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### The darling staple food crops for cash...



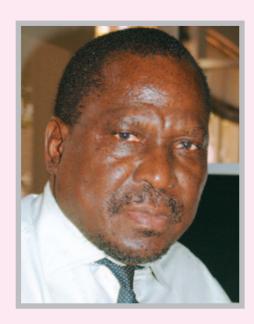
"A variety of food crops are grown in Tanzania. Maize and paddy are the most important grains with significant impact on people's incomes and lives. Unfortunately, these two grains are not given the attention they deserve.

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### The Guardian KILIMO KWANZA

### 2 EDITORIAL



## Push towards profitability in grain trade

HE ten pillars of Kilimo Kwanza were developed as the building blocks for achieving the economic growth that was envisioned under the initiative – the once much touted rallying call. The ten pillars enshrined the activities, tasks, timelines and persons responsible for achieving success of the green revolution.

To jog your memory, the Fourth Pillar was a paradigm shift to strategic framework for Kilimo Kwanza. Simply put, there was to be a major shift in thinking and activities leading to agricultural productivity, profitability and the country's food self-sufficiency; all of which were and remain key development priorities.

If records serve us right, Activity 4.1 under the Fourth Pillar of Kilimo Kwanza was to identify priority areas for strategic food commodities for the country's self-sufficiency. The specific tasks in this paradigm shift included putting in place arrangements for the production of strategic commodities such as maize, cassava rice, legumes, fish, meat and dairy products, wheat, bananas, potatoes, sorghum and millet.

It is no secret that Tanzania, like most of her neighbours, is heavily dependent on grain crops as a main staple and trade food for its citizenry. Grain crops form the core of all produce by our farmers both for subsistence and economic purposes. However, we are all familiar with the price volatility of staple grains like maize and rice in the country. Sudden price hikes where prices quadruple, and rock bottom lows are common. Production, supply and demand of key grains are often heavily dependent on the vagaries of weather, harvest seasons and even prevailing food conditions in neighbouring states.

In this issue of Kilimo Kwanza, Cleophas Rwechungura of ACT highlights the hurdles of marketing crops in Tanzania. In his, piece, our writer notes that with maize and rice being the most important trade commodities with significant impact on people's incomes; fragmented markets mean that the two grains do not receive the attention they deserve, leading to widespread frustration for farmers.

Our writer posits that by uniting small scale farmers and providing proper marketing of grain crops, the Editor

Tanzania Agricultural Partnership (TAP) is now accelerating agricultural production and profitability. The multi-stakeholder partnership under the ACT is an inclusive Public-Private—Partnership (PPP) with partners at district, national and international levels; all pulling together to improve the country's agricultural outlook.

The partnership has borne some results, with rice producers in particular reaping early benefits from the arrangement. However challenges like training of farmers, consolidation and expansion of crop market intelligence systems and improved efficiency in food transfer still exist.

The liberalisation of trading in food commodities, including the often controversial revocation of cross border trade bans in food commodities produced by locals is also cited as one of the keys to profitability and sustainability of the grain trade.

As things stand, our porous borders often degenerate into scenes akin a wild-wild-west movie, as government officials engage illegal exporters and importers in cat and mouse games. Moreover there are calls for the government to place a cap of foreign importation of certain food items, as this introduces unfair competition that only destabilizes the market for locally grown produce.

The prevailing scenario does little for the efficient use of tax-payers money and even less for the profitability of local agriculture that should instead well positioned to take advantage of any regional or global market opportunities.

Much has been said about the perceived successes and failures of Kilimo Kwanza. Today, we highlight what has been done, what is being done, and what remains to be done to achieve the erstwhile goals of the green revolution. Have an insightful reading.

Wallace Maugo

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DAIRY

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# Why seasonality affects dairy products marketing, trade



By Herry Ngoitiama, Tampa

Modernising dairy sector

he dairy industry is among the important components of the livestock sector. It is a source of animal protein, income and employment. The sector has great potential for improving the living standards of the people and contributing towards reduction of poverty through improved nutrition, arising from consumption of milk and incomes raised from sale of milk and milk products.

The main dairy animal in Tanzania is cattle which are classified as dairy for those that average about 2000 litres per lactation and dual purpose indigenous cattle producing around 300 - 500 litres and are mostly used for beef which are the majority.

The dairy cattle are kept by small-holder farmers and few medium and large scale farms. The two indigenous cattle are kept by traditional livestock keepers in the pastoral and agropastoral systems. The performance of the dairy industry has been influenced by changes in economic policies and regulations which have affected harnessing of resources.

Currently, strategies and programmes have been formulated to modernise the industry. Development of the industry has focused mainly on increasing the number of improved animals for milk production, improving production, processing and marketing systems (RLDC).

Milk consumption and marketing

A study conducted by Austro Project Association, dubbed Assessment of Fresh Milk and Milk Products Market and Consumption in Dar es Salaam, in 1995 shows that 79.2 per cent of milk customers purchase raw milk

According to a 2008 report, the Ministry of Livestock Development then indicated that consumption in Tanzania had increased - the average consumption in 2008 was 39 liters per person per year. Reports show that consumers widely consume fresh milk.

There is, however, a wide range of other milk products in the market which include, fermented milk, pasteurized fresh milk, UHT milk and to a small extent, yoghurt, cheese, butter and ghee. For the purpose of this article, we shall pay more attention to fresh milk.

Based on a report by Rural Livelihood Development Company (RLDC) released in 2010, Mtwara Rural, Ruvuma Rural, Dar es Salaam and Lindi had the highest, above 98 per cent of the households which reported to consume dairy products and drink fresh milk.

The report reveales that households in rural, peri-urban and urban areas, are aware of and drink fresh milk due to efficient hawker-based distribution system. Processors need to make more efforts to approach, raise awareness and market their fresh milk.

"Seasonality is a challenge that needs to be addressed otherwise businesses may not be able to improve supply. Research has addressed the seasonality challenge and it has suggested that firms should consider diversification, particularly increasing the share of high value products such as butter and cheese

Seasonality challenge

It has been noted that there is irregular supply of raw milk in Tanzania. Seasonality is a challenge that needs to be addressed otherwise businesses may not be able to improve supply. Research has addressed the seasonality challenge and it has suggested that firms should consider diversification, particularly increasing the share of high value products such as butter and cheese to capitalize on oversupply of milk during wet season.

According to Athumani Mahadhi, Executive Secretary for Tanga Dairies Co-operative Union Ltd, January, February, March, August, September and October are low season months for availability of fresh milk in Tanga.

"During this time sales are low therefore we fail to obtain enough income to sustain our normal activities," he says, adding, "During the low season, we have to pay the farmer more so as to enable him to get supplement feed for his cattle".

As a solution to this problem, Mahadhi recommends, is that farmers should stock up fodder grass and water during the rainy season which can later be used up during the dry season.

This view is closely related to that of Feddy Tesha, the CEO of Profate Dairies, who says; 'the low season affects business negatively by reducing profit more than half the level obtained during the high season'. She advises that keeping cattle is like having an industry which relies on raw material, that is, the more input in the more the output. She recommends that farming practices should be improved and highlights that

processors should use modern technologies in handling.

### Victims of low season

The demand for milk comes from hotels and restaurants which ordinarily cater to tourists and local consumers. For this group seasonality is a problem because customers get used to drinking fresh milk and then start to complain when it is unavailable.

There are also high income families that require quality dairy products, when the milk is available, all is well but when the low season comes they switch to powder milk. Further, there are school feeding programs.

All these require stable supply of milk all year round. When the low season comes it has negative impact on the market.

### Stabilising milk supply

In the short and medium term though the seasonality problem will continue to render local processors less competitive and less attractive to retailers as compared to imported milk. Tanzania Milk Processors Association (Tampa) supported by Tanzania Dairy Board (TDB) is working a stop-gap concession to import powder milk for reconstitution during the dry period.

This measure should be considered in the light of the competitive advantage that other countries have over Tanzania particularly in countries with highly integrated dairy industry.

For medium and long term solutions, in order to sustain a regular supply of dairy products through retailers to the consumers, Edmund Mariki, the Exexutive Chairperson of Tampa, says, "it is strongly important to improve on the relationship between milk producers in themselves. Processors need to share facilities and develop a commitment with each other".

He also recommends that a nationwide survey should be undertaken to know at what particular time each region in Tanzania has high and low seasons. This will be a good way to level out seasonal fluctuation in milk.

Athumani Mahadhi advises that training should be provided to farmers on how to prepare, cut, and store fodder grass in their respective areas. This will make it possible for farmers to have enough to eat during the dry season. On the other hand, Edwin Odhiambo of Technoserve suggests that producers need to adopt technology for developing UHT milk which has long shelf life for sale during low season. Alternatively, processors could adopt technology which converts fresh milk into powder during low season and then reconvert to liquid during high season.

