

# Agri Leaders

*The people that make agri investment happen*

A portrait of Hon. Sebastian Kopulande, a man with glasses and a mustache, wearing a dark suit jacket over a dark turtleneck sweater. He is smiling and looking towards the camera. A small flag pin is visible on his sweater.

**Hon. Sebastian  
Kopulande –  
Zambia is  
the destination  
for agri  
investment**

**Tap** into Africa's potential

**Cheers** to the African wine industry

**EU attracting FDI** into southern Africa

**Why South Africa's agricultural industry** needs digital transformation

# AFRICAN AGRI

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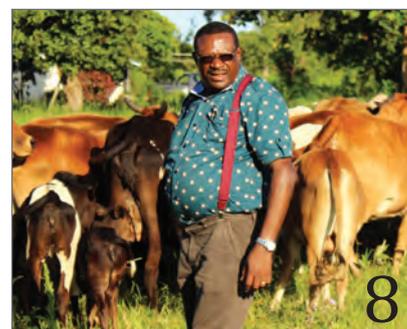
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## African Agri Council

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**“Good farmers, who take seriously their duties as stewards of Creation and of their land’s inheritors, contribute to the welfare of society in more ways than society usually acknowledges, or even knows. These farmers produce valuable goods, of course; but they also conserve soil, they conserve water, they conserve wildlife, they conserve open space, they conserve scenery.”**

— **Wendell Berry, Bringing it to the Table: On Farming and Food.**

As our agri knowledge grows, we have more and more “Ah-ha!” moments whereby we can clearly see the distinctive link between a farmer and an investor. One is just as important as the other and both cannot exist without each other. From my perspective: farmers offer the opportunity, investors fund this opportunity and – together – they turn it into a beautiful bowl of creation.

Yes, there are producers out there who can manage just fine on their own but they can only grow so big before they need to start asking for some expansion and production help. And with the current situation we are in right now, we need all the help we can get. Through the compilation of this edition, two key facts stand out to us:

1. We seem to be shooting ourselves in the foot and then asking what happened. Many of my experts have mentioned that there is potential and there is no reason not to have accessed this potential. But it is still labelled as ‘potential’ because nothing is being done with it. All these assets – and nothing to do with them. This could be a result of various factors but mainly a lack of due diligence and know-how. For example: There is land ready to be cultivated but ownership papers get lost, farmers requiring funding do not receive it, fingers get pointed at those considered unworthy of their land title and the land gets given to those deemed worthy (yet don’t know what a pickaxe is).
2. Everyone’s eyes only just seem to be focusing on Africa as an investment hub. Yes, it has been discussed on many occasions but words don’t produce food – action does. We agree that through discussions action can be taken but come on, how long has Africa been waiting on us? We can, however, proudly say that investors, government and decision-makers are starting to quite literally put their money where their mouth is.

Over the past three decades, the African agriculture financing landscape has undergone some significant shifts, the three most apparent of which have been the massive growth in the overall need for agriculture funding, a change in focus by local and international finance providers and investors as well as the transformation of agriculture agenda driven by African governments.

The African Agri Council, in partnership with African governments, agencies and industry bodies, is pleased to announce **the African Agri Investment Indaba (AII) taking place from the 20 – 22 November 2017 at the CTICC in Cape Town, South Africa.**

AII is the global meeting place for agri investment in Africa. Bringing together industry leaders and key stakeholders to discuss trends influencing food and agribusiness economics over the next decade in Africa.

Understanding and navigating through the enabling environment created by the government and private sector across the African continent is critical to the development of agriculture across the value chain. Industry leaders and governments will discuss strategies and opportunities for investment in African agriculture at the AII 2017. Book your space today – contact Lauren Hansen at [lauren.hansen@agricouncil.org](mailto:lauren.hansen@agricouncil.org)

#### AII 2017 HIGHLIGHTS

- Presidential Agenda Address
- Country and Regional Investment Seminars
- Investment Panel Keynote
- Regional Investment Discovery Sessions (IDS)
- Matchmaking Meetings

#### WHAT TO EXPECT

- 80% delegate are C-level
- 600+ global leaders
- 50+ projects presented in the IDS
- 30+ speakers delivering insightful case studies
- 26+ countries represented

We at Africa AgriLeaders and African Agri Council have done our utmost to put together a magazine worth your attention and we hope you walk away from this edition with valuable, advantageous knowledge – and no coffee stains.

**Kristy Jooste, Editor of Africa AgriLeaders; and Ben Leyka, Executive Director of African Agri Council**



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# Africa can lead the world in inclusive growth. Here's why.

**Humanity faces some tough challenges** in the 21<sup>st</sup> century. By 2050, we'll reach 'peak population' with more than 9 billion people. That's a quarter more mouths to feed with ever scarcer resources. We'll be much older on average, which means that ageing nations in the Americas, Asia and Europe will become increasingly reliant on a shrinking proportion of young workers. And three out of four people will live in cities, a massive demographic shift that will force governments to create more efficient and affordable solutions for the delivery of clean water, sanitation and other essential services.

I believe that Africa can play a key role in finding solutions to each of these challenges, and the continent's success in addressing them can put our planet on a path to more peaceful, sustainable and inclusive growth.

Over the next three decades, most of the world's population growth will happen in Africa, which means that Africa's farmers will need to double the region's food production to keep up with demand. This means that Africa won't be able to feed itself until it embraces new technologies and strategies that stimulate broad-based economic growth.

These include the introduction of high-yield seeds that are both drought and disease-resistant; more appropriate fertilizers; better market access for rural, low-income households; and safer ways for smallholder farmers to save between agricultural seasons. While the private sector can help introduce and distribute these innovations, investment from African governments will be essential to ensure that all farmers have equitable access.

We've learned that agricultural transformation isn't just a good way to help people feed themselves. It's a catalytic investment that drives deep and lasting GDP growth. Agricultural growth can generate four times more poverty reduction than growth in other sectors, and as the economic engine that drives Africa – employing three-quarters of the continent's workforce and accounting for one-third of its GDP – a strong agricultural sector remains critical to stimulating savings, creating jobs, boosting intra-African trade in



*Rodger Voorhies, Executive Director of Global Development, Bill & Melinda Gates Foundation*

commodities, and helping parents invest in their children to ensure that healthy, nutritious food is available and affordable for all.

We've also learned that digital transformation must go hand in hand with agricultural transformation. When I ran a network of community banks in Zambia and Malawi, we found that helping farmers use their mobile phones to save money increased farm inputs and raised disposable income by nearly 20%. These savings helped increase investment in education, health and poverty reduction.

Farmers are now using digital platforms to get timely advice about local weather patterns, market prices and new-and-improved seed varieties available at the local co-op. And mobile phone services are helping agricultural extension officers collect data from farmers on local disease outbreaks, pest problems and soil conditions so that they can target interventions when and where they are needed.

Another key to achieving growth and equity in 21<sup>st</sup>-century Africa will be delivering affordable and sustainable access to clean water and sanitation. Diarrhoeal diseases caused by fecal waste remain a leading cause of death among newborn babies in sub-Saharan Africa. And chronic diarrhoeal disease is a major underlying cause of cognitive disabilities and physical stunting in children under five.

If Africa is to become a major source of global human capital by 2050 – unleashing its youth to energize an ageing world – Africa's leaders must commit to providing low-income

families in urban and peri-urban communities with sanitation services that can be purchased by families living on less than \$2 per day. This will allow millions of children to achieve their full potential and contribute actively to the global economy.

But perhaps the clearest step that African governments and African social, political and religious leaders can take is to prepare for the challenges and opportunities of 2050 is to invest in the futures of women and girls. At the Bill & Melinda Gates Foundation, we are guided by the principle that all lives have equal value. But after more than two decades working to help improve the lives of the world's poorest men, women and children, an unmistakable truth has emerged. At the core of every problem we're trying to understand, from poverty to disease, are the undervalued lives of women and girls.

Imagine what Africa can achieve by promoting the talent and potential of every man, woman and child.

It isn't just about making things equal for everyone – it's about making things better and greater for all. And though we have a long way to go, when we remove barriers for women and girls, something truly transformational happens. We unleash an engine for progress that can propel massive economic growth. It's an engine that can help more girls and boys survive and thrive. It's an engine that can make communities and countries around the world safer, more stable and more prosperous.

That's why leaders from across Africa and around the world have pledged to end gender inequality in all its forms. Because equal creates something greater for every man, woman and child. And they know that investing in gender equality isn't distinct from agriculture, or digital access, or water and sanitation – it's foundational.

I'm confident that Africa is equal to the challenges that the world will face in 2050, and I'm confident that African innovation can lead to a better world for all of us. ■

**Rodger Voorhies, Executive Director of Global Development, Bill & Melinda Gates Foundation.**

**16%  
GDP**

**CONTRIBUTION**

KWAZULU-NATAL, WITH  
10,9 MILLION RESIDENTS,  
ACCOUNTED FOR 20% OF  
SOUTH AFRICA'S  
POPULATION IN 2014/15

**SECTORS/**

AGRICULTURE/  
BUSINESS SERVICES/  
MANUFACTURING/  
ENERGY AND WATER/  
MINING AND  
BENEFICIATION/  
TOURISM AND PROPERTY  
DEVELOPMENT/

**KNOWLEDGE IS THE POWER WITH WHICH TO INVEST WITH CONFIDENCE**

Trade & Investment KwaZulu-Natal is a South African trade and inward investment promotion agency (IPA) established to promote the province of KwaZulu-Natal as a premier investment destination and to facilitate trade by assisting local companies to access international markets.

**20  
17**

# How is Morocco contributing to achieve food security in Africa?

**Food security has been a salient feature** of Morocco's cooperation in Africa as evidenced with the agreements signed by the Kingdom and several African countries notably in the fields of agriculture and fertilizer production. This endeavour to boost food security on the continent has been materialised notably by Morocco's state-owned phosphates company (OCP), which sealed agreements to build large-scale fertilizer production factories in two of Africa's most populated countries: Nigeria and Ethiopia.

Recently in Rabat additional agreements were signed by Morocco and Nigeria during a ceremony attended by King Mohammed VI and Nigeria's foreign minister Geoffrey Onyeama. Under the agreements, Morocco will offer know-how and expertise in the field of fertilizer production, storage and transport to help Nigeria achieve its food security goals.

Recognizing the urgent need to improve agricultural production in the continent, King Mohammed VI underscored agriculture along with training, energy and security as being all priority cooperation areas that several African countries are looking forward to develop.

"...As part of projects aimed at improving agricultural productivity and promoting food security and rural development, fertilizer production plants have been set up with both Ethiopia and Nigeria. These projects will benefit the continent as a whole," King Mohammed VI said in his address to the African heads of state attending the African Union Summit in Addis Ababa last January.

Besides helping Nigeria unleash its agricultural potential and mitigate the food security threat facing some of its northern regions, the agreements signed between the OCP and Nigerian authorities put 11 blending plants into production and helped create jobs.

"The Moroccans have already supplied a cargo of phosphate, which has been delivered to various blending plants across the country. Already, eleven blending plants have come into production because of the supply," Managing Director of the Nigerian



*King Mohammed VI of Morocco*

National Petroleum Corporation (NNPC), Dr. Maikanti Kacalla Baru told local Nigerian media.

"I am happy to inform you that this development has translated to the creation of about 50,000 jobs and led to the production of about 1.3million tons of fertilizer in the country," Dr. Baru added.

In Ethiopia, the second most populous African country after Nigeria, Morocco's OCP will build a 2.4 billion dollar fertilizer plant. The first phase of this investment will enable the production of 2.5 million tons of fertilizer per year through 2022, rendering Ethiopia self-sufficient in fertilizer and creating opportunities for exports.

The plant, named Dire Dawa Fertilizer Complex, will produce fertilizer made from Ethiopian potash and ammonia gas, as well as OCP's phosphoric acid, taking full advantage of both countries complementary natural resources.

In addition to Nigeria and Ethiopia, the OCP is planning to establish 13 subsidiaries in the countries of Côte d'Ivoire, Senegal, Cameroun, Benin, Democratic Republic of the Congo, Angola, Tanzania, Zambia, Zimbabwe, Mozambique, Ghana and Ethiopia.

The new companies are part of OCP

Africa, which operates in the field of agricultural development in the continent. Through this largescale investment, the OCP group aims at boosting economic ties with African countries in tandem with Morocco's endeavor to promote its diplomatic influence in the continent, a strategy spearheaded by King Mohammed VI.

Agriculture and food security in Africa also featured prominently in Morocco's actions during the UN Climate Summit COP22 last November in Marrakech through the launch of the initiative for the Adaptation of African Agriculture, known as the Triple A Initiative.

The Triple A initiative was designed to provide more significant funding for the adaptation of small-scale African agriculture and to support the structuring and acceleration of agricultural projects in Africa.

By offering its expertise and know-how coupled with large-scale investments in fertilizer production, Morocco is leading in terms of efforts to address food insecurity, which remains one of the continent's most pressing issues. ■

**The North Africa Post**  
Read more at <https://goo.gl/avhmUc>

# China and Nigeria hold discussions on strengthening agricultural cooperation



*Chinese ambassador in Nigeria, Zhou Pingjian*

**China and Nigeria held a strategic discussion** in Abuja to strengthen agricultural cooperation between them.

At China-Nigeria Agricultural Modernization Cooperation Forum 2017, the meeting discussed ways on how China can assist Nigeria to achieve an increase in agricultural productivity, food security and poverty reduction toward overall sustainable diversification of its economy.

Chinese ambassador in Nigeria Zhou Pingjian said China, as a strategic partner of the west African country, stands ready to share its experience

in agricultural development and provide financial and technical support toward the country's realization of its agricultural and food security plans.

"We are willing to work with Nigeria to provide a more effective platform to mobilize more Chinese investment in Nigeria's Green Alternative," Zhou said.

The envoy noted agricultural modernization has been one of the 10 cooperation plans China has been implementing with Africa since the Forum on China-Africa Cooperation (FOCAC) summit held in 2015 in Johannesburg.

Speaking at the forum, an official who represented the Nigerian minister of agriculture and rural development, said the country has so far benefited from its strong affinity with China.

"China's agricultural growth is impressive and offers a lesson for African countries. China pulled over 400 million people out of poverty within 10 years. It did largely through the transformation of its agricultural sector. China does not pay lip service to agriculture," the official said.

Nigeria's government said, through its newly launched Economic Recovery Growth Plan, it is working to make agriculture to be a stable driver of its Gross Domestic Product (GDP) with an average growth rate of 6.9%.

Agriculture currently accounts for 23% of Nigeria's GDP and employs 38% of its working population. The country is projected to become a net exporter of key agricultural products such as rice, cashew nuts, groundnuts, cassava and vegetable oil by 2020, according to the government.

Between 2002 and 2014, China and Nigeria implemented two phases of the program under the China-Nigeria South-South Agricultural Cooperation, which provided the technical training in agronomy, water conservancy, fisheries, animal husbandry and so on in Nigeria.

China has provided a lot of training opportunities to Nigerian agricultural officials and technical staff for their capacity building, which has achieved good results. Also, Chinese agricultural enterprises have been operating in Nigeria and had provided high-quality seeds for Nigerian farmers.

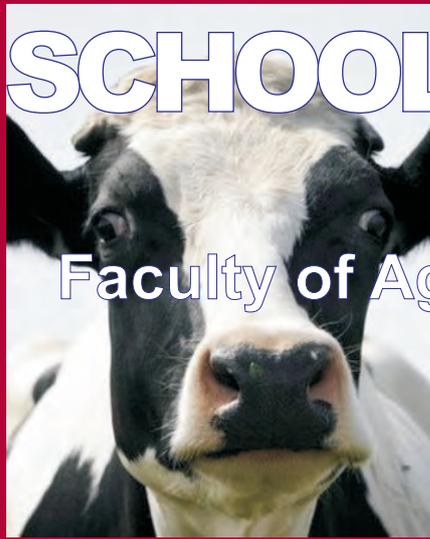
The Abuja forum, organized by the Nigerian Investment Promotion Commission (NIPC), the China Chamber of Commerce in Nigeria and a Chinese firm, Green Agriculture West Africa Limited (GAWAL), was attended by representatives of the Chinese embassy and firms, senior Nigerian officials and stakeholders from various agricultural departments, national lawmakers and scholars and researchers. ■

**Xinhua**

**Read more at <https://goo.gl/trLqEw>**

# SCHOOL OF AGRICULTURAL SCIENCES

Faculty of Agriculture, Science and Technology



## Agriculture Economics and Extension Programme

### Undergraduate Programme Admission Requirements

- Grade 12 pass with English Level 4,
- Pure Mathematics Level 4
- Mathematical Literacy Level 5
- Physical Science Level 4
- Life Sciences/Agricultural science Level 4
- APS 20

**Duration:** The professional Bsc Agric in Agric Economics degree will be awarded after a minimum completion of 8 semesters of full time study.

The final qualification is a Bsc (Hons) allowing direct admission to Msc.

### Postgraduate Programme Admission Requirements

- A candidate should be in possession of a Bsc Agric degree.

**Postgraduate Diploma/Honors degree**-Two semesters of full time study  
**Msc**-Four semesters of full time study  
**PhD**-Six months semester of full time study

## Animal Science Programme

### Undergraduate Programme Admission Requirements

- Diploma (Duration-3 years)**
- English Language Level 3 (APS 19)
  - Pure Mathematics Level 3
  - Mathematical Literacy Level 4
  - Physical/Life Science Level 3

- Degree (Duration-4 years)**
- English Language Level 4 (APS 20)
  - Pure Mathematics Level 4
  - Mathematical Literacy Level 5
  - Physical Science/Life Science Level 4

### Postgraduate Programme Admission Requirements

- An appropriate undergraduate degree in Agriculture/Animal Science
- Recognition of Prior Learning will also be used
- Assessment of undergraduate qualifications by Departmental Academic Committee

## Animal Health Programme

### Undergraduate Studies Qualifications

- Diploma in Animal Health (Dip.AH)
- B.Sc Agric. (Animal Health)

### Diploma in Animal Health (Dip.AH) Admission Requirements

- APS 15, Mathematics (Level 3)
- English (Level 4)
- Physical Science, or Life Sciences (Level 3)

### B.Sc Agric. Admission Requirements

- APS 20
- Matric Exemption with English (Level 4)
- Pure Mathematics (Level 4)
- Physical Science (Level 4), and/or Life Sciences (Level 4)

### Postraduate Studies Qualifications

- M.Sc Agric
- Ph.D

## Crop Science Programme

### Undergraduate Programme Admission Requirements

- English Level 4
  - Pure Mathematics Level 3 OR
  - Maths Literacy Level 4
  - Physics/ Life Science at Level 3
- Duration:** 3 years of Full time study

### Professional Degree Admission Requirements

- English Level 4
- Pure Mathematics Level 4
- Mathematical Literacy Level 5
- Physics/ Life Science at Level 4 (Exit point is a Bsc Agric-Honours)

### Postgraduate Programme

- Bsc (Agric) Honours (Plant Sciences)
- Msc in Agriculture
- PhD in Agriculture

### Admission Requirements

- An appropriate undergraduate degree in Agriculture and related disciplines
- Recognition of Prior Learning (RPL) will also be used



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# Why ZAMBIA is a good destination for agri investment

*Investing in Africa has its benefits and its challenges. We have a substantial amount of land and water but we lack infrastructure and the technology to produce the right quantities and quality of the product.*

*Honourable Sebastian Kopulande, CEO, Zambian International Trade and Investment Centre (ZITIC) who is also a Member of Parliament in Zambia, sees this as an opportunity.*

“The world will always be looking for investment, there will always be demand for food and this demand has to be satisfied one way or another. If Africa gets the opportunity to do that, it will become the place where the world shall be fed from.”

Kopulande has been working in Government for close to 24 years. He has been involved in policy reform since 1991, focusing on economic liberalisation in Zambia which occurred when Zambia changed from a communist economy to a liberalised economy. Last year Kopulande was elected to Parliament and is now a member of parliament for Chembe constituency in Luapula province in the northern part of the country.

“The Zambian economy is as liberal an economy as any in the world – if not better – and that includes the US. I say this because you can come to the country, establish your company and run it without government interference, as long as you abide by the existing tax, labour and other laws.

Zambia has been known as a copper mining country in the past and recently it has focused increasingly on diversifying its economy. A year ago the President announced that we would transform Zambia from a mining to an agricultural country. Zambia has a landmass of 752,000km<sup>2</sup> with 60% being arable land. Currently only 14% of that land (about 3,000km<sup>2</sup>) is currently under cultivation.

This translates to a massive investment potential in Zambia’s agricultural industry,” Kopulande says.

