

FEED AFRICA



AFRICAN DEVELOPMENT BANK GROUP



Foreword

In 2017, Africa spent \$64.5 billion¹ on importing food, and may spend even more in subsequent and forthcoming years. This is unsustainable, irresponsible, and unaffordable. It is also completely unnecessary.

Africa has 65% of the world's remaining uncultivated arable land, an abundance of fresh water and about 300 days of sunshine each year. More than 60% of Africa's working population is engaged in agriculture, and the soil across most of the continent is rich and fertile. We are losing precious foreign exchange by continuing to pay for food to be imported, so we must quickly eliminate the negative balance, and start to sow, grow, process, consume, and ultimately to export the food ourselves.

Modern agriculture, driven by technologies such as drought resilience, crop protection and yield enhancement, can also contribute substantially to employment and wealth creation as well as to the improvement of health and nutrition on the continent. As such, agriculture is building the cornerstone of Africa's economic transformation.

Our goal at the African Development Bank is to radically transform Africa's agriculture

¹ * Indicates US dollars throughout this text

into a business-oriented and commercially viable sector that guarantees the continent's food self-sufficiency and puts an end to food insecurity and malnutrition.

The Bank is actively supporting the creation and development of agricultural clusters and functional value chains for the dissemination and uptake of technologies, and for better access to water and irrigation, as well as to markets, investments and material resources.

Transforming Africa's agriculture requires a fundamental shift in perception. For too long, Africa's agriculture has been associated with subsistence, poverty and hardship. This perception must change. The African Development Bank champions the cause of a new generation of wealth-creating young Africans possessing and deploying sufficient resources to modernise agriculture and increase its access to technologies and investment finance throughout the continent.

Let us cultivate a new African agriculture today that will bear a rich harvest tomorrow. This might not take very long if we get the transformation right. Africa's manifest destiny is to feed the rest of the planet and not the other way around.



Dr. Akinwumi A. Adesina
President,
African Development Bank

Introduction

Feed Africa, one of the African Development Bank's High 5s, is the Bank's strategy to transform African agriculture into a globally competitive, sustainable, inclusive and business-oriented sector, creating wealth, generating employment, and improving quality of life. The strategy will develop, accelerate and enlarge existing and successful initiatives across Africa.

Feed Africa echoes the commitments made in the Comprehensive African Agricultural Development Programme

(CAADP) for agricultural transformation, wealth creation, and food security. It also contributes to the achievement of the African Union Agenda 2063 objectives and supports several of the Sustainable Development Goals, including "End poverty" (SDG 1) and "Zero hunger" (SDG 2). Feed Africa works with national governments, regional economic communities, the private sector, farmers, development partners, research institutions and civil society organisations to fulfil these CAADP goals by helping to:



The Feed Africa strategy seeks to ensure that the growth of the agricultural sector includes food security, and that it encourages inclusive growth by involving more women and youth. It also promotes improved resilience to climate variability and shocks.





Between 1980 and 2000, Kenya lost almost half of its forest cover due to intensive logging, charcoal production and large-scale clearance of wooded areas for tea plantations. This threatens the survival of many communities in the areas, as well as of thousands of animal and plant species.

The Green Zones Development Support Project, which received \$38.8 million in funding from the Bank, replanted more than 14,000 hectares of forest and provided local farmers with training in modern agricultural techniques in Kenya. Ann Ruto, a farmer from the village of Simotwet in the Rift Valley, has been able to increase the milk production of her cattle and start growing vegetables. “This project has changed my life. It’s made me optimistic about the future,” said Ruto. The mother of four is now able to send her children to private school as a result of her increased income.

Agriculture is an integral part of the African economy and the daily lives of the majority of Africans. It accounts for some 60% of jobs across the continent. Despite its central role, the agricultural sector accounts for 16.5% of African GDP due to its low productivity, and Africa's cereal yield is only 41% of the international average. Private sector infrastructure, beyond production facilities, remains under-developed. For example, Africa produces approximately 69.2% of the world's cocoa beans by weight, but receives only 2% of the revenue of global sales of chocolate.

The low productivity of African agriculture has a high human and economic cost. High rates of poverty prevail, especially in major agro-ecological zones such as the sub-humid Guinea Savannah and the

semi-arid Sahel regions where more than half of the population live on less than \$1.25 per day. 256 million people are under-nourished in Africa. Low productivity also damages the competitiveness of African agriculture. If nothing is done, the number of extremely poor people will rise from 420 million in 2015 to 550 million by 2025.

