



# BRUSSELS RURAL DEVELOPMENT BRIEFINGS

## A SERIES OF MEETINGS ON ACP-EU POLICY DEVELOPMENT ISSUES

### The next generation of farmers: successes and new opportunities

This Reader was prepared by  
Isolina Boto, Manager, CTA Brussels Office and Coordinator  
of the Brussels Briefings, with the assistance of Lebo Mofolo,  
Policy Development Briefings Officer, CTA Brussels Office  
November, 2018



## Briefing n. 53

# The next generation of farmers: successes and new opportunities

Brussels, 20 September 2018

This Reader was prepared by

Isolina Boto, Manager, CTA Brussels Office and Coordinator of the Brussels Briefings with the assistance of Lebo Mofolo, Policy Development Briefings Officer, CTA Brussels Office

**The information in this document was compiled as background reading material for the 53rd Brussels Briefing on The next generation of farmers: successes and opportunities**

**The Reader and most of the resources are available at: <http://brusselsbriefings.net>**

# Table of Contents

<b>1. Context</b>	<b>4</b>
1.1 Towards more inclusive growth	6
<b>2. Key drivers of agricultural transformation</b>	<b>7</b>
2.1 Population dynamics and demographic trends	7
2.2 Implications of the increasing urbanisation in the food system	7
2.3 Climate change effects on food security	8
2.4. Empowerment of youth and women	9
2.5. Financing agriculture	10
2.6. Leveraging the potential of trade	11
2.7. Digitalisation is transforming agriculture	12
<b>3. The way forward</b>	<b>14</b>
 <b>Annex</b>	
<b>Resources</b>	<b>15</b>
<b>Acronyms</b>	<b>22</b>
<b>Glossary</b>	<b>23</b>
<b>Websites</b>	<b>26</b>
<b>Endnotes</b>	<b>28</b>



## 1. Context

The global population is on track to surpass 9 billion by 2050 and exceed 11 billion by the end of the century. The world's 500 million smallholder farms produce around 80% of our food and it is they who will have to carry the burden of increasing food production by over 70%.

Agriculture remains an important economic sector across Africa, the Caribbean and the Pacific (ACP) countries and employs a significant number of people, especially in Africa.

The agricultural sector is the primary employer in many African countries, particularly in rural areas, where the majority of people live. The average share of agriculture in employment was 51 percent between 2011 and 2016, and the share of agricultural valued added remained virtually unchanged at about 15 percent. In 16 countries, the sector accounted for more than 30 percent of output, and in Liberia and Sierra Leone for more than 48 percent.

The sector's productivity remains low. During the last decades, for example, cereal yields increased by 164 percent in Brazil, 81 percent in Uruguay, 69 percent in Chile, and 43 percent in Malaysia—but by less than 40 percent in Africa (AFDB). The poor performance is partly a result of low investment, low-quality inputs, and low adoption of improved production technologies.

In sub-Saharan Africa and South Asia, agricultural output would need to more than double by 2050 to meet increased demand, while in the rest of the world the projected increase would be about one-third above current levels.

Increase in Agricultural Production required to match projected demand, 2005/2007-2050 (percent)<sup>2</sup>

	2005/2007	2012-2050	2005/2007 2012	2013-2050
<b>World</b>				
As projected in AT2050 <sup>1b</sup>	100	159.6	14.8	44.8
With updated population projections (UN, 2015) <sup>1a</sup>	100	163.4	14.8	48.6
<b>Sub-Saharan Africa and South Asia</b>				
As projected in AT2050	100	224.9	20.0	104.9
With updated population projections (UN, 2015)	100	232.4	20.0	112.4
<b>Rest of the world</b>				
As projected in AT2050	100	144.9	13.8	31.2
With updated population projections (UN, 2015) <sup>2</sup>	100	147.9	13.8	34.2

<sup>1</sup>World Agriculture Towards 2030/2050: the 2012 revision. ESA Working Paper No. 12-03. Rome, FAO. Alexandratos and Bruinsma, 2012

<sup>2</sup>FAO Global Perspectives Studies, based on UN, 2015. Available at <https://esa.un.org/unpd/wpp>. Accessed November 2016

Many of smallholder farms have limited access to inputs, including mechanization, and therefore suffer from low levels of productivity and drudgery. They also have limited access to markets to take advantage of the numerous value adding opportunities.

At the same time the rural population is expected to decline as, young people migrate to urban centres in search of a better life. We are also witnessing increasing feminization of smallholder agriculture, especially in Africa as more women are left in charge of the farm.

There is mounting pressure to produce more from less, as land is degraded or taken out of agricultural production, and to do so without damaging the environment on which the future of agriculture depends.

Agriculture faces various challenges such as climate change, water scarcity caused by a rapid population growth, outbreaks of new pests and diseases, land scarcity and degradation of soils.

The lack of finance is widely recognized as a perennial constraint on agricultural performance, whether among large agribusinesses or smallholders.

In addition, increasing urbanisation imposes changes on consumption patterns, while new markets emerge, and new food safety regulations and consumers' concerns require increased quality. At the same time, the evolution of the processing industry requires the development of new products which requires new technologies and innovations.

There is an important balance to be found while transforming agriculture. As in many regions of the world, a successful economic transformation is likely to shift low-productivity workers progressively out of agriculture and into higher-productivity jobs in the non-farm sector. But as agriculture remains a key sector in term of employment, an inclusive agricultural growth needs to happen to transform the livelihoods and incomes of millions of smallholders who should benefit from increased gains of the sector even when the focus is on commercialized medium- and large-scale farms.

## The next generation of farmers: successes and new opportunities

To generate growth in rural areas and new employments and investments in farms, new skills and practices will be needed for new generations of farmers and agro-processors. To reach this, a number of changes need to happen: farming needs to be competitive to retain or access to new markets, increase its productivity, engage in diversification processes and use technology and innovation to be more efficient in use of resources. Sustainable agriculture implies better management of natural resources, support to the environment, so important for rural communities, and coping strategies to mitigate the effects of climate change.

Attracting and retaining farmers in rural areas will require large capital investments and policy support measures are needed in areas such as land regulations, taxation, inheritance law, investment support, risk mitigation measures, support to the first installation. Investments will also be needed in physical infrastructure (rural electrification, road, rail and port infrastructure) and markets. To address the “digital divide” between rural and urban areas in the EU and across the ACP, investments in fast broadband access are needed.

### Expanding new opportunities

Rapid population and income growth are expanding the demand for food and agricultural products and new opportunities for economic growth and employment can be seized by the value chain actors in local markets (an increasing share of the food being consumed in Africa is supplied through imports).

There are now much better opportunities to tap private sector financing and interest among foreign investors, pension funds, and foreign banks in direct investments and loans. An unprecedented number of funds employ public-private partnerships with donors and foundations to provide patient capital to agribusiness firms and SMEs across the ACP.

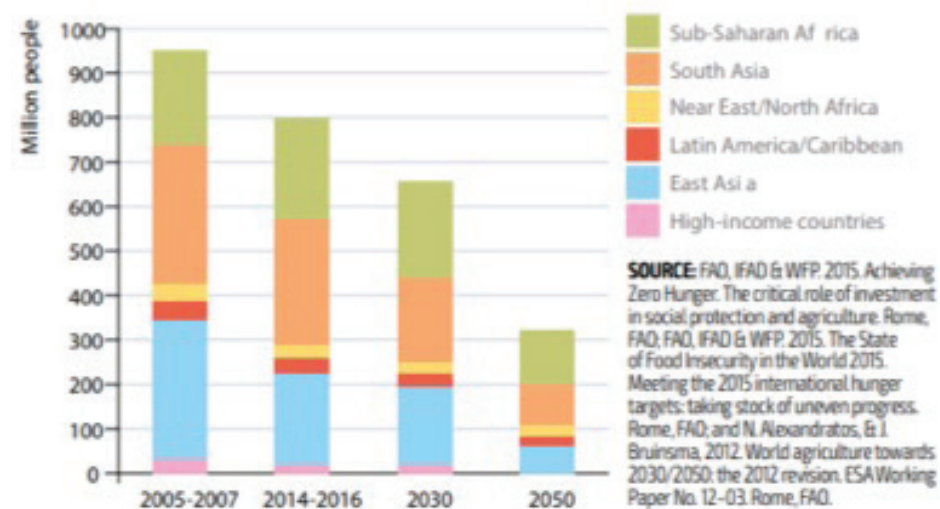
Over the past 15 years, African governments that have effectively promoted farm productivity growth (Ethiopia, Rwanda) have enjoyed faster poverty reduction, higher labour productivity in non-farm segments of the economy, and a more rapid diversification of the labour force from farming into the broader economy. Since most African workers remain engaged in agricultural work, agriculture will continue to influence employment and livelihood opportunities both in agri-food systems and broader non-farm sectors. A comprehensive agricultural growth strategy that promotes competitive and efficient production and marketing systems may therefore be the foundation of an effective employment expansion strategy for most African governments.

Between 2008 and 2014, the agricultural sector grew at a rate of 2.6 per cent annually. During that period, however, some 15 countries (including Ethiopia, Kenya, Lesotho, Rwanda, Sierra Leone and Tanzania) experienced agricultural growth rates higher than 6 per cent, while others (such as Guinea, Nigeria and South Africa) experienced negative growth rates (IFPRI). There has also been tremendous

improvement in land (agricultural value added per hectare of arable land) and labour productivity (agricultural value added per agricultural worker) over the past two decades. Land productivity has improved much faster than labour productivity in the region but both remain much lower than in other regions. The continent therefore has the potential to increase existing productivity levels significantly.

Much progress has been made in reducing hunger and poverty and improving food security and nutrition. Gains in productivity and technological advances have contributed to more efficient resource use and improved food safety. However, the most recent FAO projections of trends in undernourishment, provided in the report *Achieving Zero Hunger*, suggest that under a “business as usual” scenario, some 637 million people in low- and middle-income countries would be undernourished by 2030, most of them living in sub-Saharan Africa and South Asia. Policies which provide social protection, pro-poor investments in productive activities and increased the income-earning opportunities for the poor are needed.

*Undernourishment in a “Business-as-usual Scenario, 2005-2050*





## 1.1. Towards more inclusive growth

The world's-poorest people spend as much as 60 percent of their household income on food – yet undernutrition and malnutrition remain widespread.

Despite Africa's robust economic growth from 2000 to 2015, the absolute number of poor has increased on the continent. The World Bank estimates that Africa had at least 50 million more poor people in 2013 compared to 1990, and Homi Kharas and Wolfgang Fengler estimate that at least 2.4 million of new poor were added in 2017 alone. Even the fastest-growing countries have not always translated growth into significant poverty reduction. For example, as seen in Table 3.1, only two of Africa's top 10 fastest-growing countries are also among the top 10 outperformers in terms of poverty reduction rate (Rwanda and Chad) and of overall poverty levels (Mauritius and Sudan).

The majority of the top 10 fastest-growing economies from 2000 to 2015 were resource-rich, mostly oil exporters (Equatorial Guinea, Nigeria, Chad, Sudan, Angola) with growth mostly driven by these natural resources. Labor-intensive sub-sectors have not evolved fast enough to generate quality employment growth.

Although growth and economic diversification is increasing on the continent, growth has not generated sufficient high-quality jobs. Governments must implement inclusive smallholder development policies that increase the incomes of millions of rural people engaged in agriculture and thereby generate the multiplier effects that expand employment opportunities in the rest of the economy. Government actions that have the most significant impacts on agricultural productivity growth and poverty reduction are: agricultural research and development; physical infrastructure (rural electrification, road, rail and port infrastructure); policies that reduce the costs of private sector investment and promote competition, and agricultural service delivery and extension systems that facilitate farmers' access to productivity-enhancing technologies.

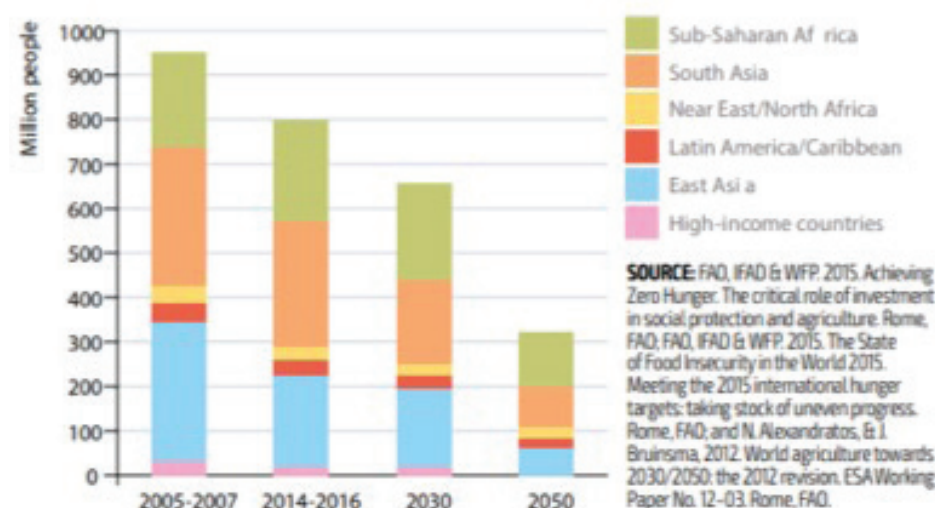
Conflicts are on the rise again. The last decade has been marked by a surge in the number of conflicts, which are a major driver of food insecurity and malnutrition. Around 80 percent of humanitarian funding appeals are now funnelled to areas of conflict, most of them protracted. Countries with the highest levels of undernourishment tend to be those engaged in, or recently emerged from, violent conflict. Conflicts entail the physical destruction and plundering of crops, livestock and food reserves, while recruitment into fighting forces drains key sources of labour. A further worrying trend is that conflict-induced negative impacts on the welfare of populations are no longer limited to specific regions. They have become a global issue with the displacement of people and migration.

