Chapter 3

Feed Africa

Africa’s agriculture sector provides 60% of jobs across the continent; thus, modernising the sector is key to Africa’s development. With a more modern agriculture sector, millions of African farmers will be able to become more productive, earning higher incomes and lifting themselves out of poverty. By linking farmers to markets, supply chains and agro-industries, the agriculture sector will help create the jobs and incomes that Africa needs to develop its economy and feed its citizens.

This chapter shows a mixed picture on progress. For now, growth in agricultural yields and productivity remains disappointing. Stunting rates are falling across Africa, but not quickly enough, and 224 million people are hungry or malnourished. A major push will be required to meet the SDG target of ending malnutrition by 2030. Under its Feed Africa strategy, the Bank is playing a leading role in modernising African agriculture: in 2017 our agriculture projects benefited 8.5 million people.

Moving up the value chain with agribusinesses

Agriculture is a major source of income for Africa, yet it provides low returns to millions of farmers. Smallholder farming—a way of life for nearly two-thirds of Africa’s workers—often traps farmers and their families in poverty and malnutrition. The right mix of interventions, investments and policies can unleash the potential of African agriculture, creating higher incomes for farmers and agribusiness and increasing agricultural production.

Commercial agro-industries raise the value-added of crops and integrate smallholders into the supply chains

Already we see that as smallholder farmers expand into agribusiness, they sell processed products in local and regional markets. This increases the value-added of their products and provides resources to invest in their farms and businesses. Agribusinesses enhance the food supply and support job creation.

Industrialising agriculture—that is, developing more small- and large-scale agribusinesses—is key to transforming the sector. Increasingly, commercial agro-industries are raising the value-added of specific agricultural products and integrating smallholders into the supply chains, giving assured markets and prices and encouraging farmers to invest in inputs and technologies to increase their productivity. In these new industries, farmers must receive a fair share of the value-added, to increase their yields and production and achieve sustainable benefits.

Africa’s agricultural yields are generally low relative to those in East Asian and Latin American countries. Africa’s average cereal yields are just 1.5 tonnes per hectare, and agricultural productivity (constant 2010 $) is $1603 per worker across Africa. The slow adoption of agricultural technical tools, limited irrigation and low use of fertilisers share the blame for Africa’s low food productivity. In addition, distortions in market access, regulations and governance have negatively affected food production.

Figure 10  Kenya and Ethiopia doubled their horticulture exports in less than a decade

<table>
<thead>
<tr>
<th>Year</th>
<th>Kenya (million)</th>
<th>Ethiopia (million)</th>
</tr>
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<tbody>
<tr>
<td>2005</td>
<td>100</td>
<td>50</td>
</tr>
<tr>
<td>2008</td>
<td>200</td>
<td>100</td>
</tr>
<tr>
<td>2011</td>
<td>400</td>
<td>200</td>
</tr>
<tr>
<td>2014</td>
<td>700</td>
<td>400</td>
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</tbody>
</table>

Source: ITC

Because many Africans depend on their local agriculture for food, hunger and poor nutrition remain widespread. Across the continent, 224 million people are hungry/malnourished, 193 million of them in low-income countries. Nearly one-quarter of Africa’s children under 5 are stunted, and for girls, the prevalence of stunting remains at nearly one in three. However, some progress
is being made (see Figure 11). The trends indicate that Africa is unlikely to meet the Sustainable Development Goal target of ending malnutrition by 2030 unless major new initiatives take place to address chronic undernutrition, particularly at the critical development periods early in a child’s life.

The transformation of Africa’s agriculture is urgently needed if Africa is to feed its people. Agricultural policies, policy reforms, increases in productivity and the commercialisation of agriculture must support the wider goal of increasing the food available to African citizens. A key route to achieving this is helping farmers and agribusinesses move up the value chain of their produce, so they invest to produce more.

### From primary to processed commodities

Africa has vast agricultural potential, and most of the technologies required to boost yields are already at hand. With the right policies and investments, African agriculture could be an engine for inclusive growth across the continent. And with 65% of the world’s remaining uncultivated arable land, Africa is also a potential resource for the world as populations increase.

