th 2018, *Zambian Breweries* introduced a high-tech

cellphone-based blockchain economic-identity technology solution under its cassava project in a bid to enhance transparency and traceability.

The system provides the farmer, the aggregator and *Zambian Breweries* itself with real-time information on deliveries and payments along the supply chain and creates a very high level of transparency at the point of buying.

"Please use this initiative because it

also promotes financial inclusion and will encourage you to save from your cassava earnings," Hon Katambo said during the launch, adding that the initiative was in line with government efforts to encourage ICT skills transfer in the agriculture sector.

And *Zambian Breweries* director of corporate affairs Ezekiel Sekele explained that the project was targeting a large number of farmers.

"This year, we are targeting to reach 2,000 farmers to be on the technology based platform. Currently, we have 1,000 farmers on the system as part of the pilot project," he explained.

Musika, which has supported *Zambian Breweries'* commercialisation of the cassava sector in Luapula since 2016 through provision of technical and financial assistance to the company and its intermediaries, is further providing support to the company to pilot the initiative that is running under a system called BanQu.

Zambian Breweries now buys cassava from over 4,000 farmers in Luapula and Northern Provinces of Zambia. The dried cassava is a key ingredient in the manufacture of its affordable Eagle Lager.



Image left: Farmers use a phone to confirm information of their cassava deliveries



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