The African continent has experienced strong growth since 2000. Between 2000 and 2016, Africa enjoyed growth rates (4,6%) than Latin America and the Caribbean (2,8%) though not as high as developing Asia (7,2%). Africa's recent growth benefited from high commodity prices, improved macroeconomic debt relief and growth diversification strategies in some countries. Countries have also diversified their trade partnerships in particular with China, India and other emerging countries.

To achieve the aspirations of Africa's Agenda 2063, new growth dynamics are necessary for the following reasons:

- Growth remains volatile, despite a strong process of capital accumulation and new trade partners
- Recent growth has not translated into higher well-being (quality of education, health status and housing conditions)
- The continent needs to generate more quality jobs, particularly for women and youth
- Further alleviating poverty requires reducing income inequality
- If business continues as usual, structural transformation may be hard to sustain

Undernourishment in a "Business-as-usual Scenario, 2005-2050





## 2. Key drivers of agricultural transformation

### 2.1. Population dynamics and demographic trends

Global population growth is slowing, but Africa and Asia will still see a large population expansion. World population is expected to increase and reach some 9.7 billion people by 2050. Projected growth in the world's population is likely to be concentrated in Africa and South Asia and in the world's cities. A pressure will be put on agriculture for employment and income generation to provide food and jobs in a context of stressed land and water resources.

By mid-century, two-thirds of the global population will live in urban areas. By the year 2100, Asia and Africa may well be home to a combined population of nine billion, out of the projected 11 billion people who will inhabit the Earth.

Between 2015 and 2050, the number of people between 15 and 24 years of age living in low- and middle-income countries is expected to rise from about one billion to 1.2 billion. Most of these young people will live in sub-Saharan Africa and South Asia, particularly in rural areas, where jobs are likely to be scarce. Sub-Saharan Africa has the world's youngest and fastest growing population. By 2050, the number of people living in the region is expected to double and the subcontinent's share of the global population is projected to rise to about 23 per cent (from 12 per cent in 2015). An additional 375 million young people are expected to reach working age by 2035 and if they can be engaged in productive agricultural employment, they will contribute to the economic transformation of the continent.

Sub-Saharan Africa has the world's youngest and fastest growing population. By 2050, the number of people living in the region is expected to double and the subcontinent's

share of the global population is projected to rise to about 23 per cent (from 12 per cent in 2015). Sub-Saharan Africa's labour force is also expanding at a rate of 3 per cent per year and an additional 375 million young people are expected to reach working age by 2035.

If they can be engaged in productive employment, this growing cohort of young people will offer an important opportunity for economic transformation. Insufficient employment opportunities, for youth could accelerate migration, urbanization, and, possibly, create conflicts.

Agriculture and the informal economy (most of which has important forward and backward linkages with agriculture) will need to absorb a large share of these new workers into remunerative work.

However a key constraint for youth is access to land. The average farm size in sub-Saharan Africa is shrinking primarily due to rising rural population density and the intergenerational subdivision of land. According to Heady and Jayne, since the 1970s, the average smallholder farm size has declined by 30–40 per cent in over 40 sub-Saharan countries that are considered to be land constrained. Very small farm sizes limit opportunities for economies of scale and profitability, reducing the income earning potential from agriculture. In fact, a study of East and Southern African countries revealed that 40–60 per cent of smallholder farmers remain either absolute buyers of staple foods or buy more than they sell over the course of the year.

At the same time, rapid population and income growth are expanding the demand for food and agricultural products across regions, offering new opportunities for employment in agricultural production and in added-value products.

### 2.2. Implications of the increasing urbanisation in the food system

Africa's urban population is projected to expand around three-fold from 360 million in 2015 to 1,137 million by 2050. Around 55 per cent of the continent's population will live in urban areas by the middle of the century. Sub-Saharan Africa's annual urban growth rate is 3.6%, almost double the world average.

The growing middle-class in most of developing countries and increasing urbanisation induce change in consumption patterns and dietary preferences towards more meat and dairy products which are much more resource intensive and poses a threat to the sustainable use of natural resources. Urbanisation also requires food easily processed, transported, stored and distributed.

As low-income countries develop, people's diets change. They tend to move from being high in cereals (maize, rice, wheat), starchy staples (potato, cassava, plantain), and fibre, to more westernized patterns that are high in sugars, fats, and animal-source foods. This has been termed the nutrition transition. It is usually accompanied by increasingly sedentary lifestyles (as technology displaces manual labour or physical play, for instance), as well as demographic and epidemiological shifts.

Rapidly growing consumption of processed foods that often incur excessive quantities of sugar, salt and preservatives, has given rise to concerns over the shift to less healthy diets and the increasing prevalence of micronutrient deficiency and overweight. The nutrition transition is accompanied by a shift in the importance of communicable and non-communicable diseases (NCDs).



New consumption habits require supermarkets producing standardized, industrially processed food. Industrialisation and local large-scale automated food processing plants are not sufficient to generate formal employment.

Standards related to quality, traceability and certification will be more and more stringent and capacity should be built across the value chain actors to comply with them at regional and international level.

Food, feed and energy might look like competitive markets but are interdependent and the disfunctioning of one has effects on the others. The scarcity of water due to increased used in urban centres (people and industry) affects the agricultural sector which itself is a big consumer of water. FAO estimates that over 40 percent of the world's rural population lives in river basins that are classified as water scarce and about 80 to 90 percent of the water is used for agricultural purposes.

Future levels of food prices depend on how production systems will be able to accommodate the pressure of increasing demand in an environment of tightening resource constraints and climate change, and how far agricultural trade will adapt to this changing environment.

Urban and periurban agriculture (UPA) is likely to become a permanent feature of most cities, both in developing and developed countries. UPA includes large farming areas that produce, vegetables and root crops, grazing land for goats and sheep, dairy farms and intensive livestock production units. The main benefit is improved access to food. Urban food producers and their families enjoyed a more diverse diet than other urban dwellers, and were more likely to consume fruit and vegetables regularly.

Agricultural transformation differs across regions but growth often implies a reduced significance of the agricultural sector in favour of services and industry sectors although the farm and non-farm economy

are intrinsically linked. An agricultural sector cannot flourish without the development of infrastructures, social services and employment on the non-farm sector.

Over the past 50 years, the relative contribution of agriculture to GDP has decreased almost everywhere (FAO).

The emergence of rural towns, intermediate cities and small urban centres have changed the traditional divide between urban and rural centres and allow more dynamic economic exchanges due to the proximity of markets and provide employment opportunities.

### 2.3. Climate change effects on food security

Climate change will play an increasingly important role in Africa, as elsewhere, during the course of the 21st century. Rising temperatures and increased frequency of extremely dry and wet years are expected to slow progress toward increased productivity of crop and livestock systems and improved food security, particularly in Africa south of the Sahara (FAO 2016). But other drivers of change in agriculture and food security are also changing in significant ways. In order to place the impacts of climate change in context, we look first at changes that affect demand for food and other agricultural commodities, and then at changes affecting supply.

The combination of rising temperatures and changing precipitation patterns is projected to result in a wide range of impacts, including increases in weather volatility and extreme events, rising sea levels, changes in glacial meltwater flows (initially increasing and ultimately declining), changes in the incidence of agricultural pests and diseases, and direct effects on crop productivity. Many of these impacts are beyond our current ability to model at the global scale, but we are able to simulate the impact of expected changes in temperature and precipitation on crop yields at the local, regional, and global levels.

Yields of rainfed maize, for example, are projected to decline by as much as 25 percent or more in some regions under this scenario by 2050, relative to 2000 levels (Figure 2.6). It is essential to note that this projection is based on crop modeling that holds everything else constant—that is, it assumes that farmers continue to grow the same varieties in the same locations on the same planting calendar and using the same management practices. But we know that farmers won't continue to do everything the same as before—not only because they will respond to changing climate conditions but also because market conditions and technologies will also be changing in the coming decades.

Food and agriculture sectors contribute substantially to greenhouse gas emissions. On the other hand, the occurrence of natural disasters and weather-related events (droughts, floods, etc.) has risen over the past 30 years and has a negative impact on agriculture (reducing crop yields), fisheries and food security contributing also to create or exacerbate conflicts and migration. Severe droughts have occurred in stressed regions, in arid and semi-arid areas such as the Horn of Africa and the Sahel with a negative impact on pastoralists and livestock keepers. The impact of climate change will affect global food security, food access and supply.

Climate change is a big risk for 27 African countries out of 33 globally, although Africa contributes less than 4% to global greenhouse emissions. “green growth” strategies can enable Africa to develop new economic activities, create new jobs and save on future adaptation cost. African countries can tap the potential of renewable energy, with its costs decreasing rapidly. Hat of solar energy declined by 80% between 2008 and 2015. Half of sub-Saharan Africa's growth in electricity generation is likely to come from renewable energy by 2040.

The effects of climate change on small island economies are devastating as shown by sea-level rise, cyclones, increasing air and sea surface temperatures, and changing rainfall patterns. As a result of these risks, SIDS are



## The next generation of farmers: successes and new opportunities

likely to face loss of adaptive capacity and ecosystem services that are critical to their lives and livelihoods.

The adoption of sustainable land, water, fisheries and forestry management practices by smallholders will be crucial to efforts at adapting to climate change but also improvements will be necessary in infrastructure, extension, climate information, access to credit and social insurance.

### 2.4. Empowerment of youth and women

#### 2.4.1. New opportunities for women in agriculture - Closing the gender gap

Women make significant contributions to the rural economy in all regions of the world. In developing countries, women make up on average about 40 percent of the labour force, ranging from 20 percent in Latin America to 50 percent or more in certain parts of Africa and Asia. Women's role range from being cultivators on their own or other's plots—as unpaid or paid workers, employers or employees—to being wage-labourers in on- and off-farm enterprises, alongside their key role as providers of unpaid care in their households and communities.

However, women face more constraints than men in accessing key productive resources such as land and to services such as credit, extension and social protection. They also face wage discrimination in rural labour markets and often work without remuneration on family farms. They are often in labour-intensive and low-skilled jobs. This limits their capacity to contribute to agricultural production and take advantage of new opportunities in added-value segments of the value chain.

Women entrepreneurs running SMEs play a significant role in contributing to economic development by creating jobs, boosting economic growth, and harnessing the productive capacity of women. Estimates show that there are 8-10 million formal SMEs

across the world fully or partially owned by women. Enhancing women's economic opportunities and entrepreneurship could also contribute to lessen gender gap, boost per capita income growth, and generally reduce poverty.

Enabling and gender responsive policies, services and business environments are crucial to stimulate the start up and upgrading of women's businesses and thereby help generate decent and productive work, achieve gender equality, reduce poverty and ensure stronger economies and societies.

Training and skills upgrading are needed to strengthen women entrepreneurs' business management, marketing and technical skills, with an emphasis on growth sectors, green technologies and safe and sustainable farming and agro-processing practices (standards, safety measures). It will contribute to upgrade clusters/sectors to support the transition of women-led enterprises from informal to formal status.

Targeted policies and programs need to support and encourage entrepreneurial activities of women, which imply favourable regulations, improved access to credit and productive resources and stronger participation in decision-making processes. It is demonstrated that when women are economically empowered, the benefits extend to the whole family, society and national economy.

#### 2.4.2. Empowering young farmers and entrepreneurs

It has been estimated that, globally, some 620 million young people are neither working nor studying. Most rural people, especially the young, who tend to be less educated than their urban peers, also face declining prospects for stable and remunerative employment. There are more people between the ages of 10 and 24 living today than ever before. In some low- and middle-income countries, they make up a third of the population.

Almost 88% of the world's 1.2 billion youth live in developing countries. Globally, young people account for approximately 24% of the working poor and this dynamic is particularly pronounced in Africa, where over 70% of youth subsist on US\$2 per day or less. Although the world's youth population is expected to grow, employment and entrepreneurial opportunities for young women and men remain limited – particularly for those living in economically stagnant rural areas of developing countries. Projections indicate that 60% of the world's labour force growth between 2010 and 2050 will be in Africa, which has the youngest population in the world, with 200 million aged between 15 and 24 (doubling by 2045 according to the AFDB).

In Africa, agriculture, is still in most cases the sector which can absorb large numbers of new job seekers and offer meaningful work with public and private benefits. In Sub-Saharan Africa, the transition into agriculture begins early. The vast majority of teenagers who work are working in agriculture. At age 15, of the 60% of those who are working, almost 90% are working in agriculture. The share working outside agriculture increases steadily with age, largely because young people who leave school at higher grades enter other sectors. In rural areas, where limited educational opportunities prevent youths from staying in school for very long, agriculture employs more than 90% of 15- and 16-year-olds, and about 80% of young people ages 24 and older remain in agriculture (although some who report agriculture as their primary activity also have a non-farm activity as well). Women who work are more likely to work in agriculture than men—and unlike men their probability of working in agriculture does not decrease much with age. One reason why so many women remain in agriculture is that they leave school sooner, so employment opportunities are set much earlier for females than for males.

The creation of employment opportunities for young people is among the major development challenges of our time. Changing the vision of youth towards



agriculture must happen. In this context, youth-related policies and programmes should seek to identify specific, priority interventions that add value. Policy makers should see the value of investing in empowering youth to strengthen and sustain the foundation for agricultural transformation. Creating more and better jobs, in particular for the growing young rural labour force, should be an explicit objective in agriculture and rural development programmes and youth focused policies and investments in agriculture and rural development should be a priority.