A key challenge is addressing the barriers to improving crop yields and incomes that African farmers face—for example, through measures to help farmers adopt proven technologies, reduce post-harvest losses, access inputs such as fertiliser and reach assured markets for their produce. Access to infrastructure services—feeder roads, electricity and water—is critical. Mobile phones increasingly provide information and communications that facilitate trade. Engaging in small and medium agribusiness enables farmers to increase the value-added from their products and encourages greater production.

In several countries, we are already seeing marked results. Nigeria is increasing its fertiliser use through its e-wallet system, and Senegal has transformed its rice production.

### Table 3 Feed Africa indicators (Level 1 & Level 2)

<table>
<thead>
<tr>
<th>INDICATOR</th>
<th>ALL AFRICAN COUNTRIES</th>
<th>ADF COUNTRIES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of people hungry/malnourished (millions)</strong></td>
<td>240 224</td>
<td>192 Towards 0</td>
</tr>
<tr>
<td><strong>Agricultural productivity (constant 2010 US$ per worker)</strong></td>
<td>1544 1603</td>
<td>1861 3130</td>
</tr>
<tr>
<td><strong>Cereal yield (ton/hectare)</strong></td>
<td>1.6 1.5</td>
<td>1.9 2.8</td>
</tr>
<tr>
<td><strong>Prevalence of stunting among children under 5 (%)</strong></td>
<td>25.2 24.3</td>
<td>23.7 17.5</td>
</tr>
<tr>
<td>— of which girls</td>
<td>32.4 32.5</td>
<td>30.4 22.5</td>
</tr>
<tr>
<td><strong>Africa’s net agricultural trade balance ($ billion/year)</strong></td>
<td>-38.9 -38.9</td>
<td>-31 Towards 0</td>
</tr>
<tr>
<td><strong>Africa’s share of market value for key processed commodities (%)</strong></td>
<td>10.3 10</td>
<td>16 38</td>
</tr>
<tr>
<td><strong>Fertiliser consumption (kilograms per hectare of arable land)</strong></td>
<td>25 25</td>
<td>28 40</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INDICATOR</th>
<th>ALL AFRICAN COUNTRIES</th>
<th>ADF COUNTRIES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>People benefiting from improvements in agriculture (millions)</strong></td>
<td>6 8.5</td>
<td>6.3 63</td>
</tr>
<tr>
<td>— of which women</td>
<td>2.9 4.1</td>
<td>3.1 31</td>
</tr>
<tr>
<td><strong>Land with improved water management (thousand ha)</strong></td>
<td>45.5 46.4</td>
<td>47.8 478</td>
</tr>
<tr>
<td><strong>Rural population using improved farming technology (millions)</strong></td>
<td>0.6 0.3</td>
<td>0.63 6.3</td>
</tr>
<tr>
<td>— of which women</td>
<td>0.3 0.16</td>
<td>0.31 3.1</td>
</tr>
<tr>
<td><strong>Agricultural inputs provided: fertiliser, seeds, etc. (thousand tons)</strong></td>
<td>0.6 1.7</td>
<td>1.7 17.4</td>
</tr>
<tr>
<td><strong>Feeder roads built or rehabilitated (km)</strong></td>
<td>800 1945</td>
<td>1500 15 000</td>
</tr>
</tbody>
</table>

- Achieved 95% or more of the 2017 target
- Achieved less than 95% of the 2017 target but above baseline value
- Achieved less than the baseline
- Data are not available to measure progress

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**Figure 11 Stunting decreased overall in Africa, but pockets of vulnerability persist**

*Source: Graetz et al., Nature, vol. 555, Nb. 7694, 2018*
For many countries, industrialisation using agricultural products is a promising route to creating jobs and livelihoods. Processing agricultural products to sell to domestic, regional and international markets creates assured and high prices to farmers, who in turn must provide reliable products to support a vibrant and competitive agro-industry sector.

Another major challenge for Africa is to grow agriculture sustainably

Some countries, such as Ethiopia, have been explicit in developing agro-based industrialisation strategies to encourage the policy coherence needed to promote this form of industrialisation. In many countries, successful agro-industries are transforming the sector and developing their economies—for example, horticulture in Kenya and in Ethiopia (see Figure 10), and olive oil in Tunisia.

