

Enhancing food security

Building food system resilience is crucial for Africa's food security. Rwanda's Bugesera Agricultural Development Support Project reduced drought impacts by harnessing water that increased agricultural production.

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Chapter 2
Feed Africa

Africa has an abundance of uncultivated land, accounting for over 65 per cent of the world's total. However, it is a net food importer and faces food insecurity. This makes the continent highly vulnerable to global food supply crises. Strengthening sustainable and resilient food systems in Africa will accelerate the region's economic transformation and improve living standards for all people across the continent.

Accelerating agricultural production in Africa

Africa's food production has faced challenges in keeping up with population growth. This has led to a reliance on food imports to satisfy local consumption needs. In 2022, the continent's net agricultural trade deficit was $38.7 billion, up from $36.3 billion in 2021 and similar to 2015 ($38.9 billion).

Low agricultural productivity in many African countries is hindering the growth of food production, increasing food imports, and diminishing food security. Across Africa, cereal yields averaged 1.65 tons per hectare in 2022, a slight increase from 1.61 tons per hectare in 2015; this is far below the world average of 4 tons per hectare. Additionally, the effects of climate change, such as increased temperatures, extreme weather events, and water scarcity, hamper agricultural productivity. To address this issue, it is essential to make farming inputs such as fertiliser, improved seeds, irrigation, and farming technology more accessible and affordable.

> *It is essential to modernise African agriculture by expanding the processing of agricultural products and creating improved job opportunities in the sector*

Although the use of fertiliser by Africa's farmers has expanded from an average of 25 to 29 kilograms per hectare of arable land between 2015 and 2022, this is still not sufficient to maximise farming yields. Russia's invasion of Ukraine[2] has caused shortages and price increases of nitrogen, potassic and phosphorous fertilisers. This, combined with the rising costs of other farming inputs and high interest rates, has created a challenging environment for African agriculture.

In this context it is essential to modernise African agriculture by expanding the processing of agricultural products and creating improved job opportunities in the sector. The majority of jobs in African agriculture are concentrated in informal downstream trading activities, which offer modest and insecure incomes. However, agro-processing has the potential to create large numbers of better paid and more secure jobs. Additionally, improved agro-processing can help smallholder farmers add value, attract investment, and gain access to higher value markets, both domestically and globally.

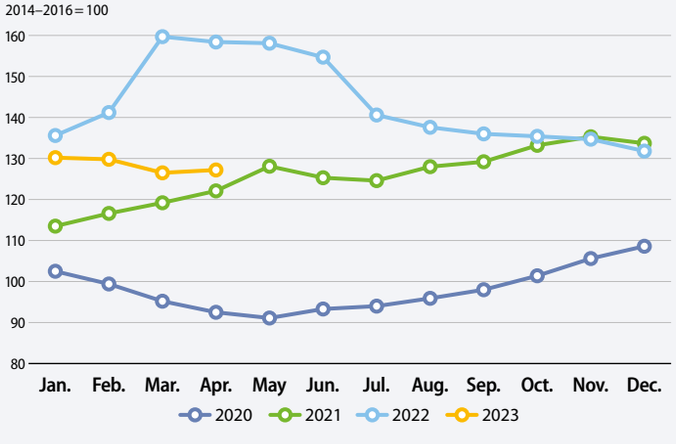
Given the energy demands for expanding agro-processing, it is encouraging to see that climate-friendly technologies are already being adopted across the continent. For instance, in Uganda, the use of solar power for refrigeration, milling and other processing activity is growing, thus helping to expand connectivity for agricultural enterprise in off-grid areas.

The impact of global crises on food security in Africa

Recent years have seen major global crises contribute significantly to reduced food security in Africa and globally. The COVID-19 pandemic and the resulting economic crisis disrupted food production and trade, diverting resources from agricultural development. Though the pandemic's main effects have passed, food prices have risen due to a rapid rebound in demand for staple food commodities, worsening food security in many African countries.