Security of land tenure and good governance remain major challenges across the continent. Most African countries have basic land tenure laws that are incomplete and poorly enforced, deterring private investment. Although women are the primary farmers of agricultural land in most African communities, their access to land is, on average, less than half that of men.

Feed Africa is focusing on

ENDING OF EXTREME POVERTY

Contribute to alleviating poverty through job creation and providing sustainable livelihoods

~130 MILLION
lifted out of extreme poverty

ELIMINATING HUNGER AND MALNUTRITION

Food security for all Africans who are undernourished

Zero hunger and malnutrition

MAKING AFRICA A NET EXPORTER OF AGRICULTURAL COMMODITIES

Eliminate large scale imports of commodities that can be produced in Africa, and selectively begin to export

Africa's net trade balance **~\$0 BN**

MOVING TO THE TOP OF KEY AGRICULTURAL VALUE CHAINS

Become the #1 in either processing or the overall value chain, by market share by value Africa's share of market value for processed

commodities **~40%**
(Example for cocoa grinding)

Climate change and variability trends increasingly make the need for transformation more urgent. Africa is already disproportionately affected by the impact of climate change because of agriculture's overwhelming dependence on the weather. African farmlands and pastures are being degraded, and this is causing yields to decline.

Falling commodity prices for a broad range of natural resources are making it increasingly necessary for African nations to diversify their exports and reduce current account deficits. Increased food demand and changing consumption habits, driven by demographic factors like population growth and urbanisation, are leading to sizable food imports. These food imports in 2017 cost Africa \$64.5 billion in foreign exchange.

Rising imports show the need to transform agriculture as a business, most particularly by indicating the scale of demand that exists if a vibrant private agribusiness sector in Africa can be stimulated to service it. These food imports represent a diverse set of markets, both in key primary commodities as well as processed goods and agro-allied industries, worth more than \$100 billion in revenue per annum. These markets deliver food security, create employment, and produce broad-based economic growth – and all could and should be located within Africa.



A geneticist's bio-fertiliser is enhancing thousands of lives in East Africa



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Geneticist Dorothy Onyango runs a laboratory in rural Kenya producing a zero-carbon footprint fertiliser that does a lot more than just nourish crops. The 'bio-fertiliser' is also enhancing the lives of more than 1,100 farmers and their families in Kenya and Uganda.

"It's bio-fertiliser, but it's creating jobs, food and nutritional security for families," Onyango says.

Working with the African Development Bank, Onyango combined science with a sustainable business model for growing and supplying bio-fertiliser, as well as partnering with farmers to bring their products to market. Kenyan groundnut farmers now use Onyango's fertiliser to boost crops, which are later harvested to make groundnut oil and a protein-rich 'cake' from oil extraction waste. Onyango helps ensure the oil is sold at above market value. "It's important that the farmers make a profit," she says.

The bio-fertiliser laboratory also helps farmers find buyers for the 'cake', sold as feed to chicken aviaries and fish farms.

The feed helps fish and chicken farmers raise better-quality products for market, including eggs, chicken meat and fish fillets.

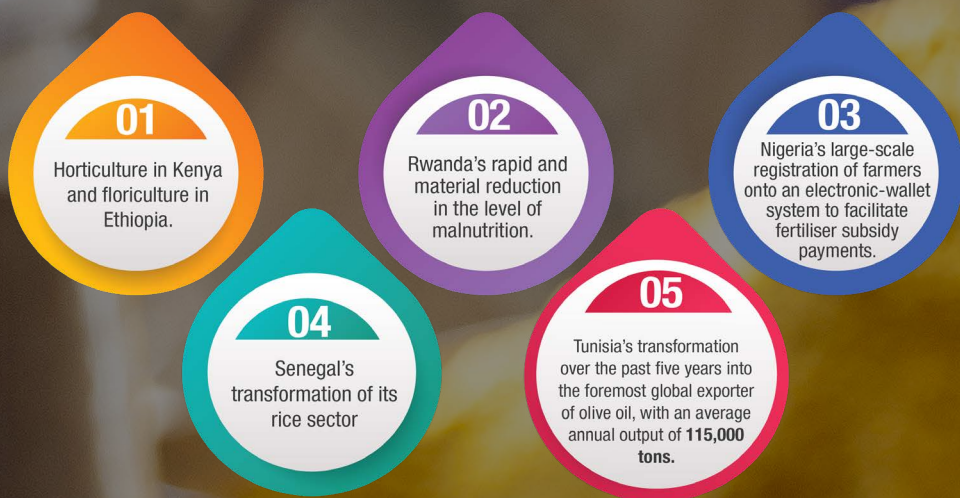
Onyango says her laboratory's relationship with the African Development Bank started in 2013 when the Bank was seeking

