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# EQUITY NEWS

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NOT FOR SALE

Issue 06

# Partnering with Farmers

for food security



**A**griculture is the mainstay of the Kenya economy directly contributing 26% of the GDP annually and another 25% indirectly. The sector accounts for 65% of Kenya's total export and provides more than 70% of informal employment in the rural areas. **contd. on pg 3**

## Opinion

## AGRA Innovative Financing initiatives leveraging agricultural finance in Africa



**Nixon Bugo**  
AGRA Innovative Finance Officer.

**K**enya and the rest of Africa are facing a major risk of food insecurity. Of the 86 countries defined as low-income and food-deficient, 43 are in Africa, where the majority of the world's one billion people living under the poverty line also live. In Sub-Saharan Africa, although agriculture accounts for 70% of the labour force and over 25% of GDP, it continues to be given low priority for investment with agriculture receiving only about 2-3% of total financing. There is rapid decline in adoption of improved technologies and practices, yet growth in the sector has the best chance for reducing poverty.

Alliance for a Green Revolution in Africa (AGRA) works to achieve a food secure and prosperous Africa through the promotion of rapid, sustainable agricultural growth based on smallholder farmers. Chaired by Dr. Kofi A. Annan, former Secretary General of the United Nations, with a highly distinguished board of directors and scientists, AGRA effects change across the entire value chain through the integrated effort of its programs and partnerships. AGRA programs for improved seed systems, healthier soils, more accessible markets, better policies and more effective partnerships, and innovative finance to make affordable credit available to smallholders work together to transform subsistence farming into a sustainable, viable commercial activity in about 17 sub-Saharan African countries.

Access to finance is one of the major constraints facing millions of African smallholder farmers. This prevents them from investing in agricultural technologies that can help them to achieve higher agricultural productivity and limits their participation in markets. Farmers also face significant levels of risks from uncertainties in weather conditions which further reduce incentives to invest in agricultural production and commercialization.

AGRA and partners has been working with financial institutions in Africa to leverage large scale financing while providing affordable loans and financial products for smallholder farmers and the agricultural value chains that support them. It strengthens capacities of the financial actors, through technical assistance,

to ensure that loans reach farmers, seed companies, agro-dealers, fertilizer suppliers and agro-processors and that the loans are effectively used. The initiative works to drive systemic change in financing smallholder agriculture in Africa.

In this regard, AGRA and its partners applied US\$17 million in loan guarantee funds, to leverage US\$160 million from commercial banks in Kenya, Tanzania, Uganda, Mozambique and Ghana that have so far benefited about 2 million farmers. In Kenya for instance, AGRA in partnership with IFAD and the government of Kenya and Equity Bank established in 2008 a US\$5 million risk-sharing facility designed to leverage US\$50 million of financing. Through this initiative, Equity Bank made a bold commitment to make available about US\$50 million of financing to small and larger scale farmers as well as agribusinesses. By the end of 2012, the scheme had provided about US\$30 million of lending benefiting directly about 50,000 small holder farmers and 594 agro-businesses each linked to about 1,000 small holder farmers, to reach 550,000 farmers. The Bank also took aggressive steps to build its capacity by deploying more than 100 agribusinesses staff in the field.

AGRA has learned several lessons on the financing initiatives. First, while it is important to leverage banks to lend to the agricultural sector, it is equally important to provide technical assistance to the banks, farmers and other service providers to ensure that the entire financial value chain is working well to deliver, absorb and use funds efficiently. Secondly, lending to higher risk farmers can be a viable business for the bank; thirdly, it is important to have an effective monitoring system and weather crop insurance.

A big challenge facing smallholder farmers' access to credit is the fact that most of them are not financially literate, meaning that they are likely to make poor financial decisions that could harm their businesses and families. Financial literacy training for smallholder farmers and SME owners, like what Equity Group Foundation is doing, is critical in unlocking access to credit. AGRA works through both formal and informal SME associations and training focuses on building farmers' knowledge, awareness and skills on financial services and how to manage their personal finance efficiently. This training is not carried out in isolation, but is linked to AGRA's ongoing efforts in productivity increase and market access interventions.

AGRA, through its ongoing work across the agriculture value chain, has learnt that the role of Farmer Organizations (FO) is critical in reaching out to the farmers efficiently and effectively. Smallholder farmers often come together through various kinds of FOs, ranging from small community groups and commodity associations to apex farmer institutions. In

this respect, FOs have the potential to play a critical role to promote farm business both in terms of productivity and income generation. Experience around the world has shown that there is power in collective action in overall agricultural development

In order to scale up these models, AGRA and partners have been working on establishing a pooled risk based initiative, the Impact Investing Fund For African Agriculture, aimed at enabling financial value chain actors to leverage more financing to the agricultural sector especially to small holder farmers. The initiative takes a more comprehensive development approach by having a "de-risked" incentivized financial value chain to support structured agricultural value chains. The impact investing model is an integrated package of "de-risking" solution comprising of risk sharing instruments, insurance facility, technical assistance, and Bank Incentive Mechanism. The approach aims at transforming public capital into productive capital – one that is used to re-align incentives for private sector investments to the agricultural sector, to meet and increase the market absorptive capacity, reduce the risks of lending, reduce learning curves for the financial players for understanding the sector, build their capacity to develop more appropriate and affordable loan products for smallholder farmers and businesses and develop efficient financial delivery systems that serve the needs of all farmers.

The impact investing initiative is already being applied in Nigeria to transform the country's agriculture. AGRA in partnership with the Central Bank of Nigeria (CBN) in collaboration with the Federal Ministry of Agriculture and Rural Development and other stakeholders have initiated a revolutionary program to transform agricultural development

in Nigeria, referred to as the "Nigerian Incentive Risk based System for Agricultural Lending (NIRSAL)", funded at US\$500 million to leverage US\$3 billion financing to the agricultural sector.

In Kenya the Impact Investing Model is being facilitated under the Program of the "Kenyan Incentive-based Risk Sharing System for Agricultural Lending – KIRSAL" and also through the "Program for Rural Outreach of Financial Innovation and Technologies (PROFIT)" where a further US\$10 million risk sharing fund is set aside to leverage US\$100 million of agricultural financing. Other countries such as Ghana, Zambia, Ethiopia, Burkina Faso, among others have already expressed strong interest to start similar impact investing country initiatives.

Similar initiatives are being scaled up in Tanzania under the Program of Marketing Infrastructure, Value Addition and Rural Finance (or MIVARF) in Tanzania, with a total funding of US\$92 million. As part of the Rural Finance Component of MIVARF, a risk sharing initiative component is earmarked for leveraging financing to the sector

In Ghana, AGRA is also working with Danida under the Agricultural Finance initiative to address term financing challenges in agricultural financing such as irrigation, mechanization, processing, etc. The program targets to leverage about US\$30 million of term financing to small holder farmers, farmer group organizations and SMEs

Leveraging banks and other financial providers to lend at scale is a smart investment in a number of ways. It allows for excess liquidity in banks to the agricultural sector; creates systemic change in lending from the financial sector and hence triggers broad-based agricultural growth, food security, poverty reduction and employment.



**Equity Bank's Beatrice Kavoo (R) visits sorghum farmer Jackson Munyao Ndiku in Machakos County. AGRA and partners have been working with financial institutions in Africa to leverage large scale financing while providing affordable loans and financial products for smallholder farmers and the agricultural value chains that support them.**

**Equity Bank Chairman Peter Munga was co-winner of the 2009 YARA Prize for helping to innovatively strengthen agriculture value chains and increase Africa's food security.**



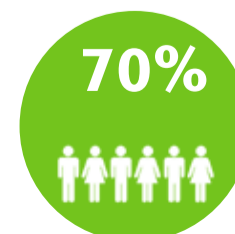
## AGRICULTURE By the NUMBERS



Total contribution to GDP



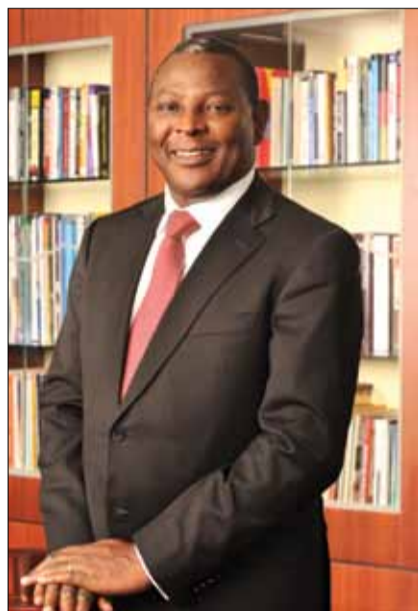
Proportion to all exports



Contribution of employment in rural areas

## From the Team Leader's Desk

# Agriculture can transform Africa



**Dr. James Mwangi**  
Chief Executive Officer & Managing Director, Equity Bank Limited.

A high level global Council has thrown a lifeline for Africa to grow, develop and feed itself. The G8 Alliance on Food Security and Nutrition brings together the G8 countries, the African Union, The New Partnership for Africa's Development (NEPAD) and the World Economic Forum to address food insecurity. The Council recognizes that by 2050, the world population will reach nine billion people yet at the moment, even with seven billion people, the world is not able to feed itself. With nearly 50% growth in population, without arable land increasing, there is need to deploy strategies to deal with food insecurity. How do we also ensure that the world population is receiving sufficient nutrition and how effective can new policies being developed be implemented?

Looking at how financial systems can transform agriculture and food production on the continent, The Alliance on Food Security will focus on the role that Africa can play to feed the world. Sitting in the Council are the Prime Minister of Ethiopia, the CEO of NEPAD, the President of the African Union

and Presidents of African countries that are participating in the pilot scheme which will be implemented in five African countries. The Council will work with the G8 countries to extend support to African countries in rolling out a green revolution envisioned to see agricultural transformation in Africa.