Boosting incentives to improve the quality of education will also be key to produce a skilled workforce. In addition to basic education, high productivity farming requires specific skills, such as skills in processing, marketing, machinery operation and repair, transport, logistics, and quality control.

We need to increase the understanding of the specific needs of young people, improving the capacity of youth to profitably engage in activities along the agricultural value chain and improve access to markets and finance. As youth are often marginalised in these processes, platforms and mechanisms for their engagement need to be put into place to enable them to fully participate in the policy dialogue, make their voice heard and give recognition to their status.

### 2.5. Financing agriculture

Estimates suggest that demand for food will increase by 70% by 2050 and at least \$80 billion annual investments will be needed to meet this demand, most of which needs to come from the private sector. Financial sector institutions in developing countries lend a disproportionately lower share of their loan portfolios to agriculture compared to agriculture sector's share of GDP.

The African continent requires an annual \$93 billion to fund infrastructure needs, a large share of which is for urban areas. In fact, a 2016 African Development Bank study states that "two thirds of the investments in urban infrastructure to 2050 have yet to be made."

On the other side, the growth and deepening of agriculture finance markets is constrained by a variety of factors which include: i) inadequate or ineffective policies, ii) high transaction costs to reach remote rural populations, iii) covariance of production, market, and price risks, and iv) absence of adequate instruments to manage risks, v) low levels of demand due to fragmentation and incipient development of value chains, and vi) lack of expertise of financial institutions in managing agricultural loan portfolios. The development of agriculture requires financial services that can support: larger agriculture investments and agriculture-related infrastructure that require long-term funding (given that currently transportation and logistics costs are too high, especially for landlocked countries), a greater inclusion of youth and women in the sector, and advancements in technology (both in terms of mechanizing the agricultural processes and leveraging mobile phones and electronic payment platforms to enhance access and reduce transaction costs). An important challenge is to address systemic risks through insurance and other risk management mechanisms and lower operating costs in dealing with smallholder farmers.

Conventional thinking is that financing agriculture has high transaction costs, low returns on investment and is a risky business. Collateral is a major constraint to access to finance in agriculture not only from banks, but also from credit unions and other financing institutions due largely to land tenure restrictions and/or other requirements that are often designed to protect the livelihood assets of the community, but in doing so effectively limit their use as collateral.

Financial service providers may also see high risks because they lack understanding of the agricultural sector and food markets, and have no way to evaluate the risks in agricultural value chains. To most of financial institutions, the cost of directly lending to small-scale farmers in remote rural areas with less-educated and low-income populations is prohibitive. Thus, financial institutions are reluctant to finance rural entrepreneurs, classing this collective as non-bankable. Commercial banks prefer to provide loans to well-established large businesses, rather than numerous small loans to micro-entrepreneurs. The result is a serious and long-lasting rural finance gap that keeps the economic potential of agriculture underused.

Numerous financial instruments have been adapted or developed to use in financing value chains, which include various trade finance instruments, warehouse receipts, factoring, etc. and risk mitigation products related to the product such as forward contracts and guarantees. Another tool to reduce risk is insurance –indexed insurance, farm insurance, livestock insurance, health insurance; all help to improve the credit supply. The same occurs with futures contracts, which are very important and useful in AVC finance systems.

Access to financial instruments to support farm investments and working capital should be facilitated and better adapted to the investment needs and higher risk profiles of new entrants. Support to the new generation of farmers could be combined with the appropriate incentives to facilitate the exit of the older generation and increase land mobility.

The landscape for development finance is changing. Official development assistance (ODA) remains a significant source of finance for low-income countries, fragile states and states in conflict. While the share of ODA in overall external financing for upper-middle-income countries is relatively small – they now rely primarily on private flows in the form of foreign direct

# The next generation of farmers: successes and new opportunities

investment (FDI) and bonds – they nonetheless receive 40 percent of ODA grants.

Domestic resource mobilization is likely to remain important to finance development efforts of low-income countries. Current trends advocate for mobilising much more private finance, including through blended finance and leveraging public and private investment flows.

New insurance mechanisms (i.e. weather index based insurance products) are creating powerful new ways of building resilience among some of the world's poorest people and countries.

## 2.6. Leveraging the potential of trade

Trade and regional integration have dominated the political agenda in recent years, with scores of countries pursuing trade agreements under various configurations. There is a renewed focus on the role of the private sector, and on reducing and eliminating trade barriers in order to boost economic growth by encouraging more trade and investment. The nexus between trade, integration and development is recognised to hold immense potential for sustainable growth and poverty reduction, and provides opportunities for enhancing the welfare of producers and consumers,

provided that governments are able to develop and enforce policies to this effect..

Higher volumes of intra-African trade in agricultural products and the elimination of non-tariff barriers have the potential to boost industrialization and enhance competitiveness, at country and industry levels, through higher investments in connectivity and infrastructure, both physical and digital.

Favourable policies to enhance intra-regional trade on the continent such as the ongoing Continental Free Trade Area (CFTA) and the Tripartite Free Trade Agreement (FTA) will be crucial to building a single continental market for goods and services, along with free movement of labour and capital as well as greater harmonisation in standards and procedures.

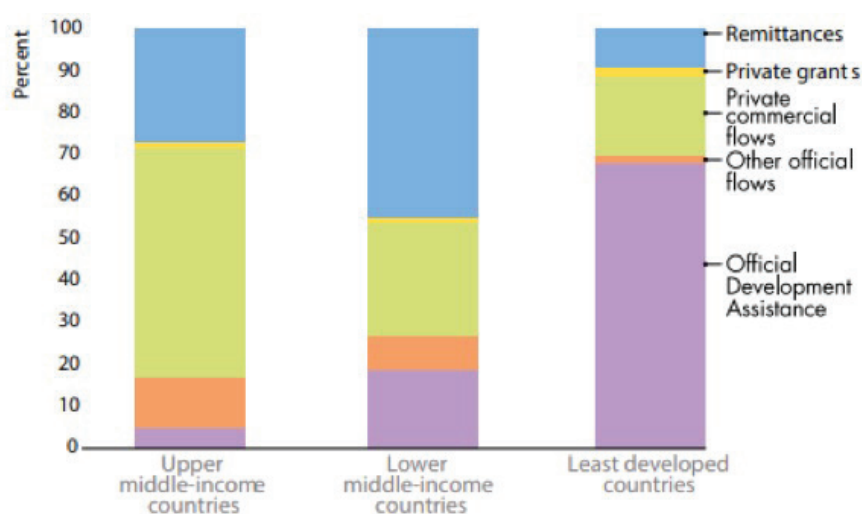
The Continental FTA will have a combined GDP of about \$2.3 trillion and a population of more than 1.2 billion people, with more than half comprising the youth. It will open up the continent to new investors and better opportunities for its entrepreneurs.

Given the amounts spent on imported food, the demographic changes taking place, the huge opportunities offered by urban markets across the continent not to mention the immense productive potential for agriculture in Africa, it is evident that there are both significant opportunities and a pressing need for greater intra-African and intra-regional agricultural trade.

In order to maximise the benefits of regional integration and look for new opportunities for agricultural competitiveness, policymakers, the private sector and development partners need access to accurate, comprehensive and reliable data on intra and inter-regional agricultural trade in Africa.

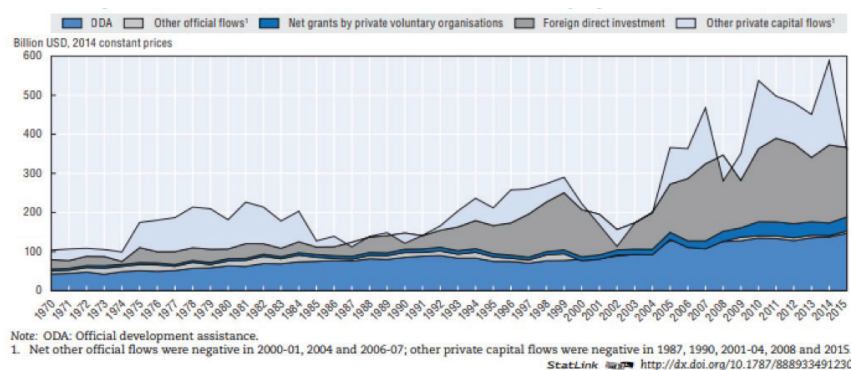
Key findings of the *Africa Agriculture Trade Monitor 2018* include that, despite recent growth in agricultural trade deficits, there are promising signs of export diversification, both in commodities traded and trade

Composition of financial flows to low income countries. 2012



Source: OECD. 2015. *Development Cooperation Report 2015. Making partnerships effective coalitions for action*. Paris, OECD Publishing

DAC countries' total net resources flows to developing countries, 1970-2015



Source: OECD (2017), "Development finance and policy trends", in *Development Co-operation Report 2017: Data for Development*, OECD Publishing, Paris.



partners, as well as increasing intra-African trade in agricultural commodities. Intra-regional trade in Africa is increasing rapidly the report notes, by 12% a year between 1998 and 2013, but is still low compared with other regions such as Europe and Asia.

The report identifies the need for governments to act to raise productivity along the value chain, reduce trade costs, and eliminate barriers to trade in order to boost both global and intra-regional trade. Actions recommended include allocating greater public expenditures to agriculture and to agricultural research and development in particular, harmonising regulations and decreasing barriers to intra-regional trade, and providing an enabling environment for value chain development by strengthening market institutions and investing in infrastructure. At the global level, efforts are needed to meet strict food safety and traceability requirements.

The report notes the European Union as the continent's dominant trading partner, accounting for 40% of exports and 30% of imports, but Asia is catching up rapidly. There are promising signs for export performance from many countries, with African exporters increasing their competitiveness in global markets for three-quarters of commodities studied. Moreover, many new export commodities, such as wool, soybeans, soybean oil, live trees and plants, and cocoa preparations, showed strong gains in competitiveness, suggesting the potential for diversifying exports by expanding trade in these areas.

The study highlights the benefits of intra-regional trade to stability and resilience of markets and food supplies. For example, the report found that in nearly all West African countries national production was more volatile than regional production during the 1980–2010 period, implying that intra-regional trade would be able to reduce the volatility of food supplies at the regional level.

Increasing the ability of African countries to participate in regional and global trade helps to improve well-being of consumers, raise incomes of farmers, build resilience of food markets, and ultimately it also helps to boost economic growth and reduce poverty.

Key factors limiting Africa's trade in agricultural products include the poor quality of physical infrastructure, inefficient customs processes and high harassment costs, inconsistent regional standards and regulations, and non-tariff trade barriers including stringent food safety and traceability requirements in importing countries. Support to domestic agricultural producers in OECD countries also reduces Africa's trade. African countries have limited control over trade policy in other countries, the study notes, but they should continue to take part in global efforts to lower trade barriers. In addition, much can be accomplished by addressing the domestic constraints to expanding trade.

**Urban food markets** are set to increase fourfold to exceed US\$ 400 billion by 2030, requiring major agribusiness investments in processing, logistics, market infrastructure, and retail networks. The growing middle class is also seeking greater diversity and higher quality in its diets. The most dynamic sectors overall are likely to be rice, feed grains, poultry, dairy, vegetable oils, horticulture, and processed foods for import substitution, along with the traditional tropical exports and their derived products (especially cocoa, rubber, cashews, and palm oil), together with some higher-value horticultural crops, fish, and biofuels for export.

Rising per capita incomes, urbanisation, diversifying demand patterns, as well as the emergence of global value chains present new market opportunities for farmers, trading and food processing firms, consumers and other types of economic actors. New rural value chains such as clean energy, the emerging bio-economy, the circular economy, and ecotourism can offer good growth and job potential for rural areas.

**Quality schemes** offer new opportunities in regional, EU and global markets. Enhancing the quality of food and maximising the origin and tradition of agricultural and food products as Geographical Indications (GIs) present new opportunities in diversification and value-addition.

The EU supports better protection of geographical indications internationally in the EU and across the ACP. They can create value for local communities through products that are deeply rooted in tradition, culture and geography. They support rural development and promote new job opportunities in production, processing and other related services.

There is a growing interest among consumers in developed and developing countries to purchase agricultural products and foodstuffs that are linked to their origin – some are associated by reputation with their place of production, others are deeply rooted in the various traditional cultures and intrinsically linked to the production environment in a specific place of origin. For small and medium-sized farmers and producers, this trend could imply new opportunities and niche markets – complementing efforts to improve standards and meet customers' evolving demands. origin-linked products have the potential to be part of a sustainable quality cycle.

## 2.7. Digitalisation is transforming agriculture

The spread of mobile phone technology to billions of individuals may be the single most significant innovation that has impacted developing countries in the past decade. Across the developing world, mobile phones are used daily to transfer money, buy and sell goods, and communicate information including test results, stock levels and prices of commodities. Mobile technology is used as a substitute for poor transport infrastructures as well as underdeveloped financial and banking systems. The number of real-time information streams and people

## The next generation of farmers: successes and new opportunities

using social media is growing rapidly globally. The new generation of agricultural machines and tools are more climate-smart sensitive and contribute to environmentally sustainable production as it is the case with conservation agriculture. Furthermore, more advanced energy-saving technology, including solar energy, contributes to more sustainable farming. Increased competition, including through cheaper products from emerging economies such as India, China and Brazil, has lowered prices and benefited small-scale farmers.

In Africa, entrepreneurs are already bringing new solutions to urgent challenges in remarkable ways. Investments in African tech start-ups have been increasing—up nearly 17 percent in 2016 over the previous year. Digital technologies are breaking new ground, bringing life-changing products and services to underserved.