Kopulande says in the 2017 national

budget the Minister of Finance introduced major policy pronouncements to drive the country towards agricultural diversification. These include:

- The removal of all customs duties for all irrigation equipment (formally these duties sat at 25%);
- The removal of all customs duties for all agricultural equipment (formally these duties too sat at 25%);
- Increased capital allowances for all agricultural equipment from 50% to 100%. This means that all investment into your farm are 100% tax deductible.

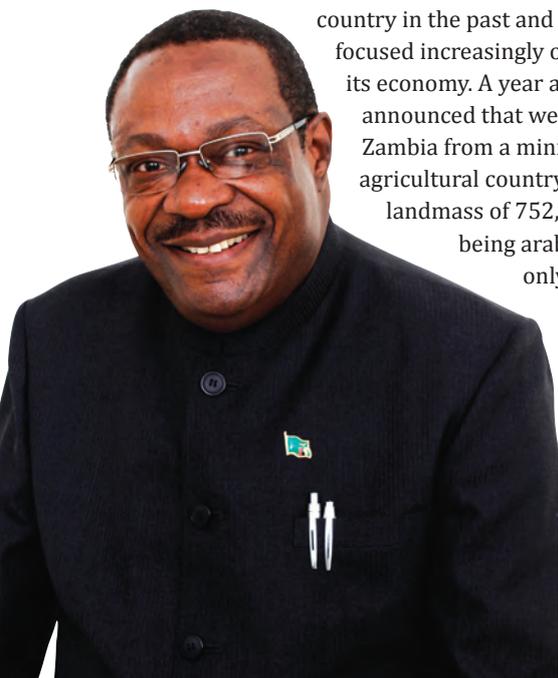
Zambia is part of SADC and COMESA and are essentially servicing the same market as the other countries. However Kopulande points out some differences.

- Zambia is a politically stable country, since its independence 52 years ago it has been a very peaceful country;
- It has a hard-working people;
- I has a literacy rate of about 86%;
- It has some of the continent’s most liberal, business-friendly policies;
- The exchange policies are very liberal;
- Zambia has invested heavily into its infrastructure, particularly the communication infrastructure and roads;
- Zambia is the headquarters for COMESA;
- Zambia’s central geographical position gives it access to a market of around 450 million people.

“Fundamentally our exchange rate is market determined by what is going on in the rest of the world. The important thing is that an equilibrium can be found that is sustainable and maintained to allow the corporate world to plan. Even though you can maintain an artificial exchange rate by administrative interventions and manipulations which will keep an exchange rate stable, that is not sustainable and that does not make you a stable economy,” Kopulande says. “I do not believe that the best cover against exchange risk is to ‘Dollarize’ the whole world. I think it’s important for countries to maintain their currencies. What matters is the stability of those currencies.”

As far as tax goes, Kopulande says agriculture is the main focus of Zambia, therefore agricultural equipment is now duty-free, and irrigation equipment can now come into Zambia duty-free. “It was subject to 25% duties, but it is now, as of 2017, duty-free.”

“In terms of land availability, we do have land tenure systems in Zambia. We have the state land and the land under customary tenure. The land under state tenure is the land which you get a title deed for. However, once you have identified the piece of land anywhere in Zambia under customary tenure and the Chief grants you the right to that land, he gives you a letter to take to the Ministry of Lands where that land gets converted to state land and you get a title deed. The tenure for the title deed is 99 years - renewable. (The assumption is that your heirs will take over the land and renew your title deed.)”



Honourable Sebastian Kopulande, CEO, Zambian International Trade and Investment Centre (ZITIC)



“We have 10 provinces in Zambia and the government is setting up farming blocs or agricultural zones of at least 100,000 hectares per province. In total that is 1 million hectares across the country. In my constituency where I was elected we have been working with the authorities there to put together a minimum of 50,000 hectares as available land for farming. That land is immediately available for your investment and you have the right to own land as an investor in Zambia. As an individual, if you are not a Zambian citizen you cannot own land in Zambia. However, if you come to Zambia and register a company, that company is a Zambian company and therefore a citizen of Zambia – and as such it can own land.”

### ***“You are better off producing in Africa and exporting to the rest of the world.”***

“For us, your right to property is enshrined in the constitution of the republic. That includes your right to land. Nobody, not even the state, has the right to take away that land. The circumstances in which the State can take away your land are defined: they can only take away your land when you act as a threat to National Security, however the state first has to come to Parliament and seek parliamentary approval to take that land away. This has never happened before, and the process is rather cumbersome.”

Kopulande says standard corporate tax is 35%, but corporate tax for agriculture is 15%. This is to ensure that there is sufficient capital to re-invest in agricultural activities by the farmer. The Zambian government has realised that it cannot permanently depend on imported equipment.

“We have introduced the number of measures including multi-facility economic zones. These multi-facility economic

zones are – simply put – special economic zones. This policy gives massive incentives to companies that invest in the special economic zones.”

Some of these incentives include:

- Capital equipment is duty-free,
- Raw material Imports of come in duty-free
- 0% corporate tax for the first 5 years, in the next 2 years you pay 50% on your declared profits, in year 8 and 9 you pay 75% and after that you graduate to the full corporate tax.

So incentives have been given for the production of capital goods as well as intermediate goods to support industrialisation, which is the second drive that the Zambian government is pushing in terms of economic diversification.

Kopulande says return on investment in the western world sits at a 2% – 3%. In Africa the average return on investment are 29% plus and it is not unusual to see these numbers sitting in the 30% and 40% regions

“Your cost of labour is much lower in Africa – Zambia in particular. Zambia has much of the water resources in Southern Africa (in the SADC region) and the government has also begun building dams as a part of agricultural infrastructure to make irrigation easier. It is in the next year’s budget that government will build dams to promote that which will work with other policies outlined, to make your agro venture more profitable. You are definitely better off producing in Africa and exporting to the rest of the world.”

“We in Africa need to make sure that what needs to get done – gets done. At the end of the day we share a common destiny and we cannot run away from that. We are united in history and collaboration is something we need to achieve going forward,” Kopulande concludes. ■

**Kristy Jooste**

# Tap into Africa's potential

*Agriculture is a major source of income in Africa, however untapped agricultural potential has contributed to persistent poverty and deteriorating food security, resulting in a projected increase in the number of undernourished people from 240 million in 2015 to 320 million by 2025.*

*Taking steps to optimise this as an opportunity is the Feed Africa Strategy and the Grow Africa Partnership.*

## FEED AFRICA: STRATEGY FOR AGRICULTURAL TRANSFORMATION IN AFRICA 2016 – 2025



*Chiji Ojukwu, Director of Agriculture Division at African Development Bank*

An extract taken from 'Feed Africa: Strategy for Agricultural Transformation in Africa 2016 - 2025' states that falling commodity prices for a broad range of natural resources are creating an increasing imperative for African nations to diversify their exports and reduce current account deficits. At the same time, increased food demand and changing consumption habits driven by demographic factors such as population growth and urbanisation are leading to rapidly rising net food imports, which are expected to grow from USD35bn in 2015 to over USD110bn by 2025. These rising imports are indicative of a broader opportunity to transform agriculture construed as a business. The scale of imports demonstrate that demand exists, if a vibrant private agribusiness sector in Africa can be stimulated to service it. These food imports represent a diverse set of markets, both in key commodities as well as processed goods and associated or 'agro-allied' industries worth more than USD100bn in revenue per annum, while delivering food security and broad-based income growth. Capturing these opportunities on the scale required in Africa has occurred elsewhere in the world before, such as in Brazil, Malaysia and Vietnam, and often over a shorter time period. The conditions for transformation are beginning to materialize in a number of African countries. Smaller-scale transformations are happening, such as in the horticulture and floriculture sectors in Kenya and Ethiopia respectively, Rwanda's rapid and material reductions in the level of malnutrition, Nigeria's large scale registration of farmers onto an electronic-wallet system to facilitate fertilizer subsidy payments, and transformation of the rice sector in Senegal. These instances show that localised transformation in Africa is possible, and point the way for larger-scale shifts in African agriculture. The lessons learned from these experiences help frame 'Feed Africa: Strategy for Agricultural Transformation in Africa 2016 – 2025'.

**C**hiji Ojukwu, Director of Agriculture Division at African Development Bank says, "Primarily, the Feed Africa Strategy aims at helping the Regional Member Countries (RMCs) tap on the potentials of their various agro ecologies, in prioritising some specific commodities that would help them contribute to the achievement of the four key goals of the Strategy namely: a) Contribute to eliminating extreme poverty in Africa by 2025; b) End hunger and malnutrition in Africa by 2025; c) Make Africa a net food exporter; and, d) Move Africa to the top of export-orientated global value chains where it has comparative advantage. Whilst not being prescriptive and based on specific criteria including: the future demand of a given commodity, potentials to nourish Africa, competitive advantage, scope for transformational uplift and existing focus; the Strategy came up with 18 commodities that would be prioritised for its projects and programs implementation in the RMCs. This is why we are focusing for instance, on commodities like wheat

in North Africa, horticulture in East Africa and rice in West Africa to mention a few."

In connection with the 'Feed Africa – a strategy for agricultural transformation in Africa 2016 – 2025', a high-level ministerial conference: 'Feeding Africa – An Action Plan for African Agricultural Transformation', was held in Dakar, Senegal, in October 2015, to deliberate on modernising Africa's agriculture sector. The conference was co-convened by the African Development Bank (AfDB), the African Union Commission (AUC), The United Nations Economic Commission for Africa (UNECA) and several development partners. The principal purpose of the conference was to draw up an action plan towards ending food insecurity, extreme poverty and malnutrition in Africa and placing Africa high on the value chain.

Success stories of agricultural transformation across Africa presented at the event provide clear evidence of the massive potential for increasing food production and

creating employment that exists in the agriculture sector. Research results reveal burgeoning African food markets for such high-value perishable food products as poultry, dairy, meat, fruit and vegetables, with value chains expected to triple in cash volume by 2030.

Following three days of ministerial dialogues and work stream sessions on 26 themes related to agricultural transformation, the President of the AfDB presented the Action Plan in his closing speech. This was endorsed by over 600 participants, including 155 high level Government representatives, including Ministers of Agriculture and Finance, Trade and Industries, and Central Bank Governors. Others are Representatives from AUC, UNECA, NEPAD, Alliance for a Green Revolution in Africa (AGRA), International Fund for Agricultural Development (IFAD), United Nations Food and Agriculture Organization (FAO), United Nations Industrial Development Organization (UNIDO), the World Bank, US Agency for International Development (USAID), World Food Programme (WFP), the Consultative Group on International Agricultural Research (CGIAR), the Civil Society, the Private sector, including commercial and agricultural banks, Farmers Associations, amongst several partners.

### Action Plans

1. Deploy innovative approaches to address malnutrition. The AfDB will establish a strategic partnership with President Obama's Feed the Future Initiative, Grow Africa of the World Economic Forum, the Big Win Philanthropy, the FAO, Scaling Up Nutrition, World Food Programme, Bill and Melinda Gates Foundation, the Global Panel on Agriculture and Food Systems for Nutrition, and the private sector

to initiate innovative approaches towards addressing malnutrition.

2. Execute a bold plan to achieve rapid agricultural transformation across Africa through raising agricultural productivity. This will be led with the Forum for African Agricultural Research, the Consultative Group on International Agricultural Research and national agricultural research systems and the Alliance for A Green Revolution in Africa. The CGIAR team has committed to coming up with a plan by 7th November, 2015 that will spell out how they will collectively respond to Africa's agricultural transformation.
3. Operationalise the Affirmative Finance Action for Women in Africa by first quarter of 2016. The AfDB will establish a USD300m financing facility to de-risk financing to women owned-businesses by commercial banks and microfinance institutions. The German Development Bank (KfW, the German acronym) has pledged its support to the preparatory work towards its establishment.
4. Establish an African Agricultural Risk Sharing Facility to de-risk the financial value chain and de-risk the agricultural value chains across the continent. This will allow commercial banks and financial institutions to lend at scale to agricultural value chains.
5. Develop agro-allied industrial zones and agricultural corridors. The goal is to accelerate investments in integrated infrastructure to improve the competitiveness



of Africa in processing and value addition to agricultural products.

6. Increase access to climate financing – The AfDB will support African countries in accessing climate financing to enable them to finance their adaptation to climate change. The African Development Bank will triple its climate financing to USD5bn annually by 2020.
7. Central Banks in Africa to set aside special funds to allow farmers to access credit at reduced interest rates, as well as agricultural loans with longer term maturity.

Ojukwu says, “The cost of pursuing Agricultural Transformation in Africa has been estimated to be between USD31.5bn – 400bn over the next 10 years. With this quantum of finance required for the transformation agenda, there are obviously investment opportunities which are driven by new broader market horizons in the sector. The mere fact that Africa imports as of today over USD35bn market presupposes that there is a huge market opportunity. The investment areas would largely be driven by the need to satisfy the opportunities presented by the enablers of the transformation agenda, which includes among others: orchestrating the design of programs and projects that would help boost productivity; scaling up and replicating value addition along the various prioritised commodity value chains, and more importantly opportunities provided to invest in hard and soft infrastructure. In other words, the Strategy provides investment leeway for Africa to turn around the real value of agriculture relative to the importance to its economies. The processing gaps presented by commodities like cocoa coffee, and other tree crops and grains like the soybean ultimately make investments in the sector very evident. These gaps present opportunities along the value chain for investors to meet the increasing demand. And what more, the scale of

capital required is larger than the public sector alone can manage, and so, crowding-in private investment is key.”

Ojukwu says the development of the Feed Africa Strategy was a collective effort with many other relevant development and partner institutions, with the Bank providing the leadership. It is therefore safe to say that the Agricultural Transformation in Africa agenda is an African Strategy with partnership playing a key role in its implementation and indeed it is one of the key enablers. Therefore, the Strategy is being implemented with the cooperation of the various stakeholders (public sector, private sector, civil society, development actors, etc.) across the continent but primarily by the RMCs. To better coordinate multi stakeholders’ implementation of the Strategy, the Bank is establishing the Partnership for Agricultural Transformation in Africa (PATA) and the Leadership for Agricultural (L4Ag) initiative.

These mechanisms will facilitate a variety of activities including:

- Bringing coherence and clear plans of action and securing commitments;
- Holding participating actors accountable to their commitments;
- Selecting priority focus areas both for decision-making and resource allocation;
- Sequencing efforts across the same value chain and within the same country or region;
- Leveraging shared capabilities and footprints to enhance programs and expand reach;
- Sharing previous experience and learnings as they pertain to new projects; and
- Engaging and understanding the needs of value chain actors and larger private sector players.”

“In 2016, the Bank approved 29 operations in the agriculture public sector for a total commitment value of over (Units of Aid) UA615.69m equivalent to USD827.69m. The 29 projects



Photo: Milton Grant/UN

approved will impact positively on the life of millions of people in the more than 25 countries covered and regional institutions. Notable amongst the high ticket projects approved are Nigeria Enable Youth (USD280m) Zambia Aquaculture Enterprise Development Project (USD45m)."

Funding an ambitious but nonetheless realistic Strategy like this is no doubt a challenge and Ojukwu says mutual commitments and understanding amongst partners in the leveraging funds to meet the transformational need is highly desirable. "Obviously, the cost of transformation cannot be met from the public sector so private investments are key. Daunting as the challenge is, the Strategy has provided likely avenues by which the quantum of funds required for transform the African Agriculture sector can be realised. These include tapping and leveraging funds from capital markets, sovereign funds, and pension funds as well as the private sector who play a significant role within the feed Africa strategy. The Bank sees greater opportunities even the face of this challenge."

"The implementation of the Strategy calls for devoted partnership and commitments across stakeholders. The expectation is that the Bank and its partners will pursue an agenda to transform key agricultural commodities and agro-ecological zones. This commitment must prioritise the need to create an enabling environment to create opportunities for new and diverse interest and investors especially youth and women to be involved across the value chain, Ojukwu concludes.

### GROW AFRICA PARTNERSHIP

Grow Africa is an African-owned, country-led, market-based and inclusive platform for cross-sector collaboration. It aims to increase inclusive and responsible investment into African agriculture thereby generating agriculture-driven economic growth that contributes to reducing poverty and hunger. Grow Africa consists of a partnership platform, network and secretariat.

The Grow Africa Partnership was founded jointly by AU/NEPAD and the World Economic Forum in 2011. Grow Africa works to increase private sector investment in agriculture, and accelerate the execution and impact of investment commitments. The aim is to enable countries to realize the potential of the agriculture sector for economic growth and job creation, particularly among women farmers. Grow Africa brokers collaboration between governments, international and domestic agricultural companies and smallholder farmers in order to lower the risk and cost of investing in agriculture and improve the speed of return to all stakeholders.

The Grow Africa Partnership comprises over 200 companies and governments in 12 countries. These companies have made formal commitments with the government in the respective country to invest in agriculture. Ten of these countries are part of the New Alliance for Food Security and Nutrition, a partnership in which stakeholders – public and private sectors, and donors – commit to specific policy reforms and investments outlined in Cooperation Frameworks that accelerate implementation of African country food security strategies.

Some African government-driven investment opportunities outlined by the Grow Africa Partnership include:

### Nigeria

1. Rice production and milling
  - USD45m will be required to cultivate 15,000 Ha of rice with the intention of expanding to 60,000 Ha to enable self-sufficiency (output increase to 120,000 tons/year through the use of husk as a source of energy)
  - Kwara and Niger states ideal locations
2. Warehousing/Storage
  - Sorghum, Maize, Cassava, Soybeans
  - Food security
  - Job creation
  - Economic diversification
  - Import substitution
  - Properly managed and maintained warehousing that allows for storage and aggregation of commodities
3. Cocoa Production and Processing
  - South West region (Oyo, Ekiti, Osun, Ondo)
  - Investment of USD25m required
4. Livestock Value Chain – Cattle & Dairy
  - National production of milk is estimated at 469,000 MT/year while demand is 1.1 million MT/year
  - Low milk producing indigenous breeds
5. Soybean & Maize Production and Storage
  - Nigeria is the largest producer of soybean in Africa at 550,000 tons as at 2010
  - Around North Central zone – Kaduna & Niger states
  - Nigeria produces 8m tons of maize annually
  - However, poultry consumption necessitates import of 100,000 MT maize annually
  - Hoping to increase production to 20 million MT/year

### Ghana

1. Provision of agricultural inputs
  - Improved seeds
  - Agrochemicals
  - Fertilizers
  - Pesticides
  - Veterinary drugs, vaccines & chemicals
  - Animal feed
  - Feed ingredients
2. Opportunities in processing of agricultural products
  - Cereals – maize, rice, millet, starch crops – yam, cassava, sweet potato, plantain
  - Vegetables – carrots, cabbage, garden eggs, tomato
  - Fruits – pineapple, pawpaw, banana, mango
  - Industrial crops – rubber, sugar cane, cotton, oil palm, coconut, cocoa, coffee
  - Livestock – cattle, pigs, poultry, sheep
  - Fisheries – tuna, tilapia, catfish
  - Rearing of silk worms for production of raw silk
3. Dairy products – processing as well as supply of machinery to establish hatcheries for day old chicks
4. Floriculture – for cultivation of a number of exotic flowers for the European market
5. Agro-processing industry to add value, reduce post-harvest losses, promote price stability & expand demand for local agriculture produce – e.g. processing of cocoa beans into cocoa products and fruits into juices
6. Developing irrigable land through irrigation in the key area – Ghana has potential irrigable land of 346,000 Ha but only 10,000 Ha have been developed

7. Technological & support services – supply and installation of cold chain equipment, packaging & factory building technology
8. Distribution – companies required to provide post-production services e.g. transport, packaging & cold vans
9. Agricultural inputs – fertilizers, pesticides & fungicides
10. Technology & services – irrigation, heavy equipment (e.g. hiring tractors, ploughs, harrows & combine harvesters) to provide investment opportunities
11. Storage industry – storage facilities
12. Horticulture
  - Production companies to produce horticultural produce for the local and international markets
  - Raw materials
    - To produce horticultural seeds
    - provide sustainable irrigation services in the industry
    - Organise smallholders into Outgrower systems for production
    - Supply fertilizers, pesticides & other agricultural chemicals to the industry
  - Marketing & Distribution
    - Packaging materials
    - Buy the horticultural products for export
    - Supply and install cold chain equipment
    - Organise smallholder firms into out-grower systems for marketing
    - Provide post-production services (transport, cold vans) Joint Ventures
    - Package and ship floral products to international markets
  - Technological & Supporting Services
    - Technological & consulting services
    - Financial services & products to the industry
    - Research and Development services
    - Inspection and grading
    - Capacity building

### Ethiopia

1. Investment in cattle fattening and abattoir business for the domestic market & export to regional/Middle Eastern export markets – USD1.5m
2. Investment in Ultra-High Temperature (UTH) milk processing plant for Ethiopian domestic & neighboring countries export markets – USD11m
3. Poultry processing plant to sell chicken meat and eggs to the Ethiopian mass markets USD20m
4. Investment in soybean meal processing for processing consumer products & soybean meal to serve USD1.2m
5. Tomato processing business for domestic & export markets USD4m

### Tanzania

Ihemi Cluster – A case study in the Southern Agricultural Growth Corridor of Tanzania:

- Covering Iringa & some parts of Njombe region Soybean value chain through working with Outgrowers in production technologies, procurement, storage and value addition solutions
- Potato value chain through working with smallholder farmers in mechanisation, storage and value chain solutions

- Aims to mobilise USD3.5bn in agriculture by 2030
- Develop 350,000 Ha
- Superior infrastructure & connectivity to local and global markets
- SAGCOT partners work together in clusters that aggregate different value chains and nucleus farms in a supportive eco-system
- Six main clusters
- 50,000 farmers
- Inputs, production, storage, processing, research services
- Value chains – tomato, potato, soya, dairy, tea
- 26 irrigation schemes across 46,438 Ha
- Partnership approach
- Compact signatories
- Unmet demand services by imports
- Potato value chain
- Net exporter of potato

### Malawi

1. Livestock production
  - Improved breeds of cattle, AI, medications & extension services
  - Feed growing and feed production, hay production through growing of Rhodes grass
  - Manufacturing of cooling tanks & collection equipment (i.e. milk churns)
  - Service provision including AI, operation of dipping tanks & administration of drugs
2. Soybean
  - Products are used by bakeries, meat industry & animal feed manufacturers
  - Processing of soya into yoghurt, cheese, tofu, miso, candles, cattle feed, bio-diesel, cooking oil, meat substitute & margarine for local & international markets
3. Fruits & Vegetables
  - Wide variety of fruits & vegetables including oranges, tangerines, pawpaw, pineapples, bananas, tomatoes and onions
  - Opportunities for cold rooms & relevant transport infrastructure, processing factories for value addition to make puree, spices & juices, storage, cleaning and grading facilities, large scale commercial farming, market development and contract farming
4. Cassava production
  - Staple food in the Lake shores and other areas
  - Security crop
  - Drought-resistant
  - Minimum labour requirements
  - Large scale commercial farming along Lake Malawi
  - Starch & flour processing for domestic and international use
  - Manufacturing of certified clones and pest and disease control
5. Support to dairy development & AI services USD283m
6. Shire Valley Green Belt project USD156m
7. Fisheries & Aquaculture Development project USD40m
8. All Year Irrigation Farming along Lake Malawi, Shire River USD20m
9. 35 Ha of land ideal for irrigation to cultivate vegetables, fruits & flowers USD15m. ■

**Kristy Jooste**

# Legacy of trailblazing

“Over the years we realise that there is a huge shift in thinking regarding agriculture in Africa. Increasingly, African agriculture is viewed no longer as just as a development project needing aid, but hopefully as a business worthy of investment,” says Mamadou Biteye, Managing Director (Africa) at Rockefeller Foundation. “As a sector, its growth is central to increasing prosperity, food security, industrialisation, intra-African trade and to bolstering Africa’s contribution to global trade.”