In many African countries, the issue of food security remains a great concern. To increase food production, several factors need to be considered. One, we must focus on agriculture as a business. Agriculture shouldn't be taken as a mere occupation. Secondly, we must improve the quality of our agriculture by increasing value addition so that the sector attracts more skilled people. At the moment, agriculture is not well paying for those who are engaged in the sector. Many people are in agriculture by default and as a last resort to eke out a living and to survive. Making agriculture an attractive engagement will require modernization of the farming methods. In the 21st Century we can't continue with traditional farming methods using implements like hoes and pangas. We also can't wholly depend on rain-fed agriculture. As long as we allow agriculture to remain vulnerable to vagaries of weather it will remain unattractive.

There is need to put our arable land under irrigation. Use of certified seeds, fertilizer and chemicals would see a huge improvement in our effort to attain food security in Africa.

It is important to note the work that The Alliance for a Green Revolution, AGRA is doing across the African continent to help millions of small-scale farmers and their families to lift themselves out of poverty and hunger by developing solutions to significantly boost farm productivity and incomes for the poor while safeguarding the environment. Just to demonstrate its commitment to addressing the issue of food security in Africa, AGRA has set out to reduce food insecurity by 50% in at least 20 countries by 2020, as well as double the incomes of 20 million small holder families while at the same time putting 15 countries on track to attain and sustain a Green Revolution. This is a clear testimony that AGRA is

convinced that Africa has the capacity to feed itself.

The New Alliance for Food Security and Nutrition will pilot-test in Tanzania, Ethiopia, Malawi, Burkina-Faso and Ghana. The idea is to create food corridors that become intensely focused on food production and the G8 will support the roll out with financial support. These pilot countries are expected to become centers of excellence to demonstrate the potential that Africa holds if it adopted modern agriculture.

It is imperative that youth unemployment in Africa is addressed. A majority of youth prefer white-collar jobs which appear more rewarding explaining why they give agriculture a wide berth even when profiled as a business. The youth need to be incentivized to utilize their level of education, intellect and energy to transform agriculture. They will be a key driver in the quest for modernization of agriculture and productivity so that farming rebrands to be considered as a key source of employment. Executing this thinking will require availing affordable finance, use of modern inputs like certified seeds, chemicals, fertilizer, technology and markets to the youth

as well as agriculture education.

85% of Africa's population is engaged in agriculture. If agriculture is transformed, that would mean transforming 85% of Africa's population. If the continent has 60% of the world's uncultivated arable land; 64% of the world's minerals and has a billion people most of whom are young, why has it been in a cycle of poverty? Part of the challenge is that Africa lacked the visionary leadership and entrepreneurial spirit to convert the factors of production into income. Africa accounts for only 2% of the world trade yet the continent covers 20% of the world space and a substantial proportion of the world population are on the continent. This is Africa's paradox that requires to be resolved; a continent endowed with riches yet ravaged by poverty. If we increased our global trade to 5%, the continent would still be a net importer of food. At 10%, Africa would tend towards being one of the wealthiest continents. That should be the dream of every leader. Transforming agriculture would definitely put Africa on the road to eradicating poverty, hunger and disease making the world more inclusive, more equitable and a more peaceful place.

**Making agriculture an attractive engagement will require modernization of the farming methods.**



## Equity Bank's interventions in agriculture

**from pg. 1** In its quest to transform the lives and livelihoods of the Kenyans, Equity Bank has taken active participation in the promotion of agriculture in the country. Through various partnerships with farmers and other stakeholders in the agricultural value chain, the Bank has transformed the lives of close to 500,000 smallholder farmers, lifting them from subsistence to commercial farming through inclusive financial intermediation. The Bank, through the Equity Group Foundation (EGF) has established strategic partnerships

with organizations and development agencies to scale up agriculture in the country. The flagship partnership has been *Kilimo Biashara* (Kiswahili for farming as business) with the Alliance for Green Revolution in Africa (AGRA), the International Fund for Agricultural Development

(IFAD) through the Government of Kenya. This partnership is also supported by World Bank through the Government of Kenya.

Through the partnership, farmers have received loans from the Bank's array of agricultural facilities, enabling them to acquire quality seeds and other farm

inputs. Through the partnership, farmers have also benefitted from agricultural expertise and crop husbandry resulting in increased yield and sustenance of livelihoods.

One of the collaboration ventures is the partnership between Equity Bank, the Ministry of Agriculture, the Cotton Development Authority (CODA), National Irrigation Board (NIB), Cotton Ginners and Bura Farmers Association has restored cotton production in Bura.

In this partnership, Equity Bank provides credit for farm inputs

and payment to farmers while NIB is responsible for maintenance of canals that channel water to farms in the Bura Irrigation scheme. The Farmers' Association coordinates the farming activities and CODA jointly with Ministry of Agriculture offer extension services to support farmers in crop husbandry.

The Bank's involvement is closely tied to the country's quest for food security as well as the need for commercialization of the agricultural sector as the country continues to gain momentum towards attainment of the Kenya's Vision 2030.

**Equity Bank has transformed the lives of close to 500,000 smallholder farmers, lifting them from subsistence to commercial farming through inclusive financial intermediation.**

## Tissue Culture banana technology saves sub-sector

By Florence Wambugu CEO Africa Harvest (AHBFI)

More than 10 years ago, the banana sub-sector in Kenya was literally ailing, threatened by diseases that were spreading through sharing of seedlings. At the time, I was working for the International Service for the Acquisition of Agri-biotech Applications (ISAAA) Africa office. Together with other scientists and stakeholders, and under the leadership of the Kenya Agricultural Research Institute (KARI), the country embarked on reversing the trend. Some studies estimate that over half a million farmers have benefited from the TC banana technology, which involves getting germplasm from the field, cleaning and multiplying it in a laboratory and distributing the high-yielding plantlets to farmers. "It's like inoculating the banana from diseases," says Nicasio Ileri, the Business Development Manager at Aberdare Technologies Limited (ATL), one of the private nurseries in the country. "With TC banana, the plant escapes the disease cycle when it is most vulnerable. With good agronomic practices, farmers are reaping huge benefits." Erasmus Ndambiri Macharia is one of the farmers who have embraced TC banana farming. The 72 year old retired civil servant hails from Kirimara village in Mwea Division of Kirinyaga County. A father of three and a grandfather to five, Ndambiri was a coffee and french beans farmer for many years. The two crops were beset with the erratic prices and required too much labour to cultivate. With his advancing years, Ndambiri was looking for a farming enterprise that would give him good returns but also be less laborious. In June 2008, he attended a crop protection workshop in his area that had been organized by Bayercrop Science in collaboration with Africa Harvest, Technoserve and the Ministry of Agriculture.

It is from this workshop that he developed an interest in tissue culture banana farming and its benefits; namely free from pest and disease, faster maturity and high productivity

if a farmer employs good management practices. He also learnt that it would be more feasible to farm the bananas as a group of farmers to achieve economies of scale in accessing inputs and in negotiating for fair prices for their produce. Hence Murindi Fresh Growers Self-help Group was born. The group approached Africa Harvest, to receive technical training on banana orchard establishment and management.

From an initial 262 banana plantlets, Ndambiri has continued to expand his banana orchard and now has 2,000 stools cultivated on almost 3.7 acres. His monthly income from bananas ranges from Ksh50, 000 to Ksh60,000. And with the production cost as low as Ksh3,000 per month, Ndambiri is smiling all the way to the bank. Equity Bank recently advanced him a Ksh400,000 loan to buy a small car, which he is repaying comfortably. Farming banana as a business has also been a source of additional income for him. He has hosted numerous potential banana farmers from all the country and his farm has become a learning center. Every farmer that visits his farm pays Ksh80 as visit fee.

To Ndambiri, farming bananas as a business is the best decision that he ever made. As a family they used to run out of money to buy cooking gas but can now manage to stock 2 extra cylinders in the house. They have spruced up the house and improved facilities and they comfortably support their local church in development causes. His banana farming employs 2 to 3 youth every month. He engages the youth to harvest the bananas and prepare them for the market and in return

**"With Tissue Culture banana, the plant escapes the disease cycle when it is most vulnerable."**



An official of the National Irrigation Board (NIB) inspects a healthy banana in Perkerra: Farmers are embracing banana farming as a business.

they earn Ksh8 per bunch for the work. In total from the 150 bunches the three youth will go home with Ksh400 each day for their hard work. Ndambiri plans to clear his loan earlier than the stipulated repayment period, after which, he will install a biogas unit and build a car garage for his car.

Ndambiri is just one of the many success stories that came from embracing new from tradition. On the basis of our interactions with farmers and the project teams' previous experiences, it was felt that a majority of

farmers have failed to reap from farming because they continue to cling to traditional farming methods and also lack information regarding these new farming techniques. This why in Africa Harvest we incorporate the whole value chain as a solution approach that embarks on sensitization campaign and acquainting farmers with modern farming methods and access to extension services with field officers in order to increase their yields in farming using irrigation particularly because rainfall patterns are unreliable.

## Financial change sweeps through Marigat



A farmer with harvested rice seed.

A powerful wind of positive change is sweeping through the small market town of Marigat, Baringo County. Farmers in the nearby Perkerra Irrigation Scheme who supply produce to the town and patronize it for various goods and services have taken a giant financial leap. A good number of them are looking forward to their first harvest of rice crop which holds a promise of a brighter

future for them.

Weston Lanoi, the Chairman of the farmers, paints a picture of this change. "We have stopped merely singing about practising farming as a business. We know that farming should be done professionally. The cost of production should not exceed the income and the farmer should make a profit," he said during an interview in Marigat.

The seeds of this change were planted in June 2011, the year when the scheme attained 55 years of existence. A Japan International Cooperation Agency (JICA) official had approached the scheme through the Ministry of Agriculture and Kenya Seed Company to introduce a variety of rice seed called Nerica, which was brought in as an alternative crop to maize. The farmers, who were contracted by The Kenya Seed Company needed financial support for land preparation, planting, weeding, fertilizer application and harvesting the rice. That is when the engagement with Equity Bank began.