Investment in the agriculture sector is needed to address Africa’s net agricultural trade balance, which is negative at $38.9 billion a year. A surge in food imports is taking place as Africa’s towns and cities expand and Africa’s middle class grows. Although Africa is self-sufficient in cassava and sorghum, it imports about a third of the rice it consumes (see Figure 12).

Another major challenge for Africa is to grow agriculture sustainably, particularly given the effects of climate change on agriculture. Under the Sustainable Development Goals, Africa is committed to protecting ecosystems, halting deforestation, combating desertification and restoring degraded land and soil. For example, in Côte d’Ivoire, Ghana, Nigeria and Cameroon the rising global demand for chocolate, the decreasing capacity of old cocoa trees, poor agricultural practices and the impact of climate change on suitable land means that 2.3 million hectares of forest were destroyed between 1998 and 2007. Companies have taken some steps to address the deforestation, using certification schemes to promote responsible practices and community programmes to support climate-smart practices by smallholders. These efforts help improve their social and environmental footprint.

The Bank’s support for a food-secure Africa

Transforming Africa’s agriculture sector requires a range of policies, technologies, infrastructure investments, and links to markets and supply chains. Working with international development partners, the Bank plays a leading role in the effort to accelerate the modernisation of Africa’s agriculture sector and achieve greater impact on poverty and malnutrition. Under the Feed Africa High 5 priority, the Bank provides a range of interventions to enable smallholders to raise their yields, outputs and incomes and lift themselves out of vulnerability and poverty.

In 2017, 8.5 million people benefited from improvements in agriculture because of our projects—well above the 6 million who benefited in 2015, and even above our target of 6.3 million. Our projects in the agriculture sector benefited 4.1 million women. In Tanzania, we provided financial support to rural development and the livestock industry (see Box 8).

A key concern of our agriculture portfolio is to improve water management. Rain-fed farming is increasingly affected by climate change. Our projects delivered 46 400 hectares of land with improved water management. In some projects, better water management is part of a mix of interventions to help smallholder farming and small-scale agribusiness become more sustainable and reduce poverty. In northern Ghana, we provided better water management for 4664 hectares, and in Burundi, we delivered irrigation systems that intensified the production of livestock and crop yields. We also delivered better water management for a Kenya horticulture project, linking irrigated horticultural crops to market opportunities.
Our projects constructed local roads, power systems, storage and market facilities and other local infrastructure, improving yields and access to markets: 1945 km of **feeder roads were built or rehabilitated**, compared to 800 km in 2015; and we provided 1700 tonnes of **agricultural inputs including fertiliser, seeds etc.**, compared to 600 tonnes in 2015.

Creating transport and power infrastructure at the local, national and regional levels enables farmers and those with agribusinesses to reach markets, giving incentives for greater production, higher yields and agro-processing. In Uganda, we rehabilitated over 4260 km of feeder and access roads. Our support to communities included delivering 72 grain and maize mills to promote agro-processing. This allowed farmers to access markets more easily and increased the farmgate prices of staple food crops—maize by 14.5% and rice by 38%. Our impact includes the establishment of schools, health centres, roads and marketing facilities (see Figure 13).

In two projects in Malawi, our focus on climate adaptation with the Global Environment Facility and the African Development Fund led to improving rural livelihoods by irrigating 1337 hectares of land and constructing solar-operated irrigation schemes. Farmers are now providing initial maintenance of the equipment to ensure its sustainability. In São Tomé, we rehabilitated markets and a fishing landing point to increase food security.

In 2017, working with the Food and Agriculture Organization, UN Economic Commission for Africa, the International Trade Centre, and Alliance for a Green Revolution in Africa, we published an assessment on commodity exchanges and warehouse receipt systems. The assessment confirmed that access to markets is needed throughout agricultural value chains, and that it is essential to have both price information and financial liquidity. The report looked at value chains in 15 countries and noted that to expand benefits throughout the value chain, it is important to address the key risks that hinder private sector agribusinesses and financiers from trading with and financing smallholders.