Governments, donors and private organisations all recognise the importance and potential of agriculture in building sustainable, inclusive economies. With continued investment, smallholder farmers can improve their livelihoods and experience the direct effects of this growth. Such investments stand to have the most profound impact if directed towards technology. Technology is not just about information communications technology (ICT) or mobile access, but frankly any tool that makes work or life easier and makes us better informed – after all, even the wheel was a game changer in its day. Mobile technology on the continent is already having a positive impact on smallholder’s livelihoods: cell phones allow them to carry out business without mediators, open bank accounts only they can access, receive market and trade information and access agriculture extension services and training that governments may no longer provide.

“Smallholder farmers are the backbone of the sector. When they have what they need to make their hard work pay off, we are all better off because we will be able to feed the continent sustainably for posterity. The power of technology in farmers’ hands will yield countless dividends. It is up to us to ensure farmers know about them and can afford to use them,” says Biteye.

The Rockefeller Foundation has one mission - promoting the well-being of humanity throughout the world. Today, this mission is pursued via its dual goals of building greater resilience and advancing more inclusive economies.

“We work to create global interventions (initiatives/ programs) under four issue areas: Advance Health, Secure Livelihoods, Re-value Ecosystems, and Transform Cities. Through our portfolio of initiatives, we strive to catalyse and scale transformative innovations, convene sector-spanning partnerships, and create systemic change to improve the lives of poor and vulnerable people around the world.”

The Rockefeller Foundation was established by the six generations of the Rockefeller family and has a legacy of trailblazing new fields, convening unlikely partners and sparking new innovations that lead to transformative change.

Biteye says the Foundation assisted in founding the modern field of public health, supporting the discovery and development of vaccines that helped eradicate diseases such as yellow fever and malaria, funding urban visionary Jane Jacobs and catalysing the Green Revolution and churned an entire generation of African PhDs via its ‘Backing Brains’ initiative.

“These are just a few of our greatest achievements of the 20<sup>th</sup> century. We have also invested more than a half-billion dollars in helping communities of all kinds generate dividends from



*Mamadou Biteye, Managing Director (Africa) at Rockefeller Foundation*

investing in economic, climate, and social resilience. The Foundation has given more than \$17bn to support thousands of organisations and individuals worldwide.”

Over the last century, the Foundation’s approach has evolved, first focusing on efforts to increase the wealth of farmers, then on improving the nutritional content of food and increasing the yield of staple crops, followed by catalysing a uniquely African Green Revolution.

“We have rolled out various initiatives in diverse focus areas in order to bring positive transformation to humanity and are meant to be catalytic demonstrations of solutions that can be scaled across the continent and beyond. In Africa our initiatives include:

## **YieldWise**

This is a \$130m initiative aimed at reducing food loss and waste by half by 2030 across three value chains: cassava and tomato (in Nigeria) mango (in Kenya) and maize (in Tanzania).

## **AGRA**

The Rockefeller Foundation’s success in helping to spark the Green Revolution in Latin America and Asia, as well as our longstanding history with African agriculture, provides crucial experience to equip African farmers with new tools and solutions.

The Rockefeller Foundation has a long history of supporting agricultural innovation and enhancing food security and farmer income. In 2006 The Rockefeller Foundation – in



Image credit: www.venturesofafrica.com

partnership with Bill and Melinda Gates Foundation – founded the Alliance for a Green Revolution in Africa (AGRA) to catalyse and sustain an inclusive agricultural transformation across the continent.

### Digital Jobs Africa:

Africa has the youngest population in the world today, with the number of people between ages 15-24 expected to double to 400 million by 2045. Sadly the current pace of job creation is insufficient to meet the demands of this growing and better educated youth population. With the ICT boom in Africa, the Rockefeller Foundation launched Digital Jobs Africa (DJA) in 2013 whose aim is to improve 1 million lives through connecting high potential but disadvantaged youth to jobs in Africa's ICT sector, by working with partners in both skills development and job placement.

### 100 Resilient Cities:

100 Resilient Cities (100RC) is dedicated to helping cities around the world become more resilient to the multisectoral disruptions that are a growing part of the 21<sup>st</sup> century. By addressing both the shocks and the stresses, a city becomes more able to respond to adverse events, and is overall better able to deliver basic functions in both good times and bad, to all populations. The Rockefeller Foundation launched 100 Resilient Cities Centennial Challenge (100RC) in 2013, a \$164m commitment aimed at enabling 100 cities globally to better address major 21<sup>st</sup> century challenges.

The challenge recently announced the final list of 100 cities, 10 of which are in Africa.

### African Risk Capacity (ARC)

The African Risk Capacity (ARC) is a pan-African extreme weather insurance scheme designed to help AU member states withstand and recover from the ravages of natural disasters e.g. drought, intense heat or heavy rainfall – that are hindering their economic growth and adversely affecting their populations, especially the poor and vulnerable. ARC

uses an advanced satellite weather surveillance software called African Risk View, which was developed by the World Food Program with the Foundation's support. It translates satellite-based rainfall data into near real-time estimates of the number of people affected and the cost of responding to any likely outcome. How it works is that member countries pay a premium based on its needs and plans, which enables them to get a payout in the event of a disaster.

### R4

ARC is part of a broader effort to integrate climate change resilience within African agriculture resilience-building efforts. Another example of this is the R4 Rural Resilience Initiative, in collaboration with the World Food Programme and Oxfam, now entering its fifth year of operation in Ethiopia and Senegal. R4 aims at helping the rural poor to protect their crops and livelihoods from the impacts of climate change, consequently strengthening their food and income security.

While the international community remains, by and large, crisis-driven and responsive, with a resilience framework we can prepare for, and respond more quickly to shocks and stresses. We can be visionary and proactive, and in this case mitigate the impact of great losses. Indeed a resilience framework can be a bridge that integrates humanitarian and development responses, and thereby closing the gap between these two modes of assistance.

"We usually have scan and search processes where we look at emerging issues and trends in development globally, and what humanity's most pressings needs are. We then make a decision on where to invest our capital, where we can have the biggest impact for change and with what kind of innovative partnerships, and where we can also be most influential. YieldWise was the result of such a process, and it is now in its second year, we will continue to reap the lessons and gains from the rest of the initiative lifetime which goes until 2022, and then we will decide what is next," Biteye concludes. ■

**Kristy Jooste**

# Inspired by success



Ayalew Abebe, Managing Partner at Javi International PLC

“The Ethiopian agriculture and agro processing sector is growing even though agriculture is still highly constrained with access to affordable inputs such as improved seed and chemical fertilizer,” says Ayalew

Abebe, Managing Partner at Javi International PLC.

Javi International Consulting Private Limited Company (PLC) is an advisory and research firm focused on economic development and investment

opportunities. The company is defined by its experts and brings together a “solution” team.

The idea of establishing Javi International Consulting PLC was born in 2008 when Abebe joined the consultancy world as an independent individual consultant.

At the initial stage, the focus was on preparing training and operation manuals, providing training and conducting market researches. Aided by the vast experience Abebe obtained from International Consulting firms, International NGOs, government parastatals and private companies, he successfully accomplished various assignments in the area of feasibility study, business plan development and operation manual preparation. The company’s main product lines consist of development projects, commercial projects, corporate management and matchmaking.

Javi has been engaged with various agriculture development programmes and projects that government structures and development organisations have been promoting. Javi specifically intervened in the following areas of agriculture:

- Led public-private discussion forums that intended to improve the investment landscape of poultry sector in Ethiopia;
- Facilitated contact farming system in which industrial buyers enter into contractual agreement to assist smallholder farmers in providing technical and financial assistance and buy the product of the farmers;
- Conducted assessment on the challenges that Livestock operators face in relation to accessing finance in Ethiopia,
- Conducted various value chain assessment on different commodities such as malty barely, coffee, potato, onion, chickpea, honey and wheat.
- Produced different investment proposals for private companies

which are interested to invest in the agriculture; .e.g. coffee plantation, sesame seed farming, cereals farming, and food processing;

- Provided training to women farmers on entrepreneurship, marketing, business plan development, leadership; and communication and networking.

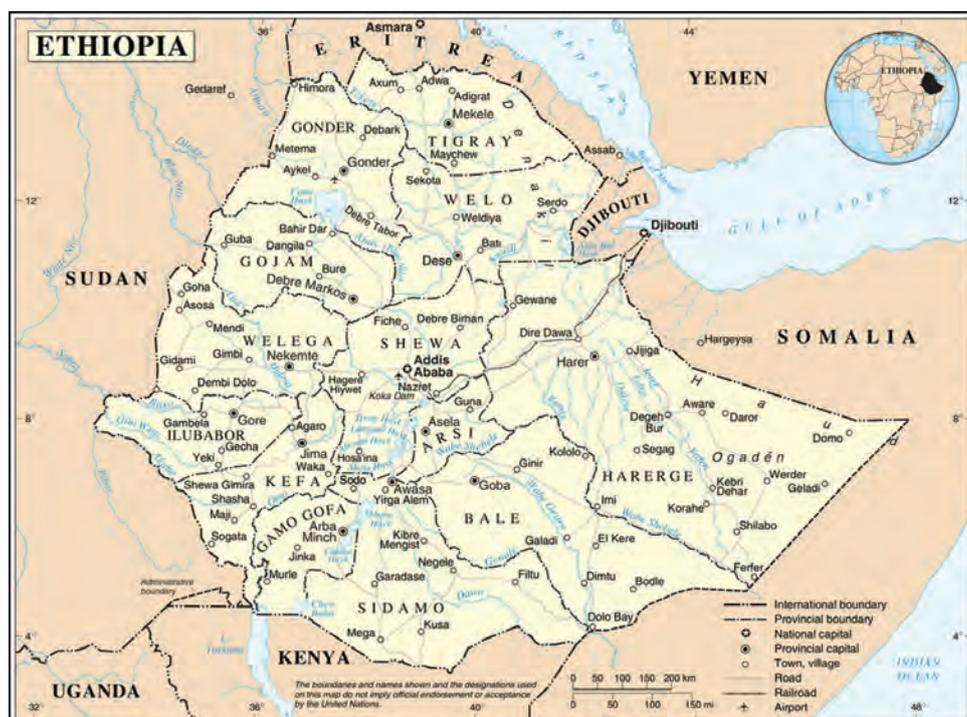
So far Javi has been working only in Ethiopia. Its staff including the managing partner has paid business visits to Uganda and the manager partner has also attended a training on Gender in Value chain which was conducted in Uganda. Javi has recently submitted a proposal to a development organisation in Tanzania to conduct value chain assessment for sunflower.

After finishing the five year national plan, Growth and Transformation Plan (GTP-I) in year 2015, the new five year plan (GTP-II) of the Ethiopia government intends to focus on developing and intensifying the industrial park development and agro-industrial parks.

Javi assists private companies working on agribusiness who have financial and technical expertise limitation. “For instance, we assisted a poultry farm to import chicken slaughtering facility so that they can supply chicken meat to the high end market. However, since the farm has limitation accessing finance, the project is pending.”

Javi envisions to be one of the first 10 consulting companies in east Africa. In this regard, Javi is working in partnership with other national consulting firms, mainly from USA and the Netherlands. Javi intends to establish a sister company which will make investment in horticulture sector of Ethiopia. ■

Kristy Jooste



MEC: Manketsi Tlhape



**read**

Department:  
Rural, Environment and Agricultural  
Development  
North West Provincial Government  
REPUBLIC OF SOUTH AFRICA

## Policy and Budget Vote Speech 2017/18 Highlights



*Together we move Bokone Bophirima forward*



### Our good story

READ seeks to dismount the triple challenges Poverty, Unemployment and Inequality through Radical Socio-Economic Transformation in three (03) of the pertinent mandates by enhancing Food Security, Rural Livelihood & Environmental Assets in Bokone Bophirima Province.

The Department's imperative achievements and planned projects include the following:

### House Hold Food Security

- Food Gardens were established for 1 030 households across the Province. The Mazista Food Security Project in the Kgetleng Rivier Local municipality was also completed and handed over in partnership with Diageo Consulting Company to benefit 60 households. A total of R7.5 million was spent on Food Security Program for the year under review in Bokone Bophirima.
- A target of 2 000 households is planned for 2017/18 with a total budget of R8 million.



### Donkey and Horse Value-Chain Enterprise Development

- Department will pioneer the Donkey Value-Chain Enterprise development in Ngaka Modiri Molema and Dr Ruth Segomotsi Mompati Districts.
- A total amount of R1 million budget has been allocated for enterprise planning.



### Crop production

- 13 309 hectares were planted for Maize and Sunflower during the year under review, through an investment of R43 million.
- A further investment of R46,4 million is budgeted for the season ahead with a target of 13 000ha, for a total of 227 Farmers anticipated to benefit.



### AgriParks:

- R25 million was allocated for the finalisation of damp proofing, input warehouse and milling plant, intended to bring the Springbokpan AgriPark into full operation.
- The Vryhof and Kraaipan Silos as part of the Grain Value-Chain will be rehabilitated.

### Tshimo Ya Kgosi:

- 11 Dikgosi have benefitted from the initiative. R7.25 million was spent on acquisition of livestock and agriculture inputs for Dikgosi. 13 Dikgosi will be supported this year and a further R7.25 million has been set aside for further implementation of Tshimo ya Kgosi this year.

### Livestock Production and Improvement:

- R3 million was spent in 2016/17 on Development Livestock Breeding Material that will raise progenies for smallholder Farmers.
- A Fodder bank will be established in Taung with a total budget allocation of R2 million.

### Marketing:

- Auction Pens were launched in the Greater Taung Local Municipality with a turnover of R2,5 million.
- The Department plans to roll-out further two Livestock Auction Pens in Mabeskraal (Bojanala) & Tshidilamolomo (Ngaka Modiri Molema), with a total budget allocation of R2 million.
- R5 million will also be spent on the empowerment of 50 Black Commercial Farmers on trade related matters.

### Agro processing:

- R28 million is earmarked for these enterprise development. This includes Milling plants, Vegetable processing and Abattoirs.
- The Department has acquired a suitable business property to house Zeerust Fresh Produce as part of VTSD Industrialisation through Agro-Processing, with an expenditure of R6 million to date.
- The Department will consolidate the venture into a commercial production and retail in partnership with North West Development Corporation (NWDC) for a total cost of R2 million.

### Landcare:

- The Department completed five Landcare projects in Ratlou, Tswaing, Ramotshere Moiloa and Moretele Local Municipalities. A total of R7.1 million was spent for bush control on 4 814 hectares of ranch land.
- READ will implement 06 Landcare projects and three Awareness Campaigns, all to the tune of R8.03 million. These projects are located in Madibeng, Moretele, Kagisano-Molopo, Naledi, Ditsobotla, Mahikeng, Tswaing, Ratlou and Ramotshere Moiloa Local Municipalities.

## Comprehensive Rural Development Programme (CRDP) Sites

- In 2016/17, a total expenditure of R7 million was realised on the establishment of Bakeries at Mooifontein & Ventersdorp; Fencing at Mokgalwaneng, Bloemhof & Manyeleti; Poultry for Youth in Matloding and on high mast lights in Christiana
- All selected AgriPark sites will be developed using the CRDP mode of development for maximum impact. An amount of R5 million is earmarked for the programme.

## Land Reform

- The Provincial Land Commission has in the past financial year spent R234 million on land restoration as opposed to R43 million spent on financial compensation and R11 million on Land Development Grant. Claims 2017/18 financial year, will comprise of Middleton Estate in Atamelang, Tswaing Local Municipality (R25 million); Uitgevonden, Ditsobotla Local Municipality (R22 million), to benefit in total 201 households.

### Agricultural Training and capacity building:

- READ has commissioned a total amount of R17.8 million for training and capacity building in 2017/18.

### Aquaculture and Fisheries:

- READ has developed designs for the establishment of the Barberspan Aquarium as the First Phase of this massive Agro-Tourism Hub in Tswaing Local Municipality.
- R3 million was spent on initial Feasibility, Planning and Design Phases, with a further R8 million to complete this Phase.

### Veterinary Services:

- READ Veterinary Services has delivered 13 167 epidemiological visits to Farmers across the Province in order to promote effective disease control and surveillance, whilst 167 684 tests were conducted in line with ISO 17025 Standards for Disease Status Assurance. Trade of animal and animal products was also advanced through issuance of 1 568 export permits.

### Environmental Management Services:

- READ hosted the historic Mebala Ya Rona North West Biodiversity Conference as a vehicle to achieve Biodiversity Transformation towards the Rebranding, Repositioning and Renewal of the Wildlife Sector.
- Mebala Ya Rona Advisory Committee and a Roma Nna Legacy Fund were ignited to independently mobilise resources for Biodiversity Transformation. Mebala Ya Rona Cooperative will be registered regard to oversee the business aspect of the Transformation Agenda throughout the entire Wildlife Value-Chain.
- An amount of R33 million is currently allocated to continue with developing the Taung Skull World Heritage Site.

### North West Parks Board:

- The NWPB will implement an R8 million Grant project by the Department of Environmental Affairs (DEA) to purchase 18 Game drive vehicles (10-seater) which will enable the Pilanesberg CPAs to fully participate in the Game Viewing Business inside Pilanesberg Nature Reserve.
- Another grant of R30 million is allocated for infrastructure development at Bloemhof Dam Nature Reserve
- An amount of R9 million will be invested for rendering of anti-poaching equipments, Game Management Solutions, Parks Administration Support Systems as well as the construction of Mafikeng Game Reserve Security Wall to curb encroachment into the protected areas.

## Women and Youth

- The Department will roll-out program of Youth in Waste together with YES in the Office of the Premier to protect the environment and create jobs in the Sector.
- About R3,4 million has been set aside to implement Youth and Women Projects in the province during this financial year.