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# Bagamoyo embarks on ambitious integrated sugarcane drive

By Kilimo Kwanza Correspondent

### Project is largest in EA

gro EcoEnergy in Partnership with the Bagamoyo District, Southern Agricultural Growth Corridor of Tanzania (SAGCOT), Ministry of Agriculture, Food Security and Cooperatives and farmers from six villages in Bagamoyo have launched early works of their joint and currently the largest agriculture project in East Africa. The project was launched on March 15, this year.

The Agro EcoEnergy Project in Bagamoyo, is the first new integrated sugar project in Tanzania since 1974. It's expected to generate approximately 4,000 direct new jobs, including smallholder farmers as out-growers.

After three years of operations, it is expected to produce about 130,000 tonnes of sugar, 10 million liters of ethanol and deliver enough electricity to the national grid to supply up to 100,000 new rural households. Currently, Tanzania is importing approximately 50 per cent of its sugar.

The Bagamoyo Project comprises a total of approximately 11,000ha of sugar cane plantations, where 7,800ha will be on the site of the Project and approximately 3,000 ha of outgrower land (developed over a six year time period), which will be outside of the site

The land for the project, which is situated 100 km north of Dar es Salaam, has been formally identified and demarcated. Environmental and social surveys for the project have been approved by the National Environment Management Council (NEMC). Further, water rights have been granted by the Wami/Ruvu River Basin Authority and a local demonstration farm of 200 ha with drip irrigation has been operational since 2007 with excellent yields.

### New sugarcane factory to be built

A sugar cane processing facility will be established on the estate. The facility is also designed and prepared for a flexible production of ethanol/sugar plus cogeneration of electric power. As Tanzania has a large structural domestic sugar shortage, for the foreseeable future the Bagamoyo project will maximise sugar production.

By crushing an average of 1.0 million Tcpa, it is anticipated that the project will produce approximately 125,000 tonnes of sugar for sale to the domestic market, 8-15 million litres of ethanol primarily for the domestic market, and 100,000 MWh per year for delivery to the Tanzanian national electricity grid. It is anticipated that up to 300,000 tonnes of sugar cane, or approximately 30 per cent of all supply



will be sourced through an outgrowers' programme by 2018.

### Strategic ethanol power deal

In terms of the ethanol market, current domestic consumption of ethanol is minimal but promising. Tanzania would directly be capable of replacing 10 per cent of gasoline imports by consuming approximately 50 million litres of ethanol per year (assuming a 10 per cent ethanol blend in gasoline) based on current levels of national gasoline consumption.

A larger level of usage requires adjustments in the infrastructure and vehicles as been done in Brazil and Sweden. Ethanol can also be sold as a clean and sustainable alternative cooking and lighting fuel to charcoal, firewood and LPG.

Appreciating that the market may take some time to mature, Bagamoyo EcoEnergy has entered into an off-take agreement with SEKAB pursuant to which it will purchase any quantities of ethanol not sold on the domestic market for a period of 10 years after production is initiated.

The project is being developed in a

modern agro-industry project on an abandoned state cattle farm in Bagamoyo, Tanzania together with the local community and the government. The main objective is to produce sugar and renewable energy for the domestic

Global demand for sustainable agroenergy products has risen in recent years and will continue to rise, given the triple drivers of increased food demand, peak oil and climate change.

change.

Through a strong focus on creating a truly sustainable agroindustry, the project aims to become a role model for and an engine for sustainable environmental and social development in the region. Our aim is to lay the platform for a globally competitive agrindustrial sector in Tanzania.

The Brazilian model of producing sugar and ethanol with co-generation of power from sugarcane is emerging as a winning concept in the area of combining food production with renewable fuels for transport and for renewable energy generation.

The UN agency, Food and Agricultural Organisation (FAO) and

"The investment has great potential to create jobs, not just for the people who are expected to have direct long-term employment in the project and the farmers who will grow sugar can for sale to the plant, but also for the people in the surrounding communities who can increase their incomes

the World Bank have also stated that AgroEnergy has a major potential to boost agricultural and socioeconomic development in Sub-Saharan Africa and both the EU and the U.S. Environmental Protection Agency (EPA) have confirmed that ethanol and power made from sugarcane provides substantial reductions of carbon emissions. Consequently, development of new sugar cane based agroenergy industry in this region is desired if, and only if, implemented in a sustainable manner.

Despite the many challenges Sub Saharan countries endure investors can look at them as lands of investment opportunities. Most of the knowledge necessary to achieve sustainable long-term solutions to today's challenges already exists.

In Brazil for example, we can see that large scale production of food and energy from sugar cane can be performed in a cost and CO2 efficient manner whilst at the same time providing socio-economic development for the country. Many countries in Sub-Saharan Africa share the same agroecological and climatic conditions as Brazil, and thus could be as efficient as Brazil in this respect.

### Large scale food production

Bagamoyo EcoEnergy project aims to demonstrate that it is possible to produce large scale volumes of food and renewable energy in a sustainable manner in parallel with providing substantial financial benefits for all involved parties thereby stimulating a long term sustainable development of a new African agro-industrial sector.

Speaking during the launching of the early works in Bagamoyo coastal region Agro Ecoenergy Executive Chairman Per Carstedt said that the project started ten years ago and it's a time that Agro Eco energy starts its early works however other issues are still been handled by the government.

"In a one thousand billion Tanzania shillings project you cannot be half pregnant when you start! Everything has to be clear regarding the major corner stone's before final financing can be committed by banks and equity investors and then all large construction contracts can be signed and big works starts," said Carstedt adding:

"Because once you unleash all resources and start building such a big and integrated project you cannot stop! Not get commitment to start the big works now, assuming you fix other big things later! You cannot be half pregnant".

He said that however, they have been assured by the government that all the remaining issues will be solved in time

"And we genuinely believe and trust this will happen as the interest



from all local and national parties are so genuinely positive and constructive, we take the risk of starting early ground works now (assuming they can seamlessly over go to major works at the end of the of the year) so sugar can still be produced the season 2016-2017," added Carstedt.

He said that for now Eco Agroenergy is clearing land for sugar cane fields, factory location, roads and the bulk water canal whereby machines are already on the ground as well as expanding and identifying outgrower program for Kiwangwa, Mwatipwili and Gama/Kitame all in Bagamoyo for more study trips to other projects sites including Swaziland.

Concerning the resettlement with people surrounding field areas, Carstedt said that its Eco Agroenergy to push ahead together with the ministry of lands and the District in commencing the resettlements where by those that are eligible for compensation and resettlement will be given the option of choosing between the evaluated cash or in kind compensation package.

"When the decisions have been made, the compensation packages will be finalized and work will commence on the resettlement areas. The resettlement is being done in accordance with Tanzanian Law and the various safeguards of the International Financial Institutions," he added.

He said that recently the valuations exercise has re-commenced to complete the valuations within the main Project site and the Makaani area to end in a nearby future

He added however that it must be made very clear that those people that have invaded the site since the valuations exercise began are allowed to finish harvesting their crop but they will not receive any compensation and will be required to leave the site.

For the project Boundaries and control, Carstedt said that Eco Agroenergy has progressively established its presence at the borders of the project and begun limiting the number of access points and established some controls in consultation with the local people.

"We will now clearly establish and control the remaining boundaries. This will involve further limiting access

## Bagamoyo embarks on ambitious integrated sugarcane drive

points, erection of signage increasing the presence of Militia at control points and establishing site offices at certain locations," noted Carstedt.

He added that in conjunction with this, Eco Agroenergy has been working with the District Forestry Department and started a process to finally stop unlicensed charcoal production and removal of trees in the Project area where by the charcoal burners have been given time to harvest the mounds before they must leave and soon ensure the complete stoppage of charcoal and wood removal from Project Land.

### Big Results Now

On his side, Minister for Agriculture, Food Security and Cooperatives, Christopher Chiza, said that accomplishment of the EcoEnergy project is the part of the measurement of efficiency of his ministry in accomplishing the Big Results Now (BRN) initiative.

Chiza said that either the project also accomplishes determination of Kilimo kwanza through BRN-Sacgot in which BRN-Sacgot it has been agreed that investments to be done in the country must have three comprehensive features which are: project must contribute to the availability of food in the country by adding increasing productivity and production of agriculture crops.

Second, a project must make sure that residents are participating fully in its implementation as shareholders or participants in searching for market for outgrowers and lastly investment must observe environments for sustainable production.

"According to the information, it shows that this project has met all investments requirements needed. Now our duty is to make sure its implementation so that we can see BRN," said the minister.

Chiza added that apart from that EcoEnergy also implements other works like achievement of rice agriculture in Kiwangwa, Kitame and Matwipili villages and this is their second season of production and some residents are expecting to get between 20 or 25 sacks of rice per acre.

He said that some youths have acquire training for building better houses where by farmers especially women have also attained best poultry keeping training as well.

He said that Tanzania has many areas which can be implemented sugarcane plantations and therefore sugar factories. other areas which experts have identified that they are suitable essential for sugarcane are Mkulazi, Mvuha Kiberege, Ruipa and Kisaki in

"Global demand for sustainable agroenergy products has risen in recent years and will continue to rise, given the triple drivers of increased food demand, peak oil and climate change.