The bank, through the Equity Group Foundation took the farmers through a financial literacy

training program says Laban Chelego Boiywo, one of the beneficiary farmers. Boiywo, who has been a farmer on the scheme since 1980 and planted the rice seed for the first time in November 2012, is ecstatic about this support. "Equity," he enthuses, "walks with us farmers. It doesn't dump money on you and abandon you. Its officers want to confirm whether you have planted and weeded. In case of a crop failure they will know, since they are with farmers along the way. Since I started farming, I had not received this kind of support before."

His chairman concurs. "Rice seed acreage has gone up to 350 acres and I am sure farmers will grow it on more land if the good price is maintained and if the bank continues to support us," he says.

"I have come to like how they do their work. Farmers may see as if they are strict. But I agree that loan money should go to the project or activity it is meant for. A farmer will then get his profit and repay the loan without problems. We will create wealth because we have been given a ladder on which to step on. During the training, Equity officers said the idea is

to change farmers' lives economically by empowering them financially."

Many farmers in the scheme have taken loans from the bank specifically for financing the rice crop. Michael Komen, a farmer at the scheme for 18 years has now planted rice seed on six acres. "I have an agreement with Kenya Seed Company to deliver my rice harvest to them. I will then plant maize seed on the same land," he said. Paul Cherono is cultivating one acre of rice and took a loan from Equity Bank, "because they are very supportive and friendly on their terms." Kipruto Joseph, a member of Wakulima Self-Help Group whose 20 members cultivate block R1, is impressed by the idea of forming groups to support each other in getting loans. "Equity Bank staff told us that the Bank was willing to give loans to farmers in groups. You can get a loan facility within the group, so long as you agree with the members and that you will be able to repay." Other farmers like Junisah Kiplagat confirm the value of the financial education she received, particularly the need to save, "which can serve as security for loans," she said.



River Weseges at Sandai



Opening the intake gate from River Weseges



Main canal at Eldume block

# Irrigation farming process flow at Perkerra Irrigation Scheme



Ploughing a maize field in Sandai



De-silting a canal at Eldume



Maize under irrigation in Kamoskoi



Eldama Ravine Branch BGD James Yatich at a farm in Kamoskoi



Harvesting rice in Perkerra

**F**ood security in Kenya has gone a notch higher with the introduction of rice farming in Baringo County. Farmers in Perkerra Irrigation Scheme planted rice on 978 acres to harvest 1,440 tonnes of rice seed.

The rice produced by irrigation using water that is drawn from the Perkerra River fetched a gross income of Ksh93 million with the farmers earning a net income of Ksh48 million.

The significant output of rice seed in the first season of the pilot programme was the result of a partnership between the National Irrigation Board that supplied the water for irrigation, Equity Bank that provided funding to farmers to buy inputs and the Kenya Seed Company that committed to buy the produce.

Farmers were particularly pleased by newly introduced New Rice for Africa (NERICA) variety of rice that was found to yield up to 25 bags per acre.

Perkerra Irrigation Scheme was established in 1954 in the harsh climatic condition of Marigat District. It covers

2,350 hectares of the Ilchamus plains that were found to be suitable for irrigation. The scheme holds immense promise for food production as the permanent River Perkerra flows across the plains and so far only a third of the total scheme is operational. Farmers in the scheme are allocated 4 acres by NIB to cultivate crops under irrigation. For years the farmers only cultivated small portions of the allocation due to lack of resources. The entry of Equity Bank saw a good number of the farmers expand their farms by injecting money advanced by the bank. The farmers first underwent a business management course provided by the Equity Group Foundation under the Financial Knowledge for Africa (FIKA) literacy programme.

The heightened cultivation of land by irrigation in the Perkerra block has been replicated in the other blocks of Sandai, Eldume, Kapkuikui and Komoskoi where farmers are producing large quantities of maize and sunflower seeds in partnership with NIB, Equity Bank and the buyer, Kenya Seed Company.



Sunflower seed grown in Kapkuikui



Boda boda transportation of sunflower in Kapkuikui



Rice straw is used for thatching...



Rice grown in Perkerra



Winnowing rice in Perkerra



...and as animal feed



Bagging rice at Marigat

## IRRIGATION

# Hola farmers reap from scheme revival

It's early morning, but the heat is already stifling. As in most parts of Tana River County at this time of the year, here at the Hola Irrigation Scheme, temperatures during the day hover around around 29 degrees. But for Eunice Mwikali, that is no excuse to be slothful.

The sun usually finds her busy at work. As she aptly puts it, this is "her office". Rows and rows of her crop of green grams line her farm; healthy and vibrant. In a few months, she expects a bountiful harvest. The land's topography is flat, rendering an image of endlessness-and in a sense-endless potential.

It wasn't always this way. For close to two decades, the Hola Irrigation Scheme, one of Kenya's premier farming schemes remained moribund until it was revived in 2007. Mwikali is one of the farmers benefiting from the Scheme's rehabilitation.

"I can say for a fact that farming has transformed my life," announces Mwikali as she tends to her crop. Like Mwikali, farmers in the scheme are contracted by the Hola Irrigation Scheme to grow various crops on rotational basis. Last season, she planted maize.

Operational costs can prove challenging for smallholder farmers like Mwikali. But a partnership between Equity Bank and the Hola Irrigation Scheme has provided a seamless chain from planting to harvest.

Farmers in the scheme have benefitted from loans, enabling them to purchase seed, inputs and chemicals as well as cover operational costs such as labour.

"Without Equity Bank, I wouldn't be where I am today," says Mwikali matter-of-factly. Mwikali has benefitted from numerous loans advanced by the Bank, enabling her to expand her farming. She now leases extra land in the area to accommodate her expanding farming projects.

"I have been able to educate my two children, and now I am putting up rental houses, all through the profits I have made through farming," she says.

"The role Equity Bank has played is enormous," says Alexander Wainaina, the Hola Irrigation Scheme Manager. "The credit facilities farmers have received through the Bank's Kilimo Biashara product have enabled them to progress from subsistence to commercial farming and in turn improved their lives."

The scheme's success has been in part due to proper structures on the ground. Field officers routinely inspect the farms; offering technical support and advice to the farmers.

"This has been very helpful to us," says Abubakar Hussein, a farmer in the scheme. "The advice I



Eunice Mwikali tends to her crop of green grams.

have received on when to spray, the quantity of the chemicals per acre or the amount of fertilizer has ensured our crop remains healthy ensuring a good harvest."

One of the most successful projects in the Hola Scheme has been maize seed multiplication. Maize seed production by farmers in the area has accounted for a significant percentage of the total seed packaged in the country.

A guaranteed market for the maize by the Kenya Seed Company has served as motivation for farmers in the area.

"Before we supply seed to the farmers for multiplication, we conduct seed germination tests", says Wainaina. "This guarantees that the seed we supply our farmers with is certified, and will therefore germinate."

Wainaina says that the scheme's potential is enormous. He cites the abundance of water from River Tana and the fertile soils. "We are continually introducing new crops-mostly legumes-to complement what has been traditionally grown here; cotton and maize, and the results are very encouraging."

He adds that geological tests on the soil show that the scheme can support crops not traditionally grown in the area. The scheme is preparing itself for the introduction of pineapple and sorghum.

## Irrigation ushers boom for Eastern Kenya farmers

For many years, James Ruthuku used to ferry water from a well at the foot of his farm and carry it up the sharp incline of his land to irrigate his vegetable crops. Even with the many energy-sapping trips up and down the hill, Ruthuku still couldn't moisten his land sufficiently.

"I could only irrigate a quarter of my land," says Ruthuku. "You can imagine carrying pails of water up this hill."

It's a different story now. Water sprinklers erected on the farm spin methodically, spraying water on neat rows of lush cabbage, banana and sweet potato vines. Standing in his farm, Ruthuku marvels at the transformation the availability of sufficient water can bring about.

"I can confidently say that my farm produce has tripled since I have had a reliable source of water," says Ruthuku, who last season netted a

tidy profit from his French beans.

Ruthuku is one of the hundreds of farmers in Embu County who have benefitted from an impactful irrigation project which has enabled farmers to get yearlong supply of water for their farms.

The irrigation project is implemented through a bilateral arrangement between Germany and the Government of Kenya. In the partnership, KfW of Germany provided the funds for the infrastructure which were channeled through Equity Bank for onward lending to farmers at affordable rates.

Ruthuku is a member of the Ena Irrigation Multipurpose Co-operative Society- one of the irrigation schemes in Embu. Farmers in the scheme are engaged mostly in horticulture farming, which has the advantage of quick returns and ready market.

Ruthuku anticipates an even better harvest this season. Another irrigation scheme in Embu financed by the Bank is Murinduko Irrigation Scheme. With close to 500 farmers, it is one of the most successful farming projects in the area. "Accessing water was the main challenge here since many farmers are engaged in small holder farming and weren't able to pipe their farms," says the group's Chairman James Magoti. "I can say for a fact that with the financing we have received from Equity Bank, there has been a remarkable change." He says that with the availability of water and proper management of the scheme, many farmers in the area have embraced commercial farming for their livelihoods.

Magoti is on his way to the Embu branch

of Equity Bank with a payment schedule for farmers in his group. The payment is for last season's French beans harvest that the farmers sold through the Kenya Horticulture Exporters (KHE).

"The assurance of a market has been an incentive for our farmers," explains Magoti. "And it certainly helps in the repayment of loans to the bank."

At the farm of Elias Mureithi, a member of the Murinduko Scheme, a dozen pickers are busy at work. They have been here since early morning. Every so often, they empty bucketfuls of French beans into sacks placed in the shade on the fringes of the farm.

All this will translate into cash for Mureithi, who has dedicated an acre of his land to a French beans crop. "Sure, the labour is costly," admits Mureithi, "but then you look at the returns I expect from this harvest . . . it's worth it." Mureithi says he prefers to engage the services of many employees at a time to ensure the French beans crop is harvested in time, to allow for uniform regeneration.