### Total Budget allocation:

The total Departmental Budget Vote 13 amounts to R1,370,636,000 (One Billion, Three Hundred and Seventy Million, Six Hundred and Thirty Six Thousand Rands) for 2017/18.

For a full speech visit [www.nwpg.gov.za/agriculture](http://www.nwpg.gov.za/agriculture)



WE BELONG



WE CARE



WE SERVE



# You just need to touch it and you can change it

*“People think that agriculture makes up only 4% of GDP but, according to me, if you do the math then it’s at least 10 times that. And if you take away agriculture, the economy will fall flat on its face. Since 2008 we invested close to R1.5bn into the sector and what amazes me is that people don’t realise what the agricultural and agro-processing sector can do for the economy.”*

**R**ussell du Preez is the Founder and Chief Investment Officer of the RussellStone Group. He holds an MSc in Agricultural Economics (University of Pretoria). The active role he has played in the agricultural sector over the past 30 years has generated a rich network of people and businesses, as well as priceless experience. The industries in which he specialises include grain and oilseed trading, imports/exports and fund management. He is a well-rounded entrepreneur with a passion for promoting the fundamental importance of title in an economy.

“Our point of view on investments – you just need to touch it and you can change it,” du Preez says.

As an investor, it is quite a complex decision to make on where to put your money in agriculture. Imagine you are sitting behind your desk with a pile of money and you are deciding where that money should go. You pull out a map of the world and think of the criteria that the country will need to meet:

- Climate conditions right for the investment
- Land title is achievable and fair
- Stable political system
- Legal environment to resolve disputes

- Safe environment for employees
- Government assistance

“An example of a country that checks all my boxes is Zambia. I would invest there any time because I think it is an absolutely wonderful example of how to develop the agri sector – for example, by having farm blocks where each area has a different title; help from infrastructure; and the willingness of government to look after its projects. Go and look at the past

*“Africa needs to give people their land that belongs to them and not to an institution that we cannot seem find or get hold of. We understand some people want to squander it but why put 75% of the people at risk because the other 25% does not know what to do,”* Russell du Preez.

## WILLOW CREEK

### AFRICA’S MOST AWARDED OLIVE OIL



Our valley in the Western Cape is blessed with a terroir perfectly suited for the cultivation of olives. Beneath Rabie Mountain the trees thrive in deep lime soil while a climate of extremes improves flavour profiles.

Everyone participating in the yearly cycle of tending the groves and extracting the oil takes pride in the end product: extra virgin olive oil which captures the goodness of the Nuy Valley.



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Russell du Preez, Founder and Chief Investment Officer of RussellStone Group

15 years of agricultural development in Zambia – it is a wonderful system and I hope it will stay.”

“A challenge I see is the land claim situation whereby people have a piece of land but they can’t do anything with it. If the land was taken from a person, you need to give it back to that person instead of giving it to someone else to manage on your behalf because you don’t want to be a farmer – and so you sell the land to become a doctor. Africa needs to give people their land that belongs to them and not to an institution that we cannot seem find or get hold of. We understand some people want to squander it but why put 75% of the people at risk because the other 25% does not know what to do. You are hurting the masses by trying to protect the 25%,” du Preez says.

“The African continent has so much potential. The average age here is 18 years old whereas in America it is 44 – imagine if we can get our youth to start getting skills. The market is definitely in Africa and so is the potential consumer market.”

Every person, or group of people is united by a common purpose and driven by passion. At the RussellStone Group, that passion is building world-class companies.

“We do this by investing in and managing assets through the agri-business value chain, from seed to shelf. Their success enhances our legacy as a formidable investment group. RussellStone Group is a privately owned investment house that deals in hard and soft commodities. Our group has grown rapidly over the past 13 years and future prospects look good as we continue to invest and diversify in all areas of the agricultural value chain,” du Preez says.

We have grown our focus into the agro processing industry where for example, we crush soya beans, sunflower, cotton, olives. This way we create a linkage between the farm and the consumer. The next step is to refine oil such as soya, sunflower and palms. We also focus on virgin olive oil – our big brand is

Willow Creek in Worcester. On the branded side we are looking at a few acquisitions to develop our distribution. We also have a by-product of agro processing which is oilcake protein that goes to the animal feed industry. We have some shares in a pork operation in up in Polokwane and would like to go into the whole value chain of processed meat with a goal to end up as a retailer. Then we will have the whole chain – from the primary goods right through to the retailer.”

***“I am very passionate about economics and I want to create jobs because that is when you really change people’s lives.”***

“We feel we need to be unique – we don’t have to be the biggest or the best but we just need to make sure that we can offer the entire agro processing chain as a food group,” adds du Preez.

“Our ‘why’ has changed over a period of time, however when you start out as a business you do have a goal just to be financially secure. But over time, your goal starts to become clearer through your company’s journey.”

“I am very passionate about economics and I want to create jobs because that is when you really change people’s lives. By giving handouts you’re not really creating longevity or giving purpose to someone’s life. Our company started with 20 people and now we have 1,000. We want to create a business that lasts 100 years.” ■

**Kristy Jooste**

# EU attracting FDI into southern Africa

*The EU Chamber of Commerce and Industry in southern Africa is a private sector initiative set to manage the diplomatic relationships between various governments.*

**S**tefan Sakoschek, Regional Director of EU Chamber of Commerce and Industry in South Africa, explains that Europe and South Africa represent close to 80% of foreign direct investment; and represents 500,000 jobs which translates to 35% of South Africa's GDP.

"For the last 20 years, Europe as a business has invested heavily in South Africa and by extension into southern Africa. We needed a vehicle to house everybody under one roof and to communicate a bit more efficiently with the government and the various departments that we talk to. So instead of having 12 bilateral Chambers – each with a different set of issues and a matrix of different problems because of different technologies selling propositions – we decided to collate all of that and get everybody under one roof to represent the EU Chamber of Commerce and Industry."

What the Chamber does today is brings information from the entrepreneurs on the ground together and act as a communication platform with the government - and vice versa.

"We address lots of issues which in turn affects the way we look at FDI. We also defend and protect the interests of investment - and these are numerous, going from land reform policy and the BBBEE scorecard, immigration, Sugar Tax, Liquor Tax, Carbon Tax and whatever affects the way we handle business. We collate all that, bring our member states together, formulate our message and bring it to the government."

"In terms of trade, Europe trades R560bn per annum of bilateral trade with South Africa. The Chinese trade half of that - R220bn. We really want to bring that to the forefront: we are your largest foreign direct investment and largest trading partner," says Sakoschek.



Stefan Sakoschek, Regional Director of EU Chamber of Commerce and Industry in South Africa

"By the mere fact that we are the EU Chamber, we are at the crossroads of a lot of infrastructure projects. We get called upon to talk about EU business and EU investment in various communities around the world."

Internationally, Sakoschek reports that South East Asia is looking for manufacturing FDI with Middle East and Mauritius both looking for FDI in the form of financial services. India is looking for FDI in the form of call centres; and Kenya and Nigeria are looking to attract FDI.

But what makes a destination attractive? Sakoschek gives an example, explaining that the CEO of a particular company is sitting at his desk looking for Return On Investment (ROI). "From an investment point of view, political stability and regulatory frameworks are essential before making an investment decision. If you look at the PMG (Parliamentary Monitoring Group) for South Africa, you will find that there are 30 bills at the moment which have been discussed and sitting on the president's desk waiting for a signature."

Sakoschek quotes President Geingob of Namibia, "The president said what makes for good attractiveness in a destination for business investment is transparency and accountability – which creates trust – labour, skills and natural resources. These are not in order of priority. President Geingob also said you can do whatever you want to make a country attractive as an investment destination, but ultimately people only come because there are resources."

"In addition to all our bilateral development banks and donors, we have an entity called the European Investment Bank. The Bank is busy earmarking another EUR52m for SMME developments in 2017 for South Africa and this is just one example. The European Union has spent around EUR88bn in Sub-Saharan Africa with skills and SMME development in 2015."

"For said skills and SMME development, the Chamber wants to make sure that the EU funding gets channelled to the right distribution network. We want to make sure that the money goes where it's supposed to go. We have funding mechanisms that we want to make sure are distributed to the right places and in return we have a market access chapter that we call the Economic Partnership Agreement (EPA.) The EPA was ratified in October 2015 and it opens the doors to Europe for agri products – from 110 million litres of wine which will be able to access Europe, duty free – to fruits, ethanol; dairy and many other products."

"As the EU Chamber we focus on lot – of course – on southern Africa, but I want to mention that FDI is the name of the game globally." ■

**Kristy Jooste**

# Government allocations for African agriculture

*Agriculture is the major contributor to the GDP of most African countries, especially in Sub-Saharan Africa. Africa is not unique in its dependence on agriculture given the level most countries are in their economic growth.*



Elias Chandi – Agricultural Economist

**M**ost economies of the non-oil and non-mineral based economies are almost entirely dependent on agriculture as the primary source of income for most of the work force. Smallholder farmers are the primary food suppliers to most of the countries' population. More than two thirds of African citizens depend on agriculture for their income

with 33% of Africa's GDP coming from agriculture. Numerous studies have shown that growth in the agriculture sector is 11 times more effective at poverty reduction in Sub-Saharan Africa in comparison with other sectors.

However, there is a growing concern that in most countries in Africa, investment in agriculture remains relatively low, especially in comparison with the budgetary allocations in other sectors. In 2003, African leaders signed the Maputo declaration that promised to allocate at least 10% of the national budget to agriculture, adopt effective agricultural development policies and achieve at least 6% in agricultural growth. Once the correct policies are developed and there is a targeted budgetary allocation to agricultural development, growth is inevitable. A 6% rise in agricultural growth results in an average of 4% rise in the overall GDP.

The Maputo declaration's targets appear to be relatively conservative figures as most of the world's arable land is in Africa and most of the continent's work force is in agriculture. It would therefore seem that investing in this sector would be a welcome and worthwhile venture. Surprisingly, less than 20% of African countries have met the Maputo targets and budgetary allocations to agriculture is still less than 10%. A few countries however have shown some traction and have reaped huge rewards.

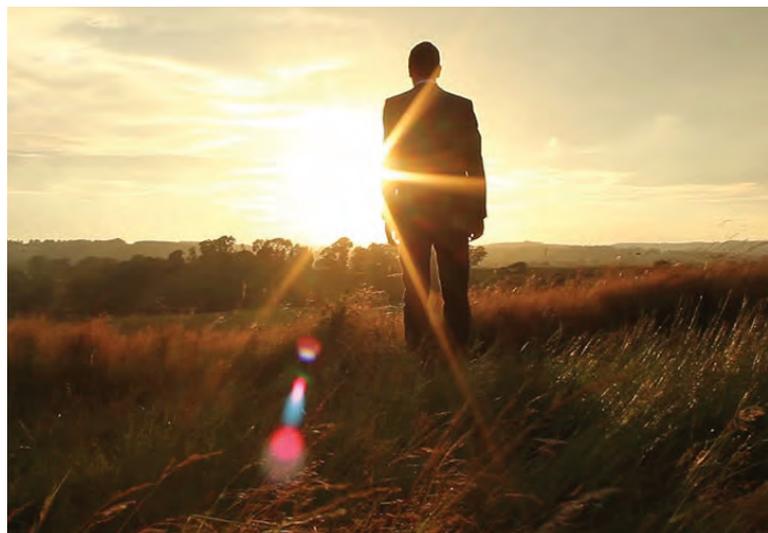
According to one.org, Ghana, Ethiopia and Burkina Faso, for example, each allocated an average of 9.1%, 15.2% and 16.9% of public spending to agriculture between 2003 and 2010 respectively. In this period, Ghana witnessed a 17-fold growth in its agricultural output pa capita and a drastic reduction in extreme poverty by over 40%. Ethiopia reduced extreme

poverty by 49% and quadrupled the length of rural roads in the country. Burkina Faso doubled the number of households growing cotton and cotton related activities created more than 200,000 jobs impacting close to 2 million people. AGRA has noted that early adopters of the Maputo declaration have posted stronger GDP, higher agricultural productivity and a sharp decline in malnutrition.

These countries are clear examples that one of the ways to stimulate the economy and have a wide-reaching impact is investing in agriculture. Agriculture acts as a stimulant to other sectors as both the supplier of raw materials and the consumer of finished product. It also forms the basis for government to invest in other sectors like health, education and infrastructure. In the early stages of economic development, which would be an accurate description of Sub-Saharan Africa, agriculture will remain the single most important pillar of the economy to deliver the country to industrialization. The question then becomes: why is government so reluctant in making this investment when there are clear benefits?

There is no easy answer to this question since it appears that most countries share one vision - a better life for their people. Governments must now work harder than ever to prioritize investment in agriculture especially at the macro level to stimulate investments in other areas as well as attract private sector investments. ■

**Elias Chandi – Agricultural Economist based in Nairobi, Kenya. Chandi writes about investment and economic growth in Africa; and works in the development sector with a focus on smallholder agriculture**



# South Africa's competitiveness

*The Global Competitiveness Report 2015-16 ranks South Africa 13<sup>th</sup> out of 140 countries regarding the effectiveness of its competitiveness policy; financial systems score South Africa 12<sup>th</sup>; and the World Bank recently rated South Africa as having the most effective competition authority in Africa. However, South Africa currently ranked only 56<sup>th</sup> in the overall Global Competitiveness Index, not converting this high quality competitiveness policy and financial systems frameworks into strategic action and performance.*



Johann Boonzaaier – Agricultural Economist, Bureau for Food and Agricultural Policy (BFAP)

A clear challenge for the South African economy is defined by these comparative rankings: The policy/strategic framework is functioning superior to the other determinants of competitiveness performance – production factors; market development; support systems; infrastructure, training, firm level strategies, related government policies and regulations, to refer to some. Can agriculture support a higher ranking in the Index?

According to many indicators South African agriculture remains an important platform for economic growth and social development and clearly does have a contribution to make in this arena. According to the National Development Plan (NDP), a competitive agricultural sector can contribute substantially to important matters such as job creation along the full agri-food value chain, to export earnings, expanded rural livelihoods and household food security.

As the Republic of South Africa today functions as an integral part of the global market-orientated economy, competitiveness must be viewed as an important feature of economic growth; it was indeed identified as one of the cornerstones of South African agricultural policy – in the Agricultural Sector Plan (2001) and more recently, in the National Development Plan (National Planning Commission, 2011).

## Competitiveness methodology

The analysis is conducted through an enquiry system using both qualitative and quantitative methods through a step-wise analytical framework:

- Step 1: Defining competitiveness as applicable to a traded commodity in a highly contested global market.
- Step 2: Measuring the competitive status and performance of the South African agricultural industries over a long term time period – 1961 to 2016 pertaining to the availability of trade data.
- Step 3: Identify factors affecting – constraining and enhancing – the competitive performance of South African agricultural industries, in collaboration with industry players/stakeholders.
- Step 4: Establish the major determinants of agricultural industries' competitiveness.
- Step 5: Propose strategies to enhance the competitiveness of South African agricultural industries.

For the purpose of this write-up only steps 1 and 2 will be addressed.

## Defining competitiveness (Step 1 of the analytical framework)

Competitiveness can be defined on various levels and from various points of view. Nevertheless, it was of the utmost importance that an appropriate and unequivocal definition of competitiveness be adopted within an agricultural trade framework to apply a valid measure to be utilised as a proxy for the evaluation of competitiveness.

Competitiveness within this context is defined as “The sustained ability of the South African agricultural industries to attract investment over time by trading its produce in the global marketplace, whilst continuously striving to earn returns greater than the opportunity cost of scarce resources engaged.” This definition gives effect to competing in a highly contested the global trade environment, focusing on the business exploitation of “competitiveness advantages,” rather than the more economic theoretical and long term concept of “comparative advantage.” (Porter, 1998; Esterhuizen, 2006; Boonzaaier, 2015).

From the above definition with actual trade values as a central component of competitive performance, the need to measure trade and trends over time empirically is apparent. Competitiveness as defined above emphasises the “ability to trade; and to sustain/enhance such performance” in competition with other activities bidding for scarce resources.

### Measuring competitiveness (Step 2 of the analytical framework)

The concepts of competitive advantage as the basis for the measurement of competitiveness were advanced by Balassa (1965; 1977) in terms of the revealed comparative advantage (RCA), reflecting the “ability to trade” despite various nation based government interventions and other market distortions often contravening comparative advantage positions.

Vollrath (1991) offered an extended specification of RCA, avoiding potential “double counting” viz the relative trade advantage (RTA), which takes both imports and exports into account as a more comprehensive indicator of revealed comparative advantage, is calculated as the difference between relative export advantage (RXA), which is equal to the Balassa index, and its counterpart, the relative import advantage (RMA). RTA is formulated accordingly:

$${}^1RTA_{ij} = RXA_{ij} - RMA_{ij}$$

for the i-th nation and j-th commodity, where a positive value of RTA reflects a status of competitive advantage.

$$RCA_{ij} = RXA_{ij} = \left[ \frac{X_{ij}}{X_{ik}} \right] / \left[ \frac{X_{nj}}{X_{nk}} \right]$$

where X are exports, k denotes all commodities other than j, and n denotes all other countries than i.

$$RMA_{ij} = \left[ \frac{M_{ij}}{M_{ik}} \right] / \left[ \frac{M_{nj}}{M_{nk}} \right]$$

In this case, a RMA index of less than 1 indicates revealed comparative advantage and thus higher competitiveness.

A higher RTA rating indicates a more competitive performance level. RTA calculations have the ability to compare the actual trade values of export industries with each other within the same country; more importantly to compare the same export industries of different countries across the board; and also to include all relevant industries that would potentially attract the particular and relevant scarce resources. RTA measurement thus allow for “opportunity cost” to be factored into the reason that the RTA measurement applies the concept of comprehensiveness and relativity to all relevant factors.

As a practical example, in Figure 1 below, the competitive performance of the agro-processing industry is compared with that of primary agriculture. From this measurement it is clear that the agro-processing industry is not operating at a competitive level, hence not supporting agri-food industry adding-value at a domestic level; and that primary agriculture find it difficult to link to local value adding against imports. Primary agricultural produce is also exported for value adding to occur elsewhere in the international market. Such a finding must be alarming in view of the high priority to create local employment in the South African economy. [Figure source: ACAP Model based on ITC data (2016)]

The performance levels of individual citrus value chains (Includes fresh primary and processed product lines) are

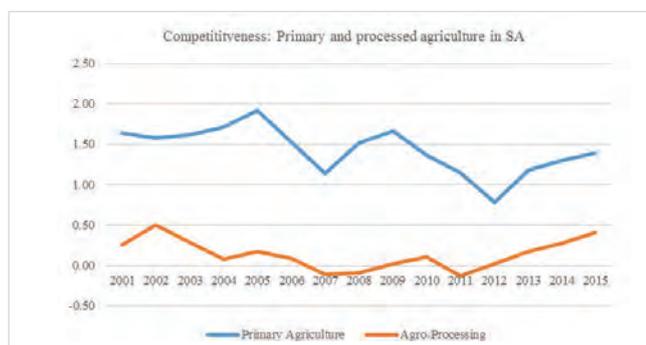


Figure 1

depicted in Figure 2. It is clear that within this framework of competitiveness analyses the Grapefruit value chain outperforms it’s two citrus counterparts, oranges and lemons and limes. ■

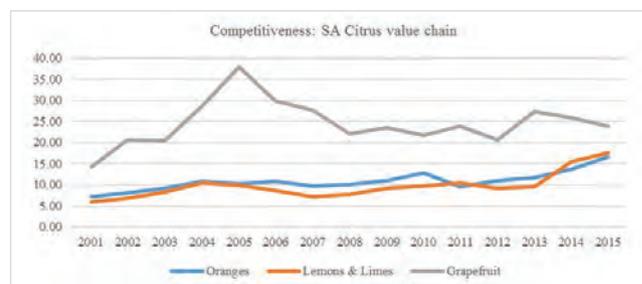
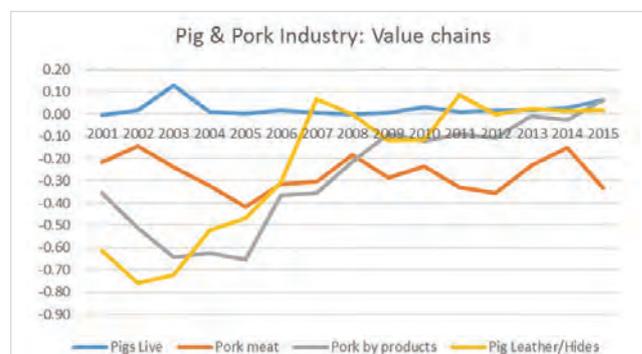
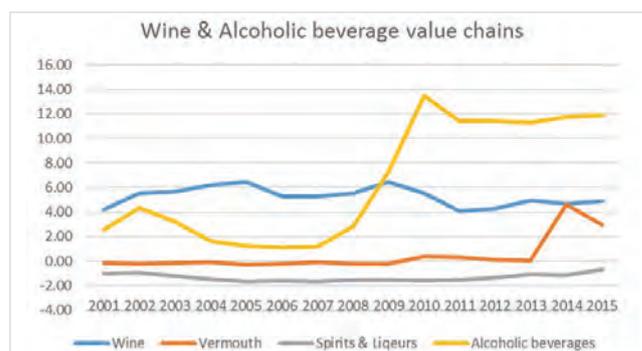
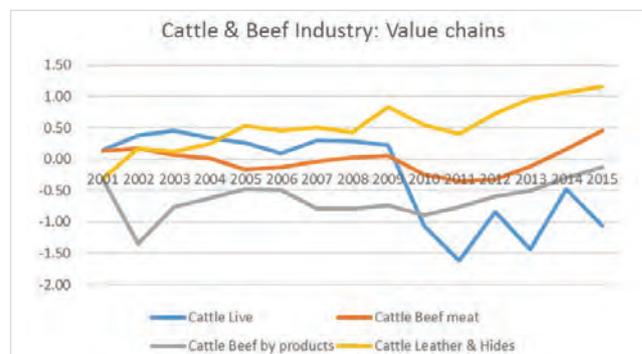
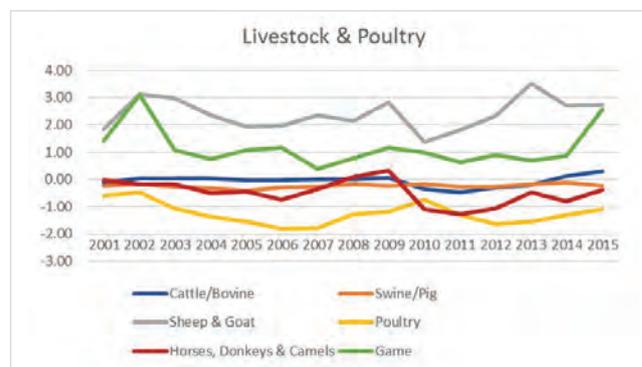


Figure 2

### More competitive performance levels:





# Improving Food Security in Africa

*Despite Africa's marginal improvement in the agriculture sector, the continent is still faced with the daunting challenge of food insecurity. One in four malnourished people worldwide live in Africa; 34 countries globally account for 90% of the global burden of malnutrition – of this, 22 are in Africa. Africa has the potential to feed itself as it has more than half of the world's uncultivated land and impressive unused water resources.*

According to New Partnership for Africa's Development (NEPAD), adequately feeding Africa's population is a challenge that Africa intends to meet as one of the major objectives for the coming decades. Many African governments have put the agriculture sector back at the top of the agenda by increasing their national budget (albeit minimal). This act among others has enlarged livelihood opportunities for people to now engage in agriculture and agribusiness activities thereby assist in addressing the food insecurity challenge.