Furthermore, the Russian invasion of Ukraine[2] has had a major impact on global food prices. Wheat prices rose 50% and fertiliser became

Figure 3 **FAO Food Price Index**



Source: Food and Agriculture Organization (FAO)

Table 3 **Feed Africa (progress in Africa)**

INDICATOR	ALL AFRICAN COUNTRIES		ADF COUNTRIES		TRANSITION STATES	
	Baseline 2015	Latest 2022	Baseline 2015	Latest 2022	Baseline 2015	Latest 2022
Agricultural productivity (constant 2010 US$ per worker)	1544	1773	689	990	797	839
Cereal yield (ton/hectare)	1.61	1.65	1.30	1.46	0.84	0.96
Africa's net agricultural trade balance ($ billion/year)	-38.9	-38.7	-0.7	-4.6	-7.2	-10.2
Africa's share of market value for key processed commodities (%)	10.3	11	9.3	11	2.0	1.8
Fertiliser consumption (kilograms per hectare of arable land)	25	29	14	19	6	8
Prevalence of stunting among children under 5 (%)	25.2	30.6	25.8	32.6	38.9	35.6
of whom girls	32.4	27.5	35.3	29.7	37.9	32.7
Number of people hungry/malnourished (millions)	240	256	173	158	80	80

Improvement over baseline Deterioration

3–4 times more expensive between 2020 and 2022. This is due to the disruption in the production and supply chain of commodities such as wheat, maize, barely, and sunflower oil, which are key Ukrainian and Russian exports. The energy costs also rose, affecting prices as fossil fuels are a key input to fertilisers and mechanised farming and agro-processing. The Food and Agriculture Organization (FAO) Food Price Index reached an all-time peak in March 2022 (see Figure 3), and although prices began to fall shortly thereafter — partly due to an agreement signed in July to release Ukraine's grain exports, they remain high, causing hardship for many households across Africa.

Box 4 **The African Emergency Food Production Facility: Responding to the food crisis**

The Bank's $1.5 billion African Emergency Food Production Facility aims to increase the production of wheat, maize, rice, and soybeans in response to the disruption in supplies of these foods caused by Russia's invasion of Ukraine.[2] By providing short-term emergency funding, the facility will support 20 million farmers' access to climate resilient technologies and produce approximately 38 million tons of staple food crops, representing an increase of approximately 30% in local production. The facility focuses on four key areas:

- Delivering certified seeds, fertiliser, and extension services to 20 million farmers, using innovation, Internet and communications technology platforms.
- Supporting post-harvest management and market development.
- Providing financing and credit guarantees for the large-scale supply of fertiliser to wholesalers and aggregators.
- Facilitating policy reform to ensure modern inputs reach farmers, including strengthening national institutions overseeing input markets.

The Bank is collaborating with the AU, regional economic commissions, multilateral development banks, United Nations (UN) agencies, private foundations, and other stakeholders to implement this initiative.

Across the continent, low-income and food-deficit countries such as Cameroon, Uganda, and Sudan, are most affected by global food price increases due to their reliance on staple food imports. To assist African countries to boost food and nutrition security, the Bank launched an emergency food facility in 2022, the African Emergency Food Production Facility. This facility aimed to address the disruption in food production and supply chain of food commodities caused by Russia's invasion of Ukraine[2] (see Box 4).

Bank's role in unlocking Africa's economic potential through agricultural development

The Bank is committed to improving the growth and resilience of the agricultural sector, recognising it as the key to unlocking Africa's economic potential and the quality of life of its population. Across its portfolio of activities, the **Bank's support for agriculture benefited 2.9 million people** in 2022, **of which 1.4 million were women**, including through **building or rehabilitating 1682 km of feeder roads**. One of the initiatives supported by the Bank is the Technologies for African Agricultural Transformation (TAAT), a continental initiative to raise agricultural productivity by delivering proven climate-resilient technologies (see Box 5).

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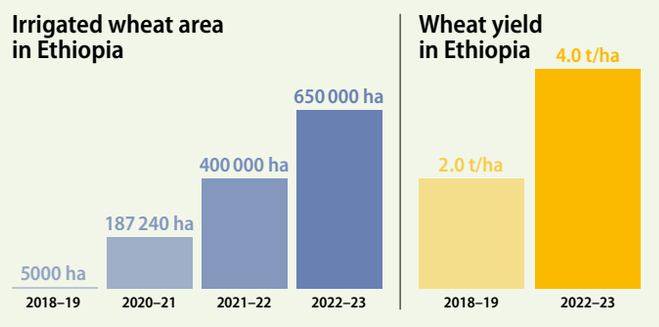
The Bank's operations also helped smallholder farmers and rural entrepreneurs increase their income. The Smallholder Agricultural Productivity Enhancement and Commercialisation (SAPEC) project in Liberia contributed to increasing the income of smallholder

