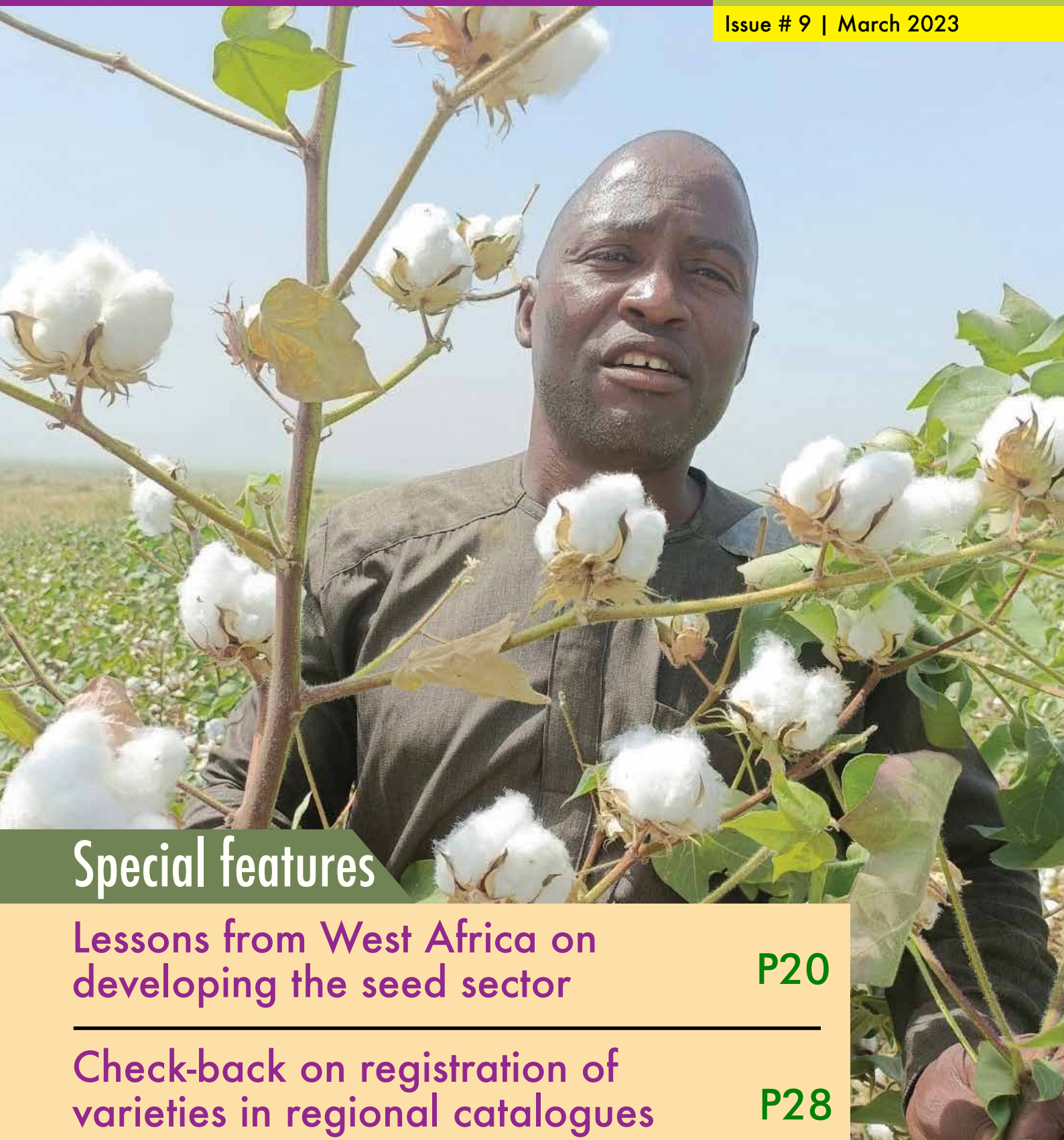




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# African Seed

Issue # 9 | March 2023



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Lessons from West Africa on  
developing the seed sector

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Check-back on registration of  
varieties in regional catalogues

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Serving Quality  
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African Seed Trade Association (AFSTA) is a not-for-profit membership association formed in 2000 to champion interests of private seed companies in Africa. It is registered in Kenya as an international organisation with an office for West Africa in Dakar, Senegal.

Currently, the Association has about 120 members comprising seed companies and national seed trade associations, among others.

### Mission

To promote trade in quality seed and technologies in Africa for the benefit of members and farmers

### Vision

To be the principal organisation at the centre of achieving sustainable food security through use of quality seed for improved livelihoods in Africa

### Objectives

The objectives of AFSTA are to:

1. Promote the trade in quality seeds;
2. Strengthen communication with African seed industries and the world;
3. Facilitate establishment of national seed trade associations in Africa;
4. Provide information to members;
5. Interact with regional governments and NGOs involved in seed activities in order to promote the interests of the private seed industry;
6. Promote activities that lead to regulatory harmonization throughout Africa to facilitate movement of seed; and
7. Develop a statistical database on African seed production and trade.

**Cover Photo: Mr Muhammed Hamza from Northern Nigeria is captured in his Bt cotton farm in Adamawa State in November 2022.**

**Photo Credit: Aghan Daniel, courtesy of Croplife International Project on Biotechnology at AFSTA**

### **African Seed Trade Association (AFSTA)**

Commodore Office Suites, 7th Floor, Suite 7D, Kindaruma Road  
P.O. Box 2428 – 00202, Nairobi, Kenya  
Tel: +254 20 242 9017 and +254 20 2502495  
Email: [afsta@afsta.org](mailto:afsta@afsta.org), Website: [www.afsta.org](http://www.afsta.org)

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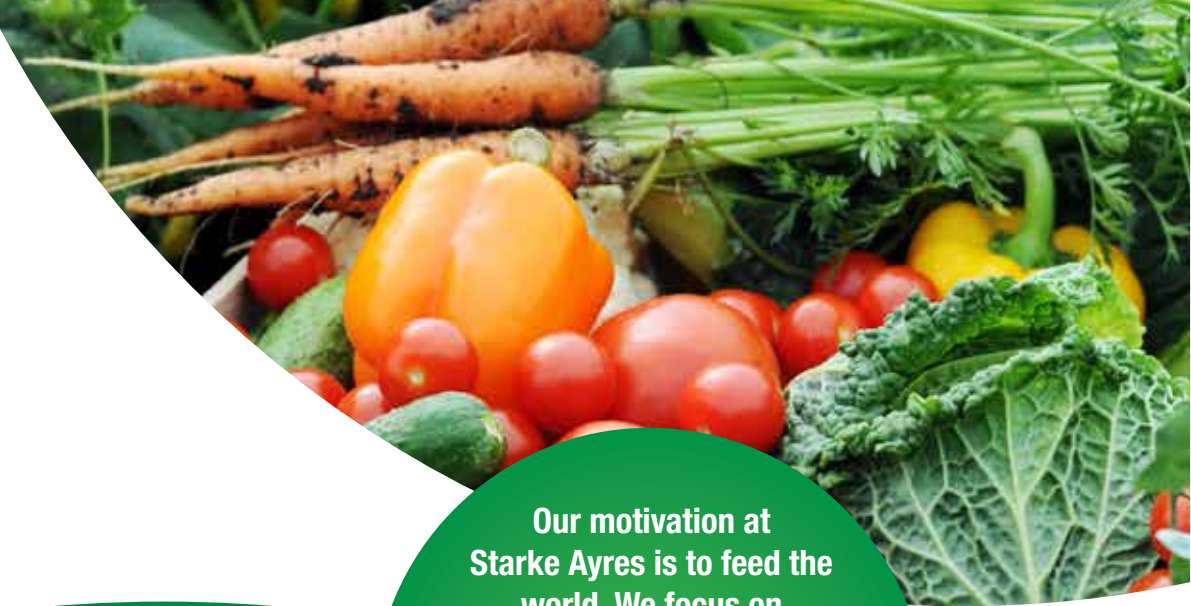
### **Editorial Team**

- |                 |                                      |
|-----------------|--------------------------------------|
| Given Mudenda   | - Chairman, Communication Committee  |
| Aghan Daniel    | - Communication and Advocacy Officer |
| Charles Nyachae | - ICT Officer                        |



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# SEED SUPPLIER TO THE WORLD

# Word from the President



**Dr. Kulani Machaba**  
President | AFSTA

**O**n November 19, 2022, the United Nations Summit on Climate Change, fondly referred to as the 27th Conference of Parties (COP27), closed its doors after two weeks of talks in Sharm El-Sheikh, Egypt.

Whereas a lot of decisions were made, one thing that stood out is that the climate crisis is a major threat to our food systems, undermining decades of progress in providing more nutritious diets to a growing global population. For us, seed people, the challenge remains production of certified quality seed to a continent that is reeling under the impact of this crisis. We hereby reiterate our call to all seed people that it is time to adopt climate smart technologies for seed production.

Why do we say so? Greenhouse gas (GHG) emissions from agriculture have remained relatively steady over the last 30 years, accounting for between 15 and 20 per cent of the total. Globally, agricultural activities released 11 billion tonnes of carbon dioxide equivalent in 2019, according to United Nations Food and Agriculture Organisation (FAO) data.

Experts at COP27, who made presentations on agriculture and climate change, outlined some of the main challenges for agrifood systems due to the climate crisis, including mitigation. So given the fact that agrifood sector actors participate in the generation of emissions, they must work to reduce and prevent them.

On adaptation, experts noted that the need to produce more should be understood within the context that agricultural production is highly vulnerable to climate change. What was striking in the summit was that the crisis is heralding the need for a new generation of policies that incorporate climate action in an integrated manner and this basically calls for the involvement of the seed sector in contributing to keeping climate change at bay.

For financing, we must come together with other global players to strike a balance between greater production and better environmental performance and development. This requires innovative financing for the farming system.

Unfortunately, there was little activity from the seed sector in Africa at the UN Summit.

My call to all National Seed Trade Associations (NSTAs) is for each of us to come out to engage in climate change talks within the national frameworks. This is because national policies are also crucial. For this to be realised, it requires us to model a path to take in the climate change agenda, so that agriculture and the seed sector specifically, demonstrate its proactiveness and interest in contributing to the resolution of structural challenges. Another issue that the NSTAs must start working on immediately is to seek funding from various development partners who are willing to offer access to them.

Separately on the side of our work at AFSTA, it is gratifying to note that we have made great strides in the adoption of genetically modified organisms (GMOs) in 2022. Ghana showed the world that it has been working hard on its Bt cowpea commercialisation, which received approval from Parliament in June 2022. It is hoped that Ghanaian farmers can access the seeds for cultivation in late 2023 or early 2024. Kenya, on its part, lifted a decade-long ban on GMOs last September. Besides, farmers in Kenya, Malawi and Nigeria upped the tempo of growing Bt cotton and Bt cowpea respectively, with nearly 5,000 farmers taking up Bt cotton in the three countries and over 20,000 farmers doing Bt cowpea in Nigeria in 2022.

We continued to achieve a lot on the implementation of our 2020-2023 Strategic Plan. We have, for example, seen the membership grow. In the past two years, 20 seed companies have joined the association, over 100 members have been retained, with a majority being engaged through our consistent communication and provision of information and opportunities to the members.

Further, we have been at the forefront in promoting seed movement across the globe by fostering partnership and working relations with the Regional Economic Communities (RECs) such as East African Community (EAC), Economic Community of West African States (ECOWAS), Common Market for Eastern and Southern Africa (COMESA) and Southern African Development Community (SADC).

This has also enhanced implementation of the harmonised seed trade policies and regulations by member States. We remain relentless in advocating for the improvement of the seed trade within Africa, which is a key mandate for the association.

To constantly strive to develop an environment that facilitates innovation throughout the seed industry, our team has continued to encourage our members, particularly through the NSTAs, to collaborate with their governments to establish policy frameworks that foster innovation and ensure broad access to innovative tools for the seed

sector. We have not stopped at that but have also facilitated alignment among AFSTA members on science-based and attendant policies.

We have adopted a hands-on approach to enhance outreach and understanding of seed industry innovation, including emerging technologies in plant breeding and biotechnology. We have, in the past three years, consistently followed and documented experiences by select farmers in Nigeria, Kenya and Malawi who have commercially grown Bt cowpea and Bt cotton. An article on this venture forms part of the contents of this magazine.

“  
**I call on all NSTAs to engage in climate change talks within their national**  
”

Overall, 2022 was a rewarding year at AFSTA, marked with milestones in the priority areas as defined by the AFSTA strategic plan.

I wish you a happy reading of this 9th edition of the African Seed Magazine and most importantly a successful and memorable AFSTA Congress 2023.

## Antitrust guidelines for AFSTA's meetings

All AFSTA meetings bring together competitors in the seed trade to discuss industry concerns. Therefore, it is absolutely necessary to comply with national and international antitrust laws. Whereas some activities among competitors are both legal and beneficial to the industry, such gatherings of competitors are inherently treated as suspect under most antitrust laws. Antitrust laws do not require agreements or combinations among competitors to be necessarily formal in order to raise questions. It may include any kind of formal or informal understanding, secretive or public, under which each of the participants can reasonably expect that another will follow a particular course of action.

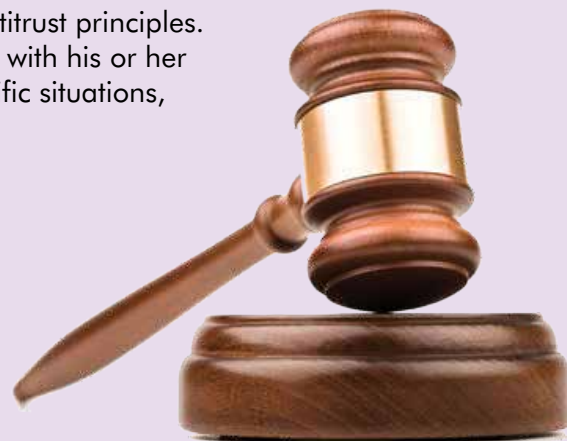
All participants in any AFSTA meetings are responsible for ensuring that topics, which may give an appearance of an agreement that would violate any antitrust law, are not discussed. It is the responsibility of each participant to avoid raising improper subjects for discussion. These guidelines have been prepared to ensure that participants in any AFSTA meeting are aware of their obligations.

The dos and don'ts presented below highlight only the most basic antitrust principles. Each participant in any AFSTA meeting should be thoroughly familiar with his or her responsibilities under antitrust laws and should seek counsel for specific situations, interpretations or advice.

### Dos & Don'ts

#### Dos

1. Have a written agenda and adhere to it for all meetings.
2. Prepare minutes of all meetings and object if they do not accurately reflect discussions and actions taken.
3. Consult with legal counsel on all antitrust questions relating to meetings.



Continued on page 7

# Word from the Secretary General

The last few years have witnessed a rise in technology in the way we confront human and animal diseases, the way we produce seeds and the types of seeds we produce.

At the core of all these developments, some of which are laden with a lot of debates, fears, misinformation and political decisions, is innovation.

As a firm believer in innovation and great trade environment, I need to emphasise the fact that seed people need to look at innovation as a tool that gives us an unparalleled way to explore the huge business potential of the African seed sector. These gains can only be realised if our companies make the deliberate decision to build valuable connections and explore numerous business opportunities. At the heart of this scenario is training, which is an indispensable cog.

Embracing joint training on innovations that count have the great potential to turn around the fortunes of the African seed sector.



Mr. Justin Rakotoarisaona  
Secretary General | AFSTA

There is also the need for a balanced, actively managed and multi-sector approaches that can be sustained for a long time. For this to be attained, we at the core of seed production and trade will gain because we would have put in place a system to support the growth and success of each other.

The seed sector therefore needs to reach out to various stakeholders to achieve this objective.

Sharing of information, the key pillar of this magazine, remains the engine that drives the success of the ventures going forward. We have witnessed in the recent past professionals fearing to share information about their innovations because of likely intellectual property issues. This fear stifles development and implementation of new ideas. It must be overcome for the benefit of our clients – farmers – who dearly need products of innovation. Necessary steps must hence be taken by innovators to protect their innovations in the seed sector to allow them to freely serve the ever resilient farming community with better seeds.

I am optimistic that if we mainstream innovation into the Africa's agricultural development, the continent will sustain improved productivity and increase the resistance of plants to pests and diseases for better yields in a sustainable manner.

4. Protest against any discussions or activities which appear to violate antitrust laws; disassociate yourself from any such discussions or activities and leave any meeting in which they persist.

## Don'ts

1. Do not, in fact or appearance, discuss or exchange information regarding products or services, including:
  - (a) Individual company prices, price changes, price differentials, mark-ups, discounts, allowances, credit terms, etc., or data that bear on price, such as costs, production, capacity, inventories, sales, among others.
  - (b) Industry pricing policies, price levels, price changes, differentials, among others.
  - (c) Changes in industry production, capacity or inventories.

- (d) Bids on contracts for particular products and services; procedures for responding to bid invitations.
  - (e) Plans by individual companies concerning design, production, distribution or marketing of particular products, including proposed territories or customers.
  - (f) Matters relating to actual or potential individual customers or suppliers that might have the effect of excluding them from any market or of influencing the business conduct of firms toward such suppliers or customers.
2. Do not discuss or exchange information regarding the above matters during social gatherings incidental to meetings, even in jest.