Agriculture and agribusiness together account for nearly half of Africa's overall GDP; approximately 48% of the total population (around 70% in East Africa) relies on agriculture. World Bank estimates that the industry (both agriculture and

agribusiness) are projected to grow to USD1tn in sub-Saharan Africa by 2030 from USD313bn in 2010.

Alarming, the continent's population and urbanisation growth is not in tandem with agricultural development and food supply. Africa's population growth rate is expected to double from 1.2 billion to 2.4 billion in 2050. For this, there will be a significant increase in food demand but not enough supply to meet the needs. To address this current and future needs, both private and public sector are working towards directly and or indirectly investing (funding, training, technology etc.) in farmers (small, medium and large) to assist in food production and security - an area the Africa Agriculture Trade and Investment Fund ('AATIF') is passionate and actively involved in.

The Africa Agriculture and Trade Investment Fund (AATIF) is an innovative public-private partnership launched in 2011 and dedicated to uplift Africa’s agricultural potential for the benefit of the poor. The Fund aims at improving food security and providing additional employment and income to farmers, entrepreneurs and labourers alike by investing patiently and responsibly in efficient local value chains.

The Fund, capitalised by public investors uses a first-loss layer provided by Germany’s Federal Ministry for Economic Cooperation and Development (BMZ) and a mezzanine layer provided by KfW, Deutsche Bank and the Austrian Development Bank (OeEB) to encourage private sector investment in a senior layer with appropriate risk and return levels for private debt in Africa. The Fund’s capital structure follows a waterfall principle, whereby initial losses are carried by the first loss and mezzanine layers therewith providing private sector investors with a substantial buffer and comfort to invest in the African agriculture sector. Each capital tranche has a fixed target return and allows for additional dividends, subject to the profitability of the Fund. In the future, the Fund will also issue notes to private investors.

Deutsche Asset Management, an established asset manager with a strong track record, currently acts as investment advisor to the Fund. Generally AATIF is able to invest along the entire agricultural value chain from inputs, farming, processing up to the retail and export sector. It targets small, medium and large agricultural businesses along the entire agricultural value chain which will be financed directly or indirectly. Direct Investments comprise among others cooperatives, commercial farms, processing companies, agricultural service providers while Indirect Investments relate to investments into local financial institutions who then on lend to the agricultural sector in smaller tranches or other intermediaries (such as large agribusinesses) which create a link between smallholder farmers and regional or international markets. As of February 2017, AATIF has ten underlying investments (four financial institutions,

two intermediary investment companies and four direct investment countries) with USD150.1m disbursed.

Parallel to the Fund, an associated Technical Assistance (TA) Facility provides grant-based support to projects to help ensure AATIF investments reach their developmental potential. This Facility is capitalized with EUR6m from BMZ and AATIF itself. Nearly every investment made by AATIF includes a TA component. To date, the Facility has provided grant funding to support research, employee training, feasibility studies and the implementation of Environmental and Social Management Systems (SEMS), among other capacity building efforts.

***“Agriculture and agribusiness together account for nearly half of Africa’s overall GDP.”***

AATIF ensures compliance with environmental and social guidelines that are part of every financing agreement, and monitored on an ongoing basis. In fact, the International Labor Organization (ILO) and UNEP act as compliance advisor to the Fund assessing social and environmental risks and impacts during due diligence (including an onsite visit) and later monitoring of the investments according the Fund’s Social and Environmental Safeguard Guidelines.

**Case studies of the Fund’s impact**

AATIF aims to complement current market players by providing long-term financing on market-based terms in areas currently experiencing inadequate funding services. The Fund prioritizes socially and environmentally sustainable investments with the ability to improve food security, create employment, and boost local incomes. Two examples of AATIF’s impactful investees are Wienco Ltd (‘WGL’) in Ghana and Guaranty Trust Bank (‘GTBank’) in Nigeria.

**Fund synopsis and investment criteria**

Investment manager	Deutsche Asset Management
Date founded	2011
Assets under management	USD159.5m
Investors	KfW, BMZ, Deutsche Bank, CFC, OeEB and private sector investors
Fund mandate	To provide patient debt financing to agribusinesses (small, medium and large) along the agriculture value chain in Africa.
Financial instrument	Senior debt, Guarantees, Mezzanine, Risk Sharing
Investment Size	USD5m – 15m for direct investments
	USD5m – 30m for intermediaries
	USD10m – 30m for financial institutions
Tenor	Up to 12 years
Interest rate	Market based

**Wienco Ltd**

In October 2013, AATIF disbursed a senior debt loan to Wienco (Ghana) Ltd. a Ghanaian agribusiness intermediary company. Wienco provides fertilizer and agro-chemicals as well as training in input application methods and business skills to smallholder farmers via three smallholder associations. These include the Cocoa Abrabopa scheme, the Masara N’Arziki maize smallholders association and Wienco’s own smallholder cotton growing scheme. AATIF’s financial commitment allows Wienco to significantly expand the scope of its smallholder operations.

**Guaranty Trust Bank plc**

As part of a 7 year syndicated loan facility, AATIF granted a loan to GT Bank Nigeria to be used to finance Nigerian borrowers active in the agricultural value chain. GT Bank is Nigeria’s fourth largest financial institution by total assets with a market share of around 8–10 %. It is also one of the most advanced lenders from a technology standpoint. GTBank started its activities in 1990 and currently has over 3,000 employees across Nigeria. Following the spirit of the revised public policy that prioritises sustainable food production, the bank created a strategy to serve this sector in areas such as food processing, logistics and distribution or packaging. ■

# Influence of management practices on selected cowpea growth

Cowpea is a multi-purpose nitrogen fixing crop that can be grown as a vegetable, grain legume and a fodder. The objectives of this study were to investigate the growth response of cowpea to different cropping systems at different locations and determine nitrogen fertilization on cowpea growth and soil organic carbon content.

Three cropping systems were used, namely, maize-cowpea rotation, cowpea monocropping and maize-cowpea intercropping at three locations (Potchefstroom, Taung, and Rustenburg) in South Africa during 2011/12 and 2012/13 planting seasons. Nitrogen fertilizer was applied at two rates where no application was the control at all locations and application according to soil analysis recommendation for maize requirement was applied at each location.



The variables measured for cowpea growth were days to 100% flowering and physiological maturity, number of leaves and nodules per cowpea plant. Soil organic carbon was determined for each treatment. The results showed that, maize-cowpea rotation and monocropping reached days to 100% flowering and maturity significantly earlier compared to intercropping.

Cowpea planted at Potchefstroom and Rustenburg reached days to 100% flowering and physiological maturity significantly earlier than cowpea planted at Taung.

Cowpea planted at Taung had significantly higher number of nodules per plant than cowpea planted at Potchefstroom and Rustenburg. There was also a positive correlation between soil organic carbon and cowpea growth. It is concluded that the positive effect of cowpea in agronomic systems is enhanced by the correct cropping system, although it is affected by location.

Cowpea is grown traditionally by small scale farmers as mixed or relay crop in association with cereals. Cowpea is a crop that play diverse role in contributing to the food security, income generation and soil amelioration for small-scale farming conditions (Amajoyegbe & Elemo, 2013).

Analysing growth help to monitor the independent and interactive effects of various factors affecting yield (Addo-Quaye et al., 2011). Ghanbari et al. (2009) reported that intercropped species might utilize the growth resources more efficiently than sole crops and resources may support a greater number of plants. It was further indicated that intercrops utilize plant growth resources such as light, water and nutrients more efficiently than the equivalent sole crops.

In other studies, Cowpea growth parameters such as plant height and days to flowering were not significantly affected by intercropping (Alhaji, 2008). Cowpea is highly sensitive to high moisture condition because it enhances high vegetative growth with negative effect on final yield (Oyelade & Anwanane, 2013).

Cowpeas that are planted in intercropping flowered later than those in sole crops (Moriri et al., 2010). Sole cowpea reaches physiological maturity earlier than those planted in intercropping. They indicated that shading effect causes by taller maize plants delays flowering and maturity of cowpeas.

The competitive relationships between the non-legume and the legume affect the growth of the leguminous crops in close proximity (Tosti et al., 2010). Fertilizer application results in significant improvement of plant height, number of leaves per plant and reduces days to flowering (Abayomi et al., 2008). Legumes require nitrogen at early vegetative stage and phosphorus fertilizers to enhance the processes of nodulation in legumes (Abayomi et al., 2008). The high amount of nitrogen application has been reported to reduce nodulation

in legumes but as little as 20-25 kg N/ha has been reported to enhance early vegetative growth and increases nodulation without compromising the process of nitrogen fixation in legumes (Amba et al., 2013).

According to Liu et al. (2006) a productive soil should have an organic matter content of at least 4% (2.32% soil organic carbon). The correlation between soil organic carbon and cowpea growth has not been investigated extensively. In this study, the interaction effects of location, cropping system, and nitrogen fertilizer on cowpea growth and soil organic carbon were evaluated. The objective of this study therefore was to determine the effect of location, cropping system and nitrogen fertilization on cowpea physiological growth and soil organic carbon.

### Experimental sites

The study was conducted at three dryland locations in South Africa, namely Taung and Rustenburg.

### Agronomic practices

Cowpea and maize seeds were sown at the same time during planting in all cropping systems. Two seeds of cowpea were sown per hole and thinning was performed after emergence to maintain one plant on the intra-row spacing. Cowpea seeds were sown at inter-row and intra-row spacing of 0.9 and 0.3 meters respectively under monocropping and rotational systems.

In intercropping plots of cowpea, seeds were sown at inter-row and intra-row spacing of 0.45 and 0.3 meters respectively. The previous crop planted at Potchefstroom before the establishment of the experiment was drybean while at Taung was maize. At Rustenburg, the previous crop planted before the establishment of the trial was cotton. The herbicide that was used before and during the experiment was roundup.

### Data collection and analysis

Days to 100% flowering were recorded during 2011/12 and 2012/13 planting seasons. Three plants (one per middle row) were dug by their roots to determine nodule per plant during five weeks after planting, before flowering. Inoculation was performed during the first planting season of 2010/11 and no inoculants were applied to cowpea seeds during the second and third season of 2011/12 and 2012/13 planting season.

Number of leaves per plant was recorded from three plant harvested in the middle rows prior to flowering period. Days to physiological maturity were recorded when the cowpea pods were matured and brown in colour.

The cowpea plant height was recorded prior to 100% flowering. The data was not considered since there were no significant interactions between treatment factors. Soil samples were collected at the depth of 0-30 cm at each plot of cowpea for organic carbon analysis.

Soil samples were air-dried and grinded using mortar and pestle (porcelain). Samples were weight at the quantity of 0.5 g into the glass beakers with capacity of 250 cm<sup>3</sup>. The laboratory procedure used to determine organic carbon was Walkley Black method (Walkley, 1935).

Analysis of variance was performed using GenStat 15th edition (2012). Least significant difference (LSD) was used to separate means. A probability level of less than 0.05 was considered as significant statistically (K. A. Gomez & A. Gomez, 1984). The first and second order interactions

were considered on days to 100% flowering. Only second order interactions were considered on days to physiological maturity. The first and second order interactions were also considered on number of leaves, nodules per plant and soil organic matter.

## Results

### Days to 100% flowering

Rotational cowpea without nitrogen fertilizer flowered significantly early at 71.4 DAP than other cropping system.

Cowpea monoculture and rotational cowpea planted at Potchefstroom significantly flowered earlier at 68.8 and 66.3 DAP respectively than other cropping system. Cowpea monoculture and rotational cowpea planted at Rustenburg significantly flowered earlier at 64.8 and 64.3 DAP respectively than other cropping system.

Cowpea supplemented with nitrogen fertilizer at Potchefstroom, Rustenburg and Taung had significantly flowered early at 67.3, 62.2 and 71.7 DAP respectively as compared to cowpea without nitrogen fertilizer.

Cowpea supplemented with nitrogen fertilizer during 2011/12 and 2012/13 planting seasons flowered significantly earlier at 66.9 and 67.2 DAP respectively than cowpea without nitrogen fertilizer.

Cowpea planted at Rustenburg during 2011/12 planting season flowered significantly earlier at 63.7 DAP as compared to other locations.

Cowpea planted at Potchefstroom and Rustenburg during 2012/13 planting season flowered significantly early at 62.7 and 66.5 DAP respectively than other location.

## Conclusions

It has been shown that cowpea growth and soil organic carbon were higher under monocropping and rotational systems. The application of nitrogen fertilizer played a significant role on improvement of cowpea growth. Cowpea nodulation tends to be higher under location with higher percentage of sandy soil. Intercropping system suppresses the growth of cowpea and also results with reduced soil organic carbon. In this study, it was found that, the application of nitrogen fertilizer has no influence on soil organic carbon. Organic carbon tends to increase on site with higher soil clay percentage.

Interaction of location × season plays a vital role on improvement of cowpea growth and soil organic carbon. There is positive correlation between soil organic carbon and cowpea days to flowering, physiological maturity, and number of nodules per plant.

“We were expecting the same cowpea cultivar used in all locations to respond in the same way in term of growth without differing significantly. It was not the case in this study. The same cultivar performed significantly different in terms of growth across the locations,” says Dr. Sebetha.

“The related research will be performed in future using different legume at different environmental conditions with various sources of fertilizers (organic fertilizer instead of inorganic fertilizers).” ■

**E. T. Sebetha, Crop Science Department, School of Agriculture, Science and Technology, North-West University, Mafikeng, Campus, Mmabatho, South Africa; and A. T. Modi, Crop Science, School of Agriculture, Earth and Environmental Sciences, University of KwaZulu-Natal, Scottsville, South Africa**

# Empowering women in rural areas with food and water security

**E**mpowerment of Women Through Water Use Security, Land Use Security and Knowledge Generation for Improved Household Food Security and Sustainable Rural Livelihoods in Selected Areas in Limpopo' was a four-and-half-year project based on three selected district municipalities in South Africa. The foundation of the project was based on the fact that although the South African Constitution enshrines gender equality, women in rural areas experience limited water use security and limited knowledge to achieve food security. Empowerment of women through secure access to water and land, as well as by obtaining knowledge and developing skills must receive priority attention. Better understanding of what impact land reform and rural development policies have on women is of specific importance. Furthermore, this research will improve the understanding of co-operative governance and inter-governmental relations at national, provincial and local level, regarding interaction with affected people in rural areas and

the related household food security. In particular the socially embedded practices in traditional areas which are affecting the security of women with reference to household food production and improving livelihoods require attention.

The three irrigation schemes and their Districts were Steelpoortdrift (Sekhukhune District); Mashushu (Capricorn District) and Rambuda (Vhembe District). The main objectives of the project were to get a comprehensive understanding of constraints, challenges, opportunities and interventions required for empowerment of women to promote household food security and rural livelihoods through increased water productivity and land access as they relate to crop cultivation. A mixed methods research approach was used for this project in order to attain a comprehensive understanding of the key objectives. Quantitative data was collected to determine biographical and broader statistical patterns related to the key objectives of the study. A participatory and reflective process was used to collect qualitative data. The qualitative approach



engaged farmers and their communities in dialogue with each other and with the researchers in order to understand constraints and challenges they face in access to water and land use security, and opportunities that could help them in this regard. Questionnaires, key-informant (individual and focus-group) interviews, observations, and interactive workshops were used as the methods of data collection for the study. This approach to data collection and analysis helped illuminate processes that might enhance agency and empowerment of the farmers and the communities for improved water and land use security.

### Key findings

Naturalised volumetric water supply measurement showed that adequate water was available at two of the irrigation schemes (Steelpoort and Rambuda). The water supply in the third site (Mashushu) was found to be limited. The potential evaporation and monthly rainfall data for the study areas further indicate the need for irrigation. In all the three sites, seasonality, quality of the irrigation infrastructure and scheme water management schemes affected availability of the water. Findings also revealed strong competition for water between agriculture and the burgeoning mining industry in Limpopo especially in the vicinity of Steelpoort where there is proliferation of mines. It was also found that the bulk of this water was being consumed by the surrounding mining industry, limiting supply to local farmers for crop cultivation, particularly should the farmers wish to expand and adversely affecting their productivity and food security.

The study identified a number of gaps in knowledge and skills of the farmers. These included farmers' knowledge of water and land policies as well as agronomic and marketing knowledge and skills. The institutional processes relating to land-use and water-use security were poorly understood. It further emerged that poor English proficiency hindered the farmers' access to knowledge for improvement of skills. Further access to information, particularly market related information was very poor. However, the farmers displayed farming knowledge derived from the long farming tradition in these communities. This was found to be loosely structured and based on oral ways of passing on knowledge amongst farmers. Even when farmers attended training or were trained on-site, there were poor mechanisms of sharing and adoption. This study found that the overall approach to farmers development may not be structured to enhance agency and empower farmers. Discrepancies were found to exist between cultural practices and statutory laws in regard to accessing land and water use in the study areas. It was found that there were differences in the way statutory laws and customary laws were understood and practised. This led to gendered and geographically differentiated access to water and land.

The socio-cultural context was found to play a critical role in influencing women's access to land and water resources. It was found that institutions and organisations inform and determine codes of conduct that govern access to resources and livelihood improvement. Institutions such as marriage and traditional authorities often awarded land rights to the male householders and this limited some categories of women to access land. The connectivity which each community had with external institutions and organisations was also seen as an important element in improving livelihoods. Where there was stronger connectivity, as in the case of Rambuda, farmers displayed a higher level of agency in livelihood

decisions they made. Generally, it appeared that institutions and organisations can either be an obstacle or an enabler for agency enhancement. Transformed institutions and organisations which are oriented towards people-centred and participatory approaches are what the study found to be most instrumental in bringing about sustained change. It was concluded that there is need for change in approaches of farmer development and capability raising through i) enhancing development of women farmer agency, especially recognition of the distributed leadership, ii) improving market access of farmers, including market research to identify crops and get pricing information. Finally, a critical and possible central catalyst in empowering the women farmers was reorientation of farmers in agency-enhancing farmer development.