Morogoro; Kitengule in Karagwe region , Kasulu Kumsenga/Kibwie in

Kigoma region; Mkongo, Muhoro and Tawi in coastal region, Mahurungu in Mtwara; Ikongo in Mara; Pangani in Tanga and Manda in Njombe region.

Future sugar demands

He said that it is estimated that 15 years from now, reaching year 2030, the Tanzanian population will reach 80 million people. Therefore, if the country wants to meet sugar demands, it is supposed to construct the same sugar factory which EcoEnergy is going to build.

"Therefore, it's our chance to plan now. Our neighbours, Mozambique have done this now and they are selling almost 250,000 tonnes of sugar in their outside countries. If Mozambique has done this; why not us and yet we have land, water and enough manpower? We must plan now as we are directed in BRN," he noted.

"I would like to take this opportunity to inform you that the government is a vital shareholder in this project. Despite having shares in this investment, government will get revenue from various taxes almost USD 40 per year. Farmers and society which will serve this project will earn almost 30 to 40 USD per year as well.

"For this rate, we are not talking about poverty reduction, but talking about being rich. Therefore, I would urge all villagers surrounding Agro EcoEnergy plantations and other leaders in all stages to give full support so that this project can be successful and become an example in our country," he said.

The Ambassador of Sweden to Tanzania, Lennarth Hjelmaker, said that Tanzania is one of the countries in Africa that has shown an impressive economic growth for many years. With a continued growth at a similar high level the goal to become a middle income country should possible to reach.

But a major challenge is to transform this economic growth to be a better standard of living for the people at large. This includes the challenge to provide food, employment and sustainable incomes for a growing population.

Tanzania is gifted with an abundance of a land more three fourth of the population lives in the rural areas. There is great potential in making the land more productive and create growth that is inclusive.

He said that he has been following the Bagamoyo EcoEnergy Project since he came in the country and he admires the perseverance which Agro EcoEnergy have for the struggles they have been going through.

"We believe that sound and responsible land investment has great potential for Tanzanian's development. Through such large-scale land investments in agriculture people living in poverty will get access to jobs and increased incomes," said Hjelmaker.

He said that the investment has great potential to create jobs, not just for the people who are expected to have direct long-term employment in the project and the farmers who will grow sugar can for sale to the plant, but also for the people in the surrounding communities who can increase their incomes by offering services and products related to the agricultural operations.

"That is why Sweden, through Sida, has decided to provide a guarantee for a commercial loan that will enable the project preparations to start," he added.

The Swedish support is the first step that will enable the large-scale agriculture project to get started. As a next step, Sida plans to provide a guarantee for a loan by the African Development Bank (AfDB) for the main phase of the project. Within a few years the company expects to start producing sugar with renewable energy and ethanol as byproducts.

For their part, leaders and community members from Magomeni, Fukayosa, Kiwangwa, and Mkange wards said that they used to dharau the areas and take it a bush not knowing that there is potentional things like oil.

Chief Executive Officer of SAC-GOT, Godfrey Kirenga, said the Southern Agricultural Growth Corridor of Tanzania (SAGCOT) is an inclusive, multi-stakeholder partnership to rapidly develop the region's agricultural potential.

Kirenga said that SAGCOT's objective is to foster inclusive, commercially successful agribusinesses that will benefit the region's small-scale farmers, and in so doing, improve food security, reduce rural poverty and ensure environmental sustainability.

The risk-sharing model of a publicprivate partnership (PPP) approach has been demonstrated to be successful in achieving these goals and SAGCOT marks the first PPP of such a scale in Tanzania's agricultural history.

Among the people who participated during the launching of the early works were Swedish ambassador to Tanzania, SAGCOT CEO ,MP of Bagamoyo, Bagamoyo district and regional commissioners, councilors, leaders and community members from six villages of Bagamoyo region, delegates from SIDA and ATDB IN Tanzania as well as journalists where by the all visited Agro EcoEnergy demonstration farm.

GARDENS

### TAHA shines, spreads warmth on the fields of Makiba

By Likati Thomas, Taha

'Always forward, never back-

s I walked in the grounds of Makiba High School along a path next to well-tended gardens, I saw a signboard with some writings on it. Overcome with curiosity, I decided to stop to read what it said, virtually transfixed by the sentence at the bottom of the sign, which simply read: 'Always Forward, Never Backward!'

As I thought about what message that was meant to convey, a smile stole its way across my face. Intrigued by the four words I had just read, I decided to extend my walk and further explore the school

Eventually, I found some of the students still in uniform and who, after a long day of learning in class, were filling their buckets with water to send to their dormitories. Because they do not have running water in the dormitories, they fetch water outside. However, I was told that, three weeks ago, water did not flow from these taps!

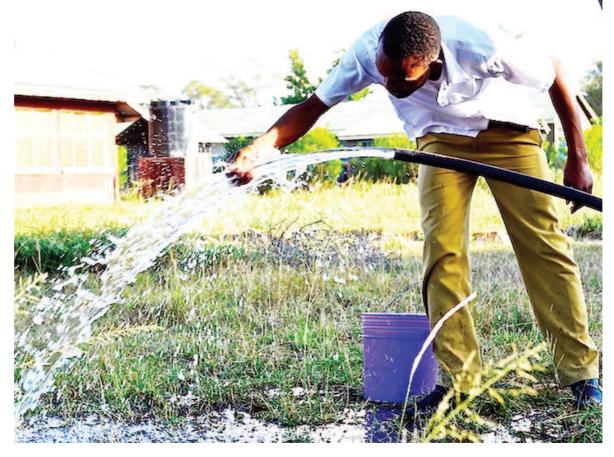
A few metres away, there was a pipe with water flowing from it. A young man, also in school uniform, was playfully splashing water around. Moments later when he realised that I was closely watching his antics, he stopped, possibly embarrassed that he was caught playing with the precious little water which was then available!

Knowing that TAHA had recently installed the well whose water the students were using, I asked him about it. "It's cool brother," he replies as he splashes some more water on his arms' "Up until three weeks ago, we had very a hard time here because there was no running water. The village pump had broken down, and the water stopped flowing; Up until now, it still hasn't been fixed," he lamely explains.

"I'm Jeremiah Kibuga, what is your name?" the student asks me. "Call me Likati," I replied, as we shake hands. "You are with TAHA?" he inquires. "Sure," I reply, impressed by the fact that he seems to understand what TAHA and its development partners - such as US-AID and the Tanzania Ministry of Industry & Trade are accomplishing on the ground here at Makiba.

Young Jeremiah goes on thanking me (no doubt on behalf of the Association and its partners-in-development) for availing running water to their school. He tells me that access to water is important for students, and that going without water had started to adversely affect their learning efforts.

"The water well will have a positive impact upon our community for years to come," Jeremiah says, before re-joining his schoolmates in



their extracurricular activities over

### Promoting horticulture

TAHA, working in partnership with the Ministry of Industry & Trade (MIT), is also working on a year-long project aimed at promoting and developing the horticultural industry in Northern Tanzania, as well as improve the competitiveness of the horticulture supply chain.

So far, TAHA interventions in this area have achieved some of the objectives which were intended to be achieved. Among them are the mobilization and formation of horticultural farmers groups in Makiba

One such group was formed recently, and this has already induced other farmers to form groups of their own and join the industry's premier Association.

Through this project, TAHA has successfully constructed and or rehabilitated some collection centres, water catchments and reservoirs, as well as drilling wells to facilitate the availability of water for irrigation farming in areas where water sup-

ply was unavailable or inadequate. Some of the TAHA's secretariat in a photo that was taken during the inspection of the MIT project constructions in Makiba Village. From right to Left is Lorna Yoyo (Programs Manager), Ezekiel Joachim (Finance Manager), (Finance Manfred Bitala (Technical and Dofrian John Manager) (Programs officer - Government Projects).

### French beans, baby corn

TAHA and MIT are closely working with the farmers, including the Makiba Fruit and Vegetable Producers, a farmers group that grows French beans and baby corn, primarily for the export market. However, many others will benefit from this project, among them the students of Makiba High School.

The water well provided for the Makiba Horticultural Producers was drilled in the grounds of the school and will provide water to be

"The water well provided for the Makiba Horticultural Producers was drilled in the grounds of the school and will provide water to be used by the school, surrounding communities and local farmers for domestic purposes and irrigation

used by the school, surrounding communities and local farmers for domestic purposes and irrigation.

Mwalimu Lutazaa, the School headmaster, states: "I would like to thank TAHA and MIT for facilitating the construction of this well. It will not only improve horticultural farming in Makiba, but will also improve the livelihoods of students, teachers and others living in the

### **Boreholes for irrigation**

More than 33 metres deep, the well is expected to supply water for almost 50 acres of land owned by the Makiba Fruit and Vegetable Producers group. The group, currently composed of 18 members, is committed to using the donated well water for the purpose of increasing their income through vegetables cul-

Before TAHA's interventions in this village, water for irrigation farming was inadequate, thus adversely affecting horticultural production - and, by extension, farmers' income. Water availability in Makiba was a dreadful problem for vegetable growers in particular, and the society at large. This led to a considerable decrease in production per acre, mostly at 1.5-to-2 tonnes per each acre of French beans, instead of the standard four tonnes per acre!