Recognising that Africa has abundant natural resources and labour for coffee production, we also published an assessment of Africa’s coffee sector. The report identified the importance of innovation and technology to raise yields and ensure that Africa remains globally competitive. It also highlighted the importance of crop diversification for coffee farmers so that they remain resilient in the face of unpredictable international coffee prices.

In 2017, 8.5 million people benefited from improvements in agriculture. Our projects delivered **46 400 hectares of land with improved water management**.
What has worked well

Putting key staff in the driver’s seat
Operational staff can contribute significantly at the project design and construction stages. In Mozambique, project implementation staff were seconded to the construction phase of a dam and then were involved in implementing the rehabilitation of the agricultural land. This worked well and promoted institutional continuity, enhancing the capacity of counterparts.

Involving academia
Academics can give credibility and provide expertise to certain projects. In the Democratic Republic of Congo, they made a major contribution by backing the methodology and techniques in the Reducing Emissions from Deforestation and Forest Degradation project. This level of methodological rigour was later replicated through provision of training and tools to improve forestry initiatives.

What has not worked so well

Planning results achievement
Unrealistic planning and the need to coordinate with a large number of smallholders can slow the implementation of agriculture projects. Sometimes this issue is exacerbated by an inadequate tracking mechanism. The Bank should carry out proper monitoring to ensure that the right interventions are provided in a timely way to manage results.

Preparing projects
Project designs can omit key details needed for implementation. In Liberia, the Bank’s appraisal and preparation missions did not collect sufficient detail during the feasibility study, so implementing consultants had to undertake a months-long study to overcome the knowledge gap. The Bank should ensure that design details are clear for project implementers.

Sowing the seeds of agricultural transformation
Under our Feed Africa strategy, we support projects and initiatives that will transform agriculture supply chains. By promoting agro-industry and food processing, we will work with international development partners and the private sector to strengthen supply chains from farmers to final customers. We will improve the lives and livelihoods of millions of Africans, helping women to access land, finance and technology and helping young people to get secure jobs in agriculture-related industries.

Under our Feed Africa strategy, we support projects and initiatives that will transform agriculture supply chains

In parts of Africa conflict and governance failures are causing famine, which is exacerbated by climate change. Besides responding to emergencies, our investments in African agriculture will reinforce the resilience of fragile states and help agriculture adapt to the changing climate.

By focusing on specific supply chains and increasing the production of foodstuffs, we will also replace food imports with domestic products. This will help African countries address their trade imbalances and promote economic stability.

In 2017—a year of scaling up our initiatives and projects in the agriculture sector—the President of the Bank was recognized as the 2017 World Food Prize Laureate. His work on Nigerian agriculture spearheaded agricultural initiatives across the continent: increasing rice production by introducing the NERICA seed variety, and expanding value chains of rice, cassava, sorghum, maize and cotton. In recent years his work in introducing new technologies—such as using farmers’ mobile phones to deliver vouchers for direct purchase of fertiliser and other inputs—has reduced corruption and provided particular opportunities for women farmers.

Focus on developing private sector operations in agriculture and rural finance
To deliver progress on selected value chains, we are scaling up our public and private sector lending. We are improving access to finance for farmers and agribusinesses and identifying private sector companies to help countries achieve self-sufficiency in such key staples as rice, and we will invest in cassava, soy, maize, beef and dairy to meet African consumers’ demand and nutritional needs. For commodity exports, we are lending where we can ensure a fair share of value-added to producers—for example, in the cashew industry now, and in the coffee, cocoa and cotton industries in the future. By identifying companies that wish to expand in Africa, we are using our range of financial instruments to reduce risk and promote a conducive business environment for investment.

We are taking forward value chain investment opportunities—using a public-private partnership platform to invest in the cocoa supply chain, investing in agricultural commodity exchanges, mainstreaming the Africa Disaster Risk Financing Initiative to help countries manage disaster and climate risks, and scaling up agricultural social enterprises.