"gender innovators" in science. Bank partners worked with the geneticist to secure intellectual rights to her bio-fertiliser. "We are trying to align hardline science with soft science, growing products in laboratories that will affect people's lives," says Onyango.

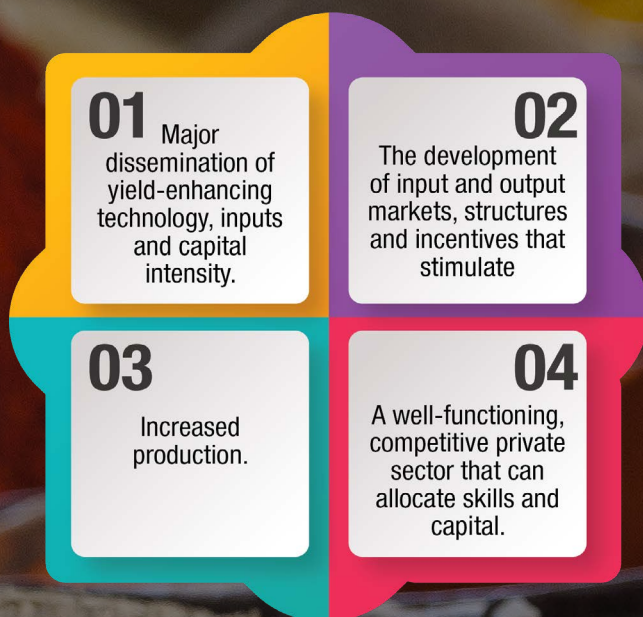


Fuelling Africa's agricultural transformation

African agricultural transformation can substantially improve the quality of life for the people of Africa and support economic growth. The conditions for transformation are beginning to show in a number of African countries. Liberalisation of input markets, expansion of innovative agricultural finance, and policy reforms have allowed significant progress to be made. This has led to pockets of transformation across the continent, such as:



These concrete examples of transformation in Africa point the way towards larger-scale changes in African agriculture. Successful transformations are led by business and need three conditions:



The Feed Africa response

In October 2015, the African Development Bank, in association with the African Union Commission, the United Nations Economic Commission for Africa, and the Government of Senegal, organised a high-level ministerial conference in Dakar under the theme: “Feed Africa: An Action Plan for African Agricultural Transformation.”

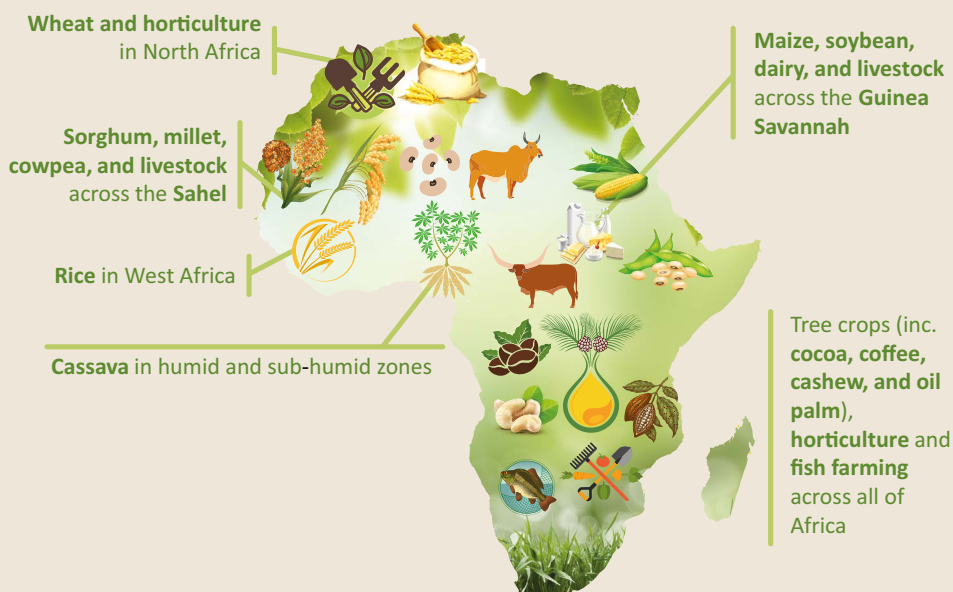
The conference reviewed ways to release Africa’s agricultural potential and diversify its economies, consistent with the goals of the Comprehensive African Agricultural Development Programme.