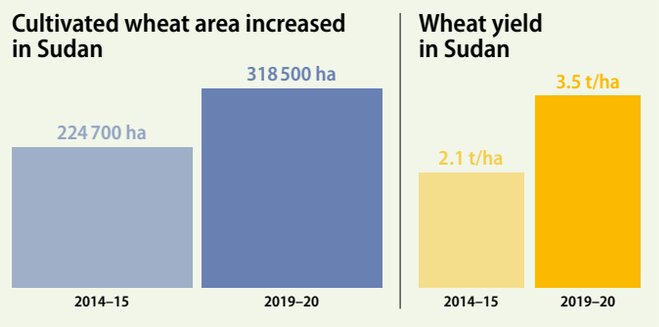
Table 4 **Feed Africa (the Bank's contribution to development)**

INDICATOR	ALL AFRICAN COUNTRIES			ADF COUNTRIES		TRANSITION STATES	
	Baseline 2015	Latest 2022	Target 2022	Baseline 2015	Latest 2022	Baseline 2015	Latest 2022
Agricultural inputs provided: fertiliser, seeds, etc. (thousand tons)	0.6	2.6	1.7	0.6	2.6	-	2.6
Feeder roads built or rehabilitated (km)	800	1682	1500	800	1282	254	938
People benefiting from improvements in agriculture (millions)	6.0	2.9	6.3	5.3	2.7	0.5	1.2
of whom women	2.9	1.4	3.1	2.6	1.3	0.2	0.6
Land with improved water management (thousand hectares)	45.5	11.1	47.8	20.3	9.8	0.4	8.5
Rural populations using improved farming technology (millions)	0.60	0.08	0.63	0.60	0.07	0.02	0.03
of whom women	0.30	0.04	0.31	0.30	0.04	0.01	0.02

Achieved less than 95% of 2022 target Achieved less than the baseline

Box 5 **Increasing agricultural productivity with climate-resilient technologies**





TAAT is a Bank-supported continental initiative to raise the agricultural productivity of nine priority commodities by delivering high-impact, climate-resilient technologies to millions of farmers in Africa. The initiative is co-financed by the Bill and Melinda Gates Foundation, Alliance for the Green Revolution in Africa, regional member countries and other partners.

In Ethiopia, the irrigated-wheat area rapidly expanded from less than 5000 ha in 2018–19 to over 650 000 ha in 2022–23, resulting in a national irrigated wheat yield increase from 2.0 t/ha to 4 t/ha. In 2022–23 wheat production both from irrigated and rain-fed systems reached 10.1 million MT that led to Ethiopia becoming 100% self-sufficient and the export of surplus wheat to Kenya and Djibouti for the first time.

In Sudan, the average wheat yield increased by 67%, up from 2.1 t/ha in 2014–15 to 3.5 t/ha in 2019–20, and the cultivated wheat area increased by 40%, from 224 700 ha in 2014–15 to 318 500 ha in 2019–20. As a result, wheat production increased by 136%, from 472 000 MT to 1,15 million MT, and wheat self-sufficiency rose from less than 20% to 50%. The Bank is supporting other on-going TAAT initiatives in Angola, Zambia, Gabon, and Niger.

Box 6 **From poverty to prosperity: A beneficiary story of SAPEC Project in Liberia**

Destiny Women Association is a women-led group that benefited from SAPEC through entrepreneurship training, and the provision of complete processing line. The women-led group now operates a 150-acre cassava farm and purchases raw cassava from more than 1000 smallholder registered out-growers. Every week, they process over 4 metric tons of secondary products such as *fufu* and *depah*, and ready to eat fortified gari with sugar, coconuts, and milk. This has had a transformative effect on the community.

Comfort, President, Destiny Women Association said: '*When you enter this community prior to 2017, poverty welcomed you everywhere. Now all that has changed through SAPEC intervention. The widows in the group have seen improved incomes and are keeping their children in school, we supply water from the factory to the community through boreholes constructed by the business and we supply the Government of Liberia School Feeding programmes. The project has delivered and we are going ahead to grow and expand.*' The project was co-financed by the Bank and the Global Agriculture and Food Security Program.

farmers and rural entrepreneurs, reducing rural poverty and household food insecurity and addressing the acute skills shortage in the agricultural sector (see Box 6). The SAPEC project also rehabilitated 172 km of farm-to-market roads, of which 27.7% were designed to withstand climate change. Additionally, it trained 55 producer-based organizations, 1816 smallholder farmers, and 80 extension workers in agribusiness and value addition.