In that respect, Makiba vegetable and fruit growers were losing between 2.4m/- and 3.3m/- for each acre which was planted with French beans! This is a major loss in returns, caused only by water scarcity

However, this is steadily becoming past History, as that particular problem has finally found the solution it badly needed: the water well drilled in Makiba High School com-

Speaking on behalf of the Makiba Vegetable Producers Group, Chairman Bakari Mambea expresses gratitude, stating that "we are grateful for this privilege and opportunity. We would like to thank TAHA for its interventions, as they are creating a better future for us farmers from Makiba."

In addition to digging the well, TAHA also renovated a common collection centre which will be used for storing horticultural harvests prior to being transported to market. The goal is to minimize post-harvest losses which are normally caused by lack of such a suitable storage facili-

The building will not only benefit the 18 already existing members of the Makiba Producers Group, but will also come in handy for an additional 100 farmers who are expected to join the group in the near future.

"We have over 100 requests from other farmers around Makiba who have expressed interest to join our Group; so, you can imagine how fast the vegetable cultivation business will grow in this area when construction of the infrastructure is completed," Mambea states, finally revealing the enigmatic message behind the writing on the signboard encountered earlier. "We promise to always go forward, and never backwards," he emphasizes.

Apparently, the powerful statement 'Forward Ever, Backwards Never' is attributed to the founder of Ghanaian nationalism, Osagyefo KNkwame Nkrumah, to unite his compatriots in their struggle for Independence from British rule in

Although originally used with the goal of securing freedom in thethen Gold Coast, Mambea says that the clarion call 'Forward Ever, Backwards Never' was adopted by the people of Makiba as part of their efforts to forge a better life for them and their own through 'best practice' horticultural farming.

All in all, it must also be said that TAHA takes a collective approach to improving horticultural production throughout the value- ${\rm chain} - {\rm as} \ {\rm is} \ {\rm exemplified} \ {\rm by} \ {\rm the} \ {\rm case}$ of the Makiba Vegetable Producers Group. And, like the Sun rising to shine its light and spread its warmth on the fields of Makiba, hope for the future has returned. Farmers will soon plant their fields and reap the bounty of the land to make a better life for themselves and their loved ones.

Makiba farmers are prepared for the hard work ahead to make this dream a reality. For all that, they are thankful for the opportunity they are being given.

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MILK

7

# Stakeholders to assess strides, snags during Milk Week

By Kilimo Kwanza Reporter

### National event in Mara

anzania Dairy Board (TDB) in collaboration with the Ministry of Livestock and Fisheries Development and other dairy stakeholders is organising the National Milk Promotion Week celebrations to be held in Mara Region from May 29 to June 1, 2014.

Speaking with Kilimo Kwanza Supplement in Dar es Salaam recently, Acting Registrar of TDB, Dr Mayasa Simba, said that the aim of the milk week celebrations is to promote milk production, collection, processing, marketing and consumption of quality milk and dairy products in the country.

The TDB was established by the Dairy Industry Act, 2004 (Cap 262) and is mandated to regulate, promote and develop the dairy industry in Tanzania mainland. The Board promotes production, collection, processing, marketing and consumption of quality milk and dairy products by facilitating stakeholder's activities.

The need to promote milk as a healthy and nutritious food is felt in many countries throughout the World and each country in the world strives to become self sufficient in milk production and consumption.

Following requests from member countries, the Food and Agriculture Organisation (FAO) of the United Nations, has since 2001 declared June 1 of every year to be celebrated as World's Milk Day. Most countries celebrate it in different ways, conducting milk rallies, distribution of milk to school children, orphans, media campaigns as well as political speeches.

### Objectives

Dr Simba said that the objectives of milk week celebrations are to create awareness to the general public regarding milk as a healthy and nutritious food for people of all ages that milk provides high quality protein for rapid growth.

"The public should realise that milk provides vitamins A, B, and D for body strength, strong bones, healthy skin, and sharp mind and improves eyesight. Also milk provides plenty of minerals required for vitality and vital to overall mental and physical well-being, calcium and phosphorus are essential for strong teeth and bones," said Dr. Simba.

She added that milk provides lactose for energy requirement of the



body, fats for daily energy production of the body and milk provides water for hydration – over 87 per cent of milk is water, so it can help provide fluid to keep the body hydrated.

She however said that another objective of the milk week celebrations is to create awareness among policy makers on the challenges and opportunities for the dairy industry's role as a tool for social-economic development of the people of the country.

### Milk is wealth

"Here we are talking about wealth because a dairy cow worth more than one million shillings (1,000,000/-), contributes to household welfare by reducing income poverty milk generates income which can be gained throughout the year," said Dr Simba.

She added that the average annual income generated from milk sales can reach up to one million shillings (1,000,000/-). A dairy cow can produce ten litres of milk per day which can ensure surplus milk after household consumption. Increase income by selling heifers and bulls because in dairying you do not need a large number of animals.

Also, milk provides drafts animals and manure which increase crops yield as well as employing workers for labour intensive dairying in every 100 litres of milk sold annually, it creates four (4)

Dr Simba also added that other objectives are promoting quality improvement throughout the dairy value chain in the country, create awareness on the advantages of stakeholder's organizations and provide a platform for interaction, learning and exchange of expe-

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"The public should realise that milk provides vitamins A, B, and D for body strength, strong bones, healthy skin, and sharp mind and improves eyesight. riences between different role players in the dairy industry.

She mentioned that this year's activities for milk week celebrations will include: dairy products and inputs services exhibitions, annual general meetings of national dairy stakeholders' organisations 10th National Dairy Development Conference, annual Council Meeting of the Tanzania Dairy Industry Stakeholders as well as the marking for World Milk day.

### Why Mara Region?

Dr Simba said that they have chosen Mara Region because there is over investment in milk collection and processing while milk production which depends on traditional sector cannot produce enough milk to fullfil the investment capacity in collection and processing

Therefore, the Milk Week Celebration in Mara aims at increase the efficiency in milk production and this will encourage dairy stakeholders and leaders in Mara Region to keep a dairy cow in order to increase milk production to take advantage of underutilised milk collection and processing capacity already existing in Mara and eventually increase income and to improve nutrition.

Also in so doing the people in Mara will improve their economy and even-

tually the national economy. The theme of this year's National Milk Promotion Week is 'raise cattle for dairy to improve your income and nutrition,'

In Tanzania, the first milk consumption promotion was organized in June 1997 by the Coastal Dairy Farmers Association (CODAFA) following a regional meeting for Eastern and Central African countries that was supported by Land O' Lakes and Austroproject Association in Dar es Salaam. Since then this has been an annual event celebrated during the first week of June.

Previous Milk Week celebrations were held in Dar es Salaam in 1998, in Kibaha in1999, in Arusha (2001 and 2002) in Arusha, in Iringa (2003), in Mwanza (2004), Tanga (2005), Morogoro (2006), Mbeya (2007), Sumbawanga (2008), Dodoma (2009), Lindi (2010), Dar es Salaam (2011), Kilimanjari (2012) and Ruvuma (2013).

The way Milk Week is celebrated in Tanzania has evolved over time and to-day Milk Week is celebrated taking in consideration the development of the whole Value Chain.

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## New push to make the darling st

By Cleophas Rwechungura, ACT

### Food crop marketing hurdles

variety of food crops are grown in the country. Maize and paddy are the most important grains with significant impact on people's incomes and lives. Unfortunately, these two grains are not given the attention they deserve.

Relevant institutions should work together to address crucial factors that are likely to accelerate production and productivity of these crops. These factors include: additional investment, assured access to vital inputs, adherence to agronomical best practices, reducing the level of waste along the value chain, and establishing an efficient and effective marketing system.

Unlike the marketing system of the traditional cash crops, such as coffee, tea, tobacco and sisal, the marketing set-up of food crops in this country is not harmonized; it's rather fragmented. This is why producers are subjected to outwit of traders/buyers, hence contributing to their never ending frustrations

Bringing together small farmers would create a formidable force which would formalise networks and trade linkages, share information regarding food prices and volumes, and monitor trade flows countrywide and beyond.

### It's business

Another factor which is equally important in accelerating agricultural production, is marketing. In this era, farming is no longer an activity for subsistence. It is far beyond the traditional thinking of producing to suffice family requirements without any surplus for trade. It is business.

The above fact is embedded in the Agricultural Council of Tanzania (ACT)'s principles. Among ACT's major objectives is to advocate conducive environment for agri-businesses, and provision of appropriate services to enhance productivity and profitability of agricultural produce.

In this regard, ACT is fostering a multi-stakeholder partnership called Tanzania Agricultural Partnership – TAP. This is an inclusive Public-Private –Partnership (PPP) with partners at district, national and international levels.