Three flagship initiatives will expand private sector investment in agribusiness: (i) risk-sharing facilities to increase agricultural lending, drawing on the successful programme in Nigeria; (ii) staple crop processing zones to enable all actors, from producers and agro-processors to distributors, to operate in the same vicinity and share services, enhancing productivity and competitiveness; and (iii) setting up the new Fund for Agriculture Finance in Africa to provide agricultural finance for small- and medium-sized agribusinesses.

Adopting improved seed varieties over the last decade has had mixed results, and the Bank has developed a framework to address the constraints facing the uptake of new technologies and accelerate
their adoption to increase productivity in key agriculture subsectors. Technologies for African Agricultural Transformation (TAAT) will initially work in 10 countries, drawing on best practice and contributing to the Feed Africa strategy (Box 10).

**New programmes**

In scaling up our work in agriculture in line with our Feed Africa strategy, we approved a range of projects last year. Our strong focus is on raising the productivity and incomes of farmers and all those working in agriculture, with a strong emphasis on accessing assured markets and moving farming up the value chain.

Through a soft commodity finance facility, we are providing working capital to Meridian, a company that sources commodities for export from over 10,000 small-scale farmers in Malawi, Mozambique and Zimbabwe, and that is expanding its work. The commodities include maize, groundnuts, pigeon peas, soya, sesame and beans.

The company has 120 retail shops in rural areas, providing farmers with access to inputs that increase their yields. It integrates farmers into supply chains through 100 rural commodity depots and promotes inter-regional trade across the South African Development Community region.

In Uganda, we are supporting agricultural value chain development to improve yields and incomes from rice, maize and dairy/beef farming. The project will deliver enhanced technologies, infrastructure and market development, and will facilitate trade. A key priority will be to develop more effective regulatory reforms within the supply chain. The activity is expected to benefit 1.8 million people, and will particularly focus on women and young people.

In Cabinda province in Angola, the Bank focuses on selected crops, fisheries and livestock. This project will provide road, power and water infrastructure as well as education and health facilities, increasing yields and incomes for 25,000 smallholders.

In Namibia, we are focusing on improving the value chains for staple cereals and grains, and are promoting mechanisation and certified seed systems to increase production and reduce the level of imports. The project will benefit 294,500 crop farmers and 10,000 livestock farmers.

Through our support to the Africa climate-smart agriculture initiative, we expect to help 10 million farmers in using tools, such as drip irrigation, that will contribute effectively to better food security in a changing climate. Our aim is to cover 500,000 ha of agro-pastoral land with resilient infrastructure and restore 5 million ha of degraded forest.

In our projects, we have increased the use of fertiliser and improved seed varieties, delivered improved irrigation and water management, increased local infrastructure, developed farmer groups, increased the use of improved farming techniques and technologies and supported agribusiness. We have tailored a number of interventions to overcome specific barriers faced by women farmers.

Going forward, we are accelerating and focusing our efforts in line with our High 5 priority Feed Africa, with its focus on modernising the agriculture sector and increasing the value gained from our products. To eliminate hunger and nutrition and to feed Africa, farming must increasingly become a business, with smallholders and agribusinesses gaining greater returns.

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**Box 10 Making technologies available for transforming African agriculture**

The Technologies for African Agricultural Transformation (TAAT) framework will promote adoption of yield-enhancing technologies in a range of agriculture subsectors. The framework will initially cover nine commodities, chosen because of expected early impact and cross-commodity linkages. They include rice production, cassava intensification and revitalising tree planting.

There will be challenges to address in encouraging farmers to adopt new technologies. Improved crop varieties are hybrids, so it is necessary to buy seeds each season rather than using saved seeds. Also, improved varieties need more fertiliser, which adds to costs. Improved varieties also may need different farming and storage practices and may have a different taste. All these factors will need to be carefully addressed under the TAAT framework.

Funding will be made available to develop capacity at country level, support realignment of policies, and demonstrate effective technologies to encourage uptake by farmers. The financing goal for the Bank, under a well-resourced TAAT, is to provide a total of $360 million, with additional support from partners. Overall the framework is expected to assist 32.8 million households over 10 years and lead to 735 million tonnes of additional raw food production per year by the end of the period.