Increased pressure to increase yields, combined with the need to protect the environment, requires innovative and cost-effective practices. Globally, around one-third of all food produced is lost or wasted along the food chain from (harvesting, storing, transporting, processing, packaging and marketing). The greatest losses occur in small- and medium-scale agricultural and fisheries production and processing sectors.

Digitisation make possible resource efficiency, remote measurement of soil health, better water management, livestock and crop monitoring access information on prices and weather data. Today, many farmers and value chain actors are already using digital technologies which provide farming solutions and reduce food losses through the use of smartphones, tablets, in-field sensors, drones and satellites. By analysing the data collected, farmers can plan more effectively, be more efficient and increase profitability.

Devised for industrialised farms, precision agriculture now has the potential to increase productivity of smallholder farmers while improving input use efficiency. Its application has been mostly limited to large-scale farms in developed countries. GPS-equipped sensors on tractors, for example, enable farmers to measure and respond to soil variability across vast tracts of land, and dispense the right amounts of fertiliser and water exactly where it's needed. For many years, this was widely seen as irrelevant to small-scale farmers in developing countries. But there's a growing body of research now to support the idea that small-scale farmers can benefit from precision agriculture. One of the reasons for this is greater awareness of how much variability can exist in even the tiniest plot of land. The technology which has driven precision agriculture in the global north is becoming more widely accessible.

E-market platforms for buyers and sellers to strengthen business partnerships are emerging strongly across the ACP.

However, a number of issues need to be addressed such as e-skills and business counselling services, affordability, proper broadband infrastructure in rural areas, cost of technological equipment and collection and management of big data.





### 3. The way forward

However, pro-poor growth goes beyond agriculture. To date, the ongoing wider process of economic development has led in many instances to a reduction in the number of people engaged in agriculture, with consequent urbanization. Permanently reducing poverty involves actions that cut across both rural and urban areas, such as providing broad access to good quality education, promoting economic diversification in rural non-farm income-generating activities, supporting economy-wide job creation, increasing the saving and investment potential of the poor, and implementing adequate social protection mechanisms.

The challenges facing food and agriculture are largely interconnected, as highlighted in the 2030 Agenda for Sustainable Development and related global agreements.

Making agriculture more profitable and inclusive will require public actions to reduce costs in farm production and address soil degradation, climate change, land scarcity and concentrated land ownership. Research and innovation in various fields (agronomy, breeding, vertical farming, zootechnics, biological, technological, digital, organisational and product related) are critical to gain competitiveness and transform the agrifood system accompanied by agricultural service delivery and extension systems that facilitate farmers' access to productivity-enhancing technologies.

While the African continent faces multiple challenges such as demographic expansion, the threats posed by climate change, the intensification of natural disasters and upsurges in transboundary pests and diseases, and the need to adjust to major changes taking place in global food systems, addressing the needs for a generational renewal in agriculture should become a priority in rural policies. Producer Organisations are critical to ensure inter-generation transfer of knowledge and mentoring. Support to their institutional capacity will ensure sustainability and ease the generation renewal and transition towards a modernised agricultural sector.

The rural communities should have better access to public services, health care, quality education and connectivity to be able to retain and attract farmers and entrepreneurs.

Rising demand for food, fuelled by population and income growth, will provide new opportunities for agriculture and employment creation across the ACP and especially in Africa. This will require increasing food production in a responsible, inclusive and sustainable way while increasing profitability. The way food is produced and marketed should adapt to consumers expectations, in particular concerning the impact on their health, the environment and the climate.

To effectively harness the emerging opportunities for economic transformation and associated work opportunities, policy-makers will need to anticipate the trends affecting African agriculture and proactively formulate and implement strategies to respond to them.

Integrating community resilience and climate-smart agriculture into broader employment strategies would afford opportunities for African governments to achieve sustainable agricultural intensification and employment objectives.

Programmes to promote access to land for young people will become ever more important as well as favourable inheritance laws to secure enough land to make farming a viable business.

Governments could promote long-term employment and livelihood objectives by mobilizing more resources for education and skills development in agriculture and related agri-food systems. Successful agricultural production is increasingly knowledge-intensive.

We see societal expectations regarding food, in particular concerning food safety, food quality, food waste, environmental and animal welfare standards which farmers will need to address together with the other actors in the chain. Citizens are also increasingly valuing access to a wide variety of food that carries broader benefits for society, such as organic produce, products with geographical indications (GIs), local specialities and innovative food.

The most important role for the policy is therefore to help farmers anticipate developments in dietary habits and adjust their production according to market signals and consumers' demands.



## RESOURCES

*Italicized documents available in French*

### AFRICAN UNION

AUC & OECD. 2018. Africa's Development Dynamics 2018: Growth, Jobs and Inequalities, AUC, Addis Ababa/OECD Publishing, Paris.  
<https://doi.org/10.1787/9789264302501-en>

### AFRICAN DEVELOPMENT BANK (AFDB)

Kolawole Ogundari and Olufemi Daniel Bolarinwa . 2018. Agricultural Innovations, Production, and Household Welfare in Africa Working Paper Series  
[https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/WPS\\_No\\_294\\_Agricultural\\_innovations\\_Production\\_and\\_household\\_welfare\\_in\\_Africa\\_MP\\_C.pdf](https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/WPS_No_294_Agricultural_innovations_Production_and_household_welfare_in_Africa_MP_C.pdf)

AFDB. 2018. Feed Africa: The road to agricultural transformation in Africa  
[https://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/Brochure\\_Feed\\_Africa\\_-En.pdf](https://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/Brochure_Feed_Africa_-En.pdf)

BAD. 2018. *Nourrir l'Afrique: Assurer la transformation agricole de l'Afrique*  
[https://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/Brochure\\_Feed\\_Africa\\_-Fr.pdf](https://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/Brochure_Feed_Africa_-Fr.pdf)

AFDB. 2018. Jobs for Youth in Africa: Improve the quality of life for the people of Africa  
[https://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/Brochure\\_Job\\_Africa-En.pdf](https://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/Brochure_Job_Africa-En.pdf)

BAD. 2018. *Des emplois pour les jeunes en Afrique: Améliorer la qualité de vie des populations en Afrique*  
[https://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/Brochure\\_Job\\_Africa\\_-Fr.pdf](https://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/Brochure_Job_Africa_-Fr.pdf)

African Development Bank, Organisation for Economic Co-operation and Development and United Nations Development Programme. 2014. African Economic Outlook 2014: Global value Chains and Africa's Industrialisation (Paris, OECD).  
[www.oecd-ilibrary.org/content/book/aeo-2014-en](http://www.oecd-ilibrary.org/content/book/aeo-2014-en)

AFDB. 2016. Feed Africa: Strategy For Agricultural Transformation In Africa 2016-2025 May 2016  
[https://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/Feed\\_Africa\\_Strategy\\_for\\_Agricultural\\_Transformation\\_in\\_Africa\\_2016-2025.pdf](https://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/Feed_Africa_Strategy_for_Agricultural_Transformation_in_Africa_2016-2025.pdf)

BAD. 2016. *Nourrir l'Afrique — Stratégie pour la transformation de l'agriculture africaine 2016-2025. Mai 2016*  
[https://www.afdb.org/fileadmin/uploads/afdb/Documents/Policy-Documents/Feed\\_Africa\\_-\\_Strategie-Fr.pdf](https://www.afdb.org/fileadmin/uploads/afdb/Documents/Policy-Documents/Feed_Africa_-_Strategie-Fr.pdf)

AFDB. 2015. Jobs for Youth in Africa: Strategy for Creating 25 Million Jobs and Equipping 50 Million Youth 2016-2025.  
[https://www.afdb.org/fileadmin/uploads/afdb/Documents/Boards-Documents/Bank\\_Group\\_Strategy\\_for\\_Jobs\\_for\\_Youth\\_in\\_Africa\\_2016-2025\\_Rev\\_2.pdf](https://www.afdb.org/fileadmin/uploads/afdb/Documents/Boards-Documents/Bank_Group_Strategy_for_Jobs_for_Youth_in_Africa_2016-2025_Rev_2.pdf)

BAD. 2015. *Stratégie du Groupe de la Banque pour l'emploi des Jeunes en Afrique 2016 - 2025*  
[https://www.afdb.org/fileadmin/uploads/afdb/Documents/Boards-Documents/Strat%C3%A9gie\\_du\\_Groupe\\_de\\_la\\_Banque\\_pour\\_l'emploi\\_des\\_Jeunes\\_en\\_Afrique\\_2016-2025.pdf](https://www.afdb.org/fileadmin/uploads/afdb/Documents/Boards-Documents/Strat%C3%A9gie_du_Groupe_de_la_Banque_pour_l'emploi_des_Jeunes_en_Afrique_2016-2025.pdf)

AfDB. 2015. "Agricultural Mechanization" Prepared by: Adekunle Ahmed, AEHC Co-Conveners: Oluwatosin Ariyo ,Propcomm  
[http://www.afdb.org/fileadmin/uploads/afdb/Documents/Events/DakAgri2015/Agricultural\\_Mechanization.pdf](http://www.afdb.org/fileadmin/uploads/afdb/Documents/Events/DakAgri2015/Agricultural_Mechanization.pdf)

BAD. 2015. « Mécanisation agricole ». Document De Référence  
[http://www.afdb.org/fileadmin/uploads/afdb/Documents/Events/DakAgri2015/M%C3%A9canisation\\_agricole.pdf](http://www.afdb.org/fileadmin/uploads/afdb/Documents/Events/DakAgri2015/M%C3%A9canisation_agricole.pdf)

AFDB. UNECA. 2015. Youth in Agribusiness within an African Agricultural Transformation Agenda  
[https://www.afdb.org/fileadmin/uploads/afdb/Documents/Events/DakAgri2015/Youth\\_in\\_Agribusiness\\_within\\_an\\_African\\_Agricultural\\_Transformation\\_Agenda.pdf](https://www.afdb.org/fileadmin/uploads/afdb/Documents/Events/DakAgri2015/Youth_in_Agribusiness_within_an_African_Agricultural_Transformation_Agenda.pdf)

### AGRA

AGRA. (2018). Africa Agriculture Status Report: Catalyzing Government Capacity to Drive Agricultural Transformation (Issue 6). Nairobi, Kenya: Alliance for a Green Revolution in Africa (AGRA)  
<https://agra.org/wp-content/uploads/2018/10/AASR-2018.pdf>

AGRA (2015). Africa Agriculture Status Report: Youth in Agriculture in Sub-Saharan Africa.  
<https://agra.org/wp-content/uploads/2016/04/africa-agriculture-status-report-2015.pdf>

### ACP-EU TECHNICAL CENTER FOR AGRICULTURAL AND RURAL COOPERATION (CTA)

Boto, I. and Mofolo, L. 2018. Growing food in the cities: Successes and new opportunities – Reader for the Briefing n. 50. Brussels, 10 April 2018  
<https://brusselsbriefings.files.wordpress.com/2018/03/bb50-reader.pdf>

CTA. 2018. How farmers are making the most of digital technologies in East Africa  
[https://publications.cta.int/media/publications/downloads/2025\\_PDF.pdf](https://publications.cta.int/media/publications/downloads/2025_PDF.pdf)



CTA. 2018. Farm data: Serving smallholder farmers in a digital age. Spore (190).

Wageningen: CTA

<http://spore.cta.int/images/190/Spore-190-EN-web.pdf>

CTA. 2018. *Données agricoles : Les agriculteurs à l'ère du numérique*. Spore (190). Wageningen: CTA

<http://spore.cta.int/images/190/Spore-190-FR-web.pdf>

CTA. 2018. ICT4Ag start-ups: Building a better e-agribusiness. Spore (189).

Wageningen: CTA

<http://spore.cta.int/images/189/Spore-189-EN-web.pdf>

CTA. 2018. *Start-up et TIC: Pour un meilleur e-agribusiness*. Spore (189). Wageningen: CTA  
<http://spore.cta.int/images/189/Spore-189-FR-web.pdf>

CTA. 2018. Agricultural trade: Transforming the informal economy. Spore (188).

Wageningen: CTA

<http://spore.cta.int/images/188/Spore-188-EN-WEB.pdf>

CTA. 2018. *Commerce agricole: Transformer l'économie informelle*. Spore (188).

Wageningen: CTA

<http://spore.cta.int/images/188/Spore-188-FR-WEB.pdf>

Nganwani Tia, Moses. 2018. Developing business skills with an Agribusiness Innovation Hub. IN: CTA. 2018. Experience capitalization: Insights on rural development in West Africa. Experience Capitalization Series 3. Wageningen: CTA: 41-44.

[https://publications.cta.int/media/publications/downloads/2036\\_PDF.pdf?](https://publications.cta.int/media/publications/downloads/2036_PDF.pdf?)

Soesilo, D. and Rambaldi, G. 2018. Drones in agriculture in Africa and other ACP countries: A survey on perceptions and applications. CTA Working Paper 18/02. Wageningen: CTA.

[https://cgspace.cgiar.org/bitstream/handle/10568/96918/2026\\_PDF.pdf?sequence=1&isAllowed=y](https://cgspace.cgiar.org/bitstream/handle/10568/96918/2026_PDF.pdf?sequence=1&isAllowed=y)

Boto, I. and Mofolo, L. 2017. Strengthening rural livelihoods in the face of rapid urbanisation in Africa – Reader for the Briefing n. 48, Brussels, 20 March 2017  
<https://brusselsbriefings.files.wordpress.com/2017/03/reader-bb48-rural-urban-linkages-16-03.pdf>

Boyera, S. and Addison, C. 2017. Leveraging ICT innovations to support farmers and farmers' organisations. CTA Policy Brief 14. Wageningen: CTA

[https://publications.cta.int/media/publications/downloads/2021\\_PDF.pdf?](https://publications.cta.int/media/publications/downloads/2021_PDF.pdf?)