Last season, Mureithi planted 6 kgs of French bean seeds which translated into a tidy sum from the harvest he describes as "my best farming ever."

Mureithi depends entirely on his farm for his family's upkeep. He says that he sees the potential of his farm realized now that the main challenges to farming have been addressed. "When you have water in your farm and a guaranteed market for your labour, what should stop you? Nothing," Mureithi posits.



Irrigation has transformed farming in Embu County.

# Farmers benefit from Kilimo Biashara loans

A partnership between the government of Kenya, development partners and the private sector has planted the seeds to transform Kenya's subsistence farming into commercial agribusiness. The seeds of this Public Private Partnership (PPP) are currently sprouting in various parts of the country. With the doors of a bank like Equity Bank flung wide for small-scale farmers to access affordable credit, farming in Kenya is undergoing a gradual transformation.

This is according to Humphrey Mwangi, the Ministry of Agriculture's Director of Agriculture (Agribusiness, Market Development & Agriculture Information). He is pleased with the bank's success in reaching thousands of farmers with agricultural credit – and free financial literacy training.

The partnership started in 2008 when the ministry partnered with the Alliance for a Green Revolution in Africa (AGRA) and the International Fund for Agricultural Development (IFAD) through the Ministry of Agriculture.

The goal of the agricultural credit facility is to boost food security and push farmers towards commercial production which brings about increased household incomes for smallholder farmers.

In 2011, the government established a further partnership with Equity Bank and other banks to provide affordable credit to small-scale farmers. Of the Ksh500 million that the government had received from development partners, Ksh300 million was channeled through Equity Bank in December 2011 as a risk sharing fund to leverage the bank's lending to farmers.

How did Equity Bank qualify for such an amount?

"Equity Bank has a wide branch network. It has engaged professionals to deal with farmers, works well with our field officers and has endeared itself to Kenyans in terms of the products it provides to them," explained the Agribusiness Director.

"The agreement was that, for every shilling we gave the bank, it would match ten times the amount," explained Mwangi during an interview at his office in Kilimo House. "We expect the bank to leverage Ksh3 billion to the agricultural sector. We are delighted that the Bank had, by December 2012, loaned out over Ksh754 million to over 8,376 farmers and 300 agro-dealers at the rate of 12%. About 9,000 individuals have benefitted from these loans."

Mwangi revealed that, although the agricultural credit scheme agreement with Equity Bank was to run for one year, the bank's performance has persuaded the ministry otherwise. "We have given them the green light to continue and if we source additional funding for agriculture, we will pass it on to Equity Bank and other financial institutions," said Mwangi.

The Agribusiness Director explained that, availing affordable credit encourages farmers to invest in agricultural enterprises and is a key factor in the commercialization of agriculture.

"Traditional credit facilities are expensive. With the affordable credit we are trying to encourage farmers to move from subsistence



A maturing crop of maize in Embu County

Baringo County: Shelling and bagging of maize is carried out at the farms.

farming to commercial production of crops and livestock. We particularly encourage them to seek this funding. There is little that farmers can do without credit," he explained. Credit, said Mwangi, is a key input in agriculture and especially where land sizes have diminished and large-scale crop farming may not be possible. "The Ministry encourages mixed farming to take advantage of available land. Farmers should grow crops and raise livestock to maximize their resources and especially land," he argues.

The Ministry of Agriculture accessed the funds from the European Union under European Union Food Crisis Rapid Response Facility Trust Fund through World Bank

"At the end of 2012, we did a monitoring and evaluation exercise and were encouraged by the farmers enthusiasm and verdict on the facility as one that has had a positive impact on their farming."

The ministry official pointed out that the credit scheme has helped to demonstrate to banks that farmers are worth giving loans and constitute an unexploited client base.

Farming, argues Mwangi, is a private business. "Government, in partnership with development partners, provides incentives to encourage individuals to get into farming. Agriculture is as good a business as any other. However, to banks, there is a perceived risk in lending to the farming community and especially small-holder subsistence farmers. With the agricultural credit guarantee, we are helping banks to realize that farming is not as risky as they have thought in the past and lending money to farmers expands their (banks') customer base."

In turn, banks encourage farmers to embrace the culture of saving.

Mwangi reiterated that agriculture is a key driver of Vision 2030, Kenya's long-term national development blueprint. "If we grow agriculture by 10%, we will be assured of attaining the vision of industrializing by 2030. Agro-based industrialization is the basis of the country attaining this dream."

## Kilimo Biashara



### Loans for

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# Savings culture picks up among tea farmers



**Tea Country:** (INSET) A farmer picks tea: More than 80 tea farmers in Kericho attended The Financial Knowledge for Africa (FiKA) training.

**E**zekiel Korir is a small scale tea farmer in Belgut, Kericho County. He describes how the lifecycle of many tea farmers in the area in a typical year changes with income. While they spend most of their days working hard on their tea farms, there comes a time in the year when they receive their annual tea payout commonly known as "bonus".

"Usually, when bonus is paid, you will see people carrying home TVs and radios they have just bought even though they could be having others in their houses," he says. Korir notes that with the windfall the farmers become overly generous. "You invite even up to ten friends for lunch in a local hotel. Within a short time, you realize you have spent Ksh2,000. You may follow up the lunch with a drink with the friends," he says.

Fellow tea farmer and chairman of Kiptome Tea Buying Centre Geoffrey Mitei takes up the cue. "Here, people get a lot of money and it

gets finished within a short time," he says. "It is as if they are being pushed to spend it all at once and have an urge to buy anything to get rid of the money. We have been receiving 'bonus' for many years. Other than using the money to pay school fees and buy household items, we have not been saving or investing most of it."

Mitei expects that the financial literacy training sessions he attended alongside other farmers in November 2012 will lead to better management of the annual earnings.

These sessions and others that followed are organized by the Kenya Tea Development Authority (KTDA) and its Foundation in conjunction with Equity Group Foundation through the local Equity Bank branch. Andrew Ruto, who has also attended the training, reckons that it came too late to help farmers save some of their 'bonus' money. But, like Korir, Ruto is sure that many, including himself,

have already changed their spending habits. "Until the day I attended the training, I wasn't thinking about saving some of the money I earn," he said.

"Farmers have learnt how to manage their money and improve their lives," Mitei asserts. "Before then, most did not know how to best use their money. I thank KTDA and Equity Group Foundation for the training. Now, farmers have changed their pay points and most of them direct their money to their bank accounts."

Korir who grows tea on 0.9 acres says: "Our forefathers used to keep their grain harvests in stores. These days, a bank is where you keep your money earned from sale of crops. You can withdraw the exact amount you need to use at a particular time. You can, if you want, ask the bank to furnish you with a statement showing how you have been withdrawing. That way, you account for every cent."

This enlightened farmer emphasizes that the most important lesson for him has been the essence of budgeting. He narrates how he would be embarrassed every January when he found himself moving from friend to friend to borrow "soft loans" to pay fees for his children, yet two months previously he had been literary swimming in money. "I used to withdraw even half of my bonus money. I now know I must leave my children's school fees in the account and shall take out only what I need," he says.

At the neighbouring Kipseger Tea Buying Centre, Milcah Chepkoech confessed that she has learnt how to save what she earns every month. "I have been a farmer for 10 years but I wasn't saving before. I was misusing my money – buying a new pair of shoes, clothes and other items until it was all finished. I then waited for payment the following month. I have learnt business management, loans and savings."

Milcah has made up her mind to start saving from her tea earnings. She will be saving for her children's school fees, medical care and emergencies. Richard Ruto, also of Kiptome Tea Buying Centre, attended the first financial literacy training. "I opened a bank account where my money would be sent so that I can save easily. I have changed my spending culture."

Samuel Kokei, the chairman of Kipseger Tea Buying Centre who cultivates tea on 0.75 acres, says he has "learnt how to use money every month. If I earn Ksh3,000, I will use it for my basic needs, prioritise my spending and save. Budgeting is good for controlling household expenses," he avers. "The people from Equity Group Foundation have taught us and we agree that we tend to spend more money than we earn. So, we resort to borrowing from friends and relatives."

Delighted with the knowledge he has acquired, Mitei requests that financial literacy training be offered on a regular basis. "We will welcome the trainers again and again." During the first training, more than 70 farmers were trained. During the second session, more than 80 farmers registered for training.

At the time of the interview for this article, other farmers like Henry Sigei who has tea on 0.5 acres and John Kirui were looking forward to the next training session. They are among 63 members of the buying centre that did not attend the training but are now convinced it helps just from observing and listening to their colleagues who have gone through the training.

## Farmers embrace beekeeping in Kipkelion



Equity Bank has partnered with farmers to commercialize bee keeping.

**A**t the foot of a hill leading up to Tinderet Forest on the Kericho County side, you will find a farm with 52 beehives. On closer inspection, you will realize that two of these neatly arranged yellow coloured modern hives are buzzing with bees going on about their usual activities. You will notice two traditional beehives in the apiary and some other hives set

near a stream surrounded by different species of farm trees and bananas. Nearby is a tree nursery and further uphill is Joseph Lelei's homestead.

The farm could pass as any other in this part of the country. If you get to talk to Lelei or one of his neighbours, you will realize this is an extraordinary farm. You will learn that the bees that you have just encountered are helping to keep the community from venturing into the forest. Do not be surprised though: the bees are not keeping watch over forest intruders; they are there to fetch nectar from the forest and make honey that the community will sell for income. It is one ingenious way of harvesting from the forest without disturbing it. By sending the useful insects into the forest on their behalf, the local community kills two birds with one stone: helps conserve the forest while earning from it.

And so, Tinderet Forest, which is part of the Mau Complex, has unlikely guardians: the local people and specifically, members of Tegat Cheptilibet Farmers Field School Group. Lelei, a member of the group, volunteered to have a section of his farm to be used for the beekeeping venture.