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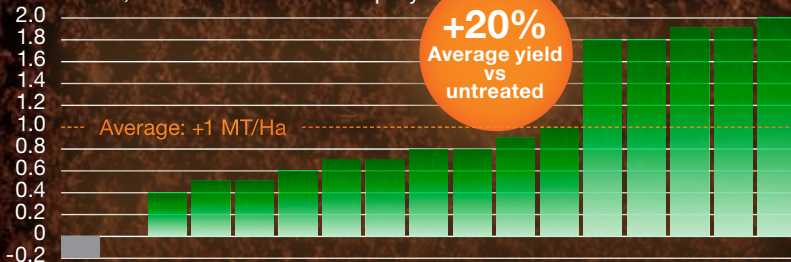


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# From the Editor's Desk

For the past few years, Non-Governmental Organisations (NGOs) have waged an onslaught against the formal seed system. The major criticisms have been brought about by the enactment of Plant Variety Protection law in some countries in Africa.

The major argument has been that seed companies are against the welfare of farmers and are mainly out to make huge profits at the expense of small-scale farmers.

What these anti-formal seed production actors seem to conveniently forget is that research by the United Nations Food and Agriculture Organisation (FAO) shows that between 2008 and 2018, Africa suffered an estimated US\$30 billion in losses caused by a decline in crop and animal production as a result of floods, diseases, droughts and other shocks.

With such increasingly unpredictable weather patterns, as a result of climate change, and frequent pest and disease outbreaks, farmers must take concrete measures to enhance yields. This includes access to, and planting of quality seeds.

Reading through the report of the African Union Commission's Seed Sector in Africa: Status Report and Ten-year Action Plan (2020-30), one comes across evidence that good quality seeds can potentially increase overall productivity by nearly 40 per cent. This provides a clear pointer that seeds significantly influence the quality and quantity of farmers' output and other Good Agricultural Practices (GAP) notwithstanding.



Mr. Aghan Daniel  
Editor | AFSTA

In a recent article, Dr Jane Inonda, a respected seed expert from Kenya, wrote that the formalisation of seed systems aims at ensuring that farmers only plant seeds from licensed producers that adhere to certain quality standards. This, other experts opine, is for the good of the farmers who in turn reap high yields from their investment.

Seeds, states Dr Inonda as a matter of fact, must meet the characteristics of the prescribed variety and be free of pests and diseases.

Only registered companies can be involved in the production, processing, packaging and distribution of seeds. This ensures that farmers have access to the right inputs and get value for their money.

To illustrate this point, she says seeds of improved maize varieties could yield up to 6 tonnes per hectare, in comparison to 1.8 tonnes per hectare yielded by home or farmer saved seeds.

We must also not forget the fact that Africa's maize production still remains 1.5 tonnes per hectare, the lowest in the world, with seed people pointing out that these were the maize yields in the USA when hybrids were introduced in 1926. Little wonder then that by 2017, USA maize yield record was 34 tonnes per hectare. Something certainly must be done in Africa to bridge this gap.

In 2021, Africa accounted for a 3.5 per cent share value of the global seed market. Row crops held the largest share in Africa, accounting for 77 per cent in 2021. The main reason for row crops holding the largest share is increasing consumption with an increasing acreage under cultivation. For this scenario to be sustained, we cannot ignore the role of certified seed as an important input in ensuring food security in Africa.



Mr. Modou Thiam

## Some facts on Senegal's seed sector

*The 23<sup>rd</sup> AFSTA Annual Congress takes place in Dakar, Senegal, from March 6-8, 2023. One of the leading lights of the organisation of the Congress, Mr Modou Thiam, spoke to our editor, Aghan Daniel, about pertinent issues that the global community needs to know about the country's seed industry.*

**Below are the excerpts of the interview.**

**Please tell us about five things the world needs to know about the Senegalese seed system.**

The National Seed Service was created in 1972, with the first seed law enacted in 1994; the sector was privatised over 30 years ago; and there are seed processing units in all regions of the country. Senegal is also a member of OECD approval and the national seed laboratory is ISTA accredited. It is also important to note that in January 2014, the official Gazette of the Republic of Senegal was published with the decree harmonising the ECOWAS/UEMOA/CILSS regulatory texts.

**What is the value of the Senegalese seed market in US dollars?**

The financial value of the Senegalese seed market is not easy to determine in the sense that there is no precise data available. However, since 2013, as part of the reconstitution of seed capital, the State of Senegal has injected, on average, 5 billion (USD 8.1m) CFA francs per year into the seed sector, that is a little more than 50 billion (USD81m) francs in the last 10 years.

In addition, the State has subsidised all certified seeds, apart from millet.

For example, for the 2016/17 campaign, the subsidy on certified groundnut and cereal seeds was on average 50 per cent, certified rice 100 per cent and cassava 85 per cent. For the 2021/22 campaign, for groundnuts, we were on average at 46 per cent and cereals at 55 per cent, also not taking into account the subsidy on agricultural equipment.

**Tell us a little bit about the seed sector in Senegal from 1990 to date.**

The period from 1990 to the present day has seen the liberalisation of the seed sector with the support of the Autonomous Seed Project (PAS) and birth of the support programme for the CNIA (National Inter-professional Peanut Committee) and the National Inter-professional Union of Seeds (UNIS). The creation of these structures responded to the concern of the State, to ensure the gradual transfer of commercial activities to the private sector through institutional support with a view to professionalising seed operators.

The SAP has considerably helped to build the capacity of stakeholders in the sub-sector, thanks to the training and supervision of groups of seed producers, but also to the establishment of storage infrastructure and the rehabilitation of packaging stations for seeds from Diourbel and Richard-Toll.

At the same time, the sovereign missions of control and certification of seeds devolved to DCPS have been entrusted to the Seeds Division (DSEM) of the Directorate of Agriculture (DA).

To support the revival of the groundnut sector, Senegal signed in October 2006, a Framework of Mutual Obligations (COM) financed from the balances of funds from the 7th and 8th EDF.

This programme, started in 2007, supports ISRA for the production of pre-basic seeds; the Seeds Division and the Regional Directorates of Rural Development (DRDR) to ensure the control and certification of seeds; and grassroots producer organisations for groundnut seed production (Basic, R1 and R2).

### What makes the country's seed sector unique?

One of the essential characteristics of the seed sector is the reliability of the control and certification procedures (all the procedure manuals have been drawn up and validated). It is for this reason that for several years now, Senegal has had OECD approval and an ISTA-accredited national seed laboratory. Senegal is now looking for EU (European Union) equivalence.

### Please tell us a bit about special seed production programmes targeting women in the country, if any.

We have three major programmes targeting women. They include that of cowpea, a highly developed crop in the centre north and practised by women's groups (mainly in the Louga region); sesame, a new crop very popular with women; and horticultural seeds with the management of seed shops.

### What are some of the key factors for creating a successful seed business in Senegal?

First, one needs a seed licence and/or to enter into contracts with approved producers. You must also comply with the country's tax environment and have the technical, financial and organisational capacities. To endure the constant flow of products, you need a market. There is also approval from the APIX (Agency for the

Promotion of Investments and Major Works), which supports business creation, facilitates administrative and State procedures and provides assistance in obtaining investment incentives.

### What are some of the milestones (success stories) that your seed association (UNIS), under your leadership, has achieved since its inception?

Since its creation in 1996, the inter-professional union of seeds of Senegal has made significant progress for the benefit of the seed sector and its members. The union collaborates with sub-regional organisations such as CORAF and Syngenta in the context of the large-scale distribution of new seed varieties. UNIS also collaborates with AFRICA RICE as part of the project to support the rice seed sector in Senegal. To this end, the members of the union have benefited from capacity building for good farming practices, support in pre-basic rice seeds and advocacy to develop their seed production activities.

In particular, an agreement for the production of pre-basic seeds (all species) has been signed with research (ISRA) to enable our members to develop their activities. Since 2019, UNIS has been contributing alone, within the framework of this three-party contract (UNIS/ISRA/AGRO ASTEL), to the supply of pre-basic peanut seeds. As a member of AFSTA, it managed to organise its congress twice and will organise it again in March 2023. It is also a member of the Board of International Seed Federation (ISF). On another level, UNIS acquired, its own funds, logistical means, but also a headquarters for the inter profession.

### What challenges do you face in the seed sector in your country?

First, few resources are made available for research, in particular for selection and the pre-basic seed production unit. Secondly, there is a lack of technical, financial, and logistical means as well as quality human resources (well trained) of the control services. Lastly are the aspects relating to the strict application of seed regulations.

### How did you overcome these challenges facing the Senegalese seed sector?

We signed a partnership agreement with research (implementation of production contracts) and provided support for varietal selection. We also signed an agreement for large-scale varietal dissemination, especially for new varieties of millet, sorghum, rice and cowpea, and looked at hybrids that are starting to gain momentum. There was also capacity building of actors and advocacy for the establishment of private control.

### What three things would you change in the Senegalese seed sector for greater efficiency in seed production and trade?

I would elevate the Seeds Division to a "Directorate" for more management autonomy, and set up a seed fund. I would also promote private control, a source of job creation and impact on seed quality.

### Please provide a comment on the regional harmonisation of ECOWAS seed regulations.

Harmonised regulations have been applied in Senegal for a few years and have a number of advantages for the country's seed sector; exchanges with member countries are easier, especially for introductions.

# Biotech farmers still on track, four years on

By Aghan Daniel | Communication Officer | [daghan@afsta.org](mailto:daghan@afsta.org)

Photo Credit | Aghan Daniel



**A young Bt Cowpea farmer, Abdullahi Ibrahim is among farmers who said the PBR variety has in the last two years boosted their yield by more than 50% and is gradually becoming the farmers' choice in the cowpea growing community.**

**T**he year 2022 was marked by farmers in Nigeria showing unflinching belief in Bt cotton.

This was despite many cotton growers in Adamawa State suffering the devastating effects of floods, which caused tremendous damage to the crop in the field and had a great impact on the prices of the production.

Alhaji Umar Musa, a farmer and cotton trader, said that in his more than 20 years of cotton cultivation, he has never seen anything like this. According to him, several farms were severely damaged by the floods, especially those close to the Savanah Sugar Plantation, which is less than five kilometres from the Kem community in the Shelleng Local Government Area.

The floods affected many cotton and soybean farms, resulting in a significant decrease in output compared to the previous season, when farmers comparatively had a good crop.

Prices also plummeted due to the tension surrounding the country's general election this month, and market participants traded with caution, according to Umar.

Umar presently buys cotton for N360,000 (USD800) per tonne, but such a time last year it was N450,000 (USD1000) and prices are expected to remain stagnant until the elections are completed.

Muhammed Hamza, who started producing cotton again three years ago after years of abandonment, says he used the Bollguard II type, harvesting three tonnes on one of his farms and selling each tonne for N450,000 (USD1000), bringing in a total of N1.35 million (USD2,889).

"Since then, I've made the decision to grow cotton on this property every year. I planted this in early July, and by the beginning of December, I will be ready to harvest. A single plant bears more than 100 bolls, as you can see, which is highly intriguing to every cotton grower," says Hamza.

"Farmers will undoubtedly prosper if one hectare can yield three tonnes since it can fetch N1.5 million (USD3,333)."

Dr Amos Phiri has collaborated closely with cotton growers to provide them with extension services. He said that as more farmers get involved in it, cotton production is rising and their agronomic practices have also advanced.

"We began with 200 farmers in the first season, then in the following season, we received a record 500 to 700 farmers, and in the following season, which is 2021, we received more than 1,500 farmers," says Dr Phiri.

"We sold up to 15,000 cartons of seed, weighing 15kg each, in this region for this season alone, which indicates a significant rise in number of farmers."

The increase, according to the extension officer, was caused by the fact that farmers last season enjoyed favourable cotton prices because produce was sold to the merchants at N530,000 (USD 118) per tonne, which encouraged many farmers to enter the market.

"Previously, the farmers shied away from cotton because of the problems surrounding its growing in this zone as they spent more on spraying and the yield was not particularly impressive," says Dr Phiri.

More impressive is the story of Bt cowpea farmers in Yaryasa, Tudun Wada Local Government Area of Kano State. For years, the farmers in this area have relied on rain-fed agriculture. With the advent of the farming of Bt cowpea Pod Bora Resistant (PBR) variety called SAMPEA 20T in the area, the farmers have diversified into irrigation production, taking advantage of a major seasonal river and watercourses that traverse the community.

As the dry season activities intensify, young farmers are expanding from vegetables to dry season cowpea production while others have completely shifted to dry season production with a focus mainly on the PBR cowpea variety.

Alhaji Aminu Abdu is a well-known farmer in the area who has experimented with many cowpea varieties. He made the decision to explore dry season production last year, taking advantage of the PBR cowpea variety's unusual potential output.

This is because the PBR cowpea type is resistant to the maruca worm, the primary pod-sucking insect that ruins farmers' fields by up to 80 per cent and forces farmers to spray pesticides sometimes up to 10 times. Abdu is among hundreds of farmers who nowadays cultivate the beans in the dry season.

Abdu says he has harvested 2.5 tonnes during the wet season but expects at least 1.5 tonnes in the dry season because in the wet season, he had more acreage. However, for this dry season, he has about 1.5 acres along the bank of the river in the agrarian community. His records show that he sprayed pesticides just twice on the PBR variety and would have spent more if other varieties were planted.



**Nigerian farmer Alhaji Aminu Abdu has experimented with many cowpea varieties. Last year he explored dry season production taking advantage of the PBR variety's unusual**

The farmers say the PBR variety has in the last two years boosted their yield by more than 50 per cent and is gradually becoming the farmers' choice in the cowpea-growing community.

An extension officer, Alhaji Ado Garba, who lives in the community, says many cowpea farmers in the area are now investing more in the PBR variety because of its yield advantages over others.

In Malawi, the allure of growing Bt cotton is too strong to resist. Not even when the prices are still low and the extension hard to come by.

From farmers' perspective, the new variety is a game-changer. They have seen more benefits; high yields and less demand for chemical sprays. These were the challenges they encountered before. They have lived all their life growing cotton and surely they would want to do it some more.

The biggest drawback is the market, which doesn't offer value for money. But if the market issue is resolved we are likely to have more farmers adopting the new technology.

In Kenya, just like in Nigeria and Malawi, farmers have extolled the benefits of the technology.

## SPECIAL REPORT

# How to sustainably access Bt cotton seeds in Kenya

By Silas Obukosia<sup>1</sup>, Endale Gebre<sup>2</sup>, Karim Maredia<sup>2</sup>, and Joseph Guenther<sup>3</sup>

Photo Credit | Aghan Daniel

Lack of improved cotton technology is the major cause of low productivity of the crop in Africa. This has mainly been caused by traditional cotton farmers growing open pollinated local varieties for ages.

Farmers use recycled seeds of open pollinated varieties obtained from local ginneries.

Access to improved seeds and use of best crop management practices have been critical gaps for decades.

According to a 2019 report by The International Service for the Acquisition of Agri-biotech Applications (ISAAA), insect resistant Bt (*Bacillus thuringiensis*) cotton hybrid technology offers potential to curb the primary cotton production challenges caused by bollworms.

Research field trials and demonstration plots in Kenya with Bt cotton have showcased the value of the technology. The genetic solution could also help to reduce the use of toxic pesticides, increase productivity, and meet the growing demand for cotton.

Bt cotton is a proven technology globally adopted by millions of smallholder and commercial farmers. In India, over 95 per cent of cotton farmers have adopted Bt cotton technology and the country has become a net exporter of cotton (Peshin et al., 2021; ISAAA, 2019).

On-farm demonstrations and farmers interest of the Bt cotton Based on research results, the Kenyan government approved a hybrid Bt cotton obtained from the Mahyco Seeds Company in India for commercial use in December 2019. Mahyco Company has moved forward in commercialising this technology in collaboration with various government agencies. Bt cotton hybrid technology being new to Kenyan farmers and for higher seed prices, farmers may recycle the seeds unless supported technically and financially.



**For Bt Cotton to be adopted in large numbers there is need for demo farms to be identified all over the country.**

Unlike open pollinated variety seeds, recycling hybrid seeds reduces yielding potential in the next generation. Therefore, the government decided to initially purchase the seeds and provide them freely to farmers.

As a launching phase, in 2020, the government purchased 700 kilos of three hybrid (C567, C570 and C571) seeds from Mahyco and 500 farmers in Western and Coastal regions received free seeds. In October 2020 to January 2021, additional 16 tonnes of Bt cotton hybrid seeds was purchased from Mahyco and expanded the demonstration plots with 10,000 acres in nine counties in Eastern and Central Kenya.

The demonstration plots have shown superiority of the Bt cotton hybrid technology. Observing the results, a farmer in Central Kenya said "... the remarkable progress indicated so far has convinced me to invest in Bt cotton seed. I will not wait to receive the seeds from the government. I hope the seeds can be available in my local farm input suppliers' (agrovet) shops so that I can

purchase, just like we get hybrid maize seeds". With this success, farmers demand is expanding and Mahyco received an order of 4.5 tonnes of seeds from only Lamu County.

But due to the financial crunch faced by the government due to the COVID-19 pandemic, the purchase from Mahyco Company in India has been hampered. Therefore, a suitable transition from subsidy to farmers independently purchasing Bt cotton seeds in a few years' time is required to be developed.

Options for sustainable seed supply The free supply of Bt cotton seeds is not a sustainable and viable option. Due to the issues related to foreign exchange and financial constraints, it was not possible to purchase seeds for 2021 growing seasons. At that time, the government and the technology provider had discussions to develop a strategy and options for providing access to Bt cotton hybrid seeds.

