Agriculture
Conclusion: Aiming at food security and growth
Conclusion: Aiming at food security and growth

Investment and prioritisation of Africa’s massive agricultural production have never been attractive enough for Africa’s leaders or international partners to unlock its potential. Europe is often blamed for Africa’s lack of access to its agricultural market. Yet African leaders fail to recognise the need to focus comprehensively on the production of staple foodstuffs for domestic consumption, advancing regional rather than international trade in agriculture, investing in agriculture research, advancing rural property rights, in schooling for agriculture and generally focusing attention on rural poverty rather than on urban elites. [61] If African countries were to prioritise growing staple foods while actively encouraging intensive smallholder farming and sustainable practices, they could increase rural incomes and reduce poverty and eventually open up the potential of agribusiness and large-scale exports that earn foreign exchange. The much-needed Agriculture scenario modelled here will reduce Africa’s agricultural import dependence, improve food security and contribute to growth.

Raising agricultural productivity serves as a foundation for broader sustained economic development. Eventually, agriculture ‘is central to securing foreign exchange earnings that can allow for the expansion of imports, thereby fuelling investment and growth.’[62]

Clearly, there is much that Africa can do to improve agriculture, even as it inevitably declines as a share of national economies. To this end, the Alliance for a Green Revolution in Africa calls for a holistic land management strategy that includes raising the organic matter, moisture retention and other forms of soil rehabilitation in addition to using inorganic fertilisers. In South Africa, for example, primary agriculture contributes only about 3% to GDP, yet it provides food security on the back of a highly productive private agricultural sector and significant agriprocessing industry. As a result, the country had a secure food supply system when it went into a six-month lockdown in March 2020 to curb the spread of COVID-19, while many other countries on the continent suffered.

The impact of climate change on agricultural yields in Africa is a big uncertainty. A recent long-term forecast by our group on the future of five Sahel countries (Mali, Niger, Burkina Faso, Chad and Mauritania) highlighted the impact climate change has already had and will continue to have in this region. The Intergovernmental Panel on Climate Change soberly notes that the Sahel, where agriculture accounts for more than 75% of total employment, has ‘experienced the most substantial and sustained decline in rainfall recorded anywhere in the world within the period of instrumental measurements.’ [63]

Theme 14 examines the impact of climate change on Africa’s future. It varies across the continent, given changes in temperature and rainfall and the increased variability of weather with many more extreme events such as floods, tornadoes and droughts. The IFs forecasting platform includes some of these effects in its agriculture yield forecast but may underestimate the impact. There are significant uncertainties, particularly the potential for technology to increase agricultural production — not through the traditional route of expanding land under cultivation, but through more precise farming and more sustainable farming methods. Eventually, solar-powered cold storage, accurate weather forecasts, monitoring of soil conditions and access to market information can all have an important role, as could greater efficiencies to reduce food waste. However, this will require current practices to change.

Without food security, developing countries cannot escape from hunger, poverty and the variances of nature. Without food security, meaningful advancement is difficult, if not impossible, to sustain. It is increasingly evident that the effects of climate change are likely to hold significant negative consequences for agriculture in much of Africa.

Because of how colonialism shaped and then locked Africa’s agricultural sector into the global economy and subsequent insufficient, poorly designed and inefficient government support for agriculture, Africa’s economy has not been able to
benefit from this crucial sector. Yet the continent has huge potential, and it is agriculture upon which the most significant portion of Africans depend for survival. Subsistence and smallholder agriculture, which primarily cater for household consumption, need targeted and coordinated support from governments. This is quite different from the private-sector growth model of medium- and large-scale commercial farming, although that too has its place. Clumsy interventions by African governments to set minimum prices for commodities such as cocoa, coffee and cashew nuts, without considering the broader impact, often have unintended consequences. For example, it could encourage an increase in production by many more poor farmers, causing the commodity’s price to fall. The result is that more poor people will be trapped in subsistence farming, unable to escape. Low- and lower middle-income African countries should emphasise food self-sufficiency first and only then focus on the massive export potential of agricultural products.

Despite some progress, Robert McNamara’s prognosis in 1973 that a long-term solution to the food problem will not be possible without rapid progress in smallholder agriculture [64] remains valid today in much of Africa.

For a successful agricultural transition, it is imperative to focus both on growing indigenous crops, such as cassava, cowpea, soybeans and yam, and on using indigenous practices. [65] Once that is achieved, steady progress up the agriprocessing value chain will unlock improvements rather than efforts to enter the global food export market without sufficient domestic reform.

Across Africa, governments and the private sector are modestly investing in the critical enablers of agricultural growth. But much more is required, particularly in incorporating resilience and adaptation to climate change into forecasts.