Over 600 participants attended the conference, including African finance, planning and economy ministers and ministers of agriculture and rural development, selected ministers of industry and trade, as well as central bank governors. Other participants included professionals from research

institutes, academia and investment agencies, representatives from civil society organisations, and experts from across the continent and beyond. This conference and related ongoing continental initiatives informed the content and the approach of Feed Africa.

The African Development Bank and its partners are pursuing an agenda to transform key agricultural commodities and agro-ecological zones. Achieving Feed Africa’s goals involve strengthening a broad range of value chains. In the short and medium term, resources are focused on selected agricultural value chains and agro-ecological zones. The prioritisation of these agricultural value chains and agro-ecological zones is based on the following criteria: future demand; competitive advantage; scope for transformation; potential to nourish Africa; and existing focus.

Priority agricultural commodity value chains and agro-ecological zones



Achieving agricultural transformation in Africa

Achieving Africa's potential for transformation in the chosen commodity value chains and agro-ecological zones requires different types of support to catalyse investment. There are seven vital sets of transformation enablers:

01 Increase large scale productivity
Agriculture technology dissemination (flagship programme: Technologies for African Agricultural Transformation)

- ❖ Finance and input, systems development
- ❖ Agricultural mechanisation

02 Boost value addition

- ❖ Post-harvest loss prevention
- ❖ Improve food safety to boost trade and public health
- ❖ Agro-processing zones, clusters, and corridors

03 Increase investments in hard and soft infrastructure

- ❖ Infrastructure development and coordination
- ❖ Farmer e-registration

04 Expand agricultural financing
Private investment and commercial bank lending for agriculture (flagship programme: risk-sharing facility)

- ❖ Non-bank small and medium-enterprise finance and capacity-building

05 Enhance agribusiness environments

- ❖ Policy reform: land tenure, input subsidies, incentives for local production and processing, financial sector deepening, and regional integration and trade

06 Increase inclusivity, sustainability and nutrition

- ❖ Climate resilience funding and climate-smart agriculture practices
- ❖ Women-owned agriculture and agribusiness enterprises
- ❖ Youth employment in agribusiness (flagship program: ENABLE Youth)
- ❖ Food security and prevention of malnutrition

07 Coordinate partnerships to drive transformation

- ❖ Partnership among key actors from the public and private sectors, as well as development actors

Agricultural transformation: Counting the cost and delivering the benefits

Transforming commodity chains and agro-ecological zones will open up markets worth \$85 billion per annum by 2025. This will substantially help to realise the UN sustainable development goals related to poverty reduction and zero hunger;

The total cost of transformation for the priority commodities and agro-ecological zones in the strategy is between \$315 billion and \$400 billion over 10 years. This is equivalent to \$31.5 billion to \$40 billion per year. This level of investment far exceeds resources currently available from the public sector and other conventional resources. It is therefore crucial that African stakeholders as well as international partners mobilise additional resources.

Feed Africa will require an Africa-wide agenda that combines the resources of public and private sector stakeholders. Coordination, partnership and the development of innovative financial instruments to incentivise this partnership are essential to achieve transformation.

Below are some ideas for financing:

01

African governments in 2014 spent approximately **\$12 billion** on agriculture. Although the Malabo commitment of allocating 10% of public budgets to agriculture has not been met, a notable increase of government investment is still imperative, especially for country-level ownership.

02

The African Development Bank spent about **\$635 million** on agriculture and rural development in Africa in 2014. The Bank intends to raise its average annual investments in agriculture to **\$2.4 billion** annually.