Presently, the farmers are gathering colonies of bees that would

collect nectar from the forest and make honey and other hive products that they will sell. They are also on a mission to plant a forest of trees on their farms to support the beekeeping venture.

This contrasts to the situation that prevailed only two years ago. The Chairman of the group Isaiah Yegon describes their attitude then: "We wondered why we should bother with growing trees when we had a whole forest next to us. We never used to plant trees. We thought it was fine we keep livestock and plant maize."

That kind of thinking has since changed. The community's conversion from exploiters to conservers of the forest is replete with lessons for other forest communities in the country.

Mzee Chelule Sitienei, 77, said it is remarkable that he hadn't realized that trees grown on his farm can be a source of wealth "like the cash crops we grow. We were taught that trees bring rain and forests are a tourist attraction. I used to think tree planting *ni kazi ya vijana* (a youth affair). Now I know, if you plant a tree, it grows into money. I have used money from trees to educate my children."

His chairman chipped in: "I have also learnt that as a forest community, there is also the possibility of **contd. on pg 11**



## For Nkubu farmers, green is the colour of money

The drive from Nkubu town to the countryside on this drizzling morning is a green eye-feast. Rolling acres of tea estates interspersed with grassy paddocks, where healthy cattle graze

Our destination is Kagwamtungu village, 4 kilometres from Nkubu town, where local farmers are reaping big from horticultural farming. Though the area has always held commercial farming promise, for a long time, many farmers could not achieve the full potential of their farming endeavours.

"I have been involved in farming for years, but it wasn't until we came together that we started realizing any meaningful gain," says Peter Kimathi, a local farmer. By 'coming together', he is referring to the Marimba Vision Self-Help Group, for which he is chairman.

"Small scale farming wasn't serving us as individual farmers," continues Kimathi. "We had to consolidate our efforts." Like Kimathi, many farmers in the area practiced horticultural farming; growing potatoes, beans and vegetables, but they needed to diversify in order to maximize on the immense potential of their farms.

The main challenge was raising adequate capital that could propel their farming activities to a commercial scale. Six years ago, the farmers formed the Marimba Vision Self Help Group, a step that launched them on a transformational journey.

"The first step after we formed our group was to open an account with Equity Bank," says Kimathi. "We needed money to put the right

structures on the ground."

The group took out a loan with Equity Bank Nkubu branch. The money was a much-needed boost for the farmers, enabling them to upscale their farming. "What failed us for a long time was the inability to purchase inputs and the money to cover for operational costs, so when the Bank financed us, it was a lifeline," acknowledges Kimathi.

The group set out to introduce new horticultural crops to their farms and also leased extra land. "We established a partnership with Indu Farm EPZ in which we would grow sugar snap peas under contract farming," narrates Kimathi.

In the continuing partnership, Indu Farm provides technical support on best farming practices including planting schedules and advice on inputs. This has resulted in increased output from the farms. Of great importance

*The group has already received accreditation from the Good Agricultural Practice known as Global GAP Certification.*



Sugar snap peas ready for harvest.

is the availability of a ready market for the produce. Indu Farm serves as the market liaison for the farmers. "When we came on board, what we hoped to accomplish was to help the farmers get into the export market," says Shadrack Kimani, the assistant production manager of Indu Farm. "But their produce had to meet international standards to be competitive."

Through financing from Equity Bank, the farmers bought land on which they have put up a grading centre for certification of their produce by experts before shipping. This adherence to standards has resulted in returns for the farmers. The group has already received accreditation from Global GAP Certification. Last season, the farmers exported 40 tons of

horticultural produce, raking in a substantial profit.

"I am guaranteed of an income of close to Ksh60,000 every 3 or 4 months," beams Kimathi adding that he depends entirely on farming for his livelihood. He points out that he now can afford a decent lifestyle for his family.

Kimathi recently finished constructing a permanent house on his farm. He adds that the vibrant relationship with Equity Bank has played a major role in transforming the lives of farmers in his group. "The impact that we have had as a group as a result of financing by the Bank is amazing. Certainly without the loans we have received over the last five years, we would still be stuck where we were initially."

## Lamu farmer eyes insatiable banana market



A farmer delivers bananas to the market.

Neat rows of banana seedlings grow in a neat pattern in Loise Wangui Githinji's farm. In another part of the farm stems now bending under the weight of maturing banana bunches almost a metre long. It's almost harvest time, and Loise is assured of a deserved payday at the market. Loise is a horticultural farmer in the Mpeketoni area of Lamu County specializing in banana production. Unlike most farmers in the area who grow bananas for subsistence, Loise has discovered the commercial viability of the venture. She has dedicated an acre of her land to the crop.

"I have been growing bananas for the last ten years," she says "Initially, I did it on a small basis, but upon seeing the returns, I decided to go into it full-scale."

Loise used to supply bananas in the local market but now

covers the larger Lamu County including Lamu Island. "I get significant orders. At times, especially during the dry season, I can't keep up with the orders. The demand during the tourism peak season is too high."

Aspiring banana farmers get discouraged by the initial costs of banana farming, she says. "To farm at a commercial level, you require at least Ksh40,000. This will cater for water pumps, fertilizer, manure and agrochemicals." Bananas, she adds, require daily watering, lack of which will lead to stunted growth and low yields. Loise uses 20 litres of diesel fuel to pump water to the farm on a weekly basis. It takes about nine months for bananas to mature fully.

Loise was among farmers in Mpeketoni who enlisted for financial literacy training conducted by the Equity Group Foundation. The farmers received vital skills

on savings, budgeting, debt management and banking services. While proceeds from her farm were impressive, Loise admits her budgeting skills were wanting. "I am good at keeping records, but budgeting has been a challenge."

She says the training and partnership with Equity Bank is already bearing fruits. "We have always appreciated Equity Bank's services and the credit facilities we have received. And I believe going forward, all of us will benefit from this training on financial management."

As her crop matures for harvest, Loise is assured of a tidy income of money. This time around she will be wiser to plan, budget and save part of the income to increase acreage under bananas. "There is money to be made and even if I cultivate another acre, I cannot satisfy the market," she says.

## LIVESTOCK TRADING

## Pastoralists reap benefits of financial training and access

**M**arket days in Isiolo attract scores of pastoralists and cattle traders and buyers, some having travelled from as far as Moyale and Wajir. On this Thursday morning, the market, located on the outskirts of Isiolo town, is teeming with life. Traders are engaged in price negotiations for the best deal for their cattle. In the middle of it all is Ahmed Abdullahi. Abdullahi, one of the most respected and seasoned cattle traders in Isiolo, has been in the business for the last 15 years. This day, he has brought a truck-load of goats and expects to sell the lot and bank a good sum of money.

Abdullahi usually buys cattle from Wajir and Mandera, where he says prices are fair. He then fattens them at his ranch located a few kilometers from Isiolo town and sells them for a handsome profit. His main customers are abattoir owners in Isiolo.

Doing business in the sometimes volatile North Eastern region is however fraught with peculiar challenges. In 2011, Abdullahi lost 55 of his animals to cattle rustlers, an incident that set his business reeling.

"It is challenging sometimes, but this is my livelihood," he says. Another challenge is the tenuous nature of the business. Though lucrative, cattle trading has for years discouraged financial institutions from advancing loans to traders.

However, due to an impactful partnership between Equity Bank and Food for The Hungry (FH) organization, traders like Abdullahi have benefitted from loan facilities. In the partnership, FH and Equity Bank jointly engage traders in financial training - advising them on proper loan management and business skills, after which they qualify for loan facilities. So far, over 200 traders have successfully completed the training with majority of them receiving loans.

Abdullahi, who had initial misgivings about taking out a loan, approached the Isiolo Equity Bank branch where he has been a customer for over five years. "I was able to get a loan of Ksh400,000 which enabled me to purchase more livestock, and



Abduba Waqoh with his herd on a market day in Isiolo.

my business has bounced back," he says.

Abdullahi acknowledges that the financial education he has received has awakened him to management skills he had always assumed he had. "I am now able to separate my personal finances from business finances and I know the advantages of this," he says. "My budgeting has improved; every shilling is accounted for, so I know the exact profit I am deriving from each animal sale."

Equity Bank Isiolo branch manager Abdi Godana sees immense potential in the region as most of the major hindrances have been addressed. "One of the biggest issues we needed to address was financial literacy," he says. "With more traders getting enlightened on proper financial management, we have seen an increase in loans uptake. So far, we have advanced over Ksh5 million, and the repayment is very positive."

Abduba Waqoh is another pastoralist who has benefitted from loan facilities from Equity Bank. Waqoh had been engaged in the trade for four years before he took out a loan facility worth

*"My budgeting has improved; every shilling is accounted for, so I know the exact profit I am deriving from each animal sale"*

Ksh200,000. He says that on a good month, he rakes in a profit of between Ksh25,000 to Ksh30,000.

Dr. Joseph Sukunatu, the FH program coordinator in charge of Isiolo and Marsabit says that the turnaround in the fortunes of traders in the region as a result of financial enlightenment has been impressive. "In this region, most traders have deep-seated reservations about loans; add that to the nature of their business and you realize the challenges," he says during an interview at the FH offices in Isiolo town. "But we have witnessed a big change as a result of financial training. Pastoralists are realizing the advantages of structured business."

FH has facilitated educational tours for select pastoralists to model ranches in Nanyuki where they have gained insights into proper animal husbandry. The organization has also helped set up trading centers in various areas in the Northern Kenya counties to help traders save on transport costs. This has also had additional advantages as local communities are empowered.

Additionally, FH has facilitated market linkage for the pastoralists through these ranches.

"Our partnership with Equity Bank has had immense results in the lives of the people here," says Sukunatu. "With the success of the traders who have benefitted from loans, more and more people will be encouraged to apply for loans and thus improve their lot."