Boyera, S., Addison, C. and Msengezi, C. 2017. Farmer profiling: Making data work for smallholder farmers. CTA Working Paper 17/09 Wageningen: CTA

[https://publications.cta.int/media/publications/downloads/2014\\_PDF.pdf?](https://publications.cta.int/media/publications/downloads/2014_PDF.pdf?)

CTA. 2017. Youth in agribusiness: Shaping the future of agriculture. CTA Policy Brief. Wageningen: CTA

[https://publications.cta.int/media/publications/downloads/1991\\_PDF.pdf?](https://publications.cta.int/media/publications/downloads/1991_PDF.pdf?)

CTA. 2017. An ICT agripreneurship guide: A path to success for young ACP entrepreneurs. CTA Handbook. Wageningen: CTA.  
[https://publications.cta.int/media/publications/downloads/1984\\_PDF\\_2YAJVKe.pdf](https://publications.cta.int/media/publications/downloads/1984_PDF_2YAJVKe.pdf)

CTA. 2017. *Guide de l'agripreneuriat digital : La voie du succès pour les jeunes entrepreneurs des pays ACP*  
[https://publications.cta.int/media/publications/downloads/2017\\_PDF.pdf?](https://publications.cta.int/media/publications/downloads/2017_PDF.pdf?)

Boto, I. and Mofolo, L. 2016. Smart farming solutions for Africa: the next driver for agricultural transformation – Reader for the Briefing n. 45, Brussels, 13 July 2016  
<https://brusselsbriefings.files.wordpress.com/2016/06/briefing-45-reader-en-smart-farming-solutions-for-africa.pdf>

Boto, I. et Mofolo, L. 2016. Solutions agricoles intelligentes et abordables pour l'Afrique : le prochain moteur de l'agriculture africaine – Reader pour le Briefing no 45. Bruxelles, le 13 juillet 2016

<https://briefingsbruxelles.files.wordpress.com/2016/06/fr-bb45-smart-farming-solutions-for-africa-30-03-2017.pdf>

Rahman, R. and Fong, J. 2016. Innovate for agriculture: Young ICT entrepreneurs overcoming challenges and transforming agriculture. CTA Success Stories. Wageningen: CTA.

[https://publications.cta.int/media/publications/downloads/1924\\_PDF\\_ILGFWF6.pdf?](https://publications.cta.int/media/publications/downloads/1924_PDF_ILGFWF6.pdf?)

Rahman, R. and Fong, J. 2016. *Innover pour l'agriculture : Histoires et témoignages de jeunes entrepreneurs transformant l'agriculture grâce aux nouvelles technologies*. CTA Success Stories. Wageningen: CTA.

[https://publications.cta.int/media/publications/downloads/1941\\_PDF.pdf?](https://publications.cta.int/media/publications/downloads/1941_PDF.pdf?)

CTA, GODAN, PAFO. 2016. Data revolution for agriculture  
<http://publications.cta.int/en/publications/publication/1937/>

Spore. 2016. The connected farmer: A new opportunity for the agricultural system. Issue No. 180 March-April 2016  
<http://spore.cta.int/images/magazines/PDF/SE180-web.pdf>

Spore. 2016. *Agriculteurs connectés: Nouvelles perspectives pour l'agriculture*. No. 180 mars – avril 2016  
<http://spore.cta.int/images/180/Spore-180-FR-WEB.pdf>

Boto, I. and Mofolo, L. 2014. Realising the Promise of Agriculture for Africa's Transformation – Reader for Briefing n. 36. Brussels, 4 April 2014  
[https://brusselsbriefings.files.wordpress.com/2014/04/br36\\_reader\\_realising-the-promise-of-agriculture\\_eng\\_rev1.pdf](https://brusselsbriefings.files.wordpress.com/2014/04/br36_reader_realising-the-promise-of-agriculture_eng_rev1.pdf)

# The next generation of farmers: successes and new opportunities

Boto, I. et Mofolo, L. 2014. *Réaliser la promesse de l'agriculture pour la transformation de l'Afrique – Reader pour le Briefing n. 36. Bruxelles, le 4 avril 2014*  
[https://briefingsbruxelles.files.wordpress.com/2009/02/br36\\_reader\\_realiser-le-potentiel-de-lagriculture\\_fre.pdf](https://briefingsbruxelles.files.wordpress.com/2009/02/br36_reader_realiser-le-potentiel-de-lagriculture_fre.pdf)

CTA, KIT, FAO. 2014. The business of agricultural business services: Working with smallholders in Africa.  
[http://www.kit.nl/sed/wp-content/uploads/publications/2080\\_the\\_business\\_of\\_agricultural\\_business\\_services.pdf](http://www.kit.nl/sed/wp-content/uploads/publications/2080_the_business_of_agricultural_business_services.pdf)

## BROOKINGS

Brookings. Foresight Africa. Top priorities of the continent. 2018  
[https://www.brookings.edu/wp-content/uploads/2018/01/foresight-2018\\_full\\_web\\_final2.pdf](https://www.brookings.edu/wp-content/uploads/2018/01/foresight-2018_full_web_final2.pdf)

## CEMA - EUROPEAN AGRICULTURAL MACHINERY

Agritech Business Barometer Public report of the survey about the worldwide situation of the agricultural machinery business October 2015  
[http://cema-agri.org/sites/default/files/publications/2015-09%20Agritech%20Business%20Barometer%20public%20report\\_0.pdf](http://cema-agri.org/sites/default/files/publications/2015-09%20Agritech%20Business%20Barometer%20public%20report_0.pdf)

CEMA. Advancing Agricultural Mechanization (AM) to promote farming & rural development in Africa July 2014.  
[http://cema-agri.org/sites/default/files/publications/2014\\_Advancing%20Farm%20Mechanization%20in%20Africa%20-%20CEMA.pdf](http://cema-agri.org/sites/default/files/publications/2014_Advancing%20Farm%20Mechanization%20in%20Africa%20-%20CEMA.pdf)

CEMA. « Promouvoir le développement rural et agricole en Afrique grâce à la mécanisation agricole (MA) avancée ». 2014.  
[http://cema-agri.org/sites/default/files/publications/FR\\_Promouvoir%20le%20d%C3%A9veloppement%20rural%20et%20agricole%20en%20Afrique\\_CEMA\\_2014\\_FINAL.pdf](http://cema-agri.org/sites/default/files/publications/FR_Promouvoir%20le%20d%C3%A9veloppement%20rural%20et%20agricole%20en%20Afrique_CEMA_2014_FINAL.pdf)

## EUROPEAN UNION

### European Commission

2018. Communication on a new Africa – Europe Alliance for Sustainable Investment and Jobs: Taking our partnership for investment and jobs to the next level. Brussels, 12.9.2018 COM(2018) 643 final  
[https://ec.europa.eu/commission/sites/beta-political/files/soteu2018-africa-europe-jobs-alliance-communication-643\\_en.pdf](https://ec.europa.eu/commission/sites/beta-political/files/soteu2018-africa-europe-jobs-alliance-communication-643_en.pdf)

2018. *Communication sur une nouvelle alliance Afrique-Europe pour des investissements et des emplois durables: porter notre partenariat pour l'investissement et l'emploi à un niveau supérieur*  
<http://ec.europa.eu/transparency/regdoc/rep/1/2018/fr/com-2018-643-f1-fr-main-part-1.pdf>

2014. Communication – A Stronger Role of the Private Sector in Achieving Inclusive and Sustainable Growth in Developing Countries. Brussels 13.5.2014 COM(2014) 263 final  
<http://ec.europa.eu/transparency/regdoc/rep/1/2014/EN/1-2014-263-EN-F1-1.Pdf>

2014. *Communication – Un rôle plus important pour le secteur privé en vue de parvenir à une croissance inclusive et durable dans les pays en développement* Bruxelles, le 13.5.2014 COM(2014) 263 final  
<http://ec.europa.eu/transparency/regdoc/rep/1/2014/FR/1-2014-263-FR-F1-1.Pdf>

## EUROPEAN COUNCIL

4th Africa - Europe Youth Summit Abidjan Youth Declaration. 2017  
<https://www.consilium.europa.eu/media/31805/au-eu-ypii-youth-agenda-english.pdf>

## EUROPEAN PARLIAMENT

Precision agriculture and the future of farming in Europe Scientific Foresight Study. 2016  
[http://www.europarl.europa.eu/RegData/etudes/STUD/2016/581892/EPRS\\_STU\(2016\)581892\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2016/581892/EPRS_STU(2016)581892_EN.pdf)

2017. Empowering Africa's youth – The new focus of EU-Africa cooperation  
[http://www.europarl.europa.eu/RegData/etudes/BRIE/2017/608806/EPRS\\_BRI\(2017\)608806\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/BRIE/2017/608806/EPRS_BRI(2017)608806_EN.pdf)

2017. *Émancipation de la jeunesse africaine – Le nouveau pôle d'attention de la coopération UE-Afrique*  
[http://www.europarl.europa.eu/RegData/etudes/BRIE/2017/608806/EPRS\\_BRI\(2017\)608806\\_FR.pdf](http://www.europarl.europa.eu/RegData/etudes/BRIE/2017/608806/EPRS_BRI(2017)608806_FR.pdf)

2016. Report on technological solutions for sustainable agriculture in the EU (2015/2225(INI)) Committee on Agriculture and Rural Development. Rapporteur : Anthea McIntyre  
<http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+REPORT+A8-2016-0174+0+DOC+PDF+VO//EN>

2016. « Rapport sur les solutions technologiques pour une agriculture durable dans l'Union européenne » (2015/2225(INI)) Commission de l'agriculture et du développement rural. Rapporteuse : Anthea McIntyre  
<http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+REPORT+A8-2016-0174+0+DOC+PDF+VO//FR>

2016. Report on enhancing innovation and economic development in future European farm management (2015/2227(INI)) Committee on Agriculture and Rural Development. Rapporteur: Jan Huitema  
<http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+REPORT+A8-2016-0163+0+DOC+PDF+VO//EN>



2016. « Rapport sur la promotion de l'innovation et du développement économique en rapport avec une gestion agricole d'avenir pour l'Union européenne » (2015/2227(INI)) Commission de l'agriculture et du développement rural Rapporteur: Jan Huitema

<http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+REPORT+A8-2016-0163+0+DOC+PDF+V0//FR>

EIP-AGRI Focus Group Precision Farming Final Report November 2015  
[https://ec.europa.eu/eip/agriculture/sites/agri-eip/files/eip-agri\\_focus\\_group\\_on\\_precision\\_farming\\_final\\_report\\_2015.pdf](https://ec.europa.eu/eip/agriculture/sites/agri-eip/files/eip-agri_focus_group_on_precision_farming_final_report_2015.pdf)

## FOOD AND AGRICULTURE ORGANISATION (FAO)

FAO & AUC. 2018. Sustainable Agricultural Mechanization: A Framework for Africa. Addis Ababa. 127pp. Licence: CC BY-NC-SA 3.0 IGO  
<http://www.fao.org/3/CA1136EN/ca1136en.pdf>

FAO. 2018. The future of food and agriculture – Alternative pathways to 2050. Summary version. Rome. 60 pp. Licence: CC BY-NC-SA 3.0 IGO.  
<http://www.fao.org/3/CA1553EN/ca1553en.pdf>

FAO. 2018. Youth employment in agriculture as a solid solution to ending hunger and poverty in Africa. Global Forum on Food Security and Nutrition - FSN Forum Report of activity No153 from 16.07.2018 to 10.08.2018  
<http://www.fao.org/3/ca1688en/CA1688EN.pdf>

FAO. 2017. The future of food and agriculture Trends and challenges.  
<http://www.fao.org/3/a-i6881e.pdf>

Sims, B. G.Kienzle, J. and Hilmi, M. 2016. Agricultural mechanization: A key input for sub-Saharan Africa smallholders. Food and Agriculture Organization of the United Nations Rome, 2016.  
<http://www.fao.org/3/a-i6044e.pdf>

Sims, B. G.Kienzle, J. et Hilmi, M. 2016. La mécanisation agricole: Un intrant essentiel pour les petits exploitants. Organisation des Nations Unies pour l'alimentation et l'agriculture Rome, 2016  
<http://www.fao.org/3/a-i6044f.pdf>

FAO. 2016. Public-Private Partnerships for Agribusiness Development - A Review of international experiences. Rankin, M.; Gálvez Nogales, E.; Santacoloma, P.; Mhlanga, N.; Rizzo, C. Food and Agriculture Organization of the United Nations. Rome, Italy.  
<http://www.fao.org/3/a-i5699e.pdf>

FAO. 2016. Public Private Partnerships for Inclusive Agricultural Growth. FAO Regional Conference for Africa, Twenty-ninth Session, Abidjan, Côte d'Ivoire, 4-8 April 2016  
<http://www.fao.org/3/a-mp575e.pdf>

FARM/FAO. 2015. « Une expérience originale de mécanisation partagée en Afrique. Les Coopératives d'utilisation de matériel agricole au Bénin » FARM - Champs d'acteurs n°3 - Avril 2015  
[http://www.fondation-farm.org/zoe/doc/farm\\_cha3\\_201504\\_cumabenin.pdf](http://www.fondation-farm.org/zoe/doc/farm_cha3_201504_cumabenin.pdf)