Limited land, undocumented land rights, limited skills set and lack of access to productive assets were identified as constraints that women farmers in this study experienced. The study found that women aspired to improve their resource base and had both short-term and long-term aspirations. Among these hopes and aspirations were a desire to own working equipment (such as tractors), improved irrigation facilities and improved access to inputs, and wishing to acquire more land, access markets and be in an improved financial position. It was found to be nonetheless unclear to the women how these aspirations could be achieved. As stated above, the transformative role of organisations and institutions in empowerment and agency building is vital for improving livelihoods and food security but unless these organisations and institutions are themselves transformed and adopt a people-centred approach, their role in building farmer agency will remain limited.

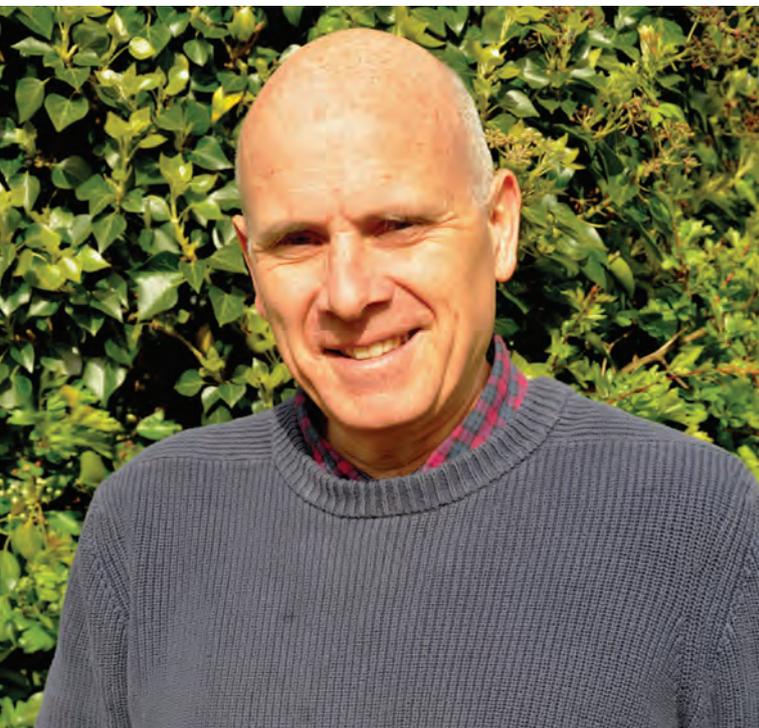
The analysis of women empowerment using the Women Empowerment in Agriculture Index (WEAI) shows that women in the study were poorly empowered in terms of time use, leadership and ownership of resources. An empowerment process for women in these areas could include a coherent strategy of partnering with organisations and institutions that have a role in improving livelihoods and people's welfare, particular in land user rights, water use security, leadership and time use. The sustainable livelihoods assets and people-centred research approaches adopted in this study indicate that human and social asset development should lead to sustained empowerment and agency enhancement driven by the women themselves. This could partially be realised by building on the creative responses that women are already adopting and by using structures and organisations that women are already part of and capacitating these structures giving them a voice at the policy-making table.

In conclusion, the study shows that the empowerment of rural farming women is complex and will take a multi-sectoral approach buttressed by committed integrated development planning and alongside integrated financial planning and spending. This has to be coupled with an approach to farmer development steeped in human and social asset building in order to prepare farmers for the use of natural, financial, physical and institutional assets to yield improved food security and livelihoods. ■

**Dr Joyce Thamaga-Chitja PhD (Food Security), M.Soc Sci (Community Resources), BSc. Agric (Horticultural Science). Co-authors (IK Mariga, H Shimelis, PJ Pholoho, NC Mthiyane, KD Naidoo, OD Aphane & VG Murugani)**

# CHEERS

## to the African wine industry



*Patrick Guyver, Managing Director of Agribusiness Advisory Company Prorustica and Co-Founder of AGRInsight*

Thinking about the African continent and the sector, questions that arise are: What are the opportunities for viticulture and wine producing on the continent? Are we seeing the same vibrancy and forward thinking? We all know of the tremendous development of the South African wine industry. Since the first estates in Constantia the sector has now grown to over 3,000 producers, employing over 3,000,000 people and is now the 7<sup>th</sup> largest wine producer in the world. Access to international markets has led to new investment in the country's wine market. North Africa has a tradition of viticulture and the production of wines that goes back further than South Africa. The Moroccan wine industry was established in Roman times and production started to improve as a result of foreign (primarily French) investment and know-how.

But what of other African countries. How are they developing? Wine consumption is expected to increase in African markets. Several factors stand out: favourable demographics, accelerating urbanization and a growing middle class. Consumer spending in Africa is expected to reach US\$1.4tn by 2020. According to an IWSR report commissioned by Vinexpo, total African wine consumption reached 72 million 9-litre cases in 2013, equivalent to 864 million bottles, an increase of 17% compared to 2009. By 2018, the study expects African wine consumption to grow by a further 11%, reaching 81.8 million 9-litre cases. In 10 years, African wine consumption will have increased by 33%,

compared to the world average annual growth rate of 6%. This growing demand means that investors are beginning to see the opportunity for modern viticulture and wine production in other African countries.

Ethiopia's diverse landscape, which includes high plateaux and fertile valleys as well as six climatic zones, are perfect for viticulture. Awash Wines is Ethiopia's longest established wine maker. Established in 1956, Awash has grown to be one of the country's most successful wineries. In 2013, a private equity fund focused on African development, and a local entrepreneur, became the new owners of Awash. Since then, significant investments have been made to upgrade facilities and further improve quality. Other recent developments in the country include the French beverage company Castel, one of the world's biggest producers of wine and beers, investing in Rift Valley wines. Of the 1.2 million bottles produced, over half are destined for export to countries with a large Ethiopian diaspora, although a large quantity has been snapped up by Chinese buyers.

Tanzania, despite not having an international reputation as a wine producer, is actually home to the second largest wine-producing region in Sub-Saharan Africa (after South Africa). The three leading companies are based in the major grape-growing region centred around the capital of Dodoma. Market leader Tanzania Distilleries, Dodoma Wines and Cetawico Tanganyika Vineyards, all produce variants of dry white, red and natural sweet wine. And production is growing. Between 1998 and 2015 Tanzania's grape wine exports increased from 176kg to over 150,000kg, mostly travelling to neighbouring east African countries.

Wines and spirits has been the fastest growing segment of Kenya's alcohol industry. In Kenya, wine is being produced in Naivasha, Yatta Plateau and along the Great Rift Valley Escarpments. The two big names in the trade now are Rift Valley Winery (Leleshwa Wines) and Kenya Wine Agencies Ltd (Yatta Wines). In March South African owner of Amarula and Viceroy brands bought a majority stake in Kenya Wine Agencies. Distell Africa acquired a further 26 % stake from the Kenyan Government, which owned Kwal. Most of Zimbabwe's better vinicultural areas are found in the relatively cool highlands. Estates like Bushman Rock are based on the Nyamasanga River about 100km south east of Harare and are following traditional Bordeaux type blending.

Investing in a new winery can start at a few US\$100,000 but can rise to several US\$ millions. However given the market opportunities and with many of the younger estates now working with experienced producers from established wine regions, these are exciting times for the industry across the continent. ■

**Patrick Guyver, Managing Director of Agribusiness Advisory Company Prorustica and Co-Founder of AGRInsight**

# INVEST

## in an established brand

*“South African wine has been flavour of the month in a lot of overseas markets. There has been a big growth in the export market of wine to Asia, Europe and America. I feel this is because we give value for money. Even our wines in the lower price category are some of the best in the world,” says Beyers Truter, founder and chairman of the Pinotage Association, South Africa.*

If one wants to invest in a vineyard or land to cultivate, Truter says one must consider things such as the soil and climate for starters.

“Various soil and climate factors allow for various wines to grow. Other factors to consider is if there is a market for the wine you want to grow; can you ensure you get return on investment; and lastly if you want to build a brand you must understand it will cost a lot of time and money. My recommendation is to rather invest in a brand that is already established.”

Truter explains the various sub-sectors ripe for investment in viticulture. “Investing in the South African wine tourism has great potential. The growth of wine tourism in South Africa has grown in a big way – there is a restaurant on almost every wine farm with sommeliers and wine tour guides. There is also a potential to invest in wine brands, however brands take at least 25 years to build. Wine lifestyle estates have an opportunity for investment where a vineyard becomes a one-stop-shop. This involves a wine farm that sets up their own winery on the farm, prune their own vineyards, make their own wine and hold wine tasting events.”

To make viticulture investment attractive, Truter says programmes for job creation and skills development need to be set in place with the private sector assisting in its success.

Truter was named International Winemaker of the Year at the International Wine and Spirit Competition for his 1989 Pinotage. That award led to significant international interest in the varietal and a reappraisal of the quality of the wines made from it. Quality producers realised the window of opportunity they had been given. They wanted to maximise this opportunity, both locally and internationally. The mission – South Africa must remain the leader in everything to do with the cultivation and vinification of Pinotage. Producers believed the best instrument to achieve this objective would be a body dedicated to the promotion and advancement of Pinotage. The message went out, and more than 100 people responded by gathering for the inaugural meeting of the Pinotage Association in Paarl on 23 November 1995.

The Pinotage Association has three pillars, the first being experimentation. “Both formal and informal wine makers, colleges, universities and other institutions conduct experimentations on Pinotage wine. We want our Pinotage to be the best in the world and as an association, we create more awareness to allow for a greater demand.”

The second pillar is dissemination of knowledge. “Wine makers and viticulturists need to share their success stories



*Beyers Truter – the founder and chairman of the Pinotage Association of South Africa*

with newcomers settling into the industry in order to learn and build off the success.”

Thirdly, marketing is needed to create awareness for this local home-grown variety. “We host various awards and events to showcase our brand, allowing local sales to grow significantly over the last five years.”

“At this stage we are focusing mainly on South Africa, but we would really like to branch out internationally. For example, Zimbabwe and Israel have been planting Pinotage and I personally planted some Pinotage in Humpata, Angola.”

Truter says the current challenges are exciting for the Association as there is such a big demand for Pinotage – the grapes as well as the wine.

“Our challenge is satisfying the demand for Pinotage. The market has grown in the last five years 73% locally with a big growth in international markets and I foresee it growing further into Africa, China and South Africa.” ■

**Kristy Jooste**



# We're talking about the other African wine world

*Europe, North America, and Australia may be at the top of the wine heap, but there is another world of wine – like on the African continent. Wine is not exactly at the top of the list in African alcohol consumption. Still, the continent shows possibility for wine consumption growth.*

Presently, agriculture is the most important economic driver in Africa, accounting for about two-thirds of the whole continent's workforce, contributing on average 30 to 60 percent of gross domestic product and about 30 percent of the continent's exports. That agriculture includes grapes, and most of the wine grapes grown, which are produced mainly in northern and South Africa, are in fact primarily for wine exporting to Europe, an old, old story that could be nearing its end.

Northern Africa's connection to wine is ancient; first, in Egypt and then in the Mediterranean coastal regions of the ancient Phoenicians who, after being kicked out of the Levant settled Carthage, approximately the location of modern-day Tunisia. One other historical fact has left its enological mark on the continent: wholesale European colonizing began in Africa in 1814, after the British grabbed South Africa from the Dutch. The French, Germans and Portuguese followed. By the 19<sup>th</sup> century, Africa was almost completely controlled by Europeans.

The rise of Islam in northern Africa threatened to put a damper on wine growing, yet largely due to colonial French influence, Algeria and Morocco, as well as Tunisia maintained vibrant wine growing cultures. Traditional grapes of North Africa include: Carignan, Cinsaut, Alicante, and Grenache.

The history in South Africa is different. Rather than an ancient connection, grapes were first planted in Cape Town around 1655, mainly to service colonizers and especially to combat scurvy.

According to the South African Wine Industry Information and Systems, South Africa's modern wine trade contributes almost 3 billion rand (roughly \$3 billion) to its economy; depending on which chart one believes, its wine industry ranks between seventh and ninth largest in the world. Yet, South Africans consume less of the country's wines than citizens of other wine producing countries on the continent.

Of Africa's 54 countries, the AFK Insider website, lists 17 Top alcohol consumption countries on the continent. Most African wine consumers are in Equatorial Guinea, where wine accounts for 72% of alcohol consumption, Ghana (30%), Zimbabwe (24%), Seychelles (22%) and Angola (14%). Upcoming but still with low wine consumption numbers are Kenya, Tanzania and Uganda.

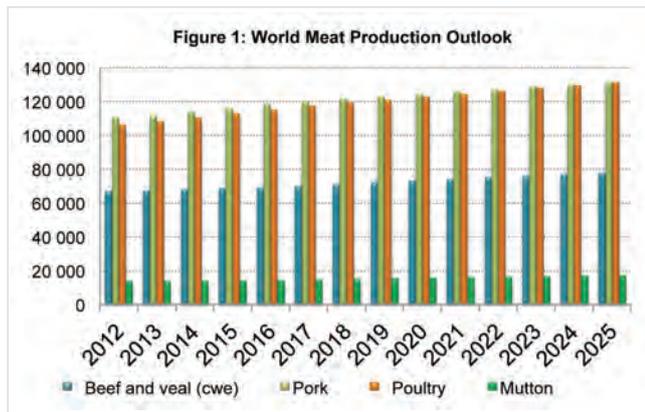
Uganda has only recently developed wine growing, in its western and southwestern regions, where plantings of the European *Vitis vinifera* species join both Native American vines as well as hybrid vines. Zimbabwe, Tanzania and Kenya produce wines from Semillon, Sauvignon Blanc, Muscat, Chenin Blanc, Shiraz (Syrah) and Cabernet Sauvignon.

When – or if – the rest of African wines join South African and northern African exports to the West remains a matter for speculation, but it has become obvious wine grapes can be another agricultural economic force on the vast, resourcefully rich and culturally diverse continent. ■

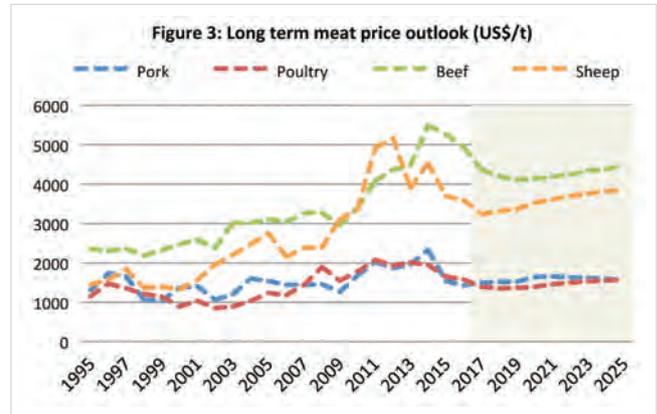
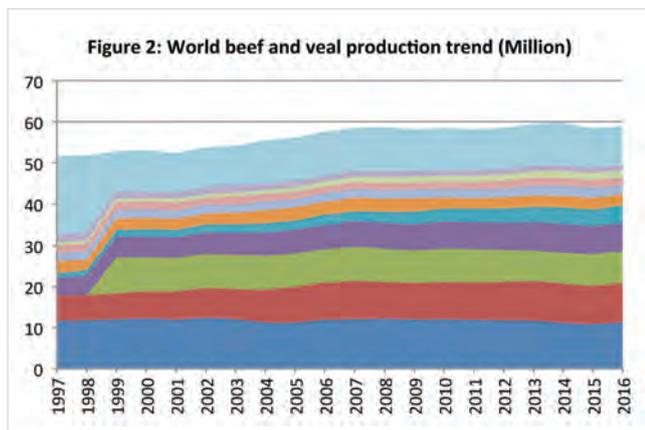
**Thomas Pellechia, independent wine writer**

# An appetising beef market

The improved economic developments, spurred on by global growth recovery and stabilizing macroeconomic fundamentals in some emerging markets has seen a renewal in demand for meat and coupled with favourable feed grain prices, production is expected to steadily advance over the medium to long term. Overall meat production is expected to increase by 16% from 2016 to 2025 (as shown in figure 1), although this is off the pace (20%) attained in the previous 20 years and in line with the FAO-OECD food outlook. Developing countries, largely in the African region are expected to lead most of the production increases, as they are regarded as sources of increased supply with potential to reduce costs and increase production over a long term period. Furthermore, yields in Africa are presently below global averages and lifting up to global averages would significantly expand production in Africa, presenting an opportunity for investors to partner with domestic market participants.



Poultry and Pork remain the largest consumed animal protein globally as they are competitively priced due to their shorter production cycles. Poultry consumption is expected to grow by an estimated 14% in 2025. Global beef output is expected to have marginal growth of 59 million tons as ample cattle supplies in other key regions is offset by herd rebuilding

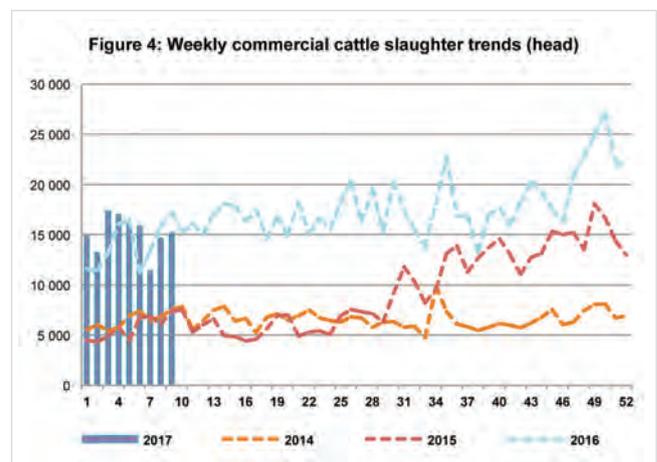


Source: Source: OECD-FAO; cwe – carcass weight equivalent

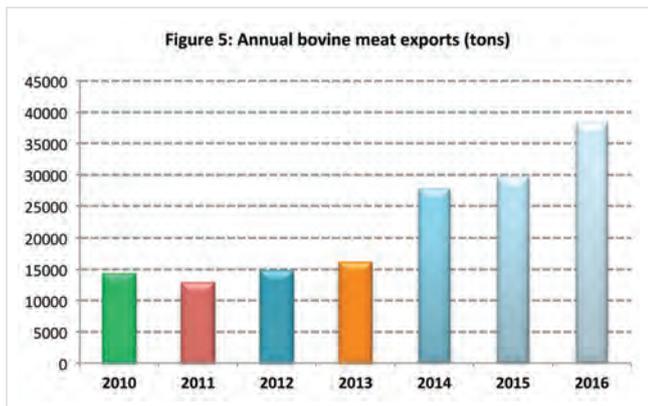
in other major producing areas. Trade will remain firm as countries with firm output position themselves to expand market share and fill the gap left by Australia as it enters a year of herding rebuild.

Worth noting (figure 3), is the supply pressure in the late 2015 into early 2016 that softened prices; however support did come from reduced slaughtering in key producing areas and lifted slightly from the second quarter of the year as Australia and New Zealand entered a herd rebuilding phase.

Domestically, prolonged dryness up to the end of 2016 prompted high culling resulting in high output on the market, with output estimated to be at 1 million tons, up 6% year-on-year. This is the highest output on record according to the Department of Agriculture, Forestry and Fisheries (DAFF).



Weekly slaughter (figure 4) has also seen a positive year-on-year growth driven by strong population growth and rising consumer incomes that have resulted in greater demand for beef and is expected to continue in the short to medium period. Although remaining at high levels, feed grain prices eased recently on seasonal harvest pressure and some optimistic outlook on the next season crop. This bodes well for



the domestic beef market as farmers can now replenish stocks. Good diversification on the trade side has helped stabilise prices. Prices are expected to rally in the short to medium term on tight slaughter availability across the value chain.

China and Hong Kong have shown significant increase in their respective beef imports and present an opportunity for the domestic beef market to acquire a sizeable market share in that part of world, more especially in light of recent signals that give an indication that the years ahead should see significant economic growth that will drive up demand in these areas.

After the reinstatement of the foot and mouth disease (FMD) free zone, exports experienced a surge (figure 5); this was also encouraged by a favourable currency exchange rate and healthy supply into the market, brought on by the high number of slaughter available.