## Ngaru Farm: A profile in determination

Farm ratings helped to secure loan



Jackson Ngigi at his farm.

**"T**reat your cows right for the best results," reads the inscription on the gate leading to Ngaru Dairy Farm, located 3 kilometers from Saba Saba town in Maragua District.

This sums up a maxim Jackson Ngigi, the owner of the farm, lives by. Farming, he says, is to him a relationship, not a mere activity.

Growing up in Murang'a County, Ngigi dreamt of being a farmer of means. "When I was a child,

I always hoped to own a huge farm with cows", he says with a chuckle.

In many aspects, that dream has come to fruition. Ngigi is one of the most successful dairy farmers and milk suppliers in Saba Saba. Ngaru Farm is located on a hill and speaks as much about the owner as his journey to the top. It's easy to draw the analogy.

Ngigi grew up without much but he knew life

*contd. on pg 14*

## Kenya's Dairy sub-sector a success story

Small holder farmers credited with the success

**A** World Bank report has cited Kenya's dairy industry as a success story. The report, 'Growing Africa: Unlocking the Potential of Agribusiness,' says Kenya's dairy industry is based partly on a formal sector for processed milk and other dairy products, but its dynamic informal sector is even more important, supplying over 80% of the market. World Bank indicates that although much of Eastern and Southern Africa is well suited to dairy production, only Kenya has established a competitive dairy industry. Kenya's success largely comes from the entrepreneurship of smallholders' who choose high milk-yielding cross-bred cattle, improved feeds and paid better attention to animal health. Also, Kenya's success points to the importance of improving linkages to the formal sector through cooperative milk

collection and milk cooling centers.

The report published in early March 2013 argues that Africa's farmers and agribusinesses could create a trillion-dollar food market by 2030 if they can expand their access to more capital, electricity, better technology and irrigated land to grow high-value nutritious foods. "The time has come for making African agriculture and agribusiness a catalyst for ending poverty," says Makhtar Diop, World Bank Vice President for Africa Region.

Looking to the future the report says agriculture and agribusiness should be at the top of the development and business agenda in Sub-Saharan Africa. Strong leadership and commitment from both public and private sectors is needed. For success, engaging with strategic "good practice" investors is critical, as is the need for strengthening of safeguards, land administration systems, and screening investments for sustainable growth. World Bank Director for Financial and Private Sector Development in Africa Gaiv Tata, says "African farmers and businesses must be empowered through good policies, increased public and private investments and strong public-private partnerships". He concludes that a strong agribusiness sector is vital for Africa's economic future.



Dairy cattle at a farm in Kenya

# Farmers get alternative to tree cutting

The fear surrounding loans cut back a farmer's group in Kericho County, on the fringes of Mau Forest, by half. However, those who soldiered on are reaping the fruits of patience. Kiletien, formed as a farmers' field school in 2010 under a Food and Agriculture Organisation-Kenya Forest Service forest conservation programme, saw 16 of the original 30 members quit.

The programme has not only improved the lives of members of Kiletien Farmers Self-Help Group and their families but also re-defined their relationship with the Mau Forest in their neighbourhood.

"Before we joined this programme, we were largely idle," explained Joseph Choge, the Chairman of the group. "We depended on the forest. We would cut trees and our wives would collect the firewood to sell. With the loans we obtained, we work hard to repay. The loans have helped us to get out of the forest. We are doing legal work and proud of that. We do not live with the fear of being arrested for cutting down trees." The joy of being members of the group is greatest when vehicles drive to their nursery to buy tree seedlings. When the first lot worth Ksh60,000 was bought, it was smiles all round. Of the seedlings they planted in March 2012, the unsold stock is worth Ksh2 million.

"There is something to look forward to," gushes Choge. "Once we sell the seedlings, members will have something with which to wipe off their sweat." The expected earnings from sale of the nursery stock is but one of the benefits the farmers are enjoying.

The farmers underwent a one-year training in 2011. When the time came for them to be given loans to help them establish tree nurseries, the 16 drifted off. "Our people fear that if you take a loan and fail to repay your shamba would be taken away. Sixteen members were afraid that would be their fate. So we remained 14 active members," narrated Choge.

Those who remained received a Ksh269,000 FAO loan as a group in February 2012. Of this amount, Ksh150,000 was set aside to fund tree seedlings planting while Ksh119,000 was

reserved for crop.

Individual members borrowed varying amounts for tree planting or farming, each according to their needs.

The farmers are using the skills they acquired to diversify into various farming enterprises, besides planting trees. Simon Sinei, the group secretary says. "I praise our members for committing themselves to learn how to plant trees, potatoes and keep poultry. We were taught every Wednesday for one year."

Choge took a Ksh10,000 loan for potato farming while Sinei, borrowed similar Ksh10,000 to cultivate carrots, potatoes, peas, beans, onions, beetroot and cabbages. "The one year training programme taught us about tree planting, to plant short duration crops, crop rotation, pesticide application and about a product called *Kilimo Biashara*."

Richard Bett opted for a Ksh19,000 loan to grow maize and potatoes. He has sold the potatoes and harvested the maize crop which he has kept in a store to sell when market prices improve. For Jackline Koech, the Ksh10,000 she borrowed enabled her to rent four acres on which she planted maize and beans. She has sold the beans and like Bett, has kept the maize harvest in a store.

Another farmer who used her loan to lease land is Christine Rogony who borrowed Ksh15,000 to help her grow maize and potatoes. She intends to take another loan since she has benefited from the first one.

On his part, David Mugwe who borrowed Ksh20,000 and used it for potato and cabbage farming is thankful for the training he received from Equity Group Foundation. "The training opened our eyes as maize farmers. I am happy about what Equity Bank, FAO and KFS are doing for us."

**"The training opened our eyes as maize farmers"**

## Beekeeping

from pg. 8 benefiting from what we are told is called carbon credits."

The partnership comprising of the United Nation's Food and Agriculture Organisation (FAO), Kenya Forest Service (KFS), Equity Bank, Honey Care Africa and the 24-member group has changed the landscape of this section of Kipkelion in Kericho County.

Formed in 2009 as a community forest users' association alongside another group, Tegat Cheptilibet sprung into life a year later when the project kicked off.

Giving the group's history, Yegon remembers that 30 members were drawn from each group to participate in a one-year training programme. They graduated from the farmers' field school in March 2011 and were awarded certificates.

The next step was financial literacy lessons offered by The Equity Group Foundation for free. "We were taught on the importance of having an account and 28 of us opened accounts on the spot," Yegon recalls.

He added: "We were informed that we would be given a FAO loan and Equity Bank would teach us how to manage the loan. From among different

enterprises that included dairy, tree nurseries, beans, carrots, chicken and beekeeping, we picked the last one as a group activity. We chose the establishment of tree nurseries and tree planting on our farms as the second and complementary option. Tree planting will make food available for our bees. The majority of us have tree nurseries that we have established following Kenya Forest Service guidelines of planting 64 trees on each acre of land."

By the time the financial literacy session was over in January 2012, some members were ready to take loans. They acquired hives from Honey Care Africa, While the majority supported the idea of beekeeping and the buying of hives, others wanted to be given cash. The latter lot – numbering 10 – decided to leave the fold. The 14 who remained recruited 10 new ones to replace those who had left.

The beekeeping project kicked off in June 2012 and two months later, hives had been brought in and installed. "We signed for the Ksh307,880 loan," said the group's Secretary, Charles Kipyego who has planted coffee bedsides trees, "I can keep on earning into the future."



A Kiletien farmer inspects his tree nursery.



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## PASSION FRUIT FARMING



# A Passion for Fruits

## Makuyu farmer shows the way

**F**or Fatuma Abdallah, farming is not a mere hobby, but a passion cultivated over a lifetime. Her farm has been showcased as a model of proper fruit husbandry; a referral centre for many fruit farmers.

“Growing up in Shimba Hills in the Coast, I enjoyed farming,” intimates Fatuma. “Farm work was instilled in me from an early age, and I still enjoy doing it even now.”

It wasn't therefore a difficult transition when she quit her job at an Agro-vet shop to focus wholly on farming.

Situated 3 kilometres from Kenol town in Makuyu, Fatuma's 2 acre farm is a dream orchard, verdant with a large variety of fruits. Exotic mangoes ready for harvest hang down low while another section is dedicated to banana, oranges, pixies and tangerines.

But the most striking is the sweet yellow passion. Fatuma has dedicated a sizeable portion of her farm to the fruit. Neat rows line the farm, the tendrils clutching hard to bear the weight of fruit.

Fatuma is one of the pioneer smallholder farmers in the larger Makuyu who are farming sweet yellow passion on a commercial scale. Although resembling the common purple passion, the sweet yellow passion is bigger and juicier. More importantly, it is resistant to soil-borne diseases, and takes only a year to mature thus assuring quick returns on investment. Equity Bank, through a partnership with Technoserve has taken a big role in supporting farmers like Fatuma. In the partnership, the Bank provides loan facilities to farmers for the purchase of seedlings and inputs while Technoserve offers technical support and market placement for the produce.

Fatuma took out a loan of Ksh50,000 with

*“I believe over time, I will be able to harvest enough for the domestic and export market”*

Equity Bank Kenol Branch, which enabled her to purchase certified seedlings from the Kenya Agricultural Research Institute (KARI). The facility also covered labour costs and purchase of inputs.

“The demand for the fruit is high, and I've resolved to upscale my farming to increase the output,” says Fatuma. Last season, she supplied various local supermarket stores with the fruit. “I believe over time, I will be able to harvest enough for the domestic and export market.”

The success of her farming is a result of a tireless dedication. “The fruit requires constant watering, and you have to know when to do the spraying, and do it right. The right amount of fertilizer has to be used,” says Fatuma, adding that a misstep could lead to poor harvest or the decimation of the entire fruit.

Though still largely on pilot basis, yellow passion fruit farming is quickly proving to be a potentially commercial undertaking. A

kilogramme of the fruit sells at Ksh100. The success of farmers like Fatuma has served as a pointer to the project's potential.