03

Private sector and institutional capital will be a critical source of financing. Leveraging commercial bank balance sheets and innovative finance mechanisms will be explored as potential options.

04

Foreign direct investment in agriculture and agribusiness in Africa were worth **\$10 billion** in 2014. Creating the appropriate conditions for agribusiness growth and aligning existing investment strategies of the private sector to the goals of transformation should increase the attractiveness and flows of FDI into the African agribusiness sector.



The importance of ensuring the development of sustainable, resilient and climate-smart agriculture is closely aligned with the ambitions agreed in the 2015 United Nations Climate Change Conference in Paris (COP 21) and the associated climate finance commitments. These represent additional and material sources of funding for key parts of agricultural transformation, especially sustainable intensification of commodity production, and sustainable natural resource management.



How this approach will work on the ground

Scaling up and leveraging what already works: Feed Africa initiatives are either universally proven to deliver results, or involve scaling up and replicating promising pilot programmes.

- 01** Ensuring that sufficient skills and capabilities and resources exist for follow-through.
- 02** Sufficient targeting: the African Development Bank intends to increase the scale of its funding to agriculture. It will direct those financial resources to a series of commodities and agro-ecological zones. Doing so will help drive multi-country value chains through extensive commodity and agro-industry expertise.
- 03** Candour about the importance of political will: transformation involves substantial reform, requiring a high degree of political priority, coordination across ministries, and a readiness to push through business and developmental interests.

The role of the African Development Bank

The African Development Bank has considerable experience in supporting African countries in the agricultural sector. The Bank will play a pivotal and catalytic role in the delivery of the Feed Africa agenda, and use its unique position and experience as a key investor for, convener of, and advisor to African governments and institutions to coordinate and amplify efforts across the continent. Specifically, the Bank will work with its partners to orchestrate, design and implement existing and successful transformation initiatives.

Milestones in climbing up agricultural value chains

The African Development Bank envisages a food secure continent that uses advanced technologies, creatively adapts to climate change, and develops a new generation of 'agripreneurs' – empowered youth and women who will modernise and industrialise agriculture. The Bank's Feed Africa strategy supports projects and initiatives that will transform agricultural supply chains.

Transforming African agriculture: The Special Agro-industrial Processing Zones

The Bank is rolling out Special Agro-industrial Processing Zones (SAPZs) to drive agricultural transformation across the continent. SAPZs are agro-based development initiatives designed to concentrate agro-processing activities within areas of high agricultural potential to boost productivity and integrate production, processing and marketing of selected commodities. The SAPZs aim to attract private investors along the entire value chain, thereby increasing food production, adding value to agricultural produce and creating decent jobs for Africa's growing youth population.

Two such projects were approved in Ethiopia and Togo in 2018. With a combined investment of about \$66 million. The Bank provided US\$28 million while other funds came from partners. The Togo Agro-food Processing Zones project targets import substitution for essential commodities such as rice, maize, soybean and poultry. This will boost agricultural productivity and improve access to local and regional markets. The projects would strengthen food and nutritional security and create wealth and jobs for 303,000 people including youth and women (51%).

In Ethiopia, the development of agro-industries presents a unique opportunity to accelerate economic development and achieve industrial development goals. The Bank along with other partners, such as the European Union, Korea EXIM Bank and Big Win Philanthropy, are supporting four integrated agro-industrial parks (IAIPs) located in Baeker (Western Tigray Region), Bulbula (Central Eastern Oromia Region), Bure (Southwest Amhara Region) and Yirgalem (Eastern SNNP Region) with an estimated sum of \$100 million. The IAIPs are expected to generate a total investment of \$1.5 billion and create an additional 400,000 jobs.

Boosting Africa's agricultural productivity through technology

The Bank has been harnessing the potential of technology to boost Africa's agricultural value chains.

The rapid pace of growth in the use of drones, automated tractors, artificial intelligence, robotics and blockchains are transforming agriculture. Smart farming and technological innovation is boosting productivity, but more education, connectivity and funding is required.

Leveraging the potential of drones for precision agriculture in Tunisia

Add this picture here (<https://www.flickr.com/photos/afdbgroup/43821784361/in/album-72157698148654811>)

Drones can make a real difference to farm productivity, particularly in remote or hard-to-reach areas. They reduce risk to workers, bring down operating costs and provide high-quality data collection capabilities.