FAO. 2014. Growing greener cities in Growing greener cities in Latin America and the Caribbean. Rome, Food and Agriculture Organization of the United Nations  
<http://www.fao.org/3/a-i3696e.pdf>

FAO, CTA and IFAD (2014) Youth and Agriculture: Key Challenges and Concrete Solutions. Rome: FAO  
[www.fao.org/3/a-i3947e.pdf](http://www.fao.org/3/a-i3947e.pdf)

## GERMAN FEDERAL MINISTRY FOR ECONOMIC COOPERATION AND DEVELOPMENT (BMZ) / GERMAN FEDERAL ENTERPRISE FOR INTERNATIONAL COOPERATION (GIZ)

BMZ. G20 Conference Report ONE WORLD – No Hunger. Future of the rural world. October 2017  
[https://www.bmz.de/en/publications/type\\_of\\_publication/information\\_flyer/flyer/Conference\\_Documentation\\_OneWorld\\_NoHunger.pdf](https://www.bmz.de/en/publications/type_of_publication/information_flyer/flyer/Conference_Documentation_OneWorld_NoHunger.pdf)

BMZ. Berlin Charter – Creating Opportunities with the Young Generation the Rural World, Joint call for action by science, the private sector and civil society”. June 2017  
[https://www.bmz.de/en/publications/type\\_of\\_publication/information\\_flyer/information\\_brochures/Materialie295\\_berlin\\_charta.pdf](https://www.bmz.de/en/publications/type_of_publication/information_flyer/information_brochures/Materialie295_berlin_charta.pdf)

## INTERNATIONAL FUND FOR AGRICULTURAL DEVELOPMENT (IFAD)

IFAD. 2018. IFAD's engagement with rural youth.  
[https://www.ifad.org/documents/38714170/40257372/youth\\_engagement.pdf/ba904804-060c-49ed-83c5-bd5d70a99335](https://www.ifad.org/documents/38714170/40257372/youth_engagement.pdf/ba904804-060c-49ed-83c5-bd5d70a99335)

FIDA (2014) « Réaliser le potentiel de l'agriculture africaine »  
[http://www.ifad.org/pub/thematic/agriculture/africa\\_agriculture\\_f.pdf](http://www.ifad.org/pub/thematic/agriculture/africa_agriculture_f.pdf)

IFAD (2013) “IFAD and public-private partnerships: Selected project experiences” International Fund for Agricultural Development  
<http://www.ifad.org/pub/partnerships/ppp.pdf>

## ICF

IFC. 2014. Women-owned SMEs. A business opportunity for financial institutions  
<https://www.ifc.org/wps/wcm/connect/b229bb004322efde9814fc384c61d9f7/WomenOwnedSMes+Report-Final.pdf?MOD=AJPERES>

## INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE (IFPRI)

Badiane, Ousmane, ed.; Odjo, Sunday P., ed.; and Collins, Julia, ed. 2018. Africa Agriculture Trade Monitor Report 2018. Washington, DC: International Food Policy Research Institute (IFPRI).  
<https://doi.org/10.2499/9780896293496>



## The next generation of farmers: successes and new opportunities

Malabo Montpellier Panel. 2018. Mechanized: Transforming Africa's agriculture value chains. Dakar, Senegal: International Food Policy Research Institute (IFPRI) and Malabo Montpellier Panel.  
<http://ebrary.ifpri.org/cdm/ref/collection/p15738coll2/id/132766>

Ruel, Marie T.; Garrett, James. L.; and Yosef, Sivan. 2017. Food security and nutrition: Growing cities, new challenges. In 2017 Global Food Policy Report. Chapter 3. Pp 24-33. Washington, DC: International Food Policy Research Institute (IFPRI).  
[https://doi.org/10.2499/9780896292529\\_03](https://doi.org/10.2499/9780896292529_03)

Bart Minten, Thomas Reardon, and Kevin Chen. 2017. How Cities Reshape Food Systems. IFPRI. New York.  
<http://ebrary.ifpri.org/utis/getfile/collection/p15738coll2/id/131090/filename/131301.pdf>

Badiane, Ousmane. 2016. The twenty-first century agricultural cooperative: Increasing the business credibility of smallholders. Foreign Affairs (February 2016): 73-81. A Special Issue on 'African farmers in the digital age: How digital solutions can enable rural development.'  
<http://ebrary.ifpri.org/utis/getfile/collection/p15738coll5/id/5234/filename/5235.pdf>

### INTERNATIONAL LABOR OFFICE (ILO)

Thomas S. Jayne, Felix Kwame Yeboah and Carla Henry. 2017. The future of work in African agriculture: trends and drivers of change December. International Labour Officer.  
[https://www.ilo.org/wcmsp5/groups/public/---dgreports/---inst/documents/publication/wcms\\_624872.pdf](https://www.ilo.org/wcmsp5/groups/public/---dgreports/---inst/documents/publication/wcms_624872.pdf)

### INTERNATIONAL TRADE CENTRE (ITCO)

ITC. 2018. SME Competitiveness Outlook 2018: Business Ecosystems for the Digital Age. Geneva  
<http://www.intracen.org/uploadedFiles/intracenorg/Content/Publications/SMECO2018.pdf>

ITC. 2018. *Synthèse - Perspective de la compétitivité des PME : Les écosystèmes d'affaires à l'ère du numérique*. Geneva  
<http://www.intracen.org/uploadedFiles/intracenorg/Content/Publications/synthese%20Perspective%20des%20PME%202018%20Les%20ecosystemes%20daffaires%20du%20numrique.pdf>

ITC. 2018. Promoting SME Competitiveness in Africa: Data for de-risking investment. Geneva  
[http://www.intracen.org/uploadedFiles/intracenorg/Content/Publications/Africa\\_SME%20web.pdf](http://www.intracen.org/uploadedFiles/intracenorg/Content/Publications/Africa_SME%20web.pdf)

ITC. 2017. SME Competitiveness Outlook 2017 – The region: A door to global trade. Geneva  
<http://www.intracen.org/uploadedFiles/intracenorg/Content/Publications/smeco17.pdf>

ITC. 2017. New Pathways to E-commerce: A Global MSME Competitiveness Survey. Geneva  
[http://www.intracen.org/uploadedFiles/intracenorg/Content/Publications/New%20Pathways%20to%20E-commerce\\_Low%20res\(2\).pdf](http://www.intracen.org/uploadedFiles/intracenorg/Content/Publications/New%20Pathways%20to%20E-commerce_Low%20res(2).pdf)

### ORGANIZATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT (OECD)

OECD Development Centre. 2018. Better Policies for Better Youth Livelihoods: A Guidance Note for Development Practitioners, EU-OECD Youth Inclusion Project, Paris.  
[http://www.oecd.org/dev/inclusivesocietiesanddevelopment/Guidance\\_Note\\_2018.pdf](http://www.oecd.org/dev/inclusivesocietiesanddevelopment/Guidance_Note_2018.pdf)

OECD. 2018. The Future of Rural Youth in Developing Countries: Tapping the Potential of Local Value Chains, OECD Publishing, Paris.  
<https://doi.org/10.1787/9789264298521-en>

Allen, T., P. Heinrigs and I. Heo. 2018. Agriculture, food and jobs in West Africa,  
<https://doi.org/10.1787/dc152bc0-en>

Allen, T., P. Heinrigs et I. Heo. 2018. *Agriculture, alimentation et emploi en Afrique de l'Ouest*,  
<https://doi.org/10.1787/56d463a9-fr>

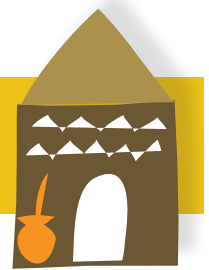
OECD. 2017. Unlocking the Potential of Youth Entrepreneurship in Developing Countries: From Subsistence to Performance, Development Centre Studies, OECD Publishing, Paris  
<https://doi.org/10.1787/9789264277830-en>

OCDE. 2017. *Libérer le potentiel des jeunes entrepreneurs dans les pays en développement : De la subsistance à la performance*, Études du Centre de développement, Éditions OCDE, Paris  
<https://doi.org/10.1787/9789264282094-fr>

OECD. 2017. Youth Aspirations and the Reality of Jobs in Developing Countries: Mind the Gap, Development Centre Studies, OECD Publishing, Paris  
<https://doi.org/10.1787/9789264285668-en>

### ODI

Steve Wiggins and Sharada Keats. 2017. Future diets in the developing world Questions, answers and gaps. ODI.  
<https://www.odi.org/sites/odi.org.uk/files/resource-documents/11739.pdf>



## OXFORD UNIVERSITY

Stefan Dercon Douglas Gollin . Agriculture in African Development: A Review of Theories and Strategies. Oxford University. March 2014  
<https://www.csae.ox.ac.uk/materials/papers/csae-wps-2014-22.pdf>

## PRICEWATERHOUSECOOPERS (PWC)

PriceWaterhouseCooper. 2016. AgTech – don't wait for the future, create it - Africa Agribusiness Insights Survey 2016  
<http://www.pwc.co.za/en/assets/pdf/agri-businesses-insights-survey-may-2016.pdf>

PricewaterhouseCoopers. 2015. Africa – are you in for the ride? - Agribusinesses Insights Survey 2014/2015  
<https://www.pwc.co.za/en/assets/pdf/agribusinesses-insights-survey-2014-2015.pdf>

## UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION (UNIDO)

UNIDO. 2017. Agribusiness and Human Capital Development. Vienna  
[https://www.unido.org/sites/default/files/files/2017-11/Agribusiness\\_HumanCapitalDevelopment.pdf](https://www.unido.org/sites/default/files/files/2017-11/Agribusiness_HumanCapitalDevelopment.pdf)

UNIDO. 2017. Structural Change for Inclusive and Sustainable Industrial Development. Vienna.  
[https://www.unido.org/sites/default/files/files/2018-06/EBOOK\\_Structural\\_Change.pdf](https://www.unido.org/sites/default/files/files/2018-06/EBOOK_Structural_Change.pdf)

## WORLD BANK (WB)

Christiaensen, Luc; Demery, Lionel. 2018. Agriculture in Africa : Telling Myths from Facts. Directions in Development—Agriculture and Rural Development;. Washington, DC: World Bank. © World Bank.  
<https://openknowledge.worldbank.org/handle/10986/28543>

Lonie, Susie; Martinez, Meritxell; Oulai, Rita; Tullis, Christopher. 2018. Opportunities for Digital Financial Services in the Cocoa Value Chain in Côte d'Ivoire : Insights from New Data. World Bank, Washington, DC. © World Bank.  
<https://openknowledge.worldbank.org/handle/10986/30203>

Lobell, David B.; Azzari, George; Marshall, Burke; Gourlay, Sydney; Jin, Zhenong; Kilic, Talip; Murray, Siobhan. 2018. Eyes in the Sky, Boots on the Ground : Assessing Satellite- and Ground-Based Approaches to Crop Yield Measurement and Analysis in Uganda. Policy Research Working Paper;No. 8374. World Bank, Washington, DC. © World Bank.  
<https://openknowledge.worldbank.org/handle/10986/29554>

Mattern, Max. 2018. Exploring Blockchain Applications to Agricultural Finance. CGAP Brief;. World Bank, Washington, DC. © World Bank.  
<https://openknowledge.worldbank.org/handle/10986/30110>

Niforos, Marina; Ramachandran, Vijaya; Rehmann, Thomas. 2017. Block Chain : Opportunities for Private Enterprises in Emerging Market. International Finance Corporation, Washington, D.C.. © International Finance Corporation.  
<https://openknowledge.worldbank.org/handle/10986/28962>

Tinsley, Elaine; Agapitova, Natalia. 2018. Private Sector Solutions to Helping Smallholders Succeed : Social Enterprise Business Models in the Agriculture Sector. World Bank, Washington, DC. © World Bank.  
<https://openknowledge.worldbank.org/handle/10986/29543>

UNCTAD; World Bank. 2018. Food Security and Nutrition. Responsible Agricultural Investment (RAI) Knowledge Into Action Note,no. 22;. World Bank, Washington, DC. World Bank.  
<https://openknowledge.worldbank.org/handle/10986/29486>

Walton, Tom; Grishin, Vadim. 2018. Key Steps to Improve Agribusiness Competitiveness, Part II : Research and Development, Logistics, and Marketing. EMCompass,no. 50;. International Finance Corporation, Washington, DC. © International Finance Corporation.  
<https://openknowledge.worldbank.org/handle/10986/30376>

World Bank Group. 2018. EU Regular Economic Report 4 : Thinking CAP - Supporting Agricultural Jobs and Incomes in the EU. World Bank, Washington, DC. © World Bank.  
<https://openknowledge.worldbank.org/handle/10986/29381>

World Bank. 2017. ICT in Agriculture (Updated Edition) : Connecting Smallholders to Knowledge, Networks, and Institutions. Washington, DC: World Bank.  
<https://openknowledge.worldbank.org/handle/10986/27526>

Beegle, Kathleen; Christiaensen, Luc; Dabalen, Andrew; Gaddis, Isis. 2016. Poverty in a Rising Africa. Washington, DC: World Bank. © World Bank.  
<https://openknowledge.worldbank.org/handle/10986/22575>

Beegle, Kathleen, Luc Christiaensen, Andrew Dabalen et Isis Gaddis. 2017. La pauvreté dans une Afrique en essor. Washington, DC : La Banque mondiale. DOI : 10.1596/978-1-4648-0965-1.  
<https://openknowledge.worldbank.org/bitstream/handle/10986/22575/9781464809651.pdf?sequence=20&isAllowed=y>