“Farmers who want to grow fruits are usually referred to my farm,” says Fatuma proudly. “The results are self-evident and this shows there is future in this particular farming.”

Fatuma has also erected a green house on her farm where she grows a variety of fruit seedlings including pawpaw and mango which she supplies to farmers around the country.

Equity Bank Kenol branch manager Daniel Ngahu points out to the potential of farming in the area in improving livelihoods. “We are committed to empowering farmers” says Ngahu. “Through our agri-business officers and financial trainers on the ground, we are educating farmers on improving their enterprise to a commercial level, through loans and proper financial management.”

Ngahu adds that the branch has established relations with licensed agro-dealers, enabling farmers to obtain farm inputs directly.

## Sweet fruits of hard work

**A**s land fragmentation squeezes farmers to smaller parcels of land, small-holder farmers are looking for innovative means to maximize the output of their farms.

One such agricultural entrepreneur is Edward Chere, a farmer who has turned to strawberries farming. Located on the leafy plains of Kawira village in Kiambu County, his two-acre farm is opening a new frontier in the area.

He has planted some 2000 suckers of strawberry on a one acre portion of his farm, and marketing the produce at local markets, supermarkets and to individuals in Kiambu and Nairobi.

“This is a good business for a retiree like myself,” says Chere, as he carefully plucks a couple of berries. “It has a ready market, the overhead costs are low and it is not labour intensive,” he adds.

The horticultural boom in Kenya has seen farmers turn to alternative crops to earn a living especially in the wake of reduced employment opportunities and decreasing size of land parcels per household. Fruits such as strawberries are lucrative to farmers

because of the growing demand locally and a ready export market.

Strawberries have several uses. They can be eaten whole, made into fruit salads, used to produce jam, make drinks such as juices milk shake and smoothies, among other uses. Strawberry leaves are also used for decoration. It takes three months to have the first harvest of the fruit. Afterward the fruits are harvested once or twice a week depending on the climatic conditions.

For Chere, demand has mostly been local but he is planning to expand his capacity to meet the growing demand for the fruit.

“I am talking to my fellow farmers to teach them the benefits of strawberry farming. We shall join hands and produce more strawberries since the demand is still huge,” he says. “We can even make jam or juice for the market.”

Chere has been banking with Equity Bank for 10 years and he beams with pride as he talks of his journey with the Bank.

“Equity has been supporting my agricultural business over the years,” he says as he takes a reflective pause. “Before venturing into



*“we have to think differently...we can maximize on the small parcels of land we have.”*

strawberries, I was growing tomatoes. Equity advanced me a loan that I paid within a year. I had nothing and they helped me purchase farm inputs. I used the proceeds that I realised to venture into strawberry farming. I will continue to rely on the Bank.”

Chere's journey with Equity started when he opened a vehicle spare parts business in Kariobangi Light Industries.

Through various loans from the bank, he grew his business substantially and once it stabilized, he handed it over to his son.

Meanwhile, he ventured into farming on a pilot basis after which he took the plunge as a full-time farmer.

“After much thought, I decided to do farming,” he says. “But I didn't want to do it like it has always been done. I wanted to do it differently.” Chere went through training and he is now pioneering strawberry farming in the area.

The high-yielding farm is now attracting the attention of other farmers who are turning to him for advice.

“I tell people that we have to think differently. We may not have big farms, but with knowledge, we can maximize on the small parcels of the land we have.”

# Maize production empowering communities financially

**M**aize is largely a staple food in different forms among many communities in Kenya. This is true particularly in the grain basket of the Rift Valley that is home to some of the most agriculturally productive lands in the country. In Uasin Gishu, Trans Nzoia, Nakuru and Narok counties, maize continues to occupy large tracts of land. Indeed literally all the small, medium and large scale farmers apportion some proportion of land for maize.

According to the Ministry of Agriculture, Kenya produces an estimated 28 million bags of maize a year when the weather is favourable.

To enhance productivity, Equity Bank, the World Food Program (WFP) and Kenya's Ministry of Agriculture have been working together on programmes targeting improved livelihoods for households growing maize as an economic activity.

"I am very happy because of this partnership. We want every family to be food sufficient and economically empowered," says Zakayo Magara, a Deputy Director of Agri-business at the Ministry of Agriculture.

Pauline Ruto is a middle-aged farmer whose maize farm has continued to yield more grain after interventions by Equity Bank and other partners. Pauline is a member of a farmers group at Kapkatet village in Kamagut location of Eldoret North District called Schemers. Started as a common interest group educating the community on HIV/AIDS and behavior change, Schemers' initial target was young people. Today, its membership of 63 has a diversified reach of women, men and the youth.

"When I joined Schemers, I was growing maize on one acre piece of land. After one year, we approached Equity Bank for a loan facility," says Pauline as she inspects stacks of maize stock freshly cut in a harvest that she expects will produce approximately 300 bags.

Pauline's neighbour Zipporah Koros has her maize ready for harvesting. The crop now towering high above her is the pride of a mother whose family has benefited from maize sales from the last two harvests. "When I sold my maize I bought this cow. It gives me milk for my family," says Zipporah as she points at a heifer grazing in an open field next to her maize plantation.

With only an acre set aside to grow maize, Zipporah's first



**Maize farming:** Equity Bank Hola Branch Credit Manager Tawhida Abdulfaraj (R) accompanies Hola River Irrigation Scheme Manager, Alexander Wainaina on a tour of a maize plantation in the scheme.

loan from Equity Bank was to farm on one acre of land. As the yield grew, she increased her acreage under maize to two acres and took out a second loan facility. With further financing she now has expanded her maize plantation to 8 acres.

Maize farming in the region is a deep rooted practice. The WFP, the Ministry of Agriculture and Equity Bank recently toured Kapkatet village to launch a maize store that the farmers built to store their produce after harvesting. The 10,000 bags facility is expected to ease waste associated with storage and market linkages.

"Farmers will no longer have to depend on the Government to set market prices. The Government and other players will be buying maize at a price set by farmers," said Magara as he officiated the opening of the store at Kamagut centre in Eldoret North. Citing storage of the maize grain as a big challenge for farmers, Magara noted that poor storage results in development of aflatoxin rendering the grain unfit for human or animal consumption.

Fred Tarus is a retired teacher whose 11 acres of maize is expected to yield some 700 bags each season. As he inspects the moisture content of the maize cobs, he beams with certainty. "I attribute my success to Equity Bank

because of the funding they gave me. I was able to plant, buy fertilizer and plough."

The bigger challenge for farmers in the area had always been storage. In a region that experiences sporadic rainfall patterns, crop losses occasioned by wet weather are common. With the opening of the store, members of the Schemers Group are guaranteed of quality harvest that will attract prices from buyers. So far, WFP, National Cereals and Produce Board (NCPB) are buying the produce at competitive prices from the farmers. The production of maize production is now seen as a big boost to economic empowerment propelling households to a sustainable food and cash economy.

In this Schemers Group, production per acre has grown from an average of nine bags to 20 bags as farmers are able to buy and utilize farm inputs during the planting seasons. Bernard Koech, the Manager of Equity Bank's Eldoret Market branch says financial literacy programs offered by the Bank have helped to shape perceptions in money management among the farming communities. "Farmers are now able to plan their finances and organize their borrowing to need-based borrowing that helps them forecast on planting and harvesting," added Koech.

## Sorghum, a new income channel

**S**orghum is not an unfamiliar crop in Rarieda District. For ages, residents have been growing it in small quantities for domestic consumption and sale of the surplus. But the community here has never looked at this crop as a commercial venture. The trend is however changing. To the residents of Madiany Division, this crop has acquired new significance. This otherwise commercially neglected grain is associated with the residents' new found financial knowledge.

Rarieda Agro-forestry Development Initiative (RAFDIP) chairman, Samwel Ang'enda Manyala, a pioneer of tree planting in the area, is confident that he can handle a big loan after what he learnt. He obtained a loan of Ksh16,700 which he invested in sorghum production. He raises tree seedlings, burns charcoal and keeps bees on his farm, getting income from a stream of sources.

RAFDIP is the umbrella organization for several self-help groups in Rarieda District. The groups' activities range from agriculture to environmental conservation and micro-finance. The group brings together 1,189 people, nearly double the initial membership of 594 in April 2008 when it was established.

John Ouma, the co-ordinator of RAFDIP Self-Help Group sheds light on this phenomenon. "It is really simple. Following an agreement between East African Breweries Limited and us, we expanded the acreage under sorghum. We sell the harvest to the brewer and consume some. The most interesting thing is that this project was accompanied



**Sorghum ripe for harvesting**

by a financial education programme by Equity Group Foundation through our local branch of Equity Bank. This is what is changing our lives," says Ouma.

Manyala and the rest of the members are amazed at what

financial literacy can do for individuals and a community. "The idea to bundle sorghum farming with training on finances is making a big difference here in Madiany," a grateful Ouma says. "Sorghum created the path for us to learn about income, expenditure and enterprise selection before seeking a bank loan."

Ouma took out a loan from Equity Bank and used the money to grow sorghum. When he finished repaying, he took out a second loan and used part of the funds to buy a milk cooler. The lesson on debt management struck him as being relevant to many borrowers. "During our financial literacy training, we learnt that a loan should be used for what it was planned."

Another lesson he values is that of the power of saving even Ksh50 a day through a bank account. He has since opened a savings account.

Eyeing even better income in 2013 is Orido whose two children will be joining secondary school at the same time. "With the training I received on how I can spend my money well, I want to expand acreage for sorghum and irrigated tomatoes, kales and watermelon. I also want to boost my metalwork business."

Says the group's chairman Manyala "Members are happy and I expect after all of them are trained, many more will improve their financial management skills. Only 64 members have been trained in financial literacy."