The outlook for beef in 2017 is positive, as rallied on by overall prospects for growth, higher prices, lower feed prices and favourable grazing conditions which are expected to benefit the industry, as there is an expanding middle class and urbanisation that comes with demand that is expected to soar as larger segments of the population have the money and appetite for meat. This does place some pressure on the sector to be more productive, innovative and efficient to meet increased demand, but a new wave of collaboration between investors and suppliers in the domestic sector presents itself for the taking, to ensure that challenges such as infrastructure constraints are alleviated to help supply come up to levels close to demand and move at the same pace. One can expect that local growth and export growth will drive beef markets higher, based on the fact that economic growth will increase further this year, also driving beef demand on an upward trend. ■



*Kulani Siweya:  
FNB Agriculture*



*Dawie Maree:  
FNB Agriculture*

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Join the conversation



# AFRICA:

## Land of milk and beef?

*Investing in Africa's beef and dairy industries could be a boom for global agriculture, but it does come with some baggage.*

During Alltech's 30<sup>th</sup> Annual International Symposium in Kentucky, United States, a presentation was given about the potential of Africa's agriculture industry. Speaking on panel was Charles Moore a consulting nutritionist from Cape Town, South Africa. He discussed some of the opportunities and challenges related to putting Africa's beef and dairy industries on a level playing field with more established areas of the world like Australia, Brazil and the U.S. Moore listed the countries that would be best suited for dairy production and here were some of his favourites:

Angola would be an excellent place to start a dairy in Africa because there is a large population with an economy fueled by the oil industry. The climate it is well suited for milk production and access to water is not a problem. There would also be the potential for export because of the close proximity to Middle East and Southeast Asian markets. Zimbabwe would be another good fit for dairy production thanks to a built-in infrastructure, a culture that values cattle, favourable climate and quality water sources.

However, Moore notes that political turmoil is road block to development. "Kenya we know is a big dairy market. There are about a million dairy farmers in Kenya milking 3 million cows, so that is 3 cows per farmer," Moore adds. "There is a lot of room for investment to increase the size and the scale of those farms."

South Africa already has a well-established dairy industry says Moore. He believes that the country now needs to look at value added products to increase profitability. Much like the rest of the world there is a lot of consolidation within the South African dairy industry, but farmers there are on the cutting edge compared to the rest of the continent. South Africa produces approximately 50% of Africa's milk. Other countries that could benefit from investment include Zambia and Ethiopia. Northern Africa is the one region of Africa that is

not conducive for raising cattle because it is a desert. Moore believes that South Africa's model will be "the way to go in Africa with 500 to 1,000 cow herds. The small producers are going to get eaten up."

The true potential in Africa lies in the beef industry where beef cattle outnumber dairy cows 30 to 40.

"It's part of a subsistence culture where everyone has three cows, but there is a lot of room for consolidation in the market," Moore says.

Right now there has not been a substantial effort to make the African beef industry profitable, and that is largely because of a lack of infrastructure. "If we can setup operations that encompass export quality abattoirs (or packing plants) to move some of the beef out, then it is a way to improve the markets," Moore adds.

Another downfall to the beef industry in Africa comes in the form of wildlife. The country prides itself on the variety of big game species that call the continent home. However there is a risk of disease, particularly Foot and Mouth, because cattle come in close contact to carrier animals like wildebeest and impala.

Keeping wild animals and domestic cattle divided has proven to be quite profitable says Moore. For instance, in Botswana there are specially designated Foot and Mouth free areas that are protected by fences. Cattle originating from disease free regions of Botswana made three times the amount of their unprotected counterparts.

"This is the reality of Africa that you have wild animals and domestic livestock cohabitating where there is not a lot of fencing, so this is a big challenge," Moore says. ■

**Wyatt Bechtel, Farm Journal Media**  
Read more at [www.Drovers.com](http://www.Drovers.com)



# Solving Africa's food insecurity through biotechnology



**T**here is an increasing focus on science being linked to providing practical solutions to agricultural problems. There is also increasing awareness of technology, although the channels used for information and creating change in the way information is passed and understood by the receiver are poorly developed.

According to Nigerian Tribune, biotechnology is no longer a new technology in Africa; some countries in Africa have adopted the technology, while some other countries are currently conducting confined field trial for the technology.

In Nigeria, Genetically Modified Organisms (GMOs) which is a component of biotechnology is currently undergoing confined field trial in various locations. It is expected that in the next three years, the commercialisation of the BT cotton will commence in the country.

Africa as a continent in the recent past have suffered a high level of food insecurity following the actions and inaction of various governments to put sustainable policies to fast track agricultural development.

Some countries in Africa have also experienced food shortage due to some natural disaster which includes flood, pest attack, insect infestation and drought.

In some countries, the uses of manual and outdated method of farming have contributed immensely to the country's dependence for food supply on some developed countries that have used technology to advance their agricultural sector.

Biotechnology has been adopted by various countries to develop their agricultural sector which have made them self-sufficient in food production and earned them foreign exchange through exportation of agricultural products.

Many African countries have been skeptical of adopting biotechnology following some baseless and unscientific

criticism from some quarters on the new technology.

This singular act of negligence and gullibility exhibited by these African countries have further subjected them to being importers of food products from countries that have developed there agricultural technology.

In Ghana, the commercialization of GMOs may not be possible until the court injunction issued against its further release in Ghana have been concluded.

However, good news emerged as the Plant Breeder's Bill was said to be underway and soon to be signed into law in Ghana to protect the developers of the technology and encourage the investment in science and technology beyond the country's budget.

Instead of the critics of the technology to say science is not good at all, they should discuss on its deployment which can be useful to our economy.

The Open Forum On Agricultural Biotechnology (OFAB), Ghana have visited all the regions in Ghana and information materials on biotechnology

have been translated into local languages.

It is worthy to note that the Ghanaian government does not fund science, to this end, funding is needed to scale up educational activities on modern biosafety issues in Ghana.

In Nigeria, it is sad to note that the country has one of the lowest usage rates of agriculture inputs and ranks the lowest on agriculture indices of mechanization and irrigation. Insect and pest problems, climate change issues and increasing population were also attributed as the reasons for poor productivity.

Meanwhile, there are some Genetically Modified crops that can withstand insects and pests attack, while some are drought resistant. These crops if adopted could be used by farmers to upscale the country's food production without the crops been damaged by pests and insects.

However, Maize, cotton, rice, cassava, Sorghum (ABS) have been said to be the first GM crops to be introduced in Nigeria for commercialisation soon.

It is also worthy of note that the Biosafety law was signed in Nigeria in 2015 which gave rise to the establishment of regulatory agency, National Biosafety Management Agency (NBMA) same year. Since its establishment, NBMA has carried out 3 approvals and accredited research institutes and universities for GM research.

The era of dependence on food importation should be over in Africa. The governments in Africa should look for possible ways of adopting biotechnology in food production, this will go a long way to addressing food insecurity and guarantee self-sufficiency in food production. ■

**Nigerian Tribune**

**Read more at <https://goo.gl/vbgXRk>**

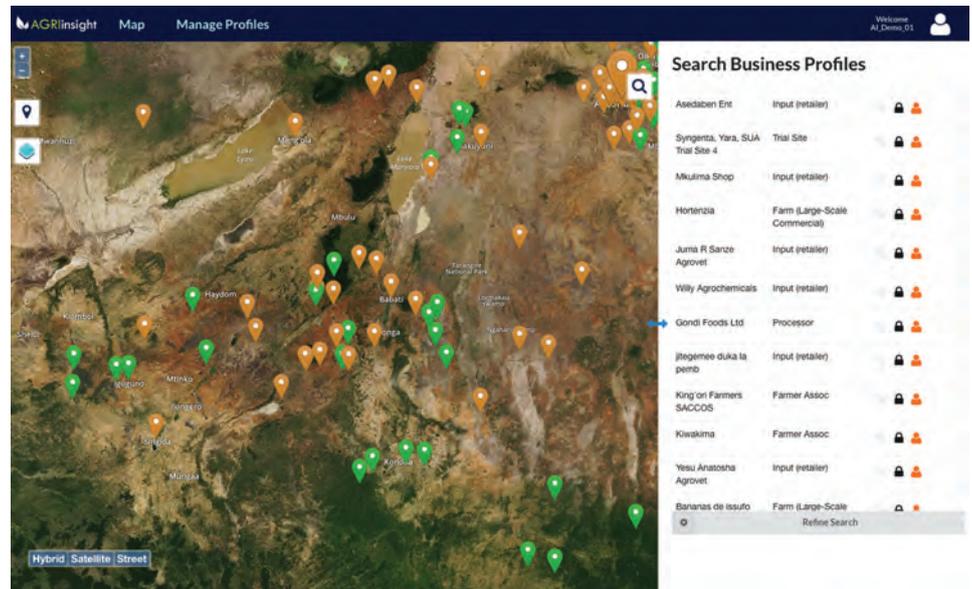
# Online mapping to reduce cost and risk of investing in Africa's agriculture

**AGRIinsight – a UK-based company developing innovative technologies to be used in emerging markets – is ready to deploy its online mapping tool to support agribusiness growth in East Africa, starting in Tanzania. AGRIinsight will give users tools to map locations of agri-businesses and infrastructure, aggregate relevant information and enable targeted information sharing within different value chains, projects or investments. The company will also be providing training to agency staff to map a wide range of organisations involved in agriculture in specific high productive regions of the country. The work will enhance investment into the region, thereby help develop a vibrant and profitable farming and agribusiness sector.**

**I**n collaboration with its Ethiopian partner, Geospatial Analytical Services, AGRIinsight will also deploy the online platform within organisations who have a pressing need to better understand and use the natural resource base and evolving commercial landscape of Ethiopia. The aim will be to use the platform to determine the most effective ways of managing, packaging and presenting the data in a way that enables organisations to make better, more informed and commercially sound decisions. AGRIinsight has secured co-funding for this work from the UK's Innovation Agency, Innovate UK.

"We are very excited to be working with our colleagues in Tanzania," says Patrick Guyver, CEO of AGRIinsight. "It's a challenging but ultimately very important assignment. The aim is to visualise the agricultural landscape of an area the size of Belgium. But once completed it will have overcome one of the key challenges by bringing together relevant and reliable data onto one platform."

"The Ethiopian work will open up a wide range of market opportunities in the country and beyond," Guyver continues,



"It has become increasingly clear that access to information is the major gap in the market, and the main obstacle to a better functioning sector capable of attracting greater investment. The AGRIinsight platform will plug the information gap and reduce the cost and risk of investing in agriculture, helping the agriculture sector deliver on its potential."

The platform gives users the ability to search for agribusinesses, using spatial or non-spatial search tools as well as allowing users to define information to be stored against each agribusiness profile and control how this information is shared amongst other users. The mapping tools will also allow organisations involved in the sector to target their support and resources to maximise impact, improving logistical and operational efficiency and boost growth. Improved visibility and consolidation of reliable information will raise awareness of unexploited opportunities in the sector, driving investment by reducing both cost and risk.

As the platform develops, local and foreign investors will be able to locate potential partners and jointly develop specific supply chain programmes using the platform to manage operational and transactional data. Guyver says one of the main obstacles has been the lack of reliable information available on agriculture in the region. Information, when it is available, is often in different formats embedded in word or pdf documents, excel spreadsheets or databases. AGRIinsight overcomes this by bringing together relevant and reliable data onto one platform. The visual representation of the data in context of other information is incredibly useful and valuable to businesses of all types and sizes. AGRIinsight provides users of the platform with the ability to translate, visualise, and share – making relevant information easily understandable. This generates real insights. ■

# Why South Africa's agricultural industry needs digital transformation

*The evolution of technology is transforming the world. Digital technologies such as the Internet of Things (IoT), advanced machinery and artificial intelligence are changing the way people work, making processes more efficient and helping to create innovative new products and services. The digital transformation of the agricultural sector will impact billions of people, impacting every part of the production and distribution of food supply – and Africa should be no exception.*



Mark McCallum, CTO, Orange Business Services; BizCommunity

**W**ith roughly 33% of global food production for human consumption lost or wasted every year and global food demand set to increase by 35 % by 2030, how will the digital transformation of agriculture transform life on the farm? What impact will this have on a world in which around 40% of the population work in agriculture?

The Department of Agriculture, Forestry, and Fishing Q4 (2015) report states: In monetary terms, agriculture's share of the South African economy has long been outstripped by those of the secondary and tertiary industries such as banking and finance, education, health and other sectors over the past years. Agriculture now accounts for less than 3% of GDP. According to the General Household Survey, carried out by Stats SA (2016), less than one-fifth of South African households (16,9%) were involved in agricultural production activities in 2015. Of these, 11,8% cultivated farmland while 91,3% created backyard gardens. Only 12,1% of the households involved in agriculture reported getting agricultural-related support from the government. Nationally, 2,1% of the households reported receiving training and 6,8%

received dipping/livestock vaccination services.

However, it is a common phenomenon that as other sectors grow as a result of economic development, the contribution of agriculture declines. Agriculture remains a vital sector in the economy through the provision of employment, foreign exchange, and raw materials. It also stimulates growth in the rest of the economy through its forward and backward linkages with other economic sectors.

Agricultural transformation in South Africa will build social cohesion, drive beneficial continental trade, provide a platform for sustainable exports to the rest of the world, and, most importantly, help create millions of jobs while pulling subsistence farmers out of poverty.

## The food you eat

Digital transformation is freeing farmers from their fields and disrupting local economies and long-established working methods. Using smartphones, tablets or conventional computers, connected M2M agricultural solutions provide farmers with real efficiencies, such as remote measurement of soil condition, equipment, livestock and crop monitoring.

Fisheries are also changing. The UN has developed solar powered technological platforms to support fish preservation facilities and modern fish processing technologies, while smart solutions for animal husbandry are also making a difference, such as General Alert's livestock monitoring systems.

Orange Business Services and Dutch firm Dacom are working to offer smart farming technology to farmers. Sensors situated quite literally "in the field" connect to smartphone apps that let agriculturalists access all kinds of essential information about their crops from wherever they happen to be.

Small-scale farmers also benefit from new efficiencies – over 9 out of 10 farms are family farms and such farms, between them, provide over 80% of global food supply – and digital transformation is helping them enable efficient crop production at scale while also helping smallholders feed themselves more efficiently.

The harvest revolution

In Japan, a strawberry-picking robot is replacing agricultural jobs while indoor farm operator, Spread, plans to open a fully automated lettuce farm near Kyoto in 2017.



“Environmental benefits from robots will be indirect for the most part,” says Sara Olson, Lux Research analyst. “Steering and spraying automation systems mean fewer over-sprays and less waste, for a lower total chemical load on a field. Most automation systems provide some degree of increased efficiency, meaning reduced waste, which in some cases will be an environmental benefit.”

Scientists at The Genome Analysis Centre (TGAC) and the John Innes Centre (JIC) are developing a Raspberry Pi-based crop monitoring solution for precision agriculture that enables them to automate the capturing of crop growth and quantification of drought adaptation and color changes during the growing season. This affordable solution should prevent future crop losses due to drought, pestilence, or disease. This matters – right now up to 16% of global crop production is lost to pests.

### Digging deep for data

Data management is critical and digital transformation means all new detectors, such as in-field sensors, drones, and connected machinery, making data analysis part of the agribusiness toolkit. This is nurturing a bumper harvest for farm management software, predicting this will become a \$4bn market by 2022, according to Research & Markets.

Analytics may yield good insight into likely future crop patterns, enabling farmers to more effectively plan their crops and make farming a more precise exercise. As stakeholders in national government, NGOs, distribution and retail link into this information, there is potential improvement in management and supply.

### Smart distribution

“Demand is increasing for technologies that can track product and production information and share it across

regions and throughout the value chain,” states a recent Research and Markets report.

“If just one-fourth of the food currently lost or wasted globally could be saved, it would be enough to feed 870 million hungry people in the world,” notes the UN Food and Agriculture Organization.

Consumers in developed countries waste almost as much food (222 million tons) as the entire net food production of sub-Saharan Africa (230 million tons), claims the UN.

Smart distribution and retail management can help here – from highly automated shipping and distribution systems such as London Gateway, to the automated remotely controlled agricultural systems used worldwide today.

Connected packaging should help track product more effectively across the supply chain, enabling better stock management and delivering efficiencies across the distribution chain.

### Technological transformation

“In order to feed over 2.5b more people and prevent widespread famine in the next few decades, it is estimated that food production will need to increase by 70% by 2050,” says GSMA. “Technology innovation increases crop yield: improvements in fertiliser, machinery, crop protection and farming methods have all significantly increased production capabilities across the last 100 years,” explains BASF Crop Protection’s Elmar Groiss.

While existing fixed broadband infrastructure is lacking in many rural communities, it seems likely mobile broadband will be part of the future of farming in South Africa. Digital technologies may enable food industry tries to address the challenges of globalisation and meet growing consumer demand for new, exotic and out-of-season food. ■

**Mark McCallum, CTO, Orange Business Services; BizCommunity**

# South Africa leading the way for African agro processing

*Recent reports from the World Bank have indicated that nine of the world's fastest growing economies are situated in Africa.*

Despite an increasingly inward and insular approach to international trade – as a direct result of Brexit and a Trump presidency – the Department of Economic Opportunities, Tourism, and Agriculture, Western Cape says they see that the developing world is somehow emerging triumphant from an otherwise general global economic decline.

How is this so? Well, for a start, emerging economies are beginning to rely on sound trade relationships with each other. This is seen in the growing economic ties on the continent where the ships of African economies are no longer moored in the economic harbours of richer nations.

It is in this gap where South Africa is poised to function as a lighthouse for economic growth and development, making use of its highly developed economic and financial infrastructure to establish mutually beneficial ties with our fellow African economies.

In 2015, McKinsey released its Global Institute Report entitled “South Africa’s big five: Bold priorities for inclusive growth.” In the report, a series of industries were identified as key growth areas for the country in relation to inclusive economic growth. Of the industries discussed, the agro processing sector was highlighted as a key driver of rural growth which could directly benefit the nearly one in ten South Africans who depend on subsistence or smallholder farming.

In a similar report by AGBIZ entitled, “Unpacking South Africa’s agricultural export growth”, the Head of International Trade and Investment in Africa, Tinashe Kapuya, called South Africa’s agricultural sector exponential growth of agricultural commodity exports to Africa ‘a remarkable story’. She wrote that in the last ten years, South Africa’s agricultural exports to Africa exceeded those to Europe, and that exports to Africa had doubled over a five year period. South Africa’s growth in agricultural exports to Africa is four times that of Europe.

The Department of Economic Opportunities, Tourism, and Agriculture, Western Cape says this is a truly remarkable feat and a clear indicator of the successes of an inclusive African economy.

“In South Africa, and in particular in the Western Cape, we see that agro processing and related export commodities fuel the growth and development of our continent at large where local economies present key markets for our industries,” says Beverley Schäfer, MPP, Standing Committee Chairperson on Economic Opportunities, Tourism, and Agriculture Western Cape Provincial Parliament.

The advent of Project Khulisa in the Western Cape bears testament to this economic endeavour. It is the provincial government’s sector-driven strategy to stimulate employment and reduce poverty in the Western Cape by 2020 through the



*Beverley Schäfer, MPP, Standing Committee Chairperson on Economic Opportunities, Tourism, and Agriculture Western Cape Provincial Parliament*

province’s contribution of 60% of South Africa’s agricultural products. Trade and Industry minister, Dr Rob Davies, has stated that the agro processing sector was worth R49bn and had created as many as 207,893 jobs in 2013 alone.

“The opportunity for South Africa, and more specifically the Western Cape, lies squarely in Africa,” Schäfer adds.

The continent is home to a diverse regional economy with the world’s fastest urbanising population. African countries are already South Africa’s top importers of food and beverage exports last year, with imports from the Western Cape totalling an estimated R45.13bn.

“We know that in the future, consumption on the African continent is going to increase quite dramatically, driven largely by rising GDP rates, growing middle classes and mass urbanisation in Africa’s emerging economies. Project Khulisa shows the Western Cape’s unwavering commitment to sustainable economic inclusivity on the African continent, through sound legislation and innovative initiatives in the agro processing industry to foster sustainable trade relations with the rest of Africa.”

Agro processing and South African exports also extend to religious markets. The global Halaal market has an estimated

worth of \$2.3tn. With the Western Cape comprised of a large proportion of South Africa's Muslim population, the province has proposed a R1bn Halaal agro processing food park paving the way for the province to double its share in this fast-growing market and punting South Africa as a key stakeholder in Islamic trade.

"We seek to increase the value of Halaal exports by \$31bn by 2020," says Schäfer.

The potential exports to emerging African economies is massive in North Africa in particular which, along with the Middle East, constitutes 20% of the world's Muslim population. This is a substantial niche that South Africa's agro processing sector could exploit.

Beneficially, the proposed park is expected to add a further 5 000 new jobs to our economy in the next five years. Adding to this, the Western Cape Fine Food Initiative and the Malaysian Industry Government Group for High Technology signed a co-operation agreement to foster partnerships between the Halaal industries of the two countries last year. The export of agro processed goods to these key emerging economies lays the foundation of an increasingly strong and stable relationship between South Africa and the emerging world.