Byerlee, Derek; Garcia, Andres F.; Giertz, Asa; Palmade, Vincent; Palmade, Vincent. 2013. Growing Africa - Unlocking the potential of agribusiness : Main report (). Washington, DC: World Bank.  
<http://documents.worldbank.org/curated/en/327811467990084951/Main-report>



# The next generation of farmers: successes and new opportunities

## OTHER RESOURCES

Alliance for Internet of Things Innovation (AIOTI). 2018. Digital Innovation Hubs: democratising digital technologies in agriculture AIOTI WG06 – Smart Farming and Food Security  
[https://aioti.eu/wp-content/uploads/2017/11/AIOTI\\_WG06\\_ADIHS\\_final.pdf](https://aioti.eu/wp-content/uploads/2017/11/AIOTI_WG06_ADIHS_final.pdf)

Hjortsø, C. N. P., Alexander, I. K., & Hernandez Chea, R. R. (2017). Experiences and lessons learned from the UniBRAIN Agribusiness Incubation Programme. Department of Food and Resource Economics, University of Copenhagen. IFRO Report, No. 266  
[https://curis.ku.dk/ws/files/188232225/IFRO\\_Report\\_266.pdf](https://curis.ku.dk/ws/files/188232225/IFRO_Report_266.pdf)

IDS Bulletin. 2017. Africa's Youth Employment Challenge: New Perspectives. IDS Bulletin;48.3 Volume 48. Issue 3  
[https://opendocs.ids.ac.uk/opendocs/bitstream/handle/123456789/12990/48.3\\_10.190881968-2017.121.pdf?sequence=1&isAllowed=y](https://opendocs.ids.ac.uk/opendocs/bitstream/handle/123456789/12990/48.3_10.190881968-2017.121.pdf?sequence=1&isAllowed=y)

INCLUDE. 2017. Boosting youth employment in Africa: what works and why? Synthesis report.  
[http://includeplatform.net/wp-content/uploads/2017/05/INCLUDE-Synthesis-report-30-May\\_FINAL.pdf](http://includeplatform.net/wp-content/uploads/2017/05/INCLUDE-Synthesis-report-30-May_FINAL.pdf)

ITU. 2014. Digital opportunities: Innovative ICT solutions for youth employment  
[https://www.itu.int/en/ITU-D/Digital-Inclusion/Youth-and-Children/Documents/YouthReport\\_2014.pdf](https://www.itu.int/en/ITU-D/Digital-Inclusion/Youth-and-Children/Documents/YouthReport_2014.pdf)

Kirui, Oliver K and Kozicka, Marta. 2018. Vocational Education and Training for Farmers and Other Actors in the Agri-Food Value Chain in Africa. Working Paper 164, Bonn, January 2018. ZEF Working Paper Series, ISSN 1864-6638 Center for Development Research, University of Bonn  
[https://www.zef.de/uploads/tx\\_zefportal/Publications/zef\\_wp\\_164\\_final.pdf](https://www.zef.de/uploads/tx_zefportal/Publications/zef_wp_164_final.pdf)

Mastercard Foundation. 2018. Gender and Youth Livelihoods Programming in Africa  
<https://mastercardfdn.org/wp-content/uploads/2018/06/MCF13027-ODI-Gender-Paper-Digital-Download-vFF-2-accessible2.pdf>

World Economic Forum. 2018. Innovation with a Purpose: The role of technology innovation in accelerating food systems transformation. Prepared in collaboration with McKinsey & Company  
[http://www3.weforum.org/docs/WEF\\_Innovation\\_with\\_a\\_Purpose\\_VF-reduced.pdf](http://www3.weforum.org/docs/WEF_Innovation_with_a_Purpose_VF-reduced.pdf)



## ACRONYMS

### AAFT

African Agricultural Technology Foundation

### ACP

African, Caribbean and Pacific Group of States

### AfDB

African Development Bank

### AGRA

Alliance for a Green Revolution in Africa

### AU

African Union

### BMZ / GIZ

German Federal Ministry for Economic Cooperation and Development (BMZ) / German Federal Enterprise for International Cooperation (GIZ)

### CAADP

Comprehensive Africa Agriculture Development Programme

### CDD

Community-driven development

### CEJA

European Council of Young Farmers

### CGIAR

Consultative Group on International Agricultural Research

### COPA-COGECA

Committee of Professional Agricultural Organisations-General Confederation of Agricultural Cooperatives

### CTA

Technical Centre for Agricultural and Rural Cooperation

### CUMA

co-operatives for sharing mechanisation tools

### ECA

United Nations Economic Commission for Africa

### EU

European Union

### FAO

UN Food and Agriculture Organisation

### FARA

Forum for Agricultural Research in Africa

### ICT

Information and communications technology

### IFAD

International Fund for Agricultural Development

### IFOAM

International Foundation for Organic Agriculture

### IFPRI

International Food Policy Research Institute

### IITA

International Institute of Tropical Agriculture

### ILO

International Labour Organization

### IMF

International Monetary Fund

### ITU

International Telecommunications Union

### JFFLS

Junior Farmer Field and Life Schools

### LDCs

Least-developed countries

### LICs

Low Income Countries

### MDG

Millennium Development Goal

### MICs

Middle Income Countries

### MFI

Microfinance Institution

### NEPAD

(The) New Partnership for Africa's Development NGO Non-Governmental Organization

### NGO

Non-Governmental Organisation

### ODA

Official Development Assistance

### OECD

Organisation for Economic Co-operation and Development

### UPA

Urban and Peri-Urban agriculture

### SACCOs

Savings Union Cooperatives

### SEWA

Self Employed Women's Association

### SIGI

Social Institutions and Gender Index

### SME

Small and Medium Enterprise

### TVET

Technical and Vocational Education and Training

### UNCTAD

United Nations Conference on Trade and Development

### UNDP

United Nations Development Programme

### UN DESA

United Nations Department of Economic and Social Affairs

### UNSD

United Nations Statistics Division

### WB

World Bank

### WTO

World Trade Organization

## Glossary

### Accelerators

For-profit incubator that support start-ups with funding and other services in exchange for equity.

### Apps

Software application developed for a digital device. The term is often associated with the applications that run on mobile phones.

### Artificial intelligence

AI (Artificial intelligence) is an area of computer science that emphasizes the creation of intelligent machines that work and react like humans. An advanced computer programming language aimed at enabling computers to emulate the human mode of reasoning.

### Big Data

Extremely large data sets and the analytical methods used to systematically evaluate the data they contain.

### Blockchain

A structure for storing data in which groups of valid transactions, called blocks, form a chronological chain, with each block cryptographically linked to the previous one. A digital list of records in which transactions are recorded in 'blocks' and linked using cryptography. When the blocks are filled with data, they are 'sealed' and added to the blockchain chronologically in a manner that is verifiable and cannot be altered without the consensus of a majority of participants.

### Brain drain

Emigration of trained or qualified persons, resulting in a depletion of skilled labour in a given country.

### Brain gain

Immigration of trained or qualified persons to a given country, i.e. a destination country. Also known as reverse brain drain.

### Circular migration

The fluid movement of people between countries, including temporary or long-term movement, which may be beneficial to all involved, if the movement occurs voluntarily and is linked to the labour needs of origin countries and destination countries

### Crowdfunding

The collective effort of individuals who network and pool their money, usually via the internet, to support an entrepreneur's business.

### Crowdsourcing

Outsourcing of tasks or larger projects to a distributed group of people.

### Data Protection | Digital Privacy

Data protection is about individuals' entitlement to decide how their data are used, how to maintain their privacy and how to protect themselves against the misuse of their data (e.g. by companies or governments).

### Decent work

Decent work is productive work performed in conditions of freedom, equity, security and human dignity, to which women and men have access on equal terms. Decent work is the converging focus of all the ILO's four strategic objectives: the promotion of rights at work, employment, social protection, and social dialogue.

### Demographic dividend

The demographic dividend is the low dependency ratio that develops for several decades during the course of the demographic transition. It describes populations that have experienced several decades of fertility decline and contain a large proportion of young adults relative to children or elderly people as a result of the early stages of population ageing. This is described as a dividend as it can promote

an increase in the investment rate and rapid economic growth.

### Demographic transition

The demographic transition is the process by which populations move from high mortality and fertility rates, to low mortality and fertility rates as a country develops from a pre-industrial to an industrialized economic system. This is typically demonstrated through a demographic transition model. As fertility decline often lags behind mortality decline, there is an intermediate phase in the middle of the transition characterised by high growth rates.

### Digitalization (digitalisation)

The use of digital technologies to change a business model and provide new revenue and value-producing opportunities; it is the process of moving to a digital business.

### Digital Divide

The divide between people with or without the opportunity to use ICT like the internet. This may be due to a lack of technical access or know-how or the unavailability of suitable services.

### Digital Finance The use of digital

technologies in the financial sector, e.g. for transferring money or offering credit, savings or insurance products.

### Distributed ledger technology (DLT)

A system, most commonly a blockchain, for creating a shared, cryptographically secured database. An umbrella term used to describe technologies that allow information or records to be transferred and updated by network participants, and facilitate this in a trustworthy, secure and efficient way without necessarily being controlled and administrated by a central party that is known and trusted by every participant.

# The next generation of farmers: successes and new opportunities



## Drones | Unmanned Aerial Vehicles (UAV)

Drones, or unmanned aerial vehicles (UAV), are vehicles that fly either autonomously or by remote control.

## E-Agriculture

The use of digital technologies in agriculture.

## Ecommerce

Commercial trade of products and services over electronic or digital means, like the Internet

## Ecommerce platform

A software program or application that gives businesses the ability to sell online. Ecommerce platforms vary in specific features, but generally include product information displayed to website visitors, customer account management, shopping cart and checkout processes, product search capabilities and order management, among other features.

## Economic migration

Movement of persons from one country to another, or within their own country of residence, for the purpose of employment or for purely economic reasons. Economic, or labour, migration is addressed by most States in their migration laws. Some States take an active role in regulating outward labour migration and seeking opportunities for their nationals abroad.

## Economic structural transformation

The reallocation of economic activity away from the least productive sectors of the economy to the more productive ones.

## Emigration

Emigration is the movement of people from a national population of interest to a different country on a long-term basis that results in a change in their country of usual residence.

## Employment

Persons in employment comprise all persons above a specified age who during a specified brief period, either one week or one day, were in the following categories: paid employment; self-employment.

## Enterprise resources management (ERM)

A business method that addresses an organization's relationships with all of its constituencies (customers, partners, suppliers, employees, etc.). ERM goes beyond customer relationship management (CRM).

## Farming system

A population of individual farm systems that have broadly similar resource bases, enterprise patterns, household livelihoods and constraints, and for which similar development strategies and interventions would be appropriate. Depending on the scale of analysis, a farming system can encompass a few dozen or many millions of households.

## Foreign direct investment

Foreign investment establishes a lasting interest in or effective management control over an enterprise. Foreign direct investment can include buying shares of an enterprise in another country, reinvesting earnings of a foreign-owned enterprise in the country where it is located, and parent firms extending loans to their foreign affiliates. International Monetary Fund (IMF) guidelines consider an investment to be a foreign direct investment if it accounts for at least 10% of the foreign firm's voting stock of shares.

## Gender division of labour

The gender division of labour depends on the socio-economic and cultural context, and can be analyzed by differentiating between productive and reproductive tasks as well as community-based activities, including who does what, when, how, and for how long.

## Geographic Information System (GIS)

A system that geographically pinpoints information, linking data to points on digital maps, for example.

## Gross Domestic Product (GDP)

GDP is Gross domestic product. For a region, the GDP is "the market value of all the goods and services produced by labor and property located in" the region, usually a country. It equals GNP minus the net inflow of labor and property incomes from abroad.

## Gross national product (GNP)

The value of all final goods and services produced in a country in one year (gross domestic product) plus income that residents have received from abroad, minus income claimed by non-residents. GNP may be much less than GDP if much of the income from a country's production flows to foreign persons or firms. But if the people or firms of a country hold large amounts of the stocks and bonds of firms or governments of other countries, and receive income from them, GNP may be greater than GDP.

## Growth rate

A population's growth rate is the ratio of growth in a given period to the mean population during that period. Growth is the balance of births, deaths, in-migration, and out-migration during the period concerned as stated by the balancing equation. The growth rate is usually calculated on an annual basis.

## GSM

Global System for Mobile communications. European-developed digital mobile cellular standard. The most widespread 2G digital mobile cellular standard, available in over 170 countries worldwide. For more information see the GSM Association website at [www.gsmworld.com/index.html](http://www.gsmworld.com/index.html).

## Hackathon

Event where computer developers, graphic designers, and/or other experts come together to collaborate and produce software projects, apps, and other solutions.

## Hacker/maker space

Community-operated workspace where people with common interests meet and collaborate around computers, technology, or digital art.

## Household (as a production unit)

Households as production units are households producing goods for their own final use (e.g. subsistence farmers and households engaged in do-it-yourself construction of their own dwellings), and those employing paid domestic workers (maids, laundresses, watchmen, gardeners, drivers, and others).

# The next generation of farmers: successes and new opportunities

## Human resource management (HRM)

The management process of an organization's human resources, encompassing employee recruitment, selection, assessment and other functions.

## Informal economy

The informal economy refers to all economic activities by workers and economic units that are – in law or in practice – not covered or insufficiently covered by formal arrangements. Their activities are not included in the law, which means that they are operating outside the formal reach of the law; or their activities are not covered in practice, which means that – although they are operating within the formal reach of the law, the law is not applied or not enforced; or the law discourages compliance, because it is inappropriate, burdensome, or imposes excessive costs. Activities and income that are partially or fully outside government regulation, taxation and observation.