In the meantime, the following assessment results were obtained based on discussions with various stakeholders and suggested as potential solutions. Diversifying options to include non-Bt cotton hybrids and open pollinated ones might improve access but such diverse interest can also pose management challenges in the seed system.

Generally, the following possible seed access schemes options were provided towards building sustainable Bt cotton hybrid seed system in Kenya:

Options for hybrid Bt cotton seeds access by farmers in Kenya

#### Option 1: Government Seed Purchase Scheme

This option would enable farmers to purchase seeds from government sources at discounted prices for several years to enhance wider adoption of the technology and empower farmers with their own financial resources. For this option, the government would need to make capital/financing arrangements through national and international instruments.

As a part of this strategy, the government could collaborate with cooperatives and ginneries to recover the seed costs through a levy-based system where farmers are charged certain portions of the selling price when they bring their harvested cotton for sale. This would require agreement with government, ginneries, and farmers on the levy rates and payback period.

#### Option 2: Farmers Cooperatives and County Government Support Scheme

This option would enable increased farmers access to credit and allow cooperatives to purchase seeds and supply farmers at a discounted rate. The discounts, the levy rates and payback period can best be established between farmers and the cooperatives. One limitation with this option is that the number of farmers covered by the cooperatives scheme could be less than with the other options. Involvement of ginneries and agro-dealers could enhance this option.



### Young farmers: Governments should engage farmers to form cotton producing clusters to support access to improved seeds.

#### Option 3: Contract Farming with Farmers and Ginneries Scheme

Farmers cooperatives, as they grow to be fully functional, may not cover all cotton farmers in all regions and seasons.

Under this option, the ginneries can purchase seeds directly from the technology owners and supply to farmers through a post-harvest payback arrangement. The details of the payback arrangement can be worked out in the contracts agreement with farmers.

#### Option 4: Selling Seeds through Open Market Scheme

This option does not have to involve government subsidies. Farmers would directly purchase seeds or buy through cooperatives or agrodealers.

The open market option can be viable and competitive but will require a strong cotton seed quality regulatory oversight by the government to address the issues related to counterfeit seeds. This requires reinforcement of policies for strict seed quality.

#### Way Forward

Given both the Bt technology and hybrid cotton technology are new to farmers in Kenya, the continued engagement of government and technology providers to empower farmers and institutions that support farmers is critical.

- The county governments should play additional role engaging farmers to form cotton producing 'county- clusters' to support access to improved seeds and related inputs and access to cotton/product market.
- The four options to access Bt cotton hybrid seeds described above need to be further discussed with the government, key stakeholders and the technology provider.
- The hybrid cotton technology is new to Kenyan farmers and requires special crop management practices. Extension services and training of farmers should be an integral component of commercialisation and scaling-up strategy for hybrid Bt cotton.
- A long-term strategy would be to develop innovative partnerships to produce Bt cotton hybrid seeds locally or regionally in Kenya or in East Africa.

The authors are from the following institutions

- 1 African Union Development Agency (AUDA-NEPAD), Nairobi, Kenya
- 2 Michigan State University, East Lansing, USA
- 3 University of Idaho, Moscow, USA

## PARTNERSHIP

# Africa Vegetable Breeding Consortium vouches for sound commerce

By Aghan Daniel I [daghan@afsta.org](mailto:daghan@afsta.org) & Mwasilwa Ambali I [mwasilwa.ambali@s.org](mailto:mwasilwa.ambali@s.org)

Photo Credit | AFSTA



**Vegetable variety development requires long-term investment which is a challenge for small companies that have difficulties obtaining loans to fund such investments.**

**T**he benefits of eating vegetables are more than many people could ever imagine. A diet rich in vegetables and fruits can lower blood pressure, reduce the risk of heart disease and stroke, prevent some types of cancer, lower risk of eye and digestive problems, and have a positive effect on blood sugar, which can help keep appetite in check. So say nutritionists and doctors.

Given all the benefits of vegetables, the cultivation area under its production in Africa increased from 41 million hectares in 2016 to 48 million hectares in 2022, owing

to the increase in the demand for vegetables, high return on investment, and new technologies.

A 2010 study, **Derived demand for African indigenous vegetable seed: Implications for farmer-seed entrepreneurship development**, by CABI stated that African indigenous vegetables (AIVs) hold the potential to address food security and nutrition in Africa. Their production and consumption remain constrained by lack of quality seed. Efforts to promote commercial seed production lack information about the effective demand of AIV seed.

Seed demand analysis in Uganda showed that farmers would utilise seed from market sources of approximately 32 tonnes per year, against current formal supply of 4.4 tonnes.

Estimated price elasticities showed that purchased seed was less sensitive to its own price, implying less significant effect of price change on the quantity of seed demanded over time.

Seed production exhibited higher gross margins and returns to labour compared to vegetable production, suggesting prospects of profitability and sustainability of farmer-seed enterprises as an alternative source of quality seed for farmers.



**Seed demo farm: There is a growing trend of private sector supply of basic seed in the West African region.**

In describing the gaps experienced in Africa, another study found out that farmers' capacity to meet a growing demand for these vegetables has been limited by lack of good quality seed of preferred varieties and technical packages (Abukutsa, 2010; Afari-Sefa et al., 2013).

The majority of farmers either use seed saved from their crops (usually leftover or deliberately saved over many years) and seed from neighbours or from local shops, often with problems of both purity and germination. The absence of good quality seed leads to significant production losses, affecting household incomes and food security.

On the other hand, seed companies operating in Africa are diverse in terms of size, crop portfolios, and research capacity, as well as their capacity-building needs and priorities. Vegetable variety

development requires long-term investment by companies, which is especially challenging for small companies that have difficulties obtaining loans to fund such investments.

However, investment in research and breeding is necessary for all seed companies to maintain their long-term profitability. International vegetable seed companies typically invest 10 – 15 per cent of their sales revenues in research.

Based on this observation, the African Seed Trade Association (AFSTA) and the World Vegetable Center (WorldVeg) jointly initiated the Africa Vegetable Breeding Consortium (AVBC) in 2018.

The Consortium aims to promote the development of a strong vegetable seed sector in Africa. Consortium companies have lead access to WorldVeg germplasm as well as to an annual workshop organised at one of the regional

centres of the WorldVeg in Africa. The companies are allowed to secure up to 10 free seed accession or breeding lines per year. Further the member companies benefit by having access to special projects such as a recently launched project on "**Development of Locally-Adapted Tomato and Pepper Varieties in Africa.**"

Last year was marked by a growth in the consortium to 51 members. Members ordered over 250 WorldVeg breeding lines. The consortium has also been very active in sharing information through five online webinars with an average participation of 35 people per webinar. Majorly, after a two- year hiatus, AVBC held its annual workshop on 6 – 7 September, 2022 at the IITA campus in Cotonou, Benin, hosts of the Centre's regional office for West and Central Africa.

Some 45 people were present at this workshop, including WorldVeg scientists and staff of 17 seed companies from West, Central and



**A vegetable farm: AVBC aims to strengthen the capacity of seed company staff in vegetable breeding and seed production.**

East Africa and Europe.

This year's AVBC annual workshop is planned to be held in Arusha, Tanzania, in October 2023.

New project to develop locally-adapted tomato and pepper varieties in Africa

Seed companies in Africa continue to rely on public domain, open-pollinated varieties such as tomato varieties Tanya and Tengeru-97, which were introduced by the WorldVeg in the late 1990s, or even older varieties such as Roma (1950) and Cal-J (1970). Profit margins on these varieties are usually low as seed of the same varieties is produced by many companies. Meanwhile, imported F1 hybrids have become popular among farmers. Some of these F1 hybrids are also based on parental lines supplied by the WorldVeg.

Despite the success of these hybrid varieties, the choice of seed available to farmers in Africa remains limited. It is clear that the market trend for tomato and chili pepper is towards

F1 hybrids.

African vegetable farmers are increasingly interested in F1 hybrids if the seed quality is good and if they have a reliable market to sell their harvest to. Seizing this opportunity requires investment in breeding research and seed production.

The Center has stepped in to partners with seed companies of any size to reduce the financial risk associated with investments in F1 hybrids. The centre offers parental lines with excellent performance under tropical conditions (high heat and humidity), key resistance traits to local plant diseases (e.g. bacterial wilt, early blight, leaf curl virus), and a range of horticultural traits such as shape, size, taste, shelf life, capsaicinoids (for chili), and colour to tailor products to local consumer demand. The parental lines also have excellent combining qualities. In addition to germplasm, the centre offers companies training in vegetable breeding and hybrid seed

production.

This is an exclusive offer to AVBC members. The objectives of this project will be to provide member companies with breeding lines that have been demonstrated as being high performers in multi-location trials across sub-Saharan Africa.

The second aim is to strengthen the capacity of seed company staff in vegetable breeding and seed production, including hybrid seed production, to enable companies in developing their own breeding pipeline of F1 hybrids and in their variety release through DUS testing and VCU trials, if required and depending on the country.

Finally, the project will carry out multi-location adaptability trials to test varieties developed by the companies on different sites across

## Success story

Agri-Commercial Services, a seed company in Ghana, saw a market opportunity in developing its own tomato F1 hybrid for the Ghanaian market as well as export to neighbouring countries. In collaboration with the West African Centre for Crop Improvement (WACCI), they tested a wide range of WorldVeg F1 hybrids in Ghana. In 2021, they released three multi-disease resistant and high yielding hybrids in Ghana: 'Ante Dede', 'Legon Tomato', and 'Tomato Queen'. WorldVeg provided the parental lines for producing the hybrid seed for multiplication to WACCI, and with WorldVeg support, Agri-Commercial Services will produce certified seed. These are the first commercial tomato hybrids produced in Ghana.

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## RESEARCH

# Lessons from West Africa on developing the seed sector

Mainza Mugoya | [mmugoya@tasai.org](mailto:mmugoya@tasai.org)

Photo Credit | National Agricultural Seeds Council, Nigeria

**T**he African Seed Access Index (TASAI) is a seed industry research programme that tracks the competitiveness of seed sectors in Africa. By the end of 2022, TASAI country studies had been conducted in 23 African countries, eight of which are from the Economic Community of West African States (ECOWAS) region. This article provides an overview of the seed industry across ECOWAS. The article draws from data and analysis from TASAI studies conducted between 2020 and 2022 in six ECOWAS member states – Burkina Faso, Ghana, Liberia, Mali, Nigeria, and Sierra Leone. With reference to these six countries, six emerging lessons can be drawn as shown here under;

### Lesson 1: Notable growth in production of certified seed

Five of the six West African countries have recorded significant increases in aggregate production of certified seed for key crops over the last few years. The most notable among these countries are Ghana and Nigeria. In Ghana, seed distribution through the Planting for Food and Jobs programme, which is the main buyer of seed from seed growers, has increased more than three-fold for OPV maize from 2,380 tonnes in 2017 to 7,804 tonnes in 2021, more than eight-fold for rice seed from 1,700 tonnes to 14,900 tonnes over the same period, and more than 20-fold for soya bean from 147 tonnes in 2017. Growth in seed production in Nigeria is also quite impressive. From 32,000 tonnes in 2017 to 62,000 tonnes in 2021 for maize seed, and from 37,695 tonnes to 54,144 tonnes for rice seed over the same period.



**The author who is the Programme Coordinator of The African Seed Access Index (TASAI) fields questions from journalists at a meeting in Nigeria recently.**

Rice seed production in Burkina Faso, and rice and maize seed production in Sierra Leone grew between 44 per cent and 67 per cent from 2017 to 2021.

### Lesson 2: Complete policy framework, but inadequacies in implementation

In all the six countries, most of the seed policy instruments are in place, having been passed in the last five years. Some of the recent policy instruments include six seed-related Ministerial Ordinances passed in Mali in 2018 and 2019; the Liberia Seed Development and Certification Agency Act passed in 2019, and Regulations approved in 2021; the Sierra Leone Seed Certification Agency (SLeSCA) Act in 2017, and Regulations in 2020; the National Agricultural Seed Council Act of 2019 and the Plant Variety Protection (PVP) Act of 2021 in Nigeria, among others.

However, the main challenge pertains to inadequate implementation of these instruments. This is mainly due to underfunding of the implementing agencies and committees. For example, the policy instruments in Liberia establish the Seed Development and Certification Agency as the government entity in charge of implementing the law and regulations. However, though the law was passed in 2019, by the end of 2022, the agency had not yet been established.

The policy instruments for Burkina Faso, Ghana, Liberia, and Mali all establish a National Seed Committee/Council as an oversight entity for the seed industry. Of these, only Burkina Faso and Ghana have functional committees. Even so, the committees are inadequately funded.

### Lesson 3: Public sector is a dominant player in breeding programmes

The national agricultural research institutions across the six countries are the main players in the breeding programmes for the key cereal and legume crops.

However, there is a dearth of private sector investment in plant breeding. The number of active breeders for the top four cereal and legume crops in these countries are nine (Liberia), 15 (Sierra Leone),

16 (Mali), 18 (Burkina Faso), 33 (Ghana) and 24 (Nigeria). None of these countries has more than five private breeders. In contrast, in Zimbabwe, 28 of the 33 breeders of the top four crops are in the private sector.

#### Lesson 4: Heavy reliance on public sector for foundation seed, though private sector is emerging

For four of the six countries surveyed by TASA, the national agricultural research institutions are the main supplier of foundation seed for the key cereal and legumes crops, supplying 100 per cent of the basic seed in Burkina Faso, more than 75 per cent

#### Lesson 5: Reliance on government seed subsidy programmes

Only two of the surveyed six countries were implementing seed subsidy programmes between 2020 and 2022 – Burkina Faso and Ghana. In both cases, these government programmes were key buyers of certified seed from seed producers. In 2021, the surveyed seed producers in the two countries, on aggregate, sold between 41 and 75 per cent of their seed for the four crops to/through the government subsidy programme. However, the volume of seed sold to these programmes is steadily declining. On aggregate, seed producers in Burkina Faso sold 41 to 66 per cent of their seed for the

In Ghana, the Planting for Food and Jobs programme has an increased focus on maize hybrid varieties, which were predominantly sourced from imports and not local production.

#### Lesson 6: Under-developed seed distribution systems

Agro-dealers are the primary channel for seed distribution in a functional private sector-led seed system. There are notable inadequacies in both the number and capacity of the agro-dealers across the region. In Liberia and Sierra Leone, the number of agro-dealers is very low, at a ratio of 3,281 and 11,800 per agricultural household, respectively. In other countries, though the numbers are quite high, the agro-dealers are untrained and/or unregistered.



**The seed sector across West African countries is at different stages of development**

in Ghana and Mali and between 57 and 62 per cent in Nigeria. However, there is a growing trend of private sector supply of basic seed. In Nigeria, four seed companies have been set up over the last five years, specialising in the supply of basic seed. Some of these companies are subsidiaries of existing seed companies. In Ghana, the Ghana Seed Inspection Division registered nine seed companies to produce basic seed in 2022.

four crops to the subsidy programme in 2021, a notable reduction from the range of 71 to 81 per cent for the same crops in 2017. In Ghana, the reduction was between 2019 and 2021, from 90 to 48 per cent for maize, 86 to 51 per cent for soya bean and 83 to 67 per cent for rice. The main reason for the reduction were the seed growers' concerns about the delayed payments for seed supplied to government.

In Nigeria, only 30 seed sellers were registered by the National Agricultural Seed Council in 2022, though several thousands were estimated to be operational. In Ghana, the number of registered agro-dealers reduced from 3,543 in 2019 to 2,258 in 2021. This is because more than 1,000 agro-dealers were de-registered by the Plant Protection and Regulatory Services Directorate (PPRS) for not meeting the requirements for operating the seed business. In Burkina Faso, seed producers' satisfaction with the agro-dealer networks reduced from 72 per cent in 2018 to 50 per cent in 2020 because some agro-dealers have defaulted on their payments to seed companies, who supplied seed on credit. This challenge is also partly a function of inadequate training.

In conclusion, the seed sectors across the six West African countries are in two stages of development. Sierra Leone and Liberia are still at the nascent stage of development, where the private sector is still emerging and for the most part, government seed services are still inadequate. Ghana, Nigeria, and Burkina Faso are at the growth stage of development, with a growing private sector that is investing in seed production and marketing. However, in all these cases, there is substantial room for industry growth.

*Please visit the TASA Dashboard (<https://www.tasai.org/en/dashboard-home/>) and website (<https://www.tasai.org/en>) for seed industry data and comprehensive reports from the countries surveyed by TASA.*

## LEADERSHIP

# Tracing AFSTA's success: Torchbearer's journey for the last two decades

By Aghan Daniel | [daghan@afsta.org](mailto:daghan@afsta.org)

Photo Credit | AFSTA

*After serving the African Seed Trade Association (AFSTA) for 23 years, Mr Justin Joseph Rakotoarisaona will be leaving the association for retirement. The African Seed Magazine engaged him on his experience as the founding head of the Secretariat.*

**Please tell us about your work experience and professional qualifications.**

I have worked for the seed sector since 1988. I was in the Seed Service of the Ministry of Agriculture of Madagascar for 11 years. I hold a Master's degree in Agribusiness Management from the University of London (UK) and Engineer of Agronomy from the University of Antananarivo (Madagascar). I became the Secretary General of AFSTA in September 2000.

**Why did you choose to work at AFSTA, a new, unknown and nascent association of seed people?**

It is my passion to work for the seed sector and I considered it an opportunity to broaden my knowledge. There has to be the pioneer in everything, and I was taking up this challenge and adventure if I may call it so.