It uses a Value Chain Approach to improve access by Tanzanian small-holder farmers to affordable credit, and appropriate technology packages. It strives for more efficient input and output value chains, as well as improving farmers and agro-dealers business





"Maize and paddy are the most important grains with significant impact on people's incomes and lives. Unfortunately, these two grains are not given the attention they deserve.

skills.

This programme is hailed as one of the most noticeable agricultural initiatives in Tanzania, with quick results and benefits. This unique programme has specified the following objectives: To increase access to appropriate and affordable agricultural inputs; to stimulate private sector investment in agriculture; to enhance profitable and sustainable agricultural production and to improve and sustain output market linkages

### The marketing component

This programme is commercial oriented. It looks at the value chain of specific commodities, and provides the necessary support to as many links of the chain as possible. It builds on existing structures and systems of other partners on the ground. The guiding principle is to ensure that at the end of the chain, farmers get a good deal for their produce.

The programme has recorded laudable achievements. These include, enhancing agro-dealers business by providing them with technical skills and financial support, equipping farmers with negotiation skills through Consolidated Market Information Systems, and enhancing the Warehouse Receipt System –WRS by building or renovating warehouses in its operation area.

These have increased significantly the market price of the commodities in store. The system enables farmers to get premium prices by selling their produce later in the season when the supply is low and the demand is high.

Give away price

Tanzania prides herself for producing bumper food crops, especially cereals (maize and rice). At harvest, local markets are flooded with food stuffs and the price is very much low. Since most farmers are in short of cash, they are forced to sell their produce at give-away prices. As time goes by, prices for food commodities rise steadily when farmers have nothing to sell.

For this reason, TAP embarked on a Warehouse Receipt System whereby farmers can store their produce for a while, and sell when prices are high. In the meantime, farmers are able to access credit (that's initial payment) against the security of the produce in store. The National Microfinance Bank (NMB) is facilitating this arrangement.

### Market linkages

TAP has made deliberate efforts to link farmers who have stored their produce in the warehouses with potential buyers. In this regard, the NMB has stepped in to assist by availing some money to farmers while awaiting the right moment to sell their crops. The loan is subsequently deducted from what has been sold.

Rice producers in particular have benefited much from this arrangement due to the fact that they are assured of some cash to meet their immediate needs, and this enables them to survive





**GRAINS: COVER STORY** 

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### taple food grains more profitable



till crop prices are at peak.

"At harvest the farm-gate price for one kilogramme of rice is about 800/-(USD0.5), when this commodity is scarce in the market, the price almost trebles. This is a maximum profit indeed," says Seuta Lukurunge, a prominent rice farmer in Kilombero District, Morogoro Region.

The following are stumbling blocks to food crops marketing.

### Produce cess

In Tanzania, a good part of the revenue acquired by Local Government Authorities (LGA) is from crop taxation which is collected at the selling points, or load-blocks. Although produce cess is meant to boost LGA's revenue and enable them to meet administrative obliga-

"Bringing too

"Bringing together small farmers would create a formidable force which would formalise networks and trade linkages, share information regarding food prices and volumes, and monitor trade flows countrywide and beyond

tions, the tax has proved to be counterproductive to agricultural productivity and value addition.

If you take into consideration the fact that agriculture is a low profitability industry, the rate for taxing farmers' produce which is between 2 and 5 per cent, is extremely high. This tax rate is 17 times more than what people in the industry sector pay (that's 0.3 per cent).

High crop taxation is a disincentive to agricultural production and marketing because it diminishes the profit margin. In some cases, farmers are forced to abandon farming to look for alternatives to make more money.

Road blocks

In many occasions, farmers are subjected to unnecessary inconveniences and delays at road blocks. At these points, LGA officials assess the value of farmers' produce and demand levy. This means multiple tax payments, that is, at the designated collection centres and at road blocks.

In most cases, levy collecting agents value the produce just by guessing, and sometimes they don't give official re-

ceipts. As a matter of fact, produce cess is supposed to be charged at the farmgate after deducting the costs for production. Again, it is supposed to be paid only once, that is in the district where the produce originated. A combination of these factors force producers to avoid the official marketing channels, thus reducing substantially LGAs revenue.

### Challenges ahead

Despite achievements in certain areas, still there is a lot to be done. We should train farmers in agri-business skills; we should consolidate and expand crop market intelligence systems; and we need efficient and effective logistics in hauling food commodities from surplus areas to deficit areas.

Also, we should liberalise trading in food commodities by removing unnecessary barriers within the country and beyond; we should abolish cross border trade ban, unless it is very crucial for our own survival.

In many occasions, the government offers permits to import certain food items, especially rice and sugar, under the pretext of filling the deficit gap. However, this is debatable because the move destabilises the market of locally grown commodities and when imports surge, often it brings unnecessary competition between imported goods and home grown products.

The truth of the matter is that, imported commodities are subsidized in their countries of origin. This explains their low pricing. A specific example is the case of huge rice imports from Malaysia in 2013 which caused a dramatic price fall of locally produced rice.

ACT, therefore, urges the government to abolish food import permits. Instead, it should foster private sector marketing systems, and link them with the Commodity Exchange Programme. Moreover, this arrangement is likely to attract participation of many stakeholders, including Lending Institutions to finance production of some major food crops. Crop marketing is becoming more and more competitive. Relevant authorities should assist and guide farmers to comply with international standards of quality; to set up well-structured trading systems; to honour trade agreements in terms of supply dates and quantity; to strengthen agricultural marketing institutions; and to harmonise functions of the regulatory bodies that at times are confusing and contradictory.

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Send your comments for free starting with (GRAINS) to 15774

### The Guardian KILIMO KWANZA

10 TRAINING



## YARA provides solutions for sustainable agriculture and the environment

By Special Correspondent, Yara

Safety is priority

ARA fertilizers and crop nutrition programmes help in producing the food required for the growing world population. Founded in Norway

in 1905, YARA has a worldwide presence with sales to 150 countries. YARA started operations in Tanzania in 2005. Safety is always YARA's top priority.

Being one of the best companies in the country producing fertilizers, YARA also give trainings and advises to its clients so that they use the products efficiently. Having branches not only in big cities but also in rural areas where the mass is, farmers can access quality and affordable fertilizers which help them to improve productivity as well as changing their lives.

### Rashid's success story

One of the farmers who got guidance from YARA is Denis Rashid from

Ruaha Mbuyuni in Iringa Region. Rashid deals with unions and other cash crops like maize. He says that he started using YARA fertilizers after seeing one of his neighbours used YARAMila Winner , YARALiva Nitrabor as well as YARAVita Tracel BZ products. He notes that YARA products have completely changed his

life.

Rashid started using YARA fertilizers last harvest term for just a piece of his farm for a trial, but after seeing results and getting more guidance from YARA Sales Agronomist in Iringa Region, many farmers in his area have been taking him as the best example.

TRAINING

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"At first, it was a challenge, using a new product wasn't easy. I saw one of my neighbor's farms looking very healthy and appealing and I got training from YARA, that's when I also decided to use YARA fertilizers for just a half of an acre for testing," narrates Rashid.

### Key to success

He says that before using YARA fertilizers, he used to get 65 to 70 bags of unions per acre, but after using YARAMila Winner, he now gets from 80 to 90 bags from the same farm size.

"You see, most of us, Africans, don't like to reveal secrets of our successes

But for my side, the secret is the training I got from YARA as well as its products. From there, my life has completely changed. I have now bought a vehicle to cater for my agriculture business. I say God is great," says Rashid, while smiling.

He also says that after using YARA products, now his onions don't get rot, they are big enough and have a very strong coat. Rashid also notes that most of his clients like the unions and compete to buy them during harvests. Even the number of his clients has increased, he adds.

### Value for money fertilizers

He acknowledges that YARA fertilizers are affordable, better and value for money, therefore other farmers should not spend money for other products, which won't give benefits as those produced by YARA.

"Most of my fellow farmers are coming to me now for advice. They have also realised the importance of YARA products," notes Rashid.

For his part, YARA Sales Agronomist in Iringa Region, Maingwa Msonde says that YARA fertilizers have become the choice for most of the Iringa farmers because of the training and advices YARA is offering to its clients and also because of the supplements.

Msonde says that YARA has been providing trainings to farmers so that they can use fertilizers effectively because when its fertilizers are applied well, plant growth becomes vigorous and healthy and that ways, improves human health and avoids environmental pollution.

### Training: The most important thing

Msonde cites an example that most of the farmers in Njombe, who deals with potatoes, maize, and tomatoes, have seen YARA fertilizers as a new and helping hand to them; therefore to put the knowledge in practice, Yara offers training as the most important thing for farmers to use fertilizers properly.

He, however, says that YARA has been facing challenges whereby some of the farmers after giving them training they don't cope-up and go back to their normal fertilizers like DAP and CAN 27 until they get shortfalls and realise the importance of YARA fertilizers.