His co-ordinator Ouma terms the financial relationship as critical to development, saying that with financial knowledge and access to finance, the community can reap more from farming and use the money to educate the next generation. "Our children will be better educated because we will have the resources to take them to good schools. They will develop our region," he says.

# Social payments inspire financial independence



Jaldesa sells green groceries at Bulapesa.

**M**any vulnerable families living in arid and semi-arid areas of the Eastern and Northern counties have for a long time depended on relief food for sustenance. While helpful, food aid has largely only addressed immediate needs.

As a means to alleviate poverty and create sustainable livelihoods for the long term, an alternative method to food aid is fanning

an economic revival and bringing about transformation in hardship areas.

The Emergency Funds Transfer is a cash payment program meant to benefit households with vulnerable children. Through the program, which is funded by UNICEF through the Kenya Red Cross, households receive payments in tranches of Ksh5,000 each. The funds are channeled through Equity Bank and paid through Equity

Bank Agents in the participating regions.

The program has benefitted close to 15,300 households in Isiolo, Garissa and Turkana. "You can see the change in the lives of these people," begins Angelina Renteyon, the Kenya Red Cross District Cash Transfer Coordinator in charge of Isiolo County. "As opposed to giving out food, this program is empowering individuals and families to build themselves up little by little. Through proper planning of the money they receive, they are now able to pay school fees for their children, buy mattresses, shoes and clothes."

At Bulapesa, a small village outside Isiolo town, Fatuma Jaldesa spreads out a sack and proceeds to arrange a variety of green groceries at her verandah shop. Jaldesa is one of the beneficiaries of the cash transfer program. Not too long ago, she didn't have a stable source of income. She says that with her payment, she has been able to stand on her own feet and provide for her children.

"The profit I make every day sustains my family," says Jaldesa. "At the end of the day I am able to save a small amount in the bank. I don't use all my money." Jaldesa adds that she envisions expanding her business in the months to come by adding more stock.

Wakalo Arero is another beneficiary who has used his stipend prudently. When Arero, a widower, received his cash, he decided to invest in livestock. "I bought these sheep at a cheap

price during the dry season," he narrates as he untethers his four sheep. Arero plans to sell the animals later in the year. "I have children in school, and hope that once I sell the animals, I will be able to offset some of the school fees arrears."

Increased purchasing power has ushered in financial freedom for the beneficiaries while fostering an economic ecosystem that has benefitted not only the recipients but their locales. "It's good for the local economy," says Abdi Godana, Equity Bank Isiolo branch manager. "Once they receive this money, the beneficiaries plough it back into their communities; in the small shops and food stalls. Because of the extensive reach of our agency banking network, beneficiaries in far flung villages have been able to access these funds and are thriving on their small businesses."

Hussein Diba operates a shop at Kina, a small town in Garbatulla District. His shop doubles up as an Equity Bank Agent and is the main point for the distribution of the emergency cash. "We have people who travel from places as far as Barambate, Boji and Kulamawe," says Hussein. "Agency banking makes it easy for them to receive their payments. They don't have to travel all the way to Isiolo or Maua."

"You can see the people want to improve their lot," continues Diba. "Many don't withdraw everything when they come here. They want to save some of the money."



## Empowering Farmers with Mifugo Biashara Loans

- Flexible Collateral
- Quick Approval
- Flexible Repayment Terms



## Ngaru Farm: A profile in determination

CONTINUED FROM PAGE 10

held a better promise.

Through struggle, he was able to educate himself. Not straying far from his dream of owning a dairy farm, he enrolled for classes in Clinical Veterinary after his secondary education. Soon, he was traversing Murang'a, attending to animals and growing a profile as a committed veterinary officer.

"I bought my first cow through a loan from Equity Bank-then Equity Building Society-Murang'a branch," Ngigi reflects. "from that one cow, you can see where I am."

The farm has over a dozen cows. The number was big, Ngigi says, but a recent emergency forced him to sell off some of his herd. "A fire recently gutted my building in Saba Saba town" a steely Ngigi recalls. "I lost property worth millions of shillings."

This incident, far from killing Ngigi's spirit, only served to enrich his narrative: one of overcoming odds and constant reinvention.

"That one cow gave me 34 litres per day plus resultant heifer," continues Ngigi. "With the income I got from my vet errands, I was able to increase my herd to ten animals."

By then, Ngigi was thinking of moving from the family land and settling on his own

property. He identified 2 ½ acres of prime land but couldn't afford the Ksh500,000 price. It was then that he approached Equity Bank for a loan facility. "Though my collateral wasn't good, I had over time become an experienced farmer, and my farm had received very good ratings," says Ngigi. He took his 'Best Farm' certificate and photographs of his farm to the branch as proof of his credit-worthiness and obtained the loan.

By 2008, Ngigi's herd had grown to 18 milk-producing cows, and was supplying milk to the farthest reaches of Saba Saba. His increased income prompted him to diversify. He obtained an order to supply hay to various stores and farms in Murang'a. "I was making over Ksh60,000 per day," says Ngigi. With the income, Ngigi purchased two plots of land in Saba Saba town and put up buildings. One of them serves as an Agro-vet which he operates. His experience in dairy farming and the livestock industry has ensured Ngigi is busy. He regularly receives calls to inspect farms and offer advice on proper breeds. He is also a mentor to prospective dairy farmers in the area.

Ngaru Farm is also known for rearing pedigree heifers which are sold at premium prices. Ngigi is now focused on restoring his herd. He is confident that his good rapport with Equity Bank will propel his farm back to its full capacity. "I appreciate what the Bank has enabled me to be. From that first loan, to being able to purchase this land, which is a huge investment," he reflects.

"I always tell people about the Bank. In fact, when the Bank was younger, I was the unofficial Equity ambassador," he ends with a laugh.

**"...my farm had received very good ratings," says Ngigi who took his 'Best Farm' certificate and photographs of his farm to the branch as proof of his credit-worthiness and obtained the loan.**



# Partnering with farmers to promote use of Biogas

**W**hen Stanley Njoroge resigned from his accountant job twelve years ago, it was for the pursuit of a life-long passion: dairy farming. For Njoroge, who had grown up around farm animals, trading in his suit and tie for farm overalls was an easy transition.

Alongside the joy of farming, the Ruiru farmer is now reaping additional rewards from his investment. Njoroge, who runs Lestan Dairy Farm in Ruiru, is one of the increasing number of farmers in the country who have adopted biogas energy. He opted for biogas after he realized the daily operational costs for his farm, especially the cost of power were taking a huge chunk of his income.

"I realized the monthly power bill from daily farm operations could be significantly reduced if I invested in a biogas plant," says Njoroge. He constructed a digester whose daily output is 18 cubic metres of gas which harvests adequate biogas to run machinery on his farm as well as for household use.

Biogas, mainly produced from cow dung is

largely considered an efficient and more cost-friendly form of energy.

According to Richard Karani Ephanto, the Technical Director of Cypro International, other types of animal waste including chicken and rabbit droppings can be used to produce biogas.

"The uptake of biogas has increased over the last few years with the realization that it's cheap in the long term," adds Karani whose company has overseen construction of biogas plants in the country including Njoroge's. Karani points out that even small-scale farmers with fewer herds can still benefit from biogas.

"Farmers with one to three animals under zero grazing can opt for the 12 and 16 cubic meters digester. The gas produced here is enough for cooking and lighting for average households."

Equity Bank has partnered with farmers and other stakeholders to optimize biogas energy, through financing the construction of biogas plants.



Biogas is ideal for domestic use.



Mwema feeds his pigs fodder grown on hydroponics technology.



"People come from Kiambu, Murang'a Kitale and even as far as Uganda to learn about the technology"

## Hydroponics Technology Growing fodder all year round

**R**earing livestock for meat and dairy products is becoming increasingly expensive due to the high cost of animal feed that is literally competing with grain also grown for human consumption. To meet demand for animal feed, farmers supplement manufactured animal feed with fodder to meet the quantity needed by each animal. Often, the exorbitant costs render small scale animal rearing as a less viable business. Now, a technology that enables farmers to grow fodder all year round is promising to reduce cost of rearing animals. The technology known as Hydroponics is gaining popularity particularly because it costs much less than traditional fodder production methods.

Titus Mwema, a farmer from Mweiga in Nyeri County learnt of the technology through the Internet and decided to customize it using locally available materials. His entrepreneurial spirit was ignited by scarce pasture in the semi-arid area. He invested money in farming as a business applying the technology that involves the use of water to speed up the growth of fodder using microorganisms from manure. "When I became conversant with fodder production, I opened a kiosk in Mweiga town to teach the local farmers," says Mwema. "By using wooden shelves and polythene papers, Mwema started a pilot project to confirm the viability of the technology for farming as a business. He put up a makeshift green house to grow fodder for his pigs as well as

indigenous chicken.

Hydroponics is a method of growing plants using mineral nutrient solutions, in water, without soil. In natural conditions, soil acts as a mineral nutrient reservoir but the soil itself is not essential to plant growth. Hydroponic works well because a plant gets exactly what it needs, when it needs it and in the amount that it needs making it as healthy as is genetically possible. According to Mwema, a plant grows faster, better and yields more as the roots don't have to struggle to look for nutrients. Using the technology, Mwema can harvest 10 kilogrammes of fodder from only 1kilogramme of barley, wheat, maize in just a week.

"People come from Kiambu, Murang'a Kitale and even as far as Uganda to learn about the technology," says Mwema.

The technology has several advantages. Key among them is the short period it takes to grow the fodder and the minimal space required. "The fodder is adequate for the animals with only limited supplements required for additional nutrients," says Mwema. "Provided you give the animal 2% of its body weight, it will be satisfied."

Mwema expects many more farmers to adopt the technology to also grow their farming businesses. At only 6 months of age, Mwema's pigs weigh an average of 80kgs and are ready the market. The much sought after indigenous chicken eggs and meat too fetch premium prices at the market providing sufficient income for Mwema's household.



## Equity Contact Centre

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