**Please describe your first 12 months at AFSTA**

A. It was a period of setting up AFSTA to have all requirements to operate and to get myself with my family settled well in Nairobi. Fortunately, the Seed Trade Association of Kenya (STAK), chaired by the late Dr Nathaniel Tum,



**Justin Rakotoarisaona, outgoing AFSTA Secretary General.**

who was also Managing Director of Kenya Seed Company, was very helpful on this exercise. Indeed, AFSTA shared office with STAK for about 10 years before moving to another office. Thus, the late Mr Obongo Nyachae (former Executive Officer of STAK) who was the acting AFSTA Secretary General before my arrival, was just next door and from him I could get clarifications on anything that was not clear to me.

To sum it up, it was a period of challenges, especially in terms of funding for AFSTA operational expenses. However, the situation was sorted out since the number of AFSTA members progressively increased, and the American Seed Trade Association (ASTA) represented by Mr Mark Condon and the Inter-professional Seed Grouping (GNIS) represented by Mr François Burgaud were very supportive to AFSTA in various aspects.

The former Secretary General of International Seed Federation (ISF), Dr Bernard Le Buanec, also played a pivotal role in this early stage of AFSTA, including the proposal to set up a regional seed association for Africa, which materialised during the preparatory meeting in April 1999 held in Lilongwe, Malawi.

**What are some of the achievements that you are proud of as you depart?**

Among others, the achievements worth noting include the recognition of AFSTA as the representative of the African seed industry and it was granted a diplomatic status in Kenya, which is the host country for AFSTA. The number of AFSTA members increased from 37 in 2000 to currently 130 and likewise, the number of staff was two in 2000 and this lasted for about 10 years and currently there are six full time AFSTA staff.



**Seed companies discuss business at a past AFSTA congress.  
Harmonised regulation is key for the development of the seed sector in Africa.**

AFSTA also acquired its own office in 2014 and has been carrying out various seed projects benefiting the seed sector in Africa. Other achievements include organisation of 23 successful annual congresses in various African countries and sub-regions; organisation of various training courses in different topics of interest to the seed industry; promotion of seed technologies that may help Africa attain food security; active participation in the harmonisation process of regional seed regulations to facilitate cross-border seed trade in Africa; and cooperation with various international and regional seed organisations in promoting various rules governing the seed trade.

#### What have been some of the key milestones in your life at AFSTA?

The key milestones can be summarised as growing AFSTA from its initial stage during which its future was not clear to an association that now represents the seed sector in Africa in various fora due to the unwavering support from AFSTA members primarily and the development partners as well.

#### What strategies did you put in place to ensure consistency of participation and retention of seed companies in AFSTA Congress?

Designing an attractive congress programme addressing various issues of interest to the seed sector in Africa and selecting excellent congress venues where delegates are comfortable in conducting their seed business.

#### What would you want to see changed at the association to make it better than you are leaving it?

I do not have any special recommendations on this. What I can say is that AFSTA should keep addressing the issues of the seed sector in Africa and defending the interest of members for a thriving seed industry capable of appropriately supplying quality seeds for farmers in the continent.

#### What three things would you want to be remembered for as the first Secretary General of AFSTA?

First, I would like to be remembered with how we overcame the challenges we faced at the formative stage of AFSTA with the support of various seed stakeholders. Secondly, for serving AFSTA members diligently with passion in order to contribute to their seed business development through various means, including the AFSTA annual congress. Finally, for leading AFSTA during these years to navigate through various contexts in the seed sector in Africa to reach its current level.

#### Any other issues that you would like to tell seed people in Africa as you leave as the Secretary General of the association?

I would like to express to all the seed people in Africa my sincere thanks for their support to AFSTA in general and to me as Secretary General in particular. May AFSTA have a long life and I am still available to help it and the seed people in Africa in one way or another, if need be. Special thanks goes to all the past and current AFSTA board of directors, past presidents and the AFSTA staff for their support during my time as Secretary General. Particularly, I sincerely express my gratitude to the Kenyan government and the people of Kenya for their support and hospitality during my stay in the country.

## Transition



**Mr Francois Burgaud**

# Of a founding member and the wish for flourishing African seed trade outfit

*Mr Francois Burgaud, who until recently worked for GNIS based in France, has been an AFSTA board member since its birth. He has however retired from the board beginning this year. Our editor Aghan Daniel asked him to reflect on his time at AFSTA. He had the following to say;*

**Please tell us about yourself in terms of work experience and professional qualifications.**

I have been working for 50 years in the seed sector totally by chance. I started in 1972 in the French seed organisation, GNIS, with a three-year part time job on accountability during my studies in Economics, Political Science and History. Finally, I stayed; first in charge of small grain cereals, corn and sorghum; I worked a lot at that time with all stakeholders and especially farmers' organisations on FSS in wheat.

I started also to be involved in cooperation with Morocco, Tunisia and Algeria. Then I went four years on seeds in Senegal with a funding of French Ministry of Cooperation to work as the head of a project of Caisse Centrale de Coopération (AFD now) on the privatisation of the seed sector.

When I went back to France in 1991, I became responsible for developing our international activities. Finally, in 1998, I kept the International Department but was also the Head of Communication and Public Affairs Department, which I created in 2006. But I have to recognise that international cooperation had always taken the biggest part.

**You have been in the AFSTA board since the start of the association; what motivated you to serve on this board?**

Fully involved in the creation of AFSTA from the very beginning before Lilongwe meeting, my participation in the board was totally evident. When you have the feeling of being one of the founding fathers of an organisation, you want to be there to help it grow. And AFSTA is growing slowly, so, maybe it's the reason I stayed for so long.

**What are some of the decisions you made that you feel did not work very well for the association and the seed sector in Africa?**

We did not succeed in the creation and development of national seed associations. If you look, the strongest associations today were created before AFSTA; Kenya, Morocco, South Africa, Zambia, Zimbabwe, Uganda, Senegal, Egypt. Tunisia is an exception because of the influence of Raouf Ghariani, one of the Presidents of AFSTA, who created the association. In all other countries, associations are too much linked to one company, and moreover to one person.

**What are some of the achievements that you are proud of as you exit the board?**

That AFSTA is existing, self-funding, and recognised at the international level as a true representative of seed industry in Africa. Don't forget that, even now, Africa represents less than three per cent of the world seed trade. Some 23 years ago, only four countries were UPOV members, none REC had a harmonised regulation, and only six countries were members of OECD seed schemes and ISTA. Globally, the seed industry was very weak except in the same few countries cited. On vegetables mainly in French-speaking countries, only the French group, Technisem, invested in breeding activities in Africa. On field crops, some companies around Pannar in South Africa, Seed-Co in Zimbabwe, Kenya Seed Company, did the same in southern African countries.

### What have been some of the key milestones during your stay in the Board?

No milestone at all. The progress of AFSTA is like in conventional breeding: incremental. But AFSTA has more and more members, more implementations of foreign breeding and producing companies, not only from USA or Europe but also from India and China. AFSTA is very resilient. When you compare evolution of some continental associations during the COVID-19 pandemic you may see that AFSTA lost very few members.

### What are some of the decisions you made that you feel worked well for the association and the seed sector in Africa?

The involvement of AFSTA in lobbying to obtain harmonised regulations was key for the development of the seed sector in Africa. Today all the regional economic communities have harmonised regulations.

There is still some work to do in a fair implementation of these regulations but the food security crisis woke up many governments on the continent about the importance of seed breeding and seed choice. AFSTA is the right organisation at the right place to help.

### What would you want to see changed in the association to make it better than you are leaving it?

The involvement of the main national seed associations in the committees and working groups of AFSTA is too weak. Same for the participation of representatives of AFSTA at the international level in all the working groups of AU, ISF, IPPC, UPOV, OECD, etc. It is too often only the Secretariat or some board members.

### Any other issues that you would like to tell seed people in Africa as you leave as a board member of the association?

Don't lose the ambition of AFSTA to be the only seed organisation for Africa. Sometimes some people ask why AFSTA is bilingual. Other times West African French associations are wondering why they need to be in an association dominated by English speakers.

For me there is no doubt that nobody has any interest in two associations on the continent, especially now that things are changing. Southern countries are looking at West and Central markets and vice-versa.

Globally, the world seed sector is changing very rapidly but we were right to dream 24 years ago. Seed security of African farmers needs a strong private seed sector and AFSTA is here to protect and promote it. Finally, I just want everyone to know that I will never be very far away.



# AFSTA Congress 2024

Kenya

4-6 March, 2024  
Nairobi, Kenya

AFSTA Congress 2024

The banner features a large Kenyan flag in the upper left corner. Below it, the text 'AFSTA Congress 2024' is written in a bold, black font. To the right, the dates '4-6 March, 2024' and the location 'Nairobi, Kenya' are displayed in a bold, black font. The background of the banner is a photograph of a cityscape, likely Nairobi, with several tall buildings and a clock tower. In the foreground, there are green banners and a statue on a pedestal. The overall design is professional and informative.

## THE BIG READ

# Africa's food security only possible with effective climate adaptation

By Enock Chikava | [Enock.Chikava@gatesfoundation.org](mailto:Enock.Chikava@gatesfoundation.org)

Photo Credit | Clifford Akumu

I am penning this article at a perilous time in the history of agriculture and food security.

Climate, COVID-19 and conflict are major threats to achieving food and nutrition security, especially in Africa. From experience, we have now realised that their intersecting impacts have magnified global food insecurity and bring extreme hardship to the livelihoods and welfare of small-scale producers, especially in Africa. This has largely been a hidden phenomenon.

The Intergovernmental Panel on Climate Change (IPCC) report that came out in April 2022, stated that the climate adaptation efforts to-date have been small-scale, fragmented, reactive, and insufficient. A few months later in July, the State of Food Security and Nutrition Report (SOFI) announced that 828 million people were affected by hunger in 2021, a growth of 150 million from 2020; furthermore, three billion people could not afford healthy diets in 2020, 112 million more than in 2019.

Right now, the famine in the Horn of Africa, a little climate Armageddon, is the latest devastating example of the dual crisis we face in Africa. The immediate crisis we face is that 22-25 million people are at the verge of starvation, 1.1 million forced to leave homes in search of food and water. The second is the future crisis – the lack of resilience that makes the coming famines more likely, more frequent, and more costly. There is an urgent call for massive infusion of innovative tools and strategies that smallholder farmers can use to rebuild the climate-compromised food systems and ensure resilience.

As a seedsman, my mind quickly explores the increasing, indispensable and important role the private seed sector plays in solving Africa's food and nutrition security.



**There is need to prioritise action on adaptation to ensure smallholder farmers have access to the innovations that can help them build**



**Enock Chikava**

Investment in Africa is both a moral and economic imperative – and the seed sector, through AFSTA, is a key stakeholder together with governments and development partners.

Why do we need to double-down on adaptation in Africa?

First, the climate crisis is already a food and economic crisis without precedent. What with droughts in East Africa unlike any ever seen – destroying crops and livestock that are essential for survival. Evidently, Nigerian farmers for example, suffered a disorienting swing from droughts in 2021 followed by extreme flooding in 2022.

Secondly, the onslaught of climate harms to domestic food production hurts agriculture-dependent countries across Africa in two ways. It increases their reliance on costly imported foods (north of \$23 billion per year) while reducing the income available to pay for them.

In the battle against climate change, there is an urgent need for action on adaptation to prevent further loss and ensure smallholder farmers have access to the innovations that can help them build resilience.

All sub-Saharan Africa accounts for only about four per cent of the world's carbon emissions. The surge of climate-related losses on its farms is largely the result of emissions from other regions.

Yet today, only 1.7 per cent of climate finance is directed to smallholder food producers—and most of that money is focused on mitigation.

Even though we are at a time of great peril it is also a time of great promise. This is because there are a host of innovations already available that can help farmers quickly adapt — and partnerships with Africa's seed sector will sustain the solutions. Deployed strategically, philanthropic capital helps private sector by buying down the risk of serving the smallholder farmers. Here are some leverageable investments and solutions.

In Ethiopia, a wheat rust early warning system has helped farmers avoid millions of dollars in losses to a climate-sensitive crop disease.

Further, in Kenya and a growing number of other African countries, many smallholder farmers are purchasing crop insurance because an innovative African "agritech" start-up is using advances in data analytics and machine learning algorithms to provide affordable policies.

Today, African farmers now have access to a host of new, naturally stress-tolerant varieties of maize, beans, sweet potatoes, rice and cassava. Many more are in the pipeline and new tools are available to accelerate their development.

Besides, innovations that help farmers adapt can reduce their carbon footprint. Such include innovations in areas like digital soil maps, stress-tolerant crop varieties, sustainable livestock feeds, early warning systems, and agroforestry — all build resilience while providing opportunities to reduce emissions.



**Deployed strategically, philanthropic capital helps private sector by buying down the risk of serving the smallholder farmers.**

In conclusion, it is imperative for the seed sector in Africa to prioritise actions to overcome climate challenges that are an existential threat to millions of small-scale farmers and billions of people who depend on them for food. It is hoped that AFSTA will operationalise and strengthen its memorandum of understanding with the African Union Commission (AUC) bearing in mind that African leaders through the AUC are determined to fully support the CAADP, investing 10 per cent of national budgets to agriculture and spur growth in the sector by at least six per cent annually.

At Bill and Melinda Gates, we look forward to working closely with AFSTA to ensure seed security is at the core of solutions for Africa's food and

nutrition security and resilience building. We further hope that AFSTA can be part of the recently announced \$1.4 billion over four years to support partnerships in sub-Saharan Africa and South Asia that can provide small-scale farmers, many of whom are women, with new options for sustainably producing food for local markets and income for their families—even as climate change intensifies.

If that were to happen, we will be taking the right steps to exploit available solutions that can quickly turn the tide, but which suffer because the costs and consequences of delayed action are enormous.

# Check-back on registration of varieties in regional catalogues

By Prof. Katrin Kuhlmann | [kkuhlmann@newmarketslab.org](mailto:kkuhlmann@newmarketslab.org)

**A**frican Regional Economic Communities (RECs) have developed or are in the process of developing harmonised seed rules aimed at easing cross-border seed trade within the respective regional blocs and increasing farmer access to improved varieties. These have proceeded at different paces within the different regions.

Many countries in sub-Saharan Africa are Member States of at least one of these RECs (See Figure below). When a country is a member of more than one REC, compliance with regional variety registration rules becomes more complicated. This complexity may be exacerbated as larger trading blocs are implemented, both through the Tripartite Free Trade Area among COMESA, the EAC, and SADC and through the African Continental Free Trade Area (AfCFTA).

## Comparison of Regional Variety Catalogues

The length and flexibilities in the variety registration process within the different RECs depend on the applicable harmonised seed rules. All RECs have some common elements. For example, common to all the RECs is the requirement of variety evaluation at the national level for distinctness, uniformity, and stability (DUS) of a variety, in accordance with the guidelines of the International Union for the Protection of New Varieties of Plants (UPOV), as well as assessment for value for cultivation and use (VCU) or national performance trials (NPT).

Once a variety meets prescribed criteria and an application for regional registration is accepted, it can be registered in the respective regional seed catalogue. Within the RECs, only COMESA, SADC, and ECOWAS have rules on regional variety registration, and all three



Photo Credit | Kenya Seed

## Variety registration and release criteria in ECOWAS are reportedly shortest and best understood by users in comparison to other regions.

maintain regional variety catalogues. Overall, the effective implementation of these frameworks and ultimate benefit to the key stakeholders in the respective regions requires further action at the national level, as well as mutual recognition of rules and regulatory systems between countries.

Within sub-Saharan Africa, ECOWAS has the most varieties in its catalogue, with the combined three versions of the West African Regional Catalogue of Plant Species and Varieties showing a total of 1,807 varieties, compared with 109 varieties in the SADC Variety Catalogue and 95 in COMESA's current Plant Variety Catalogue, as of December 2022.

Among the three RECs with regional catalogues, the variety registration and release criteria and application process in ECOWAS is reportedly the shortest and best understood by stakeholders.

Varieties registered in West African national catalogues qualify for registration at the regional level without the requirement of registration in a second country. This partly explains why the ECOWAS catalogue has the most registered varieties as compared with SADC and COMESA.

Stakeholders noted that since applications for variety registration within SADC are initiated at the country level with national seed authorities (NSAs), the process is relatively simple and streamlined. This partly explains why the SADC Seed Variety Catalogue has the second most registered varieties in sub-Saharan Africa, although industry experience and market size are likely factors as well.

The COMESA variety registration and release system is reportedly "user friendly".

Stakeholders noted that delays only happen at the national level with NSAs' submission of evaluation data results to COMESA. Otherwise, once the data is submitted, COMESA quickly processes applications.

Within all the three RECs, there is diversity across registered crops. However, maize varieties represent the most significant component of all three regional variety catalogues, consistent with maize's role as a staple crop in many African countries and its commercial significance and central role in food security. The West African catalogue is relatively more diverse, with maize representing a smaller overall percentage of varieties, next to rice.

Over the years, the number of varieties registered in all three RECs has fluctuated. Some stakeholders noted that this has partly been due to national and regional institutional delays and capacity gaps. Others noted that there have been significant challenges with cross-border trade of seed registered in the regional catalogues, which largely defeats the objective of regional registration of varieties.

#### Challenges in Registration of Varieties in Regional Catalogues and Trade in Regional Markets

Registration in regional catalogues means that varieties should be traded freely within all the countries in the respective regional blocs. Despite the regional seed rules on variety release and registration, however, stakeholder consultations revealed numerous implementation challenges in practice.