"Low level of understanding about fertilizers, crop nutrition, crop nutrients and soil, is still a major problem. Most of Iringa farmers provide their crops with only two nutrients, which are nitrogen and phosphorus," he notes, adding:

"These are sourced from DAP, UREA and CAN. Crops need about minimum of 12 nutrients from soil. So, what happens when soil is lacking some of these nutrients are lacking from soil? The answer is poor and unhealthy crop growth."

### The right combination

YARA provides the right combina-

"Most of us, Africans, don't like to reveal secrets of our successes... for my side; the secret is the training I got from YARA as well as its products

tions for better crop growth to give high and quality yields. "But now they have performance from their all crops. See the difference between previous fertilizers and ours," assures Msonde.

He adds that when Dar es Salaam markets are flooded with tomatoes from Iringa, Arusha and Moshi, for example, customers prefer to buy tTomatoes from Arusha and Moshi because of quality.

According to him, this is especially happens at the Ilala Market. Right now, tomato farmers from Iringa can compete equally in market after starting using YARAMila, YARALiva Nitrabor and YARAVita Tracel BZ.

"This is because of the nature of the soil of Iringa, if compared to the ones in Moshi or Arusha.

The level of potassium is higher in Moshi and Arusha than in Iringa, but by using YARAMila Winner, YARALiva Nitrabor and YARAVita Tracel BZ, tomatoes from Iringa Region are becoming best in the markets and can compete with others," he narrates.

### Farmers' field visits

Msondes says that in training farmers in Iringa, YARA has recently been visited by about 300 farmers during Farmers' Field Days organised by MUVI Iringa Njombe.

These Farmers' Field Days were conducted at Mbigili and Nzihi villages to give the farmers further guidance on how best they can apply YARA fertilizers.

He says that YARA works in collaboration with the public and private sectors through private companies and NGO's dealing with farmers so that a large population of farming communities can access training to improve their farm productivity and therefore improve their incomes.

YARA expects to train more farmers effective April 2014.

*GERTILIZER* 

# YARA fertilizers: Best quality at affordable price



By Special Correspondent, YARA

Fertilisers that make a difference

Either during rainy seasons or summer before using YARABela fertiliszers, I used to get difficulties in my tobacco farm. Other fertilizers are not useful during these seasons. I started using YARAMila and YARABela Sulfan, and now, I am glad to see benefits of using YARA products," says Mohamed Ramadhani, one of many farmers who have been benefiting from YARA products.

Ramadhani is a tobacco farmer from Imaraiduki in Tabora Region, who have been using fertilizer CAN 27% nitrogen for many years. Previously, as he narrates himself, he faced difficulties during rainy or summer seasons. "When applied in a plant, YARA fertilizer doesn't go away. It stays inside the soil and can be used again and again," he affirms.

Tabora has sand soil, therefore when farmers apply other fertilizers during rainy seasons the rain water washes away nourishment from the soil. This is not the case with YARABela fertilizers.

"Now, I have improved my tobacco farming and boost productivity by using YARABela Sulfan . I'm going to harvest a large amount of tobacco and sell it. This will also improve my living standard," says Ramadhani, adding: "YARA fertilizers are affordable and value for money."

He adds that YARABela fertilizers are certified and useful for both cash and food crops, hence increase productivity because of their supplements. Also, they are sold in various packages from 5, 10, 25 and 50 kilogrammes, therefore they are affordable even to small farmers.

Best yields at low cost

"I urge farmers to use to use

YARA products for best yields at low cost, if they don't realise this, they will have low productivity and crop levels from relatively expensive fertilizers," explaines the tobacco farmer, Ramadhani.

For his part, Philipo Mwakipesile, a YARA Sales Agronomist in Tabora says that most of the farmers in the region have now realised the best fertilizers for increased productivity are YARA. "This is because of the ingredients found in YARA products," he notes.

Mwakipesile also notes that YARA fertilizers comprise essential nutrients like nitrogen, potassium and sulfur as well as zinc which are vital in soil.

By using these products, a farmer, at the end of the day, gets a balanced nutrition from crops.

In Tabora Region people have been having shortage of proper fertilizers for fruits and vegetables, but YARA has brought the solution

"YARA fertilizers comprise essential nutrients like nitrogen, potassium and sulfur as well as zinc which are vital in soil

in the market, as its products, such as calcium, nitrate, and boron, help vegetables stay longer and fresh.

"By using other fertilizers, most farmers complain of rotting or fungus diseases, but after using our products, which include calcium, they have noticed the difference. Now, their tomatoes generate cell wall, therefore they can stay fresh in the market for two weeks without rotting," says Mwakipesile, adding:

"At first, most farmers used CAN 27% for endorsing tobacco here in Tabora, but YARA integrated it with calcium to introduce YARABela Sulfan, Nitrogen 24% and sulfur 6%, which is soluble in water. Even the government has realised this and have vivid example and prove that sulfur facilitates nitrogen and work efficiently."

### Quality guaranteed

According to him, YARABela has already been approved and has

been accepted by the majority of tobacco farmers here in Tabora. Most of them say that they expect good harvests this year.

YARA has other fertilizers for maize and cereal, which is YARAMila Cereal.

This is specialised in maize and rice and it's either as basal and top-dressing or basal alone determined by the soil. This one helps to increase productivity as well.

YARAMila Cereal has also shown ratios in a balanced form easily available for efficient crop uptake and it suits most soil conditions independent of ph level.

For this type of fertilizer, soil analysis from many maize and rice growing areas in the country confirm deficiencies for macro and secondary nutrients, including Tabora, especially for ingredients which include sulfur, magnesium, zinc, which all together are critical to the yields and quality in cereal crops.

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By Kilimo Kwanza Correspondent

### Sustainable farming system

sustainable agricultural system is one that can indefinitely meet the requirements for food, feed, and fiber, at socially acceptable economic and environmental costs. Smallholder farming dominates most of sub-Sahara Africa agricultural activities with low average yields.

Agricultural practices must meet the needs of the present without compromising the ability of future generations to satisfy their own.

Credible definitions of sustainability must accept the profit motive as a driver of sustainable practices.

There is great scope for unleashing the agricultural potential of currently less productive countries such as Tanzania and their smallholder farmers. Science and technology, the right kinds of business model, right products to the farmers and after sale services are essential ingredients. This requires application of technology in to the entire agricultural value chain.

Essentially, this points at the use of technology for farm preparation, planting, weeding, pestsides, harvest, postharvest handling; access to inputs and services, training for enhanced capacities through extension services support; and remunerative links to fair, competitive and sustainable markets.

These are important factors in order to efficiently complement to the implementation of Kilimo Kwanza and increase smallholder farmers' productivity for improved livelihoods.

This was recently stated in Dar es Salaam by Intertechnology Co. Ltd Managing Director, Dr Francis Mayaka - a Medical specialists and entrepreneur, who is officially represents Belarusbased MINSK Tractor Works, the manufacturer of BELARUS tractors.

# Minsk tractors now available in Tanzania

### Training is needed

Dr Mayaka said, despite government initiative and various efforts in implementing Kilimo Kwanza still, farmers needs training on the right agricultural technology, their usage for agricultural activities, best agricultural practices and linkage to reliable, fair and sustainable markets for their cash crops.

He said, by representing Minsk tractors Works from Belarus for the introduction of Belarus tractors and agricultural equipment in the Tanzanian market, Inter Technology Co. Ltd is geared to provide smallholder farmers in the country with, not only right Belarus tractors brand which has been internationally and locally tested and approved for commercial agricultural usage, but also with spare parts, after sale service, farmers training on technology application, best farming practices and linkages to reliable, fair, competitive and sustainable market for their cash crops.

He said that most of the sub-Saharan countries depend on agriculture as the best means of earning income and both rural and urban livelihoods, but some countries still practice primitive agriculture by using old farming methods of cows, donkeys and hand hoes for farming, which does not significantly complement to Kilimo Kwanza.

The 'push' for production

"Small and medium holder farmers

"There is great scope for unleashing the agricultural potential of currently less productive countries such as Tanzania and their smallholder farmers. Science and technology, the right kinds of business model, right products to the farmers and after sale services are essential ingredients

in the country face opportunities and constraints in attempting to practice sustainable farming. Rising demand for food is likely to create "pull" for their production as the market expands.

Application of Motor block tractors (Power Tillers), which are claimed not environmental friendly may encourage short-term gain at the expense of the environment, but will also provide the means to invest in the agriculture, and conserve, natural resources.

These farmers need right, latest, best and tested technology like Belarus tractors. They also need knowledge, exposure and awareness for best agricultural practices so that they can increase land production yield as well as linkages to reliable markets places where they can sell their cash crops at competitive prices so that they can improve their incomes and wellbeing.

All these can be achieved through the proposed New Agricultural Technology and Commodity Exchange (NATCE) programme initiated by Intertechnology Co. Ltd and its associates for provision of small and medium holder's farmers with sale, lease and loan for tractors and other agricultural equipment's for exchange with cash crops as payment for the ownership of tractors and equipment's.