In 2018, Tunisia, Busan Metropolitan City [Korea] and the African Development Bank signed an agreement to launch a pilot project on the use of drones for better management of agricultural projects. The project used four drones to train 32 Tunisian young people on how to use the technology in an agricultural setting.

The drones will help farmers to provide fast and accurate agricultural data to improve project management, expedite delivery and improve decision-making.

The Bank will continue to develop its focus on promoting new technologies and modern farming techniques. For instance, our Technologies for African Agriculture Transformation (TAAT) framework aims to expand access to agricultural yield-enhancing technologies, including high-yielding and bio-fortified staple crops. TAAT aims to reach 40 million farmers with improved food technologies by 2025.

Collaboration is ongoing under the Bank-funded TAAT program with the International Centre for Tropical Agriculture (CIAT) leading the High Iron Beans Compact. Under the terms of the Compact, the bean network of the National Agricultural Research Centres (NARS), farmer groups, and bean processing companies are working together to reach 623,000 farmers with 4,700 metric tonnes of a variety of high iron bean certified seeds.

To date, TAAT has been successful in regional harmonisation of seed policies and regulations across regional economic blocks. This harmonisation will help to open up regional seed markets and cross-border trade. It has also deployed the Empowering Novel Agri-Business-Led Employment (ENABLE) Youth initiative across 19 countries and supported youth-led agribusiness across a number of value chains.

Harnessing technology to tackle invasive pests across the continent

Under its Technologies for African Agriculture Transformation (TAAT) project, the African Development Bank, in partnership with the International Institute of Tropical Agriculture, launched an Africa-wide initiative to mobilise regional efforts to stop the spread of Fall Armyworm - an invasive pest threatening the food supply and incomes of millions of African smallholders.



Fall Armyworm is a dangerous trans-boundary pest with a high propensity to spread due to its natural migratory capacity. Without appropriate action, it could cause losses of up to 53% in maize yield in 12 African countries within five years. The value of these losses is estimated at between \$2.48 billion and \$6.19 billion. The initiative seeks to identify new technologies to combat the pest and distribute them to smallholder farmers across the continent.

From Father to Son: how a village elder is teaching Bank-funded, higher yield crop-producing fertiliser microdose technology skills to his children.

Sakarel is a village located some 635 kilometers northeast of Mali's capital Bamako and 60-year-old Mamadou Nadio is one of the village leaders. Nadio says that for decades, fertilising crops was left to children to carry out, but it wasn't an efficient or productive practice. For example, the children would take 15 minutes to apply 100 kg of di-ammonium phosphate fertilizer on one hectare of millet, but their efforts were hampered by low productivity and chronic hunger.

«We used to give the bags of fertiliser to the children who spread it on the fly in our fields. We did not know that in this way, a large part was lost either by evaporation or by rainwater runoff. Our millet plants received only a small portion of the fertiliser applied,” Nadio says.

African Development Bank funding brought a microdose technology training program to the village. The technology requires the use of less fertiliser on millet plants, saving fertiliser, money and also significantly increasing yield.