Some countries are yet to fully align their national seed laws with the regional seed frameworks, with implementation gaps existing even where rules are aligned on paper. Consultations revealed that in all the three RECs, there continues to be many barriers accepting varieties from other countries, even when registered on regional catalogues.

ECOWAS Seed Regulation	SADC HSRS	EAC Seed Bill	COMESA Seed Trade Regulations
<b>New Variety</b>			
<ul style="list-style-type: none"> <li>The length of the DUS and VCU tests depends on the crop in question.</li> </ul>	<ul style="list-style-type: none"> <li>Released in two countries</li> <li>DUS One Season</li> <li>VCU in each of two SADC Member States</li> </ul>	<ul style="list-style-type: none"> <li>DUS Two Seasons</li> <li>NPT Two Seasons</li> </ul>	<ul style="list-style-type: none"> <li>DUS Two Seasons</li> <li>VCU/NPT Two Seasons</li> </ul>
All priority crops subject to a minimum of: <ul style="list-style-type: none"> <li>Two seasons DUS</li> <li>Two seasons VCU</li> </ul>	<b>Variety Released in one Member State to be released in a Second Member State</b>	<b>Variety Already Released in one Partner State and Seeking Release in a Second Partner State</b>	<b>Variety Already Released in one Member State and Seeking Release in a Second Member State</b>
Except tomato and onion which are exempt from mandatory VCU.	<ul style="list-style-type: none"> <li>DUS One Season</li> <li>VCU Two Seasons</li> <li>Procedure not streamlined as in other RECs</li> </ul>	<ul style="list-style-type: none"> <li>DUS One Season</li> <li>VCU One Season</li> </ul>	<ul style="list-style-type: none"> <li>VCU/NPT One Season</li> </ul>
<b>ECOWAS Registered Varieties</b>	<b>Variety Released in two Member States prior to SADC Variety Catalogue</b>	<b>Variety Released in two Partner States</b>	<b>Variety released in two Member States prior to COMESA Variety Catalogue</b>
<ul style="list-style-type: none"> <li>Not to be tested</li> </ul>	<ul style="list-style-type: none"> <li>Entry in the SADC Catalogue upon submission of DUS/VCU</li> </ul>	<ul style="list-style-type: none"> <li>Automatic release in third Partner State</li> </ul>	<ul style="list-style-type: none"> <li>Entrance in the COMESA Variety Catalogue upon submission of DUS/VCU</li> </ul>
<b>Fees</b> <ul style="list-style-type: none"> <li>No fees.</li> </ul>	<b>Fees</b> <ul style="list-style-type: none"> <li>Registration Fee (TBD)</li> <li>Annual Fee (TBD)</li> </ul>	<b>Fees</b> <ul style="list-style-type: none"> <li>Not established yet</li> </ul>	<b>Fees</b> <ul style="list-style-type: none"> <li>Registration Fee \$350</li> <li>Annual Fee \$200</li> </ul>

**Comparison of Regional Variety Release and Registration Requirements in Western, Eastern and Southern Africa**

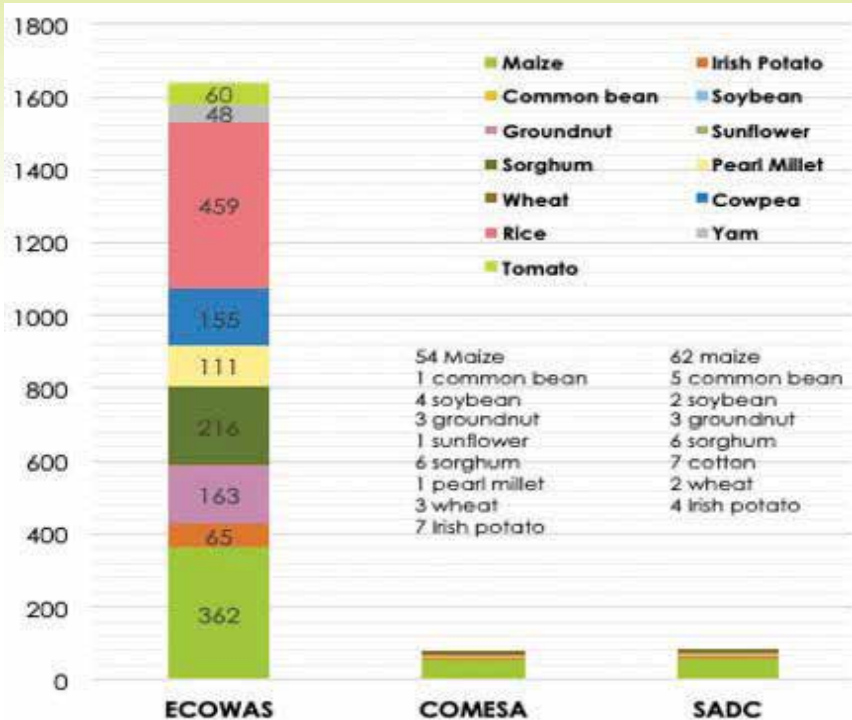
All the RECs require that evaluation data be transmitted to the regional institutions by the NSAs. During consultations and validation of findings, stakeholders reported significant delays, expenses, and bureaucracies in this process, which were associated with limited institutional resources and capacity issues.

Stakeholders noted that some countries were unable to conduct evaluation tests in accordance with international standards as required by the seed rules in the different RECs, which creates challenges in regional variety registration. Some varieties were reportedly rejected for registration in ECOWAS, for instance, due to inconsistencies in evaluation with respect to international rules and standards, even though these varieties appear in the national catalogues.

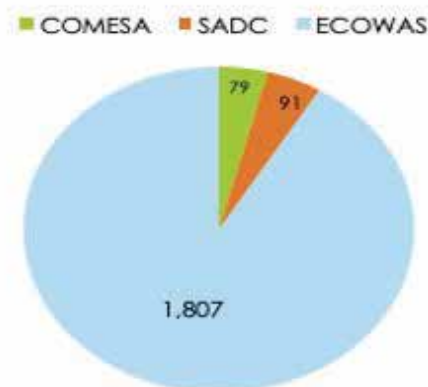
There were also reports of limited coordination between national and regional institutions involved in variety registration, which further delays the process of sharing relevant evaluation data and information.

Some stakeholders expressed concern with the high registration and annual maintenance fees required under COMESA. Failure to pay COMESA's maintenance fees has reportedly resulted in deregistration of varieties and their removal from the COMESA Plant Variety Catalogue, with the Catalogue currently reporting 68 of the 95 total varieties.

In SADC, significant processing delays have been reported due to institutional capacity gaps, even where relevant information has been shared by the NSAs. In ECOWAS, stakeholders have noted that the regional catalogue is in French without an English translation, which makes access to the catalogue difficult for some stakeholders in the region.



Comparison of the Crop Type, Number and Total Varieties Registered in COMESA, SADC, and ECOWAS



Some stakeholders also expressed concerns with regional registration of varieties with similar genetic traits but different names. This is especially the case where parent material is shared by international research centres (CGIAR) with national research centres (NARS) and private seed companies in different countries. Many of the public sector stakeholders that have expressed interest in registering their varieties in the regional variety catalogues were unfamiliar with regional variety registration rules, especially in SADC and COMESA where the rules are more complex.

#### Recommendations to address challenges

The following recommendations have arisen from legal assessment and stakeholder consultations to address legal and implementation gaps:

- Conduct capacity building with key stakeholders to increase familiarity with relevant criteria and processes and evaluate progress and address issues as they arise;
- Widely disseminate legal tools on regional variety registration, including the PASTTA, SADC and COMESA Manuals;

“Over the years, the number of varieties registered in all three RECs has fluctuated partly due to national and regional institutional delays and capacity gaps.”

- Adopt registration of variety identification numbers (VIN) to trace varieties developed using CGIAR and NARS genetic material and avoid duplication of varieties on the regional catalogue;
- Build capacity among NSAs to align national systems with regional seed rules, including evaluation testing in accordance with international standards;

- Improve communication between NSAs and regional bodies to facilitate regional registration and trade;
- Incorporate notations in catalogues that show the year of registration, and maintain archived version of all catalogue entries, in order to provide a consistent record of progress with regional variety registration, even when projects end; and
- Encourage creation of regional databases for evaluation test results in SADC and COMESA, which could be aligned with national databases so that regional applications could be processed without requiring significant action by the NSAs.

*Prof Katrin Kuhlmann is the Founder and President of New Markets Lab.*

*This article is taken from a series of research and policy publications co-authored by the Syngenta Foundation for Sustainable Agriculture (SFSA) and New Markets Lab (NML) on regional seed policy harmonisation in Africa.*

# Kenya begins review of national seed policy, set to develop sector investment plan

By Duncan Onduu | [duncan.onduu@stak.or.ke](mailto:duncan.onduu@stak.or.ke)

**K**enya's 2010 National Seed Policy recognises two seed regimes – formal and informal seed sector.

The policy outlines the government's strategy to develop, promote, and regulate a modern and competitive seed industry. The Seeds and Plant Varieties Act of 2012 is the national seed law, and comprehensively addresses plant breeders' rights, variety evaluation and release processes, and harmonisation with other related Acts of Parliament and regional and international agreements to which Kenya is a signatory. The industry is regulated by the Kenya Plant Health and Inspectorate Services (KEPHIS), the designated national authority on all matters seed.

It is against this background and the new realities in the seed sector both in Kenya and beyond that the Ministry of Agriculture and Livestock Development has commenced the review of the 2010 National Seed Policy.

To this end, a multi-sectoral team of seed experts has been constituted to review the policy and develop a Seed Sector Strategy and Investment Plan for Kenya.

The Seed Trade Association of Kenya (STAK) is part of the expert team, representing its members. The first meeting of the team was held last October during which a number of outputs were realised, including the development of the outline of the Seed Policy; identification of key challenges and gaps in the sector; and identification of key priorities for inclusion in the policy.

A follow-up meeting was convened three weeks later during which the first draft of the National Seed Policy was reviewed and the necessary amendments for improvement made.



Photo Credit | Courtesy

**Duncan Onduu, Executive Officer of the Seed Trade Association of Kenya (STAK).**

The first draft of the Seed Sector Strategy and Investment Plan was also reviewed while providing cost estimates to the proposed interventions.

Finally, the African Seed Access Index (TASAI) gave an update on the Seed Sector Performance Index, a monitoring tool of the African Union (AU) Commission intended for use in the forthcoming Comprehensive Africa Agricultural Development Programme (CAADP) Biennial Review report.

The development of the Seed Sector Strategy and Investment Plan will be pivotal as it seeks to provide a one-stop investment shop for the seed sector players and those in agriculture in general on both the demand and supply chain and investment trends and opportunities.

This will be useful not only for local seed trade but also within East Africa Community (EAC), Common Markets for East and Southern Africa (COMESA) and beyond.

A road map for stakeholder engagement has been developed and will be communicated appropriately.

As the process rolls out, it underscores the fact that inputs play a fundamental role in agricultural production and productivity as they constitute the basal segment of the value chain. Seed is one of the most critical inputs in agricultural production since it has the greatest potential of increasing on-farm productivity and enhancing food security.

This process is being facilitated by Alliance for a Green Revolution in Africa (AGRA) and TASAI as the consulting organisation.

## FARMER SPEAK

# All you need to know about Seed Emergency Response Tool

By Abby Love, Wilfred Ouko, Andrea Mottram and Louise Sperling

**E**mergencies often disrupt the lives of farming families and their agricultural production. Smallholder farmers are particularly vulnerable and deal with a range of shocks and stresses, including climate variability, conflict, and COVID-19. During emergencies, humanitarian practitioners and the private sector need to act quickly to help restore the local farming system to its pre-disaster state or better, ensuring farmers can resume producing food and become more resilient – even in the short term.

Seed interventions are a particular focus of humanitarian aid as seed is relatively easy for farmers to use and can give quick returns. While good seed aid can bolster farming systems, poor seed aid can increase farmers' vulnerability. For instance, seed that arrives too late or poorly adapted seed wastes farmers' land and labour resources. Also, aid repeated over multiple seasons breeds farmer dependency and stifles the development of commercial seed enterprises. How can the humanitarian community avoid bad seed aid?

The Seed Emergency Response Tool (SERT), developed by Mercy Corps and Seed System through ISSD Africa, is one tool to help policymakers, programme managers, and field staff engaged in emergency and early recovery agricultural responses to do seed aid better. It helps those new to this area of work, as well as those with experience, to make informed, quality decisions about the choice of a seed security intervention and how best to implement it.

Photo Credit | Aghan Daniel



**Effective seed work calls for the selection of appropriate responses geared to equitably meet the varied needs of farmers.**

Effective seed security responses require strategic thinking and deliberate design actions. Clear goals must be set; choices among equally good interventions need to be mapped out; and the selection of appropriate responses must be geared to equitably meet the varied needs of men and women farmers. The SERT provides guidance on how best to tackle these tasks.

Market-based approaches to seed security have grown in recent years among humanitarian practitioners because of their potential to inject significant funds into local economies in times of stress. For seed security work, market-based assistance also promotes the functioning of multiple sources of planting material over the longer term, and ensures markets, whether formal or informal, are not undermined by large external seed distributions.

If applied correctly, market-based strategies can improve the capacity of markets to provide farmers and households with critical benefits, such as seed, basic services, and credit, with greater reach and adaptability than humanitarian agencies can achieve directly. The SERT contains multiple examples of market-based interventions.

The SERT also synthesises the growing body of good or better practices linked to seed security response. It is framed by a set of 10 core principles. The 10 Guiding Principles for Good Seed Aid and their technical guidance notes were developed based on decades of experience in seed aid from varied multi-platform groups who have contributed to global discussions, helping to formulate the principles. They include market-based approaches, the importance of assessments and the need for evaluation.

## 10 Guiding Principles for Good Seed Aid (from the SERT)

1. Do an assessment
2. Match the type of response to the seed security problem(s)
3. Be clear about the intervention's goal
4. Confirm that the response type can actually be implemented in the given context
5. Ensure the intervention gets seed to farmers on time
6. Give priority to market-based assistance
7. Ensure crop and variety suitability
8. Verify seed quality to meet minimum standards of farmers, practitioners and donors
9. Offer farmers choice
10. Arrange for multiple types of feedback

The tool also contains field-tested tools: decision trees for choosing a suitable intervention; checklists for evaluating responses; and reference materials for those seeking more technical detail.

These tools enable implementers and donors to quickly assess seed systems in the wake of disasters and target the appropriate area and method of intervention.

### Companion Tool: A Context Analysis Tool for Seed Systems in Conflict-Affected Areas

Through an ISSD Africa collaboration, Mercy Corps together with Seed System developed a Context Analysis Tool (CAT) to help implementers working in conflict-affected areas of fragile states. The CAT aims to help these actors quickly grasp the environment and circumstances in which seed systems function, and then to identify practical entry points for designing and implementing interventions to bolster such systems, making them more resilient. Pushing beyond the standard interventions that focus on importing and distributing seed, the CAT is a modest but important beginning for promoting more tailored, and hopefully, better practice in these challenging contexts.

**The first three writers work for Mercy Corps and the latter for Seed System.**

# AFSTA Congress 2024

Kenya

**4-6 March, 2024  
Nairobi, Kenya**

AFSTA Congress 2024



# Women leadership key in seed industry growth

**Dr Mariam Maiger (Gender Expert – CORAF) & Dr Yacouba Diallo (Agri-input expert CORAF)**

Photo Credit | AFSTA



**Mrs Mariame Sy Top, General Manager of Top Mountain Company, Senegal. According to Coraf, women face gender specific constraints that limit their productivity.**

**S**eed is one of the most crucial elements in the transformation of agriculture in West Africa. Production of and access to quality and affordable seed will increase agricultural production and productivity to meet food security and nutrition requirement in the region. While seed plays a critical role in the transformation of agriculture in the region, the seed demand gap estimated at 70 per cent jeopardises efforts to achieve sustainable food and nutrition security. Reforming the seed industry in West Africa became therefore a must for the governments, development partners and seed industry actors.

To address the challenges, CORAF supports the seed systems development, through key actions such as enhancing the private sector engagement in the

regional seed industry; facilitating the implementation of the regional seed policies and regulations; and strengthening the capacity of stakeholders in the production and use of quality seed.

While CORAF is instrumental to address challenges jeopardising the sustainable development of the seed industry in West Africa, addressing the gender and youth dimensions in the process is critical to meet the objectives.

Wherever they are, women face gender-specific constraints that reduce their productivity and limit their contributions to agricultural production, economic growth and the well-being of their families, communities, and countries. In the seed sector, women participate in the whole value chain, particularly in the seed processing, and in the seed lab activities. But as entrepreneurs,

women face a serious gender gap in accessing productive resources and competitive markets. That is why in the west Africa sub-region, women own fewer of the leading seed companies, including FASO KABA in Mali, Ainoma in Niger, Tecniseed in Nigeria, etc.

Gender gaps in sub-Saharan agriculture is well documented. Although women play a pivotal role in the entire agricultural value chain, food and nutrition security, they face unequal access to agricultural inputs.

Women and youth are known as value chain actors in the seed systems but lack capacity to take actions for sustainable seed systems development. Their specific needs are not always well addressed in seed institutions, value chain, and policies and regulations.

There is a gender gap in seed industry with women seed entrepreneurs facing unequal access to capacity building on seed value chain development, seed policies and regulations, seed quality control and compliance, entrepreneurship, and business skills, and more importantly loans to run seed business.

Gender disparities in the seed industry affect women's ability to contribute significantly to fill the seed demand gap in the region.