According to Dr Mayaka, recently statistics shows that, only 10,064 large size tractors, 6,348 Smaller - hand tractors (Power Tiller), are available in the country, while, there are 794,000 cow plough, and 1,589,258 working animals (Cow and Donkey) despite the fact that 75 per cent workforce depends on agri-

culture. He said that, so far his company has ordered about 160 Minsk tractors and that about 300 of them have been reserved for farmers in Singida region.

He added that, his company has an office in Dar es Salaam, but their main focus is to strategically locate their head quarter in Singida region where they will have a warehouse, farmers training center and tractors assembling plant in the near future.

"Singida is centrally located with road and rail network connecting to all other regions across the country for easy access of Belarus - Minsk tractors Works as well as after sales services and spare parts," he said.

He, however, said that Inter Technology is going to work in collaboration with regional and district agriculture officers so that, farmers can be trained on the best farming practices, use of Belarus tractors/equipment and linkages to reliable, fair and sustainable markets market for their cash crops, that's edible oil seeds such as sunflower, cotton, sesame seeds, and ground nuts.

Dr Mayaka added, "In country and external training and after sales services by Belarus team of experts will be offered just free of charge to farmers, and that, the Belarus tractors will be offered as package which comprise a tractor and hee"

### Package keeping everyone in

He further explained that, a package of 57-62 HP tractors will be sold for less than 40 million and in terms of cash, loan or lease contract with farmers whereby they will be paying after selling their crops for a certain period of time. He said, Belarus tractors are simple to use, easy to operate, durable and user friendly and entirely made by metal materials.

"We are not aiming at selling tractors only, but also teaching farmers modern farming approach to increase productivity like how to start farming, apply fertilizers, pests, and irrigations also usage of land and technology to help farmer get reliable market even outside the country. We want our farmers realize the difference before using our tractors and after using them. We want them to realize the value for money," further explained Dr Mayaka.

However, said that Inter technology is going to work with among other, Suma JKT as one of their key country distributors for the Belarus tractors because they have ground level experience in working and selling tractors to the farmers in the country.

### **About Minsk Tractor Works**

Minsk Tractor Works (MTW), the manufacturers of Belarus tractor brand, was founded 29 May, 1946. For more than 60 years of its history, it has become one of the biggest world manufacturers of agricultural machinery with more than 30,000 people working in the holding.

At present, there are more than 100 tractor plants in the world. But only 8 of them supply with their production 96% of the total volume of the product market. Minsk Tractor Works is among them. OJSC Minsk Tractor Works is basically licensed to develops, produces, and exports wheeled tractors, spare parts, renders setting services.

At present OJSC Minsk Tractor Works takes leading positions on the markets of more than 125 countries worldwide. Over several years the factory possesses 8-10% of the world wheeled tractors market, remaining in the ten of the world biggest manufacturers.

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COTTON

# Concern over sluggish performance of cotton sector



By Special Correspondent, CTDP

Why cotton is vital

he cotton sub-sector is the principle source of livelihood for around 40 per cent of the country's population. Many people derive their livelihood from cotton. The performance of the sub-sector, however, due to its high exposure to risks, is very volatile.

As a cash crop, cotton represents a major source of income and employment, offering economic opportunities to 500,000 rural households (small-holder farmers), most of whom, cultivates on farm sizes between 0.5 to 10 acres and grow mostly in rain-fed areas.

The financial volume earned from the export of cotton amounts annually to USD 159.3 million, this is according to according to the Bank of Tanzania's Monthly Economic Review for July last year. Moreover, cotton growers remain poor with no future promises and sometimes most of them think of venturing into other sectors such as fishing though also not promising.

According to media reports, in the 1980s and 1990s the government removed price control and input subsidies and privatized various public enterprises to expect benefits from effective market operation. Moreover; since then, there has been stagnant cotton productivity and subsequent slow pace of rural poverty reduction.

### Reasons for low productivity

Given that, one of the main reasons for low productivity was due to low input use among farmers; in 2003, the government reintroduced the agricultural input subsidies. Ensuring sustainable production would provide an immense potential that in turn would significantly contribute to poverty eradication and socio-economic development.

opment of the country.

According to an initial assessment done by Rural Livelihood Development Company (RLDC) of the cotton valuechain has showed that several constraints have to be addressed in order to unlock the potentials of the sub-sector.

These included: limited access of producers to inputs and services, low productivity and quality of cotton, strong volatility of prices in local and international markets, competitive business environment, weak organization of farmers' groups, lack of access to ginning facilities, and lack of access to credit.

It is also said that the country's cotton market is subject to taxes and levies which are being imposed at the district, regional and central government levels. Moreover, cooperative unions and societies are also taxed. Such heavy taxation, which amounts to an average of 12 per cent of the farm

If we are to see the farmers and the country are benefiting from the crop, then the government, among other things, ought to reduce the current level of taxation, taking into account its impact on producers and ginners, would be beneficial for the entire cotton sector

gate price, penalizes farmers hence a blow on farmers' investment capacity.

With such bottlenecks, the government's role should be diverse; as some of reasons for vital role are self-sufficiency, employment creation, support to small-scale producers for adopting modern technologies and inputs, reduction of price instability and improvement of the income of farm households.

### What the govt should do

This vital role could take a number of forms such as import-export policies and domestic policies like price support programmes, direct payments, and input subsidies to influence the cost and availability of farm inputs such as credit, fertilizers, seeds, and irrigation water.

If we are to see the farmers and the country are benefiting from the crop, then the government, among other things, ought to reduce the current level of taxation, taking into account its impact on producers and ginners, would be beneficial for the entire cotton sector.

The government should also increase its support on farm input subsidies as the level of public expenditure to support the cotton sector is low compared to the level of disincentives caused by high taxes and the inefficient ginning industry.

Economists say that public spending on farm input subsidies should be complemented by policies aimed at strengthening the investment capacity of farmers and ginners.

Despite the fact that the country's cotton sub-sector has considerable potential which can be exploited for mutual benefit to stakeholders, fluctuations in cotton prices, drought, cotton diseases, and lack of easy access to inputs, pesticides and seeds undermine better yields and higher cotton production volumes.

On the other hand, the provision of subsidies which supports cotton related extension services would enhance the capacity of farmers to improve quantity and quality of the crop hence boost the position of the industry in the country.

Good coordination among stakeholders is required as far as purchasing inputs so as to achieve economic onfarm yields, and high quality requirements throughout the supply chain as well as for the Tanzania cotton to be competitive in world markets.

### Case for cotton productivity

In other words, a proactive approach to Private/Public Partnerships (PPP) is necessary to maintain and improve the profitability of cotton. A mix of public and private goods and services will be needed to resolve endemic rural credit market failure, acquire and diffuse technical innovations, and ensure the necessary coordination.

Funding is urgently needed in various areas through which development and multiplication of new varieties would be realised, pest management would be improved, and raw cotton grading systems would be updated.

Government commitment to support the cotton sector, especially in respect of regulatory and monitoring services, should be unlimited.

Other efforts to be made would include improving the rural infrastructure such as roads, irrigation schemes, strengthening regulatory and institutional capacities, promoting strategic research, as well as training of front-line extension staff.

Mind you, when we talk about irri-

### The Guardian KILIMO KWANZA

COTTON

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gation farming, Tanzania has huge potential for irrigated agriculture; the area suitable for irrigation is estimated to be about 29.4 million ha but only 0.34 million ha are currently under irrigation. Yet the country is the second in Africa for having water resources.

Therefore, if we are to see such arable land is precisely utilized and thus transforms small holder farmers, we need commitment of all stakeholders who are going to dedicate their efforts in the cotton investment.

### Value addition

On the other hand, the ginners also plays an essential role in the cotton value chain, as they are said to be major clients of the cotton farmers and provide raw material to the textile and clothing industry as well as to the oil mills.

However, most of the ginning factories have been closed down and those exists, keep on relaying on the outdated technology thus failure to keep pace with fast changing International standards as owing to poor ginning technology, quality of cotton is impaired.

Since ginning sector is an important transfer point in the cotton value chain, and acts as bridge between the farmer field and textile industry. It plays a significant role in determining the quality of raw material for textile and clothing industry.

Therefore, value addition at the ginning stage will not only lead to improvement in the livelihood of all those who are associated with ginning industry, but will also have yield benefits in both forward and backward linkages.

Improvement in quality of the cotton lint would mean provision of higher quality raw material to the textile and clothing industry, which will translate into increasing competitiveness of the higher value added textile and clothing products. As a result, the industry will create more job opportunities and higher income for those associated with industry.

As far as backward linkages are concerned, when value addition at the ginning phase will take place, it will create demand for more cleaner and quality cotton.

Eventually, farmers will have incentives to provide quality cotton to earn better returns. In this way half a million families will benefit, thus improving livelihood of large number of rural dwellers.

Ginning sector upgrade in term of skills and technology can be used as instruments in improving quality of cotton and cotton products, creating employment opportunities, and increasing earnings of the people associated with the ginning sector. Such interventions will essentially lead to improvement in the livelihood and poverty alleviation.