The Bank's operations also helped to **improve water management systems** for 11.1 thousand hectares of land and **provided 2.6 tons of fertiliser, seeds, and other inputs to farmers**. For instance, the Smallholder Irrigation and Value Addition Project (SVAP) in Malawi helped to rehabilitate a small-scale irrigation system and constructed 12 new ones, bringing approximately 2210 hectares of land under irrigation. These interventions have benefited an estimated 10 390 famers, including 4174 women, who have been able to expand their cultivation of rice, maize, soybean, pigeon peas, cassava, sweet potatoes, and vegetables.

In 2022, to assess its impact on increasing food security through improved water management, the Bank conducted an innovative analysis of the Water Mobilisation Project to Enhance Food Security (PMERSA) in Niger (see Box 7).

The Bank is also committed to supporting the development of agro-industrial parks and Special Agro-industrial Processing Zones (SAPZs) across Africa, which can help to promote value addition and improved

Box 7 **Unlocking water resources for food security in Niger**

With support from the African Development Fund, the Global Agriculture and Food Security Program and the Spanish Agency for International Development Cooperation, the PMERSA project successfully utilised surface and groundwater resources to increase local agricultural production, productivity, and food security in three regions. This project supported the development of 18 800 hectares of farmland, 10 000 wells and drillings, and the construction of 273 km of feeder roads.

To actively engage the public, especially the youth, to measure the project's impact on Niger's vulnerable rural communities, the Bank and its partners organised a game-based data collection, to which thousands of people contributed using their mobile devices and PCs. This led to the confirmation of changes observed on satellite images, which revealed significant improvements in infrastructure and the landscape over eight years.

Satellite images in 2014 and in 2022 that reflect landscape improvements in Maradi Town area



For this impact analysis, the Bank partnered with Akvo — a non-profit organisation specialising in innovative data and technologies — and Blackshore —an expert in crowd-generated maps.

On-site interviews recorded beneficiaries' satisfaction and highlighted improvements in living conditions, including the increased availability of agricultural and livestock products, reduced rural-urban migration, and an increase in the income of target households, allowing better access to health and education services.

Souley M. from Baramaka village said, '*Before there were no trees on this site. You see, all the neighbours around here use this well to grow vegetables, to water the tree*". He added "*I used to go into exodus, but now with the support of the project I don't go into exodus anymore, I'm always in the garden*'.

Box 8 **Supporting Special Agro-industrial Processing Zones in Africa**

The Bank's approach to implementing the SAPZ model is to work with governments and the private sector to create agro-industrial zones that can turn the rural landscape into economic zones of prosperity. This integrated hub will include production, processing, logistics, and marketing supported by a network of agricultural transformation and aggregation centres. The Banks' SAPZ with the CAAPs, aims to increase the supply of locally produced agricultural goods, creating jobs from agro-industry as well as promoting regional and international trade.

Since the SAPZ initiative was launched, the Bank has been involved in agro-industrialisation activities across several African countries, including Ethiopia, Togo, Guinea, Mali, Senegal, Cote d'Ivoire, DRC, Liberia, Madagascar, Mozambique, and Nigeria. The Bank is also supporting other countries with project preparatory activities including South Africa, Mauritius, Tanzania, Ghana, Kenya, Uganda, Egypt, and Zambia. In total, the Bank is supporting 19 African countries.

productivity for all types of farmers. To this end, the Bank launched the Common African Agro-Parks Programme (CAAPs), a mega-initiative to create five regional agro-industrial hubs, with one in each of Africa's main regions. This programme has the potential to transform the rural landscape into economic zones of prosperity (see Box 8).

Finally, the Bank recognises that climate change is already having a profound impact on the lives of many Africans. It is acting to both adapt and mitigate its effects through dedicated projects, programmes, and initiatives. For example, the Forests Participatory Management Project in Burkina Faso has supported the installation of 10 platforms for the development of non-timber products, organisation and training of 90 women's groups, training of 1000 women in wood product development and management techniques, and the distribution of 2700 improved stoves. This project has resulted in the sequestration of 1.5 million tons equivalent of CO_2 and the creation of more than 5400 temporary jobs during implementation. ■