Gender strategies are therefore needed to address the challenges. In that vein CORAF has developed an innovative gender responsive approach and support, which led to the creation of a regional network of women leaders in seed industry, with the aim to promote women's entrepreneurship in seed industry, and facilitate upscaling of quality seed within the region, to meet the demand.

In total, CORAF has trained over 190 women entrepreneurs who have joined the regional network. The series of regional and national trainings comprised the quality seed production techniques, drying, processing and storage of quality seeds, seeds quality control and compliance with regional seed certification schemes, seed policies and regulations, seeds business management and marketing, gender and communication in seed industry, and women's leadership development in seed industry. Seed policymakers and legal frameworks should consider gender and youth dimensions in creating an enabling environment and conditions for full engagement of women and youth in the seed industry to close the seed demand gap in the region.

Finally, the Network intends to be an effective women's voice of action in all matters concerning the seed sector, and associated services through West Africa. Its ultimate objectives are to create a regional forum for members to address their needs, share value and formulate position papers on seed issues in order to improve the performance of the regional seed



**Mrs Sylvia Horemans CEO of Kamano Seed based in Zambia and her colleague Hellen Simatebele. In the seed industry, there is a gender gap with women seed entrepreneurs facing unequal access to capacity building initiatives and loans to run business.**

industry; provide room for a technical and business cooperation and joint venturing among members and with other partners; and contribute to the national and regional seed policy dialogues.

CORAF supports this regional platform of women leaders in the seed industry and finds it as a catalyst for promoting sustainable development of the seed industry and women entrepreneurship in West Africa.



### CALL FOR ARTICLES



The African Seed Traders Association (AFSTA) invites articles from members to be published, The African Seed Magazine due to be published in March 2024.

AFSTA calls for in-depth pieces on any initiative or news in your country on seed trade and seed production initiatives, policy, projects that have a direct impact on the African seed sector.

Kindly note that AFSTA being a neutral body, only publishes articles which do not promote one company's work. However joint efforts by a consortium of companies will be published.

DEADLINE FOR SUBMISSION OF ARTICLES

December 10, 2023.

**Send your articles to our Communication Officer, Aghan Daniel, Whatsapp +254775327635. He can also be reached on email at**

# Helping ECOWAS Member States to harmonise procedure for seed trade

By Dr Yacouba Diallo | [y.diallo@coraf.org](mailto:y.diallo@coraf.org)

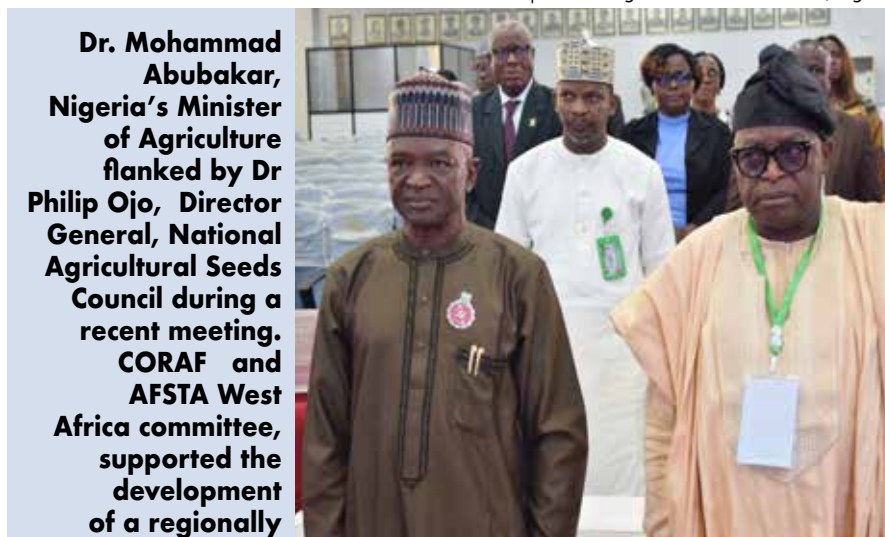
In the ECOWAS region, the private seed sector has been growing rapidly in the past few years. The rapid growth has resulted in the improvement of the regional regulatory and policy framework.

The ongoing harmonisation of the seed regulation and policy requires complementary executive regulations, procedure manuals and protocols to guide and strengthen the principles and provisions of the harmonised policy both for the government agencies and the private sector actors. In line with the mandate given by ECOWAS, CORAF has been successful in forging strong collaborations with the seed companies and AFSTA to lead the development of the harmonised procedure manual for seed import and export in the region.

As a reminder, in the ECOWAS region, only a few countries such as Mali, Nigeria, Ghana and the Gambia have adopted a national official procedure for seed import and export. The remaining countries do not have a clear procedure. So far, for the seed entrepreneurs, the cross-border trade of seeds in the region is a costly, cumbersome and time-consuming process because of contradictory procedures and other technical barriers among the member States. The seed import/export operations in many countries within the region have remained largely rigid, negatively impacting the fluidity of intra-regional seed exchanges.

At the request of the seed industry, CORAF, jointly with the seed companies under the umbrella of AFSTA West Africa committee, supported the development of a regionally harmonised procedure manual for seed import/export. This provides a single harmonised protocol for all the 15 countries in ECOWAS plus Chad and Mauritania.

Photo Credit | National Agricultural Seeds Council, Nigeria



**Dr. Mohammad Abubakar, Nigeria's Minister of Agriculture flanked by Dr Philip Ojo, Director General, National Agricultural Seeds Council during a recent meeting. CORAF and AFSTA West Africa committee, supported the development of a regionally**

These two last countries together implement the ECOWAS seed regulation and protocols because of their apurtenance to CILSS, which has signed an agreement with ECOWAS to expand the seed regulation to the CILSS member States.

The development of the regional manual governing the harmonised procedures for the import and export of seeds went through an inclusive process, including policy dialogues, expert workshops, and stakeholder regional consultative meetings. The meetings brought together experts from national seed committees, seed quality control and certification national agencies, experts from national plant protection organisations, representatives of international organisations and development partners (FAO), representatives of the private sector, including seed companies, AFSTA and national seed trade associations, and representatives of RECs (UEMOA, ECOWAS).

The consensual harmonised protocols for the ECOWAS region will streamline the procedures facilitating the intra-regional trade of plant seeds by reducing the volume and the diversity of the regional trade documentation; simplifying

and fast-tracking the processes and operations by reducing the checkpoints and saving time and money for the seed traders.

The agreed procedures provide guidance for the member states to comply with regional and international regulatory requirements in terms of administrative reforms and organisational arrangements that facilitate the import and export of plant seeds.

Definitely, CORAF succeeded in facilitating, building, and empowering the public-private collaboration by bringing the private sector and public/regulatory authorities together to discuss and reach a consensus on this key issue for the regional seed sector. The outcome obviously will be the promotion and the openness of the regional seed market, with more improved varieties proposed to farmers.

Globally, CORAF's active involvement in seed policy environment reforms in the region have resulted in growth in the participation of the private sector in the seed sectors, the number of improved varieties released, the number of active seed companies, and volumes of domestic and intra-regional seed trade.

# USAID develops improved seed varieties to fight food insecurity in Africa

By Francis Mureithi | [fmureithi@ke.nationmedia.com](mailto:fmureithi@ke.nationmedia.com)

Photo Credit | Simlaw Seeds



**Selling seed: In West Africa, cross-border trade of seeds is costly and cumbersome.**

In a bid to fight food insecurity in Africa, the United States Agency for International Development (USAID) in collaboration with research partners has developed seeds that are more responsive and resilient to climate shocks and stresses.

The seeds include soybean that has specifically been produced for Kenya, Zambia, Zimbabwe, Uganda, Nigeria, Malawi, Ethiopia and Ghana.

At least one variety of sorghum has been developed for Ethiopia while three different varieties of okra have been developed for Mali.

There are two new varieties of mungbean and nine varieties of cowpea and four varieties of common bean and two varieties of amaranth for Tanzania.

Eggplant variety  
The African Eggplant variety for Mali and Tanzania are also available for farmers.

"We're excited to support the delivery of new and improved seed varieties to the African Seed Trade Association Congress," said USAID.

At the same time, the development of the new seed varieties for African climatic conditions is a result of partnerships between USAID and US universities through Feed the Future and the US government's hunger and food security initiative.

"The collaboration has enabled the development of solutions that improve crop production, conserve genetic resources, protect livestock and animal health, help farmers manage pests and diseases, and build sustainable farming systems that are prepared for a changing climate," said USAID Senior Program Manager Mark Huisenga in a statement shared with The African Seed Magazine last month.

According to USAID the aim of the innovation Labs is to address the current and potential acute threats to global food systems.

Improved crop varieties  
"USAID develops new and improved crop varieties that are more productive and more resilient to abiotic and biotic stressors including drought and disease," added Huisenga.

USAID has invested more than Sh61 billion in the development of over 1,000 new innovations and production practices, including the development, breeding, and trialling of hundreds of new crop varieties.

At least more than 60 new seed varieties have been released for uptake by seed producers in Asia and Africa and replaced low-yielding varieties which are susceptible to threats associated with climate change.

**This story first appeared in Kenya's Daily Nation on January 14, 2023**

## PICTURE SPEAK



1. L to R: Riadh Gabsi (Chair of UTIKA), Kulani Machaba (President of AFSTA), Justin Rakotoarisaona (Secretary General of AFSTA), and Prof. Mohamed Habib Ben Jamâa (General Director of Plant Health and Control of Agricultural Inputs of the Ministry of Agriculture of Tunisia) shortly before Prof. Jamâa officially opened the AFSTA Congress 2022 held in Djerba, Tunisia last year. 2. The guest of honour Prof. Mohamed Habib Ben Jamâa shares some moments with a delegate at the congress. Looking on is Riadh Gabsi who chaired the Congress 2022 showpiece. 3. L to R: Mrs Victoria Miller, her husband Charles Miller (American Seed Trade Association) and Riadh Gabsi (Chairman of UTICA) at the 2022 Congress.

4. L to R: Kulani Machaba (President of AFSTA), Prof. Mohamed Habib Ben Jamâa and Riadh Gabsi pose for a photo shortly after the opening ceremony of the Congress.

5. Nereshee Ramdayal (Starke Ayres South Africa) and Michael Yeadon (Chairman - Plennegy Group South Africa)

## PICTURE SPEAK



1. L to R: A delegate is spotted at the trading table manned by Leonardo Lionço of Isla Sementes from Brazil. 2. L to R: Jacobus Johannes van Huyssteen (SANSOR – South Africa), Lukeshni Chetty (General Manager of SANSOR – South Africa) and Magdeleen Cilliers (SANSOR – South Africa) during the Congress in the beautiful island of Djerba, Tunisia. 3. L to R: Pier Luigi Daltri (Galassi Sementi – Italy) captured in deep discussion at the trading tables in Djerba. 4. L to R: S. C. Aswathanarayna (Vokkal Seed – India), Kassim Owino (Seed Co. International – Kenya) and Takemore Chagomoka (Seed Co. International – Ghana) discuss business with a lady delegate at the congress trading tables room. 5. A delegate savours the delights of Djerba.

## PICTURE SPEAK



1. AFSTA Past President Azariah Soi at the Congress. 2. A dance troupe entertains delegates with scintillating tunes of Tunisia. 3. Ushers prepare to welcome delegates at the congress registration desk.  
4. L to R: L to R: Pier Luigi Daltri (Galassi Sementi – Italy) and Mariam Sy Top (General

## PICTURE SPEAK



1. Dr Simplicie Fonkou and a delegate who were part of the African Union team at the congress.
2. L to R: Azariah Soi (Past President – Kenya), a delegate and Sylvia Nanteza (Simlaw Seed – Uganda) pose for a photo at the congress.
3. Ahmed Ouayach (AFSTA Board member from Morocco) makes a presentation in Djerba.
- 4 & 5. Delegates at the Congress share a light moment together.
6. L to R: AFSTA Past President, Mr Azariah Soi, AFSTA President Dr Kulani Machaba and Justin Rakotoarisoana spotted together in Tunisia.
7. L to R: Salah Awad Omar (AFSTA Board member – Sudan) pose for a photo with two delegates.

## PICTURE SPEAK



**Staffers of Syngenta the main sponsor of AFSTA Congress 2022 pose for a group photo at their exhibition booth in Djerba, Tunisia**



**Mr. Modou Thiam of Senegal Seed Trade Association with two other delegates at the congress.**



**AFSTA Vice President, Mr. Amadou Sarr who is also the Managing Director of Tropicsem Seed Company.**



**AFSTA Board members Francois Burgaud and Michael Keller share experiences in Tunisia.**

## PICTURE SPEAK



1



4



2



5



3

1. Trading table moments featuring Dr Yacouba Diallo (CORAF – Senegal), and Modou, Thiam (UNIS – Senegal) among other delegates. 2. A section of the delegates who attended the Congress pose for a memorable photo at the fete. 3. L to R: Nicholas Janse van Rensburg (Starke Ayres – South Africa), Nereshnee Ramdayal (Starke Ayres – South Africa) and a delegate discuss business matters at the trade fair. 4. Ugandan participants Nelson Masereka, (Uganda Seed Trade Association), Sylvia Nanteza and a delegate. 5. François-Xavier Larrouy (Lidea – France) and Julien Marie Bertrand (Lidea – France) wait for trading partners at the congress.

# AFSTA Members 2023

## Full Members (Private Seed Companies) (40)

<p><b>Bayer Kenya</b> P. O. Box 47686, Nairobi, Kenya Tel: +254 20 825162 /4/8 Fax: +254 20 823086 E-mail: mildrednadah.pita@bayer.com Contact Person: Mildred Nadah</p>	<p><b>East African Seed Co. Ltd.</b> P. O. Box 45125 - 00100, Nairobi, Kenya Tel: +254 20-555369/652101-4 Email: info@easeed.com Website: www.easeed.com Contact Person: Mr. Jitu Shah (Managing Director)</p>
<p><b>Kenya Seed Company</b> P. O. Box 553, Kitale, Kenya Tel: +254 54 31909-14 Fax: +254 54 31604,30385,31775 Email: info@kenyaseed.co.ke md@kenyaseed.co.ke Contact Person: Mr. Fred Oloibe</p>	<p><b>Sakata Southern Africa</b> P. O. Box 160, Lanseria 1748, South Africa Tel: 27 11 701 3305 Fax: +27 11 701 3335 Email: Lindsay.Campleman@sakata-eu.com Contact Person: Mr. Lindsay Campleman</p>
<p><b>Pannar Seed (Pty) Limited</b> P. O. Box 18, Greytown 3250, South Africa Tel: +27 33 413 1131 Fax: +27 33 413 1261 Email: panseed@pannar.co.za Contact Person: Mr. Nicholas Goble (Managing Director)</p>	<p><b>Bayer Malawi Limited</b> Area 29, Kanengo Industrial site, Kanengo, Lilongwe, Malawi P. O. Box 30050, Lilongwe 3 Tel: +265 1710 144 Fax: +265 713 547 Email: thyphord.chirwa@bayer.com Contact Person: Mr. Thyphord Chirwa</p>
<p><b>Seed Co International Botswana</b> P. O. Box 47143 Phakalane, Gaborone, Botswana Tel: +267 391 1907 Fax: +267 391 1830 Email: terrence.chimanya@seedcogroup.com Contact Person: Mr. Terrence Chimanya</p>	<p><b>Pioneer Hi-Bred Seeds Ethiopia</b> P L C 113, Addis Ababa, Ethiopia Tel: +251 1 510 155 Fax: +251 1 510 155 Email: joseph.anampiu@corteva.com Contact Person: Mr. Joseph Anampiu</p>
<p><b>Simlaw Seeds</b> P. O. Box 40042, Nairobi, Kenya Tel: +254 20 21 50 66/7 Fax: +254 20 33 22 19 Email: info@simlaw.co.ke Contact Person: Mr. Francis Mwaura (General Manager)</p>	<p><b>Pioneer Hi-Bred RSA Pty Ltd</b> 4th Floor Outspan Building 1006 Lenchen Avenue North; Centurion P. O. Box 8010; South Africa Tel: +27 12 663 4999; Fax: +27 12 663 4974 Email: barbra.muzata@pioneer.com Contact Person: Mrs. Barbra Muzuta</p>
<p><b>Tropicasem</b> BP 999 Dakar, Sénégal Tel: +221 832 05 05; Fax: +221 832 05 36 E-mail: tropicasem@sentoo.sn and amadou.sarr@tropicasem.sn Contact Person: M. Amadou Sarr</p>	<p><b>Starke Ayres South Africa</b> 9th Road, Bredell, Kempton Park Johannesburg, South Africa Tele: +27 11 748 3585 / +27 11 748 3551 Email: Nereshnee.Ramdayal@starkeyayres.com Tanya.Roets@starkeyayres.com Contact: Mrs Nereshnee Ramdayal / Mrs Tanya Roets</p>