## ICT Infrastructure

ICT infrastructure is the part of a country's infrastructure that enables ICT service provision.

## Manufacturing, value added (% of GDP)

The value of the gross output of manufacturing, minus the value of intermediate goods and services consumed in production.

## M-Pesa

M-Pesa is an e-payment service developed and offered by mobile service provider Vodafone that enables users to execute banking transactions over their mobile phone without any need for a bank account.

## Precision farming

Management of farming practices that uses computers, satellite positioning systems, and remote sensing devices to provide information on which enhanced decisions can be made. Sensors can determine whether crops are growing at maximum efficiency, highly specific local environmental conditions can be identified, and the nature and location of problems

pinpointed. Information collected can be used to produce maps showing variation in factors such as crop yield or soil nutrient status, and provides a basis for decisions on, for example, seed rates and application of fertilisers and agrochemicals, as well for the automatic guidance of equipment.

## Rural nonfarm economy (RNFE)

The rural non-farm economy may be defined as comprising all those activities associated with waged work or self-employment in income generating activities (including income in-kind) that are not agricultural but which generate income (including remittances etc.) in rural areas.

## Smartphones

A mobile phone with computer functionalities.

## Tech Startups

Startups are fledgling enterprises intent on developing and marketing innovative business ideas.

## Underemployment

Underemployment reflects underutilization of the productive capacity of the employed population, including those which arise from a deficient national or local economic system. It relates to an alternative employment situation in which persons are willing and available to engage.

## Unemployed

A person who, during the specified short reference period, was (a) without work, (b) currently available for work, and (c) seeking work. A person is also considered unemployed if they are not currently working but have made arrangements to take up paid or self-employment at a date subsequent to the reference period.

## Unemployment rate

Unemployment as a percentage of the total labour force (employment + unemployment). The indicator is widely used as a measure of unutilized labour supply.

## Urban

Countries differ in the way they classify population as 'urban' or 'rural.' Typically, a community or settlement with a population of 2,000 or more is considered urban. A listing of country definitions is published annually in the United Nations Demographic Yearbook.

## Vocational training

Vocational training comprises activities intended to provide the skills, knowledge, competencies, and attitudes required for employment in a particular occupation, or a group of related occupations, in any field of economic activity. By equipping groups that are discriminated against with the skills needed to improve their employability, productivity, and income, vocational training can play an important role in promoting equality of opportunities for all workers to obtain decent work.

## Web literacy

Refers to not only being able to read the web but also having the ability to 'write' it (create pages, documents and multimedia assets).

## Venture capital

Financial capital invested in start-up companies.

## Youth

Youth overlaps with, but is distinct from adolescence, as it extends into adulthood. The United Nations defines youth as persons of 15 to 24 years. This is helpful in capturing many of those who have finished schooling, are sexually active and are facing livelihoods/unemployment issues.

## Youth employment

The United Nations General Assembly defined youth as those persons falling between the ages of 15 and 24 years inclusive. This definition was made for International Youth Year, held around the world in 1985. In the framework of reporting progress towards the achievement of the Millennium Development Goals, the ILO takes the lead in reporting on trends concerning the youth employment rate.



## Websites (English and French)

### AFRICAN DEVELOPMENT BANK (BANQUE AFRICAINE DE DÉVELOPPEMENT)

Structural Transformation  
<https://www.afdb.org/en/topics-and-sectors/topics/structural-transformation/>

*Transformation structurelle*  
<https://www.afdb.org/fr/topics-and-sectors/topics/structural-transformation/>

Youth  
<https://www.afdb.org/en/topics-and-sectors/topics/youth/>

*Les Jeunes*  
<https://www.afdb.org/fr/topics-and-sectors/topics/youth/>

### AFRICAN UNION (UNION AFRICAINE)

Rural Economy & Agriculture  
<https://au.int/rea>

Trade & Industry  
<https://au.int/ti>

### AU - EU YOUTH COOPERATION HUB

<https://www.aueuyouthhub.org/>  
<https://www.aueuyouthhub.org/fr/accueil/>

### CTA

<https://www.cta.int/en/>  
<https://www.cta.int/fr/>

Brussels Briefings  
<http://brusselsbriefings.net>

*Briefings de Bruxelles*  
<https://bruxellesbriefings.net/>

Spore Magazine  
<http://spore.cta.int/en/>

*Magazine Spore*  
<http://spore.cta.int/fr/>

ICT Update  
<http://ictupdate.cta.int/>

*ICT Update*  
<http://ictupdate.cta.int/?lang=fr>

### EUROPEAN COMMISSION (COMMISSION EUROPÉENNE)

Task Force Rural Africa  
[https://ec.europa.eu/info/food-farming-fisheries/farming/regional-and-international-agreements/regional-agreements/african-union/eu-africa-partnership\\_en](https://ec.europa.eu/info/food-farming-fisheries/farming/regional-and-international-agreements/regional-agreements/african-union/eu-africa-partnership_en)

European Commission - International Development and Cooperation  
[https://ec.europa.eu/europeaid/node/22\\_en](https://ec.europa.eu/europeaid/node/22_en)

*Commission européenne - Coopération internationale et développement international*  
[https://ec.europa.eu/europeaid/node/22\\_fr](https://ec.europa.eu/europeaid/node/22_fr)

EuropeAid Development and Cooperation- Agriculture and rural development  
[https://ec.europa.eu/europeaid/sectors/food-and-agriculture/sustainable-agriculture-and-rural-development\\_en](https://ec.europa.eu/europeaid/sectors/food-and-agriculture/sustainable-agriculture-and-rural-development_en)

European Commission - Agriculture and rural development  
[http://ec.europa.eu/agriculture/index\\_en.htm](http://ec.europa.eu/agriculture/index_en.htm)

*Commission européenne - Agriculture et développement rural*  
[http://ec.europa.eu/agriculture/index\\_fr.htm](http://ec.europa.eu/agriculture/index_fr.htm)

European Commission – Trade  
<http://ec.europa.eu/trade/>

*Commission européenne – Commerce*  
[https://ec.europa.eu/info/departments/trade\\_fr#responsibilities](https://ec.europa.eu/info/departments/trade_fr#responsibilities)

European Commission - Communications Networks, Content and Technology  
[https://ec.europa.eu/info/departments/communications-networks-content-and-technology\\_en](https://ec.europa.eu/info/departments/communications-networks-content-and-technology_en)

*Commission européenne – Réseaux de communication, contenu et technologies*  
[https://ec.europa.eu/info/departments/communications-networks-content-and-technology\\_fr](https://ec.europa.eu/info/departments/communications-networks-content-and-technology_fr)

European Commission – Research and Innovation  
[https://ec.europa.eu/info/research-and-innovation\\_en](https://ec.europa.eu/info/research-and-innovation_en)

*Commission européenne – Recherche et innovation*  
[https://ec.europa.eu/info/research-and-innovation\\_fr](https://ec.europa.eu/info/research-and-innovation_fr)

### EUROPEAN PARLIAMENT (PARLEMENT EUROPÉEN)

European Parliament – Committee on Development  
<http://www.europarl.europa.eu/activities/committees/homeCom.do?language=EN&body=DEVE>

*Parlement Européen – Comité Développement*  
<http://www.europarl.europa.eu/activities/committees/homeCom.do?sessionId=2BOB15C610AA75156276381888A9AF21.node2?language=FR&body=DEVE>



# The next generation of farmers: successes and new opportunities

## FAO

Decent Rural Employment  
<http://www.fao.org/rural-employment/en/>

*L'Emploi rural décent*  
<http://www.fao.org/rural-employment/fr/>

Sustainable Agricultural Mechanization  
<http://www.fao.org/sustainable-agricultural-mechanization/en/>

*Mécanisation agricole durable*  
<http://www.fao.org/sustainable-agricultural-mechanization/fr/>

## BMZ

German Federal Ministry for Economic Cooperation and Development (BMZ) – Rural development and food security  
<https://www.bmz.de/en/issues/Food/index.html>

## IFAD

Investing in Rural People  
<https://www.ifad.org/web/guest/investing-in-rural-people>

Youth Portal  
<https://www.ifad.org/web/guest/youth>

## IFPRI

IFPRI-International Food Policy Research Institute  
<http://www.ifpri.org/34>

*IFPRI-Institut International de Recherche sur les Politiques Alimentaires*  
<http://www.ifpri.org/french>

## ILO / OIT

Decent work portal  
<http://www.ilo.org/global/topics/decent-work/lang--en/index.htm>

*Portail du travail décent*  
<http://www.ilo.org/global/topics/decent-work/lang--fr/index.htm>

Youth employment portal  
<http://www.ilo.org/global/topics/youth-employment/lang--en/index.htm>

*Portail de l'emploi des jeunes*  
<http://www.ilo.org/global/topics/youth-employment/lang--fr/index.htm>

ILO-Labour migration portal  
<http://www.ilo.org/global/topics/labour-migration/lang--en/index.htm>

*OIT-Portail de la migration*  
<http://www.ilo.org/global/topics/youth-employment/lang--fr/index.htm>

## NEPAD

<http://www.nepad.org>

## OECD (OCDE)

OECD SWAC - Sahel and West Africa Club Secretariat  
<http://www.oecd.org/swac/>

*OCDE CSAO - Secrétariat du Club du Sahel et de l'Afrique de l'Ouest*  
<http://www.oecd.org/fr/csao/>

Youth Inclusion Project  
<http://www.oecd.org/dev/inclusivesocietiesanddevelopment/youth-inclusion-project.htm>

*Projet Inclusion des jeunes*  
<http://www.oecd.org/fr/dev/societesinclusivesetdeveloppement/projet-inclusion-des-jeunes.htm>

Going Digital  
<http://www.oecd.org/going-digital/>

## UNDP (PNUD)

UNDP-United Nations Development Programme  
<http://www.undp.org/>

*PNUD-Programme des Nations Unies pour le développement*  
<http://www.undp.org/french/>

## WORLD BANK (BANQUE MONDIALE)

Agriculture and Food  
<http://www.worldbank.org/en/topic/agriculture>

*Agriculture et développement rural*  
<http://www.banquemondiale.org/fr/topic/agriculture/overview>

Digital Development  
<http://www.worldbank.org/en/topic/digitaldevelopment>

*Développement numérique*  
<http://www.banquemondiale.org/fr/topic/digitaldevelopment/overview>

Jobs and Development  
<http://www.worldbank.org/en/topic/jobsanddevelopment>

*Emploi et développement*  
<http://www.banquemondiale.org/fr/topic/jobsanddevelopment/overview>

World Bank-Data on agriculture and rural development  
<http://data.worldbank.org/topic/agriculture-and-rural-development>

*Banque Mondiale-Données sur le développement rural*  
<http://donnees.banquemondiale.org/theme/agriculture-et-developpement-rural>

### Endnotes

- 1 AFDB. Growth, Jobs and Poverty in Africa. African Economic Outlook. 2018. [https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/2018AEO/African\\_Economic\\_Outlook\\_2018\\_-\\_EN\\_Chapter2.pdf](https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/2018AEO/African_Economic_Outlook_2018_-_EN_Chapter2.pdf)
- 2 FAO. 2017. The future of food and agriculture Trends and challenges. <http://www.fao.org/3/a-i6881e.pdf>
- 4 Ibid
- 5 Benin, Samuel; and Nin-Pratt, Alejandro. 2016. Intertemporal trends in agricultural productivity. In *Agricultural productivity in Africa: Trends, patterns, and determinants*. Benin, Samuel (Ed.). Chapter 2. Pp. 25-104. Washington, D.C.: International Food Policy Research Institute (IFPRI). [http://dx.doi.org/10.2499/9780896298811\\_02](http://dx.doi.org/10.2499/9780896298811_02)
- 6 Landry Signé. 2018. *African Development, African Transformation: How Institutions Shape Development Strategy*. Cambridge: Cambridge University Press.
- 7 Beegle, Kathleen; Christiaensen, Luc; Dabalen, Andrew; Gaddis, Isis. 2016. *Poverty in a Rising Africa*. Washington, DC: World Bank. <https://openknowledge.worldbank.org/handle/10986/22575>
- 8 Kharas, Homi, and Wolfgang Fengler. 2017. "Global Poverty Is Declining but Not Fast Enough," <https://www.brookings.edu/blog/futuredevelopment/2017/11/07/global-poverty-is-declining-but-not-fast-enough>
- 9 FAO. 2017. The future of food and agriculture Trends and challenges OECD (2017), "Development finance and policy trends", in *Development Co-operation Report 2017: Data for Development*, OECD Publishing, Paris. <https://www.oecd-ilibrary.org/docserver/dcr-2017-12-en.pdf?expires=1542265163&id=id&accname=guest&checksum=4C6589207D4FA3EE83B39C42F4AA6402>



# **BRUSSELS RURAL DEVELOPMENT BRIEFINGS**

## **A SERIES OF MEETINGS ON ACP-EU DEVELOPMENT ISSUES**

Along with our partners  
in this joint initiative, the  
European Commission  
(DG DEVCO), the ACP  
Secretariat and ACP Group  
of Ambassadors, CONCORD  
and various media, we at CTA  
look forward to welcoming  
you at our next Brussels  
Development Briefing.

**Never miss the latest daily news on key ACP-EU programmes  
and events in Brussels related to agriculture and rural development  
with our Blog [brussels.cta.int](http://brussels.cta.int)**

**For more information Email: [brussels.briefings@cta.int](mailto:brussels.briefings@cta.int) Tel: + 32 (0) 2 513 74 36**

**[www.brusselsbriefings.net](http://www.brusselsbriefings.net)**