Economists suggest that the value addition at the ginning stage will not only lead to improvement in the livelihood of all those who are associated with ginning industry, but will also have yield benefits in both forward and backward linkages.

Improvement in quality of the cotton lint would mean provision of higher quality raw material to the textile and clothing industry, which will translate into increasing competitiveness of the higher value added textile and clothing products. As a result, the industry will create more job opportunities and higher income for those associated with industry.

Media reports suggests that high domestic prices for the crop lured more



## Concern over sluggish performance of cotton sector

farmers in the country to into the work last season, but the rise in production was mainly thanks to contract farming. This is a system where a private sector firm provides farmers with inputs such as credit, fertilizer and seed in exchange for exclusive purchasing rights for the resulting crop

### Quality and standards

It enables smallholder farmers to participate in new high-value product markets and improves quality and standards, thus increasing and stabilizing farmers' incomes.

But, there are also risks associated with contract farming. Such risks can be reduced if a greater focus is put on strengthening market-oriented producer organizations and creating mechanisms for resolving disputes between farmers and firms.

Although initially intended to commence in the 2011/12 season. However, full success is not expected to occur until 2015 due to some reluctance by ginners to get on board. Moreover, some 292,000 cotton farmers in the country are reported to have taken to contract farming. Ginners also provide farmers with appropriate farming inputs, and pesticides on credit, an intervention that boosts production.

### Doubling cotton output

Under the Tanzania Cotton and

Textile Development Programme, the country is determined to double cotton output by establishing contract farming to support marketing and to ensure that cotton farmers get easier access to inputs

Several activities are being undertaken under the programme such as extending technical assistance to Tanzania Cotton Association (TCA) and Tanzania Cotton Board (TCB) members investing in the sector.

This enables those receiving the support to promote proper policy and institutional reforms, while the designated Seed Multiplication Zone (SMZ) comprising farmers and ginners receive assistance to ensure successful man-

agement of contract farming.

For sure, there are good reasons for expanding contract farming due to the collapse of international commodity agreements and the liberalization of national markets, agricultural value chains have become increasingly buyer-driven and vertically integrated. In such an environment, contract farming offers the best of both small- and large-farm production systems.

However, smallholders often suffer from capital constraints, and they lack capacity to adopt technological innovations. Contract farming can overcome these difficulties, and can deliver benefits typically associated with large-farm production systems, including increased output with reduced input costs.

Moreover, firms have a comparative advantage in market and technical knowledge, as well as in product traceability and quality. From a poverty-reduction perspective, contract farming offers clear opportunities for smallholders.

It gives them access to a reliable market, it provides guaranteed and fixed pricing structures, and most important, it provides access to credit, inputs, and production services. In broader terms, it can stimulate the transfer of technology and skills.

At one time, he TCB acting Director General, Gabriel Mwalo was quoted as saying there is a lot of untapped potential in contract farming



Funding is urgently needed in various areas through which development and multiplication of new varieties would be realised, pest management would be improved, and raw cotton grading systems would be updated.

but lack of stringent regulation coupled with lack of adequate support from the government deters investors from pouring much needed cash into the system. "It is high time the government looked into problems affecting contract farming with emphasis on cotton rather...the government should come in and create an enabling environment that ensures the development and sustainability of the farmer and contract farming at large," he said.

He added, "Large investors need farmers who can supply them with cotton to feed their ginneries, while farmers need investors for capital to run their farms and increase yields. If the government steps in and regulates contract farming it would be a win —win situation."

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### Integrated pest management set to boost cotton yields

By Special Correspondent,

### **Increasing productivity**

otton farmers can increase their cotton productivity from 20 to 70 per cent by managing pests in the farms through Integrated Pest Management (IPM).

IPM entails the use of sustainable approach to managing pests by combining biological, cultural, physical and chemical tools in a way that minimizes economic, health, and environmental

IPM programme in Tanzania was established to improve farming skills and raise cotton farmers' awareness of good agricultural practices.

The main objectives are to increase yields and incomes through environmentally-friendly methods, improve food security and poverty reduction and to reduce risks associated with agrochemicals.









ination of food-chains and disruption of ecosystem services Monitoring of human

and environmental health is a critical element in any functional agricultural system, but these elements are most often missing in developing economies. The programme aims to help farmers reverse these negative factors.



### IPM components

IPM consist of three basic components: prevention of pest build-up through use of appropri-

ate crop cultivation methods; observation of the crop to monitor pest levels, as well as the levels of natural control mechanisms, such as beneficial insects, in order to make the correct decision on the need for control measures and intervention where control measures are needed.

The programme uses the Lead Farmer Training (LFT) approach,

### WATER AND SANITATION

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Dar es Salaam Water and Sewarage Corporation (DAWASCO) Tel: +255 22-2131191/4

Drilling and Dam Construction Agency (DDCA) Tel: +255 22 2410430/2410299

Energy and Water Utilities Regulatory Authority

Tel: +255 22 2123850, 22 2123853 Balton Tanzania Limited Mikocheni Industrial Area, Cocacola Road.

Tel: +255 22 2772826 Ministry of Water Tel: +255 22 245 1448

**ASSOCIATIONS** 

whereby farmers build new skills and

knowledge through discovery-based

learning and hands-on field experi-

ments. The programme seeks to help

farmers explore, modify and adopt

their own set of 'good agricultural prac-

tices': better understanding of the

mechanisms and how things work can

greatly improve their decision-making

farmers that are volunteer themselves

for training, from various cotton grow-

ing villages. The farmers then train

their peers in their villages through ex-

ample and farm visits in their villages.

This year the Training Programme

was held in March and February in the

cotton growing region. The training

consists of delivery of key notes deliv-

ered by experts followed by field

"Encouraging sustainable

production is one of the

challenges. Poor yields

often result from a lack of

management, which has

methods, choice of poor

quality seeds and highly

Since inception, the program man-

aged by the Cotton and Textile

Development Program (CTDP) under

Tanzania Gatsby Foundation (TGT)

has worked with Tanzania Cotton

Board (TCB), smallholder farmers and

developed strong partnerships with lo-

cal governments and agencies, farmer

organizations, NGOs, and research in-

stitutions, the private sector and

the financial support of the Gatsby

Foundation and Department of

The programme is carried out with

led to poor cultivation

cotton crop main

knowledge of soil

toxic pesticides

demonstration in real farms.

Training programme

The Lead farmers are exemplary

### **INDUSTRY SUPPORT AND**

Small Industries Development Organization (SIDO) – Email: dg@sido.go.tz, info@sido.go.tz

ANSAF - P.O. Box 6370, Dar es Salaam

CNFA - info@cnfatanzania.org

Tractors Limited Cells: +255 784 421606, 786 150213

Tanzania Horticultural Association (TAHA) Tel/Fax: +255 - 27 - 2544568 Web: www.tanzaniahorticulture.com

Export Processing Zones in Tanzania (EPZ) Tel: +255 22 245 1827-9

Agricultural Economics Society of Tanzania (AGREST) - Tel. +255-23 260 3415

Tanzania Agriculture Partnership (TAP) Tel: +255 22 2124851

Tanzania Milk Processors Association (TAMPA) Tel: +255 222 450 426 E-mail: tampa office@yahoo.co.uk

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Tanzania Cotton Board

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ASAS Diaries Limited - Tel: +255 26 2725200

Tanga Fresh – Tel +255 27 2644238

NatureRipe Kilimanjaro Limited Tel: +255 22 21 51457

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Gurudumu Tatu Limited Tel: +255 22 2865632 / 2863699

National Service Corporation Sole (SUMAJKT)

### FINANCE

Private Agricultural Sector Support (PASS) Tel: 023-3752/3758/3765

Cotton & Textile Development Programme Tel: +255 0718 835 679 Email: ctdp@tanzania-gatsby.com

### the decline in environmental quality and human well-being, through unnec-Main challenges Encouraging sustainable producessary costs of synthetic, toxic contam-

highly toxic pesticides.

tion is one of the cotton crop main chal-

lenges. Poor yields often result from a

lack of knowledge of soil management,

which has led to poor cultivation meth-

ods, choice of poor quality seeds and

**Contact Farming Transforms Life in Musoma** 

These factors have contributed to

started cotton farming in 50's, he used to get inputs from Agricultural Cooperative Society and their cost deducted from the sales of the cotton at the end of the season. He may not remember the details but he remembers that input were free and of good quality, with an average yield of 400kg per acre.

When Contract Farming was introduced in Musoma in 2008/2009, he attendend the first meeting in Tegeruka conducted and he was among the first members of the Farmers Bussiness Group known as Mang'ara, now known as Mshikamano. He started with 2 acres and received inputs and training on best agriculture practises. This has transformed his farming and he harvested an average 850kg/ per acre. In (2009/2010) season he increased his area to 3 acres following confidence of accessing inputs on credi and ,manged to increase production up to 1110kg/per acre. He also worn a district price of an Ox plough as the best farmer. It was out of this succes he built a new house.







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