# AFSTA Members 2023

<p><b>ECOBASIC Seed Company Limited</b> Office Address: NNDC Mall, Muhammed Buhari Way, City Center, Kaduna, Nigeria. Tel: +2349128282850 and +2349128282835 Email: brighton.karume@ecobasicseed.com and info@ecobasicseed.com Contact Person: Brighton Karume – Managing Director</p>	<p><b>Whitnev Investments t/a Advance Seed</b> P. O. Box 414, Krugersdorp 1740, South Africa Tel: 27 11 762 5261; Fax: 27 11 762 4111 Email: seedjhb@iafrica.com and Brad@advanceseed.com Contact Person: Mr. Bradley Lever</p>
<p><b>Capstone Seed South Africa (Pty) Ltd</b> South Africa Tel: +27333304474 Fax: +27333303252. Email: andrew@capstone.co.za Contact Person: Mr Andrew Taylor, Philip Taylor</p>	<p><b>COTUGRAIN</b> Lot N°9-Zone Industrielle- Saint Gobain 2014 –Mégrine - Tunis - Tunisie Tel: +216 71 426 313 Fax: +216 71 426 644 Email: cotugrain@gnet.tn and adel.ghariani@hortimag.net Contact Person: Adel Ghariani</p>
<p><b>Semagri</b> BP 5655 Douala; Cameroun Tel: +237 33 47 52 41 Fax: +237 33 47 52 46 Email: semagri@semagricmr.com Contact Person: Mr. Alain</p>	<p><b>Misir Hytech Seed INT</b> 2, Nagib Mahfouz st. Nasr City, Cairo Egypt Tel: +202 22755041/2278509; Fax: +202 22755043 Email: Raman.sehgal@hytechseed.com Contact Person: Raman Sehgal</p>
<p><b>Zambia Seed Company</b> P. O. Box 35441 Lusaka Zambia Tel: +260 211 243762; Fax: +260 211 248028 Email: Zamseed@zamnet.zm; seed@zamnet.zm Contact Person: Mr. Arthur Miranda</p>	<p><b>Africasia Seed Company Ltd</b> P. O. Box 7419, Arusha, Tanzania Tel: +255 683 00 9018 Email: anand@africasiaseed.com Contact Person: Anand Deshpande</p>
<p><b>United Seeds CCP – South Africa</b> P. O. Box 101385 Moroleta Park, 0044, South Africa Tel: +27 832308444/ +27 836471146 Fax: +27 865657090 Email: drgaborbarla@gmail.com Contact Person: Dr. Barla-Szabo Gabor and Mr. James Wickens</p>	<p><b>CIMBRIA East Africa Ltd – Kenya.</b> Muiri Lane 10, Off Langata Road P. O. Box 24580 - 00502 - Karen – Nairobi, Kenya Phone: +254 20 891 567 / +254 722 374 329 Fax: +254 020 815 5730 E-mail: steen@cimbria.co.ke and info@cimbria.co.ke Contact Person: Mr. Steen Andersen</p>
<p><b>Kannar Earth Science Pty Ltd – South Africa</b> Address: P. O. Box 4630 Edenvale 1610 South Africa Tel No: +27 11 372 4700 Fax No: +27 11 372 4710 E-mail: Lyle.Peters@kannar.co.za Contact Persons: Mr. Lyle Peters and Elsabe Butler: Elsabe.Butler@kannar.co.za and kerryn.edwards@liquidcolours.co.za</p>	<p><b>The Lane Trading – Comercio Geral</b> Rua 21 de Janeiro S/N Morro-Bento, Angola Tel: +244923345297 and +244912509088 E-mail: pereira2.ngola@gmail.com and preirangola@yahoo.com.br roquegoncalves@gmail.com Contact Person: Pereira Ngola (Director General)</p>

# AFSTA Members 2023

<p><b>Bayer (Pty) Ltd</b> Wrench rd 27, Isando 1600, South Africa P. O. Box 143, Isando 1600, South Africa Tel +27 11 921 5252 Email: jaco.vanzyl@bayer.com Contact Person: Mr. Jaco van Zyl</p>	<p><b>Bayer Zambia Ltd</b> P. O. Box 37131, Lusaka Tel: +260211286451/53/73/74 E-mail: paul.kapapula@bayer.com Contact Person: Paul Kapapula</p>
<p><b>AGRO ASTEL Suarl</b> Adresse: BP 49 OUROSSOGUI, SENEGAL Tel: +2213396610 50 and +22133776391268 Email: mndiade@orange.snagroastel@gmail.com Contact Person: Dr Mamadou NDIADÉ</p>	<p><b>QauliBasic Seed Company</b> P. O. Box 28891-00100 Nairobi, Kenya +254731 631 118 Email: info@qualibasicseed.com Andy@Qualibasicseed.com Contact person: Mr. Andy Watt</p>
<p><b>SEMAFORT (Semence Fort Afrique)</b> 01 BP 168 Bobo-Dilasso RS 01 Tel: +226 64 07 34 09, +226 57 17 86 86 Email: bruno.tinland@live.be stecieyada@gmail.com or stephanie.yada@semafort.com Contact Person: Mr. Bruno Tinland and Mrs Stéphanie Yada</p>	<p><b>TOP MOUNTAIN</b> BP 20889 DAKAR SENEGAL Tel: (+221) 77 644 65 12; (+221) 77 270 28 93 and (+221) 33 836 50 77 Email: info@topmountainsn.com gerant@topmountainsn.com and msytop@gmail.com Contact Person: Mme Mariame Sy Top</p>
<p><b>SEEDS2B Africa LTD</b> P. O. Box15928-00100 Nairobi, Kenya Tel: +254 20 271 0590 Tel: +254 706 549 110 Email: info@seeds2b.org Contact Person: Tony Gathungu Email: tony.gathungu@syngenta.com</p>	<p><b>Sahelienne d'Entreprise de Distribution et d'Agro-Business (SEDAB)</b> BP 5661 Tel: +221 33 832 56 09 Email: Thiamodou@yahoo.fr Contact Person: Mr. Modou Thiam</p>
<p>Advanta Seed International P. O. Box 10032-00100 Nairobi, Kenya Tel: +254 722 712 917 Email: ndavi.muia@advantaseeds.com Contact Person: Ndavi Muia</p>	<p>Continental Seeds Company Limited P. O. Box 104242-0101, Kenya Tel: +254722489096 and +254 734 600107 Email: francis.kathimba@continentalseeds.com Contact Person: Mr. Francis Kathimba</p>
<p><b>Rijk Zwaan Afrisem</b> P. O. Box 12345, Arusha, Tanzania Tel: +255 693 163 796 Email: s.coulibaly@rijkwzaan.com Contact Person: Mrs. Sylvaine Coulibaly</p>	<p><b>Limagrain Zaad SA (Pty) Ltd</b> P. O. Box 254, Greytown – 3250 Kawazulu Natal – South Africa Tel: +27334171494 Email: frederic.savin@limagrain.com Contact Person: Mr. Frederic Savin</p>
<p><b>MAS Seeds CI</b> Abidjan, Plateau, Boulevard Cardes SIFP Face Cour de Justice 04 BP 1022 Abidjan 04- Côte d'Ivoire Tel: +33 643249222 /+2250777654665 Email: d.villenave@maisadour.com and s.ouattara@maisadour.com Contact Person: Denis Villenave</p>	<p><b>European African Seed Initiative (PTY) Ltd</b> T/A EASI SEEDS 15 Rademeyer Street, Oudtshoorn, 6625 South Africa Tel: +27(0)050 4949 and +27(0)84 8112069 Email: chandelle@easiseeds.com Contact Person: Mrs. Chandelle Smuts – Director</p>
<p><b>AGRISEEDS MED SARL</b> 8, rue Ait Baha, Casablanca, Maroc Tel: +212 6 61 35 67 93 Email: hajar.b@agriseeds-med.com Contact Person: Mrs Hajar Benabdillah- Responsible commercial</p>	

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## Seed Associations in Africa (full members) – 18 SEED ASSOCIATIONS

<p><b>Chambre Syndicale Nationale des Semences et Plants – UTICA</b> Rue Ferjani Bel Haj Ammar, Cité El Khadhra, Tunis 1003, Tunisie Tel: 216 71 34 76 71 Fax: 216 71 34 76 71 Email: seeds.tunisia@yahoo.com Contact Person: Mr. Riadh Gabsi</p>	<p><b>Egyptian Seed Industry Association (ESIA)</b> Manasterly Towers No.5, 14th Floor apt.4, ElBahr AlAzam Road GIZA, Egypt Tel:+202 2617 9234/5, Fax: +202 356 97975 Mobiles: +201001000335 / +20114 119 2577 Email: mohamed_morsy_1951@hotmail.com Contact Person: Mr. Mohamed Morsy</p>
<p><b>Union Nationale des Producteurs des Semences du Burkina Faso (UNPSB)</b> 01 BP 3240, Ouagadougou, Burkina Faso Email: inooued@yahoo.fr and unpsburkina1@yahoo.com Tel: +226 25 41 10 96 Contact Person: Inoussa Ouédraogo</p>	<p><b>Seed Association of Nigeria (SEEDAN)</b> c/o Premier Seed Nigeria Limited, Chikaji Industrial Estate P. O. Box 1673, Zaria Tel: +234 69 33 48 04/331630 Fax: +234 69 33 32 02 Email: richard.savannahseeds@gmail.com Contact Person: Mr. Richard Olafare</p>
<p><b>Seed Trade Association of Kenya (STAK)</b> P. O. Box 2581 – 00202; Nairobi, Kenya Tel: +254 20 258 71 62; Fax : +254 20 271 36 71 Email: stak@stak.or.ke and duncan.onduu@stak.or.ke Contact Person: Mr. Duncan Onduu</p>	<p><b>South Africa National Seed Organisation (SANSOR)</b> P. O. Box 72981, Lynnwood Ridge 0040 Pretoria - South Africa Tel: 27 12 349 1438 Fax: 27 12 349 1462 Email: genman@sansor.co.za; lukeshni@sansor.co.za Contact Person: Dr Lukeshni Chetty</p>
<p><b>Tanzania Seed Trade Association (TASTA)</b> P. O. Box 12033, Arusha (Kibo Seeds 255 0272 503259), Tanzania; Tel: +255 27 250 3264, Fax: +255 27 250 8508 Email: bobshuma08@hotmail.com Contact Person: Mr. Baldwin Shuma</p>	<p><b>Union Nationale Interprofessionnelle des Semences (UNIS), Immeuble CNRAT, Hann Marinas</b> Cité ISRA Appartement B1, BP: 5461, Dakar Sénégal Tel: +221775019414 and +2210777265577 Email: thiamodou@yahoo.fr and tijane1954@gmail.com Contact Person: Mr. Amadou Tidiane Ba</p>
<p><b>Association Nationale Semencière de la Côte d'Ivoire (ANASEMCI)</b> Tel: +225 04 84 24 09 and +225 02 42 24 00 Email: dibyazi@live.fr Contact Person: Mr. Azi Leopold Diby – Chairman</p>	<p><b>Zambia Seed Trade Association (ZASTA)</b> Stand No. CT2 - PAZ Building, Showgrounds - off Nagwenya Road, P. O. Box 390033, Lumumba Post Office, Tel: (+260) 211258646 and +260 977 147117 Lumumba Road, Lusaka, Zambia Email Address: zasta@zasta.net and constance_sj@yahoo.com Contact Person: Mrs. Constance S. Namwali</p>
<p><b>Zimbabwe Seed Trade Association (ZSTA)</b> 5, Wimbledone Drive, Eastlea, Harare, Zimbabwe P. O. Box A 1906, Avondale, Harare; Zimbabwe Tel: +26371925962 Email: amwashareini@gmail.com and zstasec@gmail.com Contact Person: Mr. Amos Washaireni and Mrs. Patience Nyakanda</p>	<p><b>Fédération Nationale Interprofessionnelle des Semences et Plants (FNIS)</b> 5, rue Oum Errabie, App.n°4, 3ème Etage, Agdal-Rabat. Tel: 05.37.68.25.17 Fax: 05.37.68.25.07 E-mail: m.elbedraoui@gmail.com Contact Person: Mr. Mariam El bedraoui</p>

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<p><b>Seed Trade Association of Malawi (STAM)</b>            P. O. Box 30050, Lilongwe 3, Malawi            Tel: +265 01 710144            Email: staminformation@gmail.com            Contact Person: Mr. Supply Chisi</p>	<p><b>Association Semencière du Mali (ASSEMA)</b>            B. P. 2336 – Bamako, Avenue l’Artois, Porte 443            N’Golonina, Commune 2 – Bamako            Tel: 223 221 36 43; Fax: 223 221 36 43            E-mail: a.assema@yahoo.fr and            drissa.coulibaly@saer-emploi.com            Contact Person: Laya Dolo and Mr. Driss Coulibaly</p>
<p><b>National Seed Trade Association of Ghana (NASTAG)</b>            P. O. Box CT 7256, Cantonments - Accra, Ghana            Contact Persons: Augusta Nyamadi Clottey,            Executive Secretary            Info@nastag.org/nastaghana@gmail.org /            augusta.clottey@gmail.com            (+233) 208510838 /200783218/ 0302950741</p>	<p><b>Ethiopia Seed Association (ESA), Addis Ababa – Ethiopia</b>            Tel: +251 1 510 155, Fax: +251 1 510 155            Email: lemmades2014@gmail.com and            kmadmasu@gmail.com            Contact Persons: Dr. Lemma Dessalgne and            Mr. Melaku Admassu</p>
<p><b>F3M</b>            Lot II F 33 IRS B            Andraisoro – Antananarivo (101), Madagascar            Tel: +261342313536            Email: laingontsoa@gmail.com            Contact Person: Mr. Laingontsoa Andriamasinoro –            Secretary General</p>	
<p><b>ASSOCIATE MEMBERS</b>  <b>Seed Associations/ Seed Companies from Outside Africa (37)</b></p>	
<p><b>American Seed Trade Association (ASTA)</b>            225 Reinekers Lane            Suite 650 - Alexandria – Virginia            22314 – 2875, USA            Tel: 1 703 837 8140,            Fax: 1 703 837 9365            Email: alavigne@betterseed.org and            aStruxness@betterseed.org            Contact Person: Mr. Andy Lavigne (President and CEO)            and Abigail Struxness</p>	<p><b>SEMAE</b>            44 rue du Louvre            Paris 75001, France            Tel: +33 1 4233 5112            Fax: +33 1 4233 2774            Email: nicolas.perrin@semae.fr            Contact Person: Mr. Nicolas Perrin            (Directeur des Relations Extérieures)</p>
<p><b>Vikima Seed</b>            Industriparken, DK-4960 Holeby, Denmark            Tel: +45 5460 7010; +45 2335 8119            Fax: +45 5460 7021            Email: vikima@vikima-seed.dk and dilip            Contact Person: Ms. Rikke Møller Karkov            (Area Sales Manager)</p>	<p><b>Technisem France</b>            Zone Anjou Actiparc de Jumelles            49160 Longue Jumelles, France            Tel: 33 1 6996 0343, Fax : 33 1 6996 8601            Email: technisem@technisem.com and            melanie.chichery@technisem.com            Contact Person: Mr. Ronan Gorin (General Manager) et            Mr. Melanie Chichery</p>
<p><b>Tokita Seed Company Limited</b>            1069 Nakagawa, Saitma-Shi            Saitama-Ken 330-8532, Japan            Tel: 81 48 686 7235, Fax: 81 48 688 1167            Email: ttokita@tokitaseed.co.jp            mgotoh@tokitaseed.co.jp            Contact Person: Mr. Mark Goto            (Chief, International Division)</p>	<p><b>Syngenta Seed Care</b>            P. O. Box 233, Dielsdorg 8257- Zurich            Switzerland            Tel: 41 1 855 8342, Fax: 41 1 855 8719            Email: piotr.szalacha@syngenta.com            Contact Person: Mr. Piotr Szalacha Piotr</p>