Prosperity requires that a country move up the agricultural value chain and avoid being suckered by corporate social responsibility programmes that promise to tinker with the worst effects of colonial-style production but do not structurally intervene to promote food self-sufficiency and shift value addition to Africa. The storyline often sold to Africans is to leverage products such as cocoa and coffee to improve their share of value-add in these massive markets. But in the absence of effective agricultural management and producer associations with the muscle to manage the sector, it is probably more important to diversify the agricultural products in countries such as Ghana and Côte d’Ivoire than to develop a cocoa cartel.

There is also the challenge that for much of Africa’s youth, the idea of turning to agriculture as a source of livelihood is associated with poverty, suffering and deprivation. Changing that mindset will be difficult, as the sector suffers from poor infrastructure, insecure property rights, lack of access to credit, no or limited provision of electricity, and lack of access to modern technologies. All these hurdles can be overcome by changing current practices of tenure insecurity, unlocking access to credit, using high-yielding seed varieties and modern inputs such as fertilisers, pesticides, and eventually, mechanisation to emulate some of the positive aspects of the agricultural revolutions in South Asia and South America in the 1950s and 1960s. Above all, harvesting prosperity from agriculture requires determined and decisive political leadership.
Endnotes


5. T Lewis, *Transatlantic slave trade*, 2018


14. World Bank, *Aggregated LPI*

15. World Bank, *Aggregated LPI*

16. Embassy of the DR Congo, *Invest in DRC, Agriculture*


19. In 2003, the New Partnership for Africa's Development (now called the African Union Development Agency) published its Comprehensive Africa Agriculture Development Programme, with ambitious goals, namely to: allocate at least 10% of national budgets to agriculture; reach rural growth rates of 6% annually by 2015; integrate and invigorate regional and national agricultural markets; significantly increase agricultural exports; transform Africa into a ‘strategic player’ in global agricultural science and technology; practise sound environmental and land management techniques; and reduce rural poverty (see: M Fleshman, *Boosting African farm yields*, 2014).

20. The commitment to devote at least 10% of national budgets to agriculture and rural development was also included in the 2003 Maputo Declaration by African heads of state and reiterated in the 2014 Malabo Declaration on Accelerated Agricultural Growth and Transformation in Africa.

21. On aggregate, Africa spends only 5–7% of national budgets on agriculture, although a 2018 study found that 11 African countries did manage to allocate 10% or more of their budgets to agriculture in some years since 2005, with Ethiopia, Kenya, Mozambique and Sierra Leone achieving 6% agricultural...

22. AllAfrica, *Communique: Africa food security leadership dialogue*, August 5, 2019

23. IPPMedia, *Value add in Africa: First steps in a long journey*, 2019; also see: African Cashew Alliance, *About us*

24. The world cocoa industry is worth more than US$100 billion annually; also see: Y Adegoke, *Why Europe dominates the global chocolate market while Africa produces all the cocoa*, 2018; D Philling, *The African farmers taking on big chocolate*, *Financial Mail*, 16 December 2019; H Fofack, *Overcoming the colonial development model of resource extraction for sustainable development in Africa*, 2019


31. World Bank, *Agriculture in Africa: Telling facts from myths*


33. World Bank, *Agriculture in Africa: Telling facts from myths*

34. In contrast to the tripling in growth cited earlier, this was an improvement across the entire country, so the growth is understandably much smaller; see: JY Lin, *The Household Responsibility System in China's Agricultural Reform: A Theoretical and Empirical Study*, *Economic Development and Cultural Change*, 36:53, 1988, S199–S224

35. China-Africa Project, Chinese and African agriculture have a lot more in common that most people think: *Interview with Xinqing Lu, Associate Programme Officer for Alliance for a Green Revolution in Africa*, 3 December 2019

36. OEC, Brazil


38. L Abboud, *The robot revolution down on the farm*, 2018


40. R Kimani and P Bosire, *FarmDrive*, 2019

41. In most of rural Africa, precise location of a farm is objectively unknown so the location is determined via a series of SMS questions (e.g. time to walk to different primary schools). The more schools a farmer is familiar with in their area, the easier it is to hone in on their specific location.

42. J Bird, *'Smart' insurance helps poor farmers to cut risk*, *Financial Times*, 5 December 2018; also see, for example, https://agrocenta.com/ and https://www.zenvus.com/.

44. S Gebre, AGRA plans to invest $500 million in African seed companies, Bloomberg, 7 September 2016

45. The Alliance for Food Sovereignty in Africa and its allied organisations argue that ‘AGRA has unequivocally failed in its mission to increase productivity and incomes and reduce food insecurity, and has in fact harmed broader efforts to support African farmers.’ See: Various co-signatories, Open letter: The Green Revolution in Africa has unequivocally failed, 15 September 2