But it is in South Africa's wine exports where emerging market relations are expected to flourish.

"Our wine exports reached 313 million litres in 2015 and are projected to grow by a further 13% in the next decade," says Schäfer.

According to the 2016 Bureau for Food and Agricultural Policy baseline, the South African wine industry extends to about 100,000ha and is comprised of 3,300 producers. The industry supports employment for close on 300,000 people both directly and indirectly, with a strategic focus to increase

employment to 375,000 people by 2025 and grow the value of wine tourism from R6bn to R15bn. Marketing both agro processing exports and well as tourism resulting from the agricultural sector in emerging markets presents enormous potential for South Africa.

"We see this in countries such as Angola, one of Africa's fast-growing regions. Over the past year the Western Cape's exports to Angola have increased by 30%, and Angola has become the largest destination for wine exporters in Africa with the value of the Western Cape's exports to the country valued at over R2bn in 2013."

"The South African wine industry, based in the Western Cape Province is perhaps the jewel in the country's agro processing crown."

Wine exports to emerging African markets means big business for South African winemakers and sets a precedence for other agro processed products leaving the country.

With Africa's second largest economy, and the most developed economic infrastructure on the continent, "South Africa remains poised to take the lead in agrp processed exports in the developing world," Schäfer adds. "Furthermore, we see that accessing markets closer to home is a sustainable means to establish and maintain inclusive and mutual economic growth for every African state."

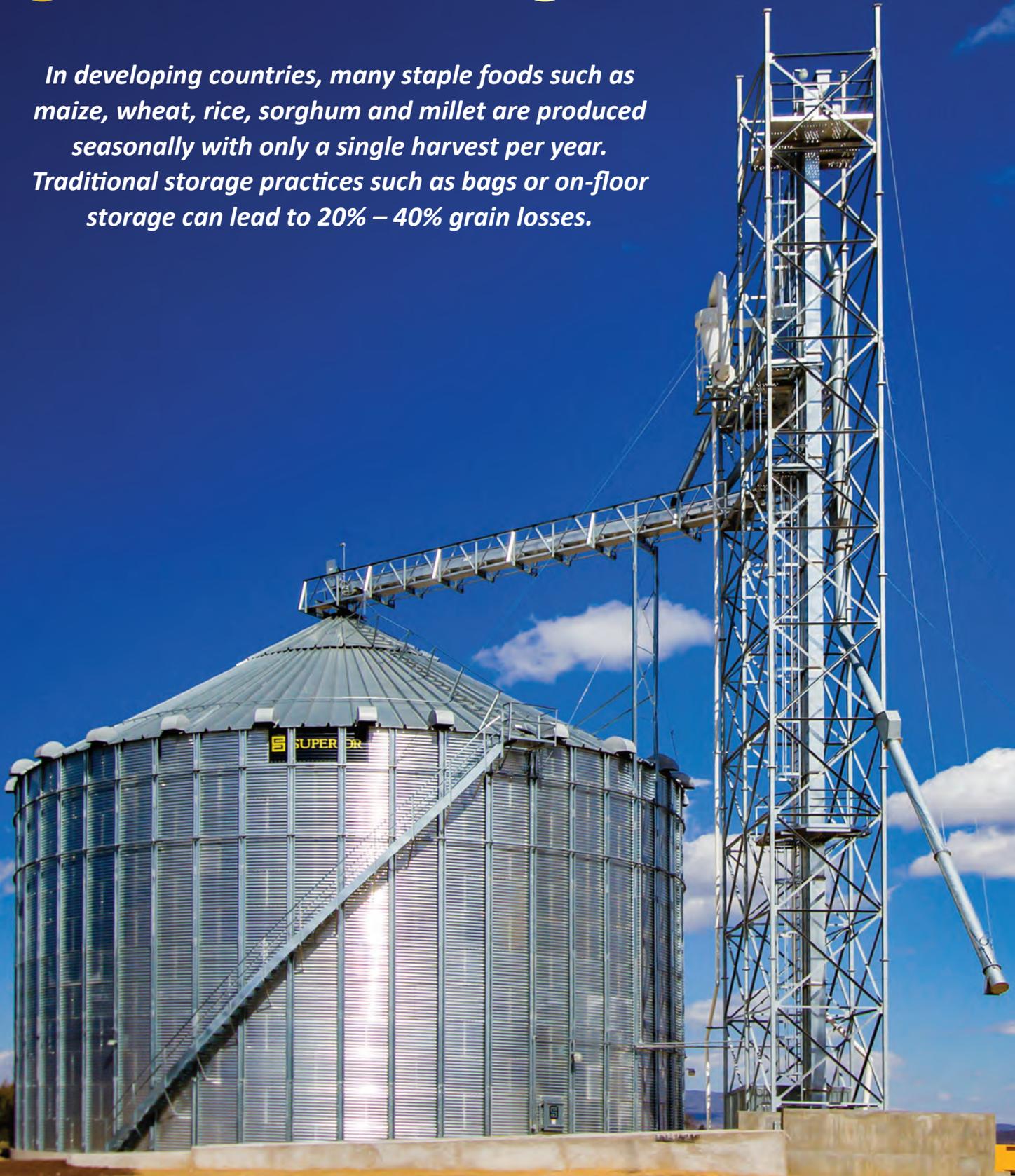
The fate of South Africa's agro processing industry lies first and foremost in the needs of our own continent and the Western Cape says it remains vigilant to take up its role as a key contributor to our country's agro processed exports.

"Only through fostering closer economic relations with neighbouring states and remaining committed to Africa's goal of economic self-sufficiency, can South Africa's agro processing industry thrive in our dealings with the developing world," Schäfer concludes. ■



# Reduce post-harvest losses with safe and effective grain bin storage solutions

*In developing countries, many staple foods such as maize, wheat, rice, sorghum and millet are produced seasonally with only a single harvest per year. Traditional storage practices such as bags or on-floor storage can lead to 20% – 40% grain losses.*



**E**xcessive moisture, high temperature, and poor grain condition (insects or damaged kernels) are generally considered the most important factors that lead to problems with stored grain. Reducing poverty and increasing food security cannot be attained if farmers are unable to safely and efficiently store grains and sell surplus production at attractive prices. These issues can easily be addressed by proper grain storage and management.

“Grain bins can dramatically reduce post-harvest losses and provide producers with a safe and effective means of storing their grain for the short- or long-term and, in the end, selling a quality product at premium prices. Choosing the correct bin depends on several factors including farm size, total storage requirements, grain type, storage objectives, length of storage, location and local weather,” says Jon Engelstad, International Sales Manager at Superior Grain Equipment

Site planning is an important aspect of adding grain bin storage. It’s easy to focus on today’s production and forget to factor in future growth. As agriculture has evolved and seed varieties have improved, expected yields continue to grow. Planning for that growth or the growth brought about by farming additional land is critical to successfully selecting the best bin site.

“At Superior Grain Equipment, our experts work with producers to determine the most efficient and economical bin storage solution for their needs while keeping in mind future growth. Since bins require more investment up front, it is important to us that producer’s storage needs are met so they can quickly recover their costs to maximize profits.”

Strength and durability are important factors when purchasing bin storage. Grain bins should be able to withstand the harshest elements whether it’s extreme heat or high winds.

“We take pride in manufacturing using only the highest quality materials and incorporating the latest innovations to build the most durable grain bins available. All Superior bins are made from Grade 50 steel that has a tensile strength up to 65,000 psi and a G-90 bright galvanized steel coating to protect against the elements,” Engelstad says.

“A strong roof is an essential part of the grain bin structure. More than that, it’s crucial to maintaining the entire structure. Full-length roof sheets, 3-1/2-inch deep rigidized roof ribs, wind rings and corrugation for added strength are some of what sets Superior roofs apart. Superior is so confident in the quality of our roofs that we are the only manufacturer in the industry to offer a lifetime roof warranty on unstiffened farm bins.”

Limited pest control and fumigation to control pests contributes significantly to post-harvest losses. Engelstad says Superior grain bins are designed to reduce pest access and can be sealed during the fumigation process to protect grain. “Our vent seal kit uses a proven technique that allows the producer to completely seal the bin during the fumigation process.”

For the small producer, Superior provides a line of unstiffened and stiffened farm bins with capacities ranging from 50 metric tons to more than 5,000 metric tons.

“Our farm bin roofs are manufactured with roof ribs that are locked to the roof wing ring so the roof acts as a single, dynamic unit. Bottom ring strength and stability is also an important factor when purchasing a bin. Base anchors are used to secure the bin to the concrete and can often be a weak point on bins. At Superior, our unstiffened farm bins are anchored with a full 44-inch base anchor stiffener resulting in a bottom ring strength equivalent to a ring two gauges thicker.

Superior backs their bottom rings on unstiffened farm bins with a lifetime bottom ring warranty.”

Larger producers are driving a demand for bigger, stronger grain systems. The ability to safely and efficiently process large amounts of grain and maximize throughput depends on systems built to withstand the stresses of daily use. Superior offers a complete line of commercial grain bins ranging from 340 metric tons to more than 21,500 metric tons and grain handling equipment that can be customized to fit your operation’s needs.

“Our commercial bins carry vertical loads to the foundation to resist winds up to 90-miles an hour and feature one of the industry’s strongest roofs. Our structured roofs utilize tension purlins that are designed to go into tension as the weight of the roof pushes down, stabilizing both the roof and sidewall sheets to eliminate distortion. This, along with A-frame rafters and X-bracing, gives our commercial bins the ability to support grain handling systems with peak loads up to 50,000 pounds.”

Today, grain bins aren’t just storage units; they’re also conditioning units that help control temperature and moisture to improve and maintain the condition of your grain. Monitoring the temperature of grain on a regular basis gives the manager the best chance to make a correction when a temperature change is occurring, preserving good quality in grain. Knowing the temperature of the grain also makes it possible for the fans to be run only when they are needed, saving money in utilities. Superior offers a complete line of temperature monitoring and control systems, aeration fans and floors, and unloading systems that can be customized to your storage needs.

Grain bin storage provides options for producers to enter the market when it makes the most sense, with the best price. It provides the time and space to be sure grain is in optimal condition so you minimize dockage and maximize profits.

“Superior Grain Equipment manufactures a complete line of grain storage, handling and conditioning equipment that can be relied on for generations. Warranties, superior customer service and people with integrity is what makes Superior an excellent company to work with and a strong partner,” Engelstad concludes. ■





## Wesgro's Agribusiness Investment Unit secures investments amounting to R1.56 billion

Supported by the Western Cape Department of Agriculture, Wesgro, Cape Town and the Western Cape's official tourism, trade and investment promotion agency, established an Agribusiness Investment Unit, with the aim of promoting economic growth and job creation in the agribusiness sector.

This has been done through attracting inbound foreign direct investment and facilitating the growth and expansion of established local businesses.

Over the last three years, the unit is proud to have secured committed investments amounting to **R1,56 billion**. This has helped create over **1000 jobs** in the Western Cape.

Our dedicated team is ready to help you uncover opportunities in the Agribusiness sector so that you too can be part of the success.

**Cape Town and the Western Cape.**  
**If you're not inspired, you're not here.**

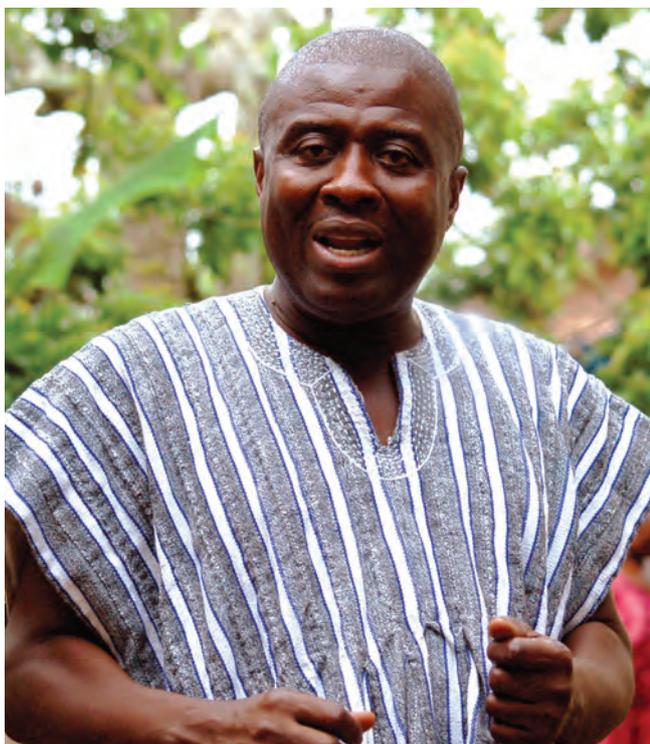
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an inspiring place to do business

# One District, One Factory

*The Government of Ghana, before their resumption of office, had made promises to transform Ghana's agriculture into a flourishing enterprise. They are therefore edging the government to put in transparent strategies and. Key policies under this include the "Planting for Food and Jobs", the "One Village, one Dam" and the "One District One Factory" policies.*



Eddie Addo-Dankwa, Value Chain Specialist, Ghana Agricultural Sector Investment Program (GASIP)

The "One District One Factory" policy seems to be focusing on the small to medium scale factories and looks to have two main agendas: 1) to support existing processing units in the districts to operate efficiently and 2) to facilitate the establishment of new processing units in some other districts. On-going discussions gives the indication that the government does not intend to set up the factories themselves but to partner with the private sector to set up these units. It is gratifying to note that the policy is not intended to just set up new factories across the districts but it is also going to support existing factories to operate efficiently. There are many small to medium factories operating under very difficult situations. All they need is some facilitation in terms of capital injection; improvement in their processing, improved technology and support in proper management. Government support and involvement in these factories could give confidence to local and foreign investors to invest in these factories and support them to improve on their processes.

The challenge here is to be able to identify the 'real' businesses to be supported under this program. It is clear that this is a political project and so many of the politicians from the ruling party who have factories themselves, or have relations with factories, may attempt diverting support to their factories. The problem with this, will be that the resources will

not be equitably distributed, and may lead to inefficiencies. There is also another group of people who should be watched; these people set up some processing facilities or businesses but their actual business is to use these set-ups to manipulate the system to get resources they use for other purposes, and not to do any profitable processing. These people are so efficient in this act that it is difficult to track them. The project implementers should watch out for such individuals.

It has been said that Governments are poor in doing business because over the years, businesses set up directly by the government have been poorly managed and most of them have closed down. Whereas businesses set up by private individuals have survived even though in most cases, they have difficulties in getting resources and have difficulties improving on their efficiencies, or expanding their operations. It is therefore expected that under this policy, the government will create the enabling environment for the private sector to invest in the setting up of the factories in the districts. This presents an opportunity for the government to woo private foreign investments into the country. Some issues that may derail the process include the land tenure system and the availability of utilities and access roads. The land challenge - where a parcel of land could be sold a number of times by the same family - could create huge challenges for the would-be investor. There should be a system in place where government will support the extension of electricity and water to the processing sites in the districts.

The government is setting up a dedicated organisation which will serve as a promoter and facilitator for the implementation of the policy. This organisation will coordinate the implementation of this policy and will ensure the spread of the investment nationwide. Much as the creation of this new organisation is crucial for the programme in having a direct focus to supporting the implementation of the policy, it is important to note that the potential of this organisation becoming another government bureaucracy is very high. Effort should be made it shield this organisation from political interferences.

The One District, One Factory promises to be one policy that has the potential to provide a market for agricultural producers, thereby increasing the incomes of the producers which may lead to improved livelihoods. It could also provide sustainable employment for the people, especially the youth in the districts thereby reducing the levels of rural - urban drift with its attendant problems. Most importantly, it provides opportunities for investors, both local and foreign, to invest in these communities, thus supporting the development of these communities. ■

**Eddie Addo-Dankwa, Value Chain Specialist, Ghana Agricultural Sector Investment Program (GASIP)**

# Enabling the missing link

The 2017 report to the recent World Economic Forum hosted in Durban, South Africa highlighted the following key points with regards to the development of the Agricultural Economy in Africa:

- The commodity slowdown continues and requires countries to turn to alternative sectors to sustain economic growth. Agriculture offers the largest job creation opportunity of any sector.
- Africa's population growth is disproportionate amongst 15-39 year olds, which is unique in the world and holds both a significant opportunity and a large threat. Unless this growing economically active population participates in inclusive growth, it will lead to significant social risk.
- The need to add value to primary agricultural products in specific countries is key to unlocking future economic growth in Africa. Identifying and unlocking the high potential sectors and opportunities in the related value chains is now a necessity in most African markets.
- Current and historic investment bias is still towards primary agriculture as well as the market side of value chains, with appropriate investment in market linked agro processing lacking.

Market linked agro processing investments are typically concerned with enabling "seed to shelf" agricultural value chains, normally enabled from the buyer or market side. These types of investments are generally more sustainable and typically enable high value add along the value chain, all the way to the primary producer – something Africa desperately needs.

***"Offering incentives to promote appropriate investment in agro processing is widely used by public sectors across Africa and can have both positive and negative effects in creating or enhancing new value chains."***

The following are key consideration factors to enable high value and sustainable investment in agricultural value chains and appropriate processing to unlock potential:

- More public sector focus on executing policies which enable improved coordination between value chain partners – alignment is required between public, private and funding entities on high potential sectors and value chains ripe for investment. To this effect, the relative trade advantage (RTA) method will provide an excellent and fact based method to provide much needed alignment on priorities.
- Enabling investment hubs to localise processing where infrastructure, skills and resources can be shared – these should not automatically fall within city zones but rather where the most value can be created for the entire value chain and linkages to other value chains can be exploited.



Thinus Van Schoor, Director of Value Chain Solutions

A typical and successful example of this exists in Cassava based value chains for food, beverage and pharmaceutical products in countries such as Thailand.

- Developing mobile processing and quality assurance units with capability to take maximum advantage of optimal sourcing locations on a continent where logistics cost contributes a disproportionate amount to final product cost. At source processing and quality assurance often means the difference between product success and failure in Africa.
- Fast and effective facilitation of enablers such as bridging finance and skills to commercialise and commission processing investments. It is preferable to pool skills and to move it around as opposed to duplicating these, especially in Africa. Best practice examples of this exist today in countries such as Netherlands.

Offering incentives to promote appropriate investment in agro processing is widely used by public sectors across Africa and can have both positive and negative effects in creating or enhancing new value chains. If the factors highlighted in this piece are duly considered and designed into incentives, they have a much larger chance of success. If incentives are designed to kick start one part of the value chain without due consideration for the others, the results can quickly lead to failure when these incentives are removed. ■

**Thinus Van Schoor, Director of Value Chain Solutions**

# SUPERIOR PROTECTION FOR COUNTLESS HOURS OF HARD WORK

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## SUPERIOR GRAIN EQUIPMENT

ESTABLISHED 1977 | KINDRED, NORTH DAKOTA USA

Superior Grain Equipment is a family-owned company that has grown from a concrete contractor for grain bin foundations to a grain bin dealer, then manufacturer of grain storage equipment sold around the world.

Our two state-of-the-art manufacturing locations in North Dakota and South Dakota feature the most advanced manufacturing equipment and quality control procedures. Meanwhile, our dedicated workforce understands the importance of crop protection to your livelihood.

We pride ourselves on making the industry's best bins and back that up with the industry's only lifetime roof and bottom ring warranties on our unstiffened farm bins.

### FARM BINS

Available in capacities ranging from 50 metric tons to more than 5,000 metric tons, Superior farm grain storage bins are built to withstand the harshest weather, including wind gusts up to 90 miles per hour and roof snow loads up to 40 pounds per square foot.

### COMMERCIAL BINS

Available in capacities ranging from 340 metric tons to more than 21,000 metric tons, Superior's commercial grain storage bins are built to stand-up to the biggest loads and toughest weather. We understand that each bin holds more than grain, it holds your livelihood, so nothing except superior performance and reliability will do.

### HANDLING AND CONDITIONING EQUIPMENT

Superior's wide selection of grain handling and conditioning equipment ensures you get the most out of your equipment.

<b>Grain Augers</b>	<b>Grain Spreaders</b>	<b>Screeners</b>
<b>Conveyors</b>	<b>Fans and Heaters</b>	<b>Temp Monitoring</b>
<b>Bucket Elevators</b>	<b>Stirring Machines</b>	

### BIN ACCESSORIES

Superior offers a complete line of bin options and upgrades. Each accessory has been built and tested to work seamlessly with your Superior bin. Get the most out of your harvest and Superior bin with these proven bin additions.

<b>Unload Systems</b>	<b>Roof Vents</b>	<b>Catwalks</b>
<b>Heculock Floors</b>	<b>Roof Exhausters</b>	<b>Platforms</b>
<b>Remote Openers</b>	<b>Bin Doors</b>	<b>Ladders and Stairs</b>



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