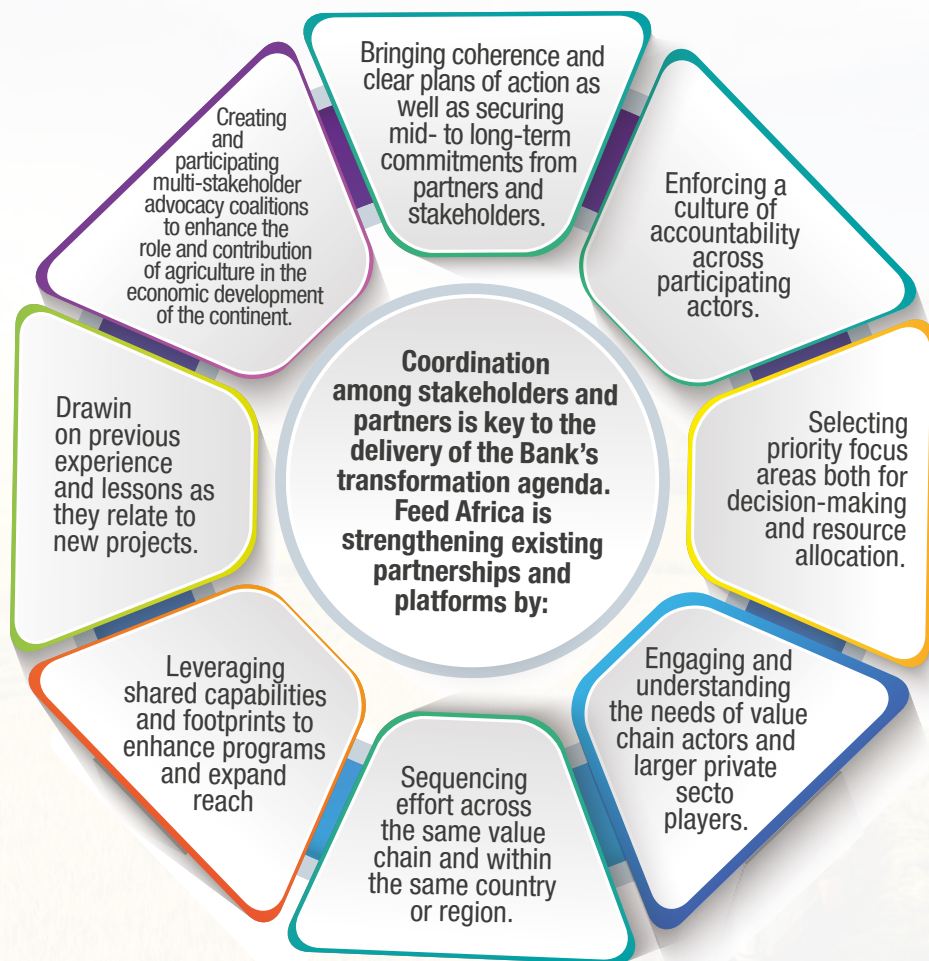
“Thanks to the training we finally understood that 35 kilogrammes of fertiliser could be enough for one hectare of millet and the yield was high,” Nadio said. As a village leader, he was a natural fit to be a “custodian” of the microdose technology for cereal farmers in his community. He says once he applied the technology to his fields, he was convinced – and other farmers in the village wanted to learn more about how he did it.

“At harvest, my yield was 1500 kg; and I had never exceeded 800 kilogrammes in this field [prior to using microdose technology],” he added. Now, Nadio is teaching his kids how to use the technology, to ensure that the knowledge about this new way of farming doesn't die when he does. “The microdose is probably the technology that can [help us] emerge from poverty,” Nadio says.



60-year-old old farmer and village leader Mamadou Nadio poses with his son Allaye.

Partnerships for transformation



Comprehensive African Agriculture Development Programme (CAADP)

The African Development Bank endorses the Malabo commitments which were adopted in 2014 to accelerate the implementation of the CAADP. They include:

Recommitment to the principles and values of the CAADP process.
Recommitment to enhance investment finance in agriculture by upholding a 10% public spending target.

End hunger by 2025: doubling of productivity (focusing on inputs, irrigation, mechanisation); reduce post-harvest losses by 50% or more; in nutrition, to reduce underweight to 5% and stunting to 10%.

Reduce poverty by 50% by 2025, through inclusive agricultural growth and transformation via: sustained annual growth in agricultural GDP of at least 6%; establish and strengthen inclusive public-private partnerships for at least five priority agricultural commodity value chains, with a strong linkage to smallholder agriculture; create job opportunities for at least 30% of the youth in agricultural value chains; establish preferential entry and participation by women and youth in gainful and permanent jobs in agribusiness.

Boost intra-African trade in agricultural commodities and services; triple intra-Africa trade in agricultural commodities and services; fast-track continental free trade area and change to a continental common external tariff scheme.

Enhance resilience in livelihoods, production systems, climate variability and other shocks: ensure that by 2025, at least 30% of farm and pastoral households are resilient to shocks; enhance investments for resilience building initiatives, including social security for rural workers and other vulnerable social groups, as well as for vulnerable ecosystems;

mainstream resilience and risk management in policies, strategies and investment plans. Mutual accountability in actions and results by conducting a biennial agricultural review process using the CAADP Result Framework.



African Development Bank Group
Communication and External Relations Department
Rue Joseph Anoma 01 BP 1387 Abidjan 01 (Côte d'Ivoire)
Tel.: +225 20 26 44 44 • Fax: +225 20 21 31 00
Web: www.afdb.org

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