# AFSTA Members 2023

<p><b>Enza Zaden B.V</b> P. O. Box 7, 1600 AA Enkhuizen, The Netherlands Tel: +31 228 315 844; Fax: +31 228 315 960 Email: info@enzazaden.nl or J.Panman@enzazaden.nl or H.Liebenberg@enzazaden.com (Heleen Liebenberg) Contact Person: Mr. Jan Panman</p>	<p><b>Bejo Zaden B.V.</b> P. O. Box 50 – Trambaaan 1, 1749 ZH Warmenhuizen, The Netherlands Tel: +31 226 396 162 Fax: +31 226 396 346 Email: A.Dekker@bejo.nl Contact Person: Mr. André Dekker</p>
<p><b>Bakker Brothers</b> Noord-Scharwoude, The Netherlands Tel: Office: +31 226331355 Tel: Cell: +31 630020220 Fax: 31 226 317641 Email: coen@bakkerbrothers.nl Contact Person: Mr. Coen Niesten</p>	<p><b>Agro-Tip Handels</b> und Zinnhuete 17, 21255 Tostedt, Germany Zinnhuete 17, 21255 Tostedt, Germany Tel: + 49 4182 95909 - 0 Fax: + 49 4182 95909 - 20 Email Address: info@agro-tip.de Contact Person: Mr. Hartmund Gries</p>
<p><b>Plantum NL</b> P. O. Box 462, The Netherlands Tel: +31 (0)182 688 668, Fax: +31 (0)182 688 667 Email:a.vandenhurk@plantum.nl, n.louwaars@plantum.nl Contact Person: Niels Louwaars</p>	<p><b>HM Clause Veg</b> Rue Louis Saillant, 26800 Portes Les Valence – France Tel: + 33 4 75 57 57 57 Fax: + 33 4 75 57 57 90 E-mail: lydie.montredon@hmclause.com Contact Person: Ms. Lydie Montredon</p>
<p><b>Indo-American Hybrid Seeds (India) Pvt Ltd.,</b> Post Box.No. 7099, 7th KM, Banashankari-Kengeri link Road, Sy.No: 13/4,14, Channasandra, Rajarajeshwari Nagar (Post) Bengaluru-560098 Tel: +918028611499 / +918028611450 Fax: +918028612912 Mob. No: +9198440914442 Email: santosh@indamseeds.com and hema@indamseeds.com iahs@indamseeds.com Contact Person: Mr. Arthur Santos Attavar</p>	<p><b>Rijk Zwaan Export B.V</b> P. O. Box 40, 2678 ZG DE LIER, The Netherlands Burg CreZeelaan 40, 2678 KX DE LIER The Netherlands E-mail: e.van.der.klugt@rijkszwaan.nl Contact Person: Mr. Mr. Edwin van der klugt</p>
<p><b>Safal Seed &amp; Biotech Ltd</b> P.O.Box A-2 OLD M.I.D.C , JALNA INDIA Tel: +91-2482-244000, Fax : +91-2482-230398 Email: safalseeds@rediffmail.com Contact Person: Mr. Kamal O. Zunzunwala</p>	<p><b>Syngenta Foundation for Sustainable Agriculture</b> Schwarzwaldalee 215 CH-4002-BASEL,Switzerland Tel: +41 61 323 73 33, Fax: +41 61 323 72 00 Email: lucy.kioko@syngenta.com and Tony.Gathungu@syngenta.com Contact Person: Lucy Kioko and Tony Gathungu</p>
<p><b>Takii Europe B.V.</b> Postal Address: Hoofdweg 19, 1424 PC Dekwakel, The Netherlands Company Tel:+31(0)297-345700 Contact Person: Mr. Stive Niyungeko Country: The Netherlands Email: sni@takii.eu</p>	<p><b>Bonanza Seeds International, Inc.</b> 3818 Railroad Avenue, Yuba city, CA 95991, USA Email: seedssale@bonanzaseeds.com and cap@bonanzaseeds.com Contact Person: Mr. Carlos Podesta and Brad Harisson (accounts@bonanzaseeds.com)</p>
<p><b>Lidea Seeds – France</b> Tel: +335 62 13 64 50 6 Chemin de Panedautes, 31 700 Mondonville Email: jean-pierre.dufourcq@euralis.com Contact Person: Mrs. Kyma Ickerott Email: kyma.ickerott@lidea-seeds.com And Mr. Francois-Xavier LARROUY Email: francois-xavier.larrouy@lidea-seeds.com</p>	<p><b>Known-You Seed Co., Ltd</b> No 114-6 , Zhuliao Road, Dashu district, Kaoshiung 84043, Taiwan Tel: +886 7 651 9668, Fax: +886 7 652 3491 Email: afri@knownyou.com, morrison@knownyou.com Contact Person: Mr. Morrison Lin</p>

# AFSTA Members 2023

<p><b>ICS France</b>          ZA Croix-Fort 12 Rue du Soleil          17220 La Jarrie France          Tel: +33 5 46 35 2828          Fax: +33 5 46 35 28 29          E-mail: cf@ics-agri.com          Contact Person: Mrs. Celine Fiorelli</p>	<p><b>Hazera Seeds Ltd</b>          Beruriam, M.P Shikmim, 7983700 Israel          Tel: +97288508815          E-mail: info@hazera.com and nili.snir@hazera.com          Contact Person: Jawdat Badawieh</p>
<p><b>Seed Processing Holland B.V.</b>          P. O. Box 32          Tel: +31 228 353000          Fax: +31 228 35001          E-mail: sylvia.jorritsma@seedprocessing.nl          Contact Person: Ms. Sylvia Jorritsma          Jack Boon Jack.Boon@seedprocessing.nl</p>	<p><b>BASF SE</b>          Speyerer str 2          67177 Limburoerhof, Germany          Tel: +4915254911865          E-mail: santiago.bosch-cabral@basf.com          Contact Person: Santiago Bosch</p>
<p><b>GSN Semence</b>          Rue de la Menoue          32400 RISCLE (FRANCE)          Tel : +33 5 81 23 80 00          Fax : +33 5 81 23 80 01          Email : gsn@vivadour.com          Contact Person : Mr. Bernard Nabarro</p>	<p><b>East West Seed Thailand</b>          Contact Person: Pornnipa Niyalanon          50/1 M.2 Sainoi-Bangbuathong Road, Sainoi,          Nonthaburi 11150 Thailand          Telephone: +6628317700          Fax: +6629237794          Email: pornnipa.niyatanon@eastwestseed.com and bert.vanderfeltz@eastwestseed.com          Contact Person: Bert Van Der Feltz</p>
<p><b>KWS SAA SE</b>          Finanzbuchhaltung – Postfach 13 63, 37554 Einbeck – Germany          Email: Gordon.day@kws.com; rechnungen@kws.com          Bettina.Haussmann@kws.com          Tel: +49 5561 311-245,          Fax: +49 5561 311-95245          Contact person: Dr. Gordon Day and          Dr. Bettina Haussmann</p>	<p><b>Solynta</b>          Dreijenlann 2, 6703 HA Wageningen,          The Netherlands          Tel: +31 638 095 274,          Email: charles.miller@solynta.com          Contact Person: Mr. Charles Miller</p>
<p><b>S.A.I.S s.p.a</b>          Società Agricola Italiana Sementi          Via Ravennate 214, 47521 Cesena (FC) Italy          Email: sais@saissementi.it and nicola@saissementi.it          Tel: +39547384250          Contact Person: Mr. Nicola Satini</p>	<p><b>FELTRIN SEMENTES LTDA</b>          RUA TOMASO RADAELL, nro 368, Farroupilha, Rio          Grande do Sul, CEP 95170-226, Brazil          Tel: +55 5421904400          Email: filipe.colombo@feltrin.com.br          and bagattini@sementesfeltrin.com.br          Contact Persons: Mr. Filipe Colomo and          Mr. Edimilson Luiz Bagattini</p>
<p><b>INCOTEC – South Africa</b>          P.O. Box 19999, Ashburton, South Africa 3213          Tel: +27 333 861560/1;          Fax: +27 333 861474          Email: ISA.Admin@incotec.com;          tertia.erasmus@incotec.com          Contact Person: Dr Erasmus Tertia</p>	<p><b>PETKUS Technologie GmbH</b>          Röberstr. 8 / 99848 Wutha-Farnroda, Germany          Tel: +49 36921 98 0          Email: info@petkus.com          Contact Person: Peter HÜSER</p>

# AFSTA Members 2023

<b>NOVA GENETIC</b> Zone Anjou Actiparc de Jumelles 49160 Longué-Jumelles (France) Tel: + 33 (0)2 41 38 39 39 Email: florine.poiroux@novagenetic.com Contact Person: Ms Florine Poiroux	<b>Suba Seeds Company S.P.A</b> Via Emilia 1810 - 47020 Longiano (FC) - Italy Telephone: +39 0547 56515 Email: michela.benini@subaseeds.com Contact Person: Michela Benini
<b>Syngenta Vegetable Seeds</b> P. O. Box 2, 1600AA Enkhuizen, The Netherlands Tel: +31 228 366 411 Email: Gerard.Eysink@syngenta.com Contact Person: Mr. Gerard Eysink Nlen	<b>Kalash Seeds Pvt Ltd</b> Mantha road, Maharashtra Jalna 431203, India Tel: +912482244000 Email: info@kalashseeds.com Contact Person: Mr. Chethan Indavara Nagesh
<b>Trust Seeds Co. Ltd.</b> 12-15 Salamah Al Adawi St., Amman 11910, Jordan Tel: +962 5358555, Fax: +962 5358550 Email: info@trustseeds.com and k.omar@trustseeds.com Contact Person: Mr. Khaled Omar	<b>Malav Seeds Pvt. Ltd.</b> Malav House 221, Gumasta Nagar, Indore 452 009 (MP) India Tel: +919827033215 and +91 7312481115 Email: info@malavseeds.com Contact Person: Rakesh Jain
<b>Durga Seed Farm (RGD.)</b> 172 industrial area, Phase-1, Chandigarh, India Tel: +9117222650193 and +9117222656954 Fax: +9117222656954 Email: durgaseedfarm@gmail.com Contact Person: KaranMahajan	<b>Yuksel Seeds</b> Kursunlu Mah. Madenler Sok. No 12/A PK 47 07112 Aksu Antalya – Turkey Tel: +90 533 417 57 56 / +90 242 461 23 93 Fax: +90 242 461 23 46 Email: hichamabba@yukseelseed.com and gcengiz@yukseeltohum.com Contact Person: Mr. Hachim Abba and Cengiz Gokhan

## Service Providers – 8 members

<b>SEEDS2B Africa Ltd</b> P. O. Box15928- 00100, Nairobi Tel: +250-20-271-0590; +254-704-205-856 george.osure@syngenta.com and Stella. Nyamwathi_Kimani@syngenta.com Contact Person: Mr. George Osure	<b>ICRISAT Nairobi</b> P. O. Box 39063, Nairobi 00623, Kenya Tel: +254-20-7224556 Fax: +254-20-7224001 Email: P. O. kori@cgiar.org Contact Person: Patrick Okori
<b>The World Vegetable Center</b> Regional Center for Africa P. O. Box 10, Duluti-Arusha, Tanzania Tel: +255 27 2553093/2553102, Fax: +255 27 2553125 E-mail: adrienne.mak@worldveg.org Contact Person: Ms. Adrienne Mak	<b>African Fertilizer and Agribusiness Partnership (AFAP)</b> P. O. Box 53, Rivonia, Johannesburg 2128 Tel: +27118447320 E-mail: info@afap-partnership.org Contact Person: Jason Scarpone
<b>African Agricultural Technology Foundation (AATF)</b> P. O. Box 30709-0100, Nairobi, Kenya, Tel: +254 20 4223700, Email: aatf@aatf-africa.org Contact Person: Dr Canisius Kanangire, Executive Director	<b>International Institute for Tropical Agriculture (IITA)</b> PMB 5320 Oyo Rd, Oyo state, Ibadan, Nigeria Tel: +234 803 978 4212, Fax: +44 208 7113786 Email: f.schreurs@cgiar.org Contact Person: Dr Frederick Schreurs
<b>Sasakawa African Association</b> Code 1000, 24135, Addis Ababa, Ethiopia Tel: +251-11-647-7670/7671 Email: shushan@saa-safe.org and mel.oluoch@saa-safe.org Contact Person: Mr. Mel Oluoch	<b>The African Seed Index (TASAI Inc.)</b> 208 Eldridge Circle Ithaca, New York 14850, USA Email: ktihanyi@tasai.org Contact person: Mrs. Krisztina Tihanyi

**AFSTA Congress 2023**  
Dakar, Senegal



6 - 8 March 2023

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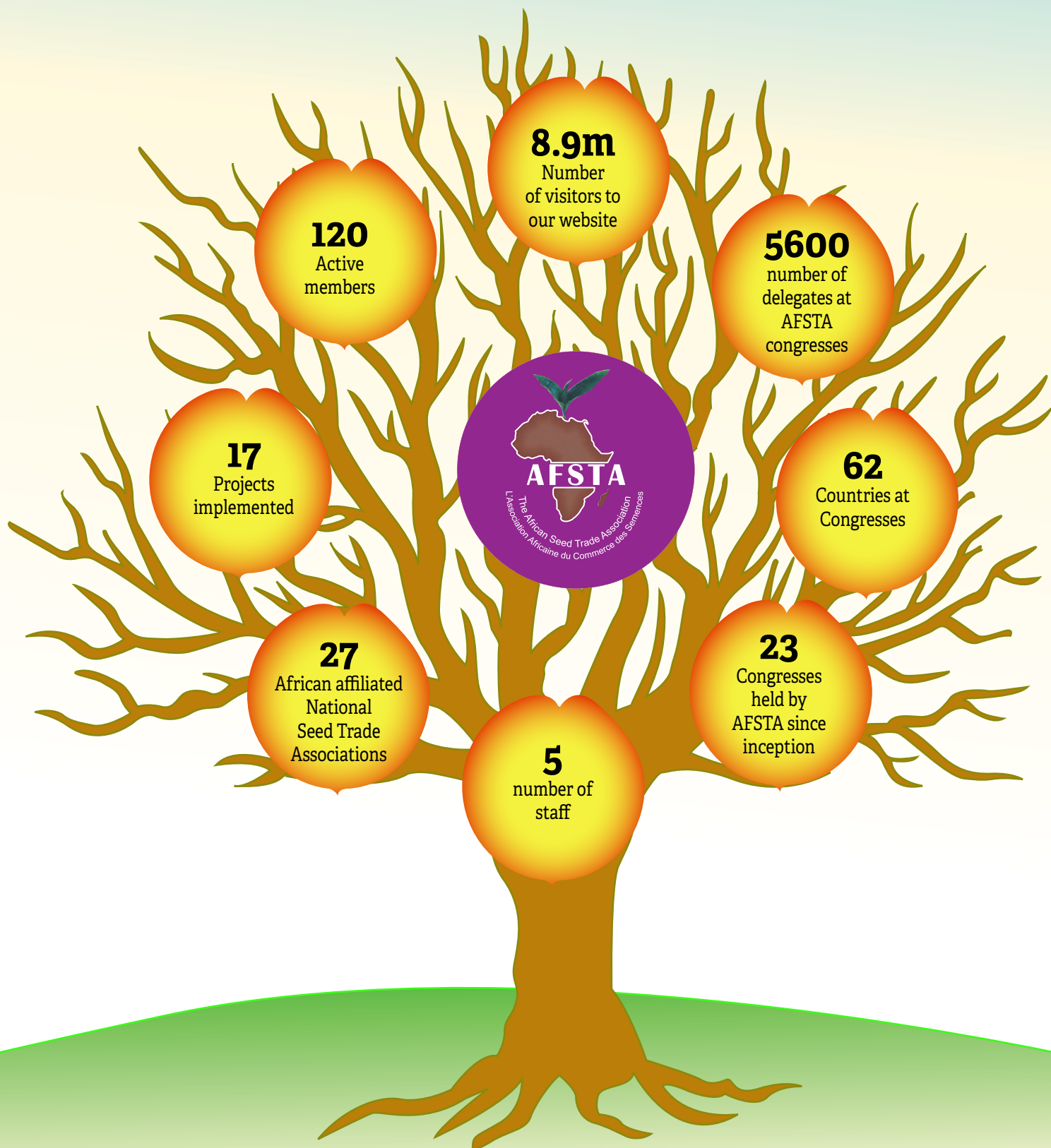


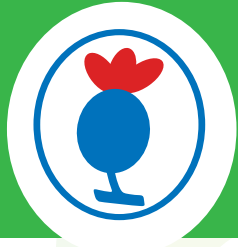
# Why join AFSTA?

## Joining AFSTA is a long term investment and the benefits of becoming a member include:

1. **Visibility:** Member company's logo is listed on AFSTA website and linked to the website of the members.
2. **Directory listing in the African Seed Magazine:** All members' contact addresses are published annually in the African Seed Magazine distributed during the annual congress and is also available on line.
3. **Provision of up to date information on seed matters:** You will have information on the seed industry in Africa regularly through our quarterly electronic newspaper (E-Review) and Flash News sent from time to time when important news on the seed industry come up.
4. **Access to our website:** All AFSTA members are given a user account with username and password to access the AFSTA website. Once logged in using these credentials (username and password), you will be able to offer seed items for sale.
5. **Low Congress Fees:** Members pay lower rates when registering to AFSTA annual congresses.
6. **Official introduction:** New members are officially introduced at the AFSTA General Assembly which gives them a lot of visibility, given Membership Certificates and have an opportunity to make a short speech during the event.
7. **Networking:** AFSTA offers members more opportunities to network with the African seed business people and companies hence opportunity to expand own business in the continent.
8. **Platform to share experiences:** Members use AFSTA as a platform to share experiences, show case their products and discuss issues that improve their businesses and trade in high quality seeds.
9. **Knowledge:** AFSTA members get the opportunity to appreciate the various linkages and use them to improve their seed businesses.
10. **Integration:** The annual congresses venue rotates among the member countries and this offers members an opportunity to interact and learn from the diverse cultures in Africa.

# AFSTA story in figures





# KNOWN-YOU SEED

Known-You Seed is a professional seed company engaging in breeding, production and marketing of hybrid vegetable seeds for nearly 50 years. Our crop range covers most of cucurbit, solaniceae, sweet corn, papaya and also crucifers. Our sales network covers around 90 countries around the world.



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"RED LADY"**

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# KENYA SEED COMPANY LTD.

Top Quality Seed

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Superior and Reliable

## About Kenya Seed

Kenya Seed Company was formed on 1st July 1956 to promote the use of improved strains of Pasture seed that were developed then by the National Agricultural Research Station in Kitale.

The company produced more varieties later with Sunflower then introduced hybrid seed maize production following the first hybrids by the Government Research Centre.

The Company has made substantial growth since then through the development, production and provision of a wide range of high-yielding varieties and high-quality seeds for various crops adaptable to different agro ecological zones. This is with the production of seed variety of more than 60 different crops varieties ranging from maize, wheat, pasture, sunflower, sorghum, millet and a wide range of horticultural seeds and indigenous vegetables suitable for different climate conditions ranging from the highland to dry land zones.

These seed varieties are availed to our farmers throughout the country and the region by our network of subsidiaries (Uganda, Tanzania, and Rwanda), branches and identified seed suppliers in the region.



### Wheat variety- Njoro II

Resistant to Lodging, Tolerant to acidic soil High yielding, Hard wheat



### Maize variety -H6213

High yielder  
Tolerant to lodging  
Excellent milling qualities  
Resistant to lodging, ear rot, rust , G.L.S, Stem and leaf blight

**Head Office**  
Industrial Area, Wamalwa Street  
P.O Box 553-30200, Kitale,



Kenya Seed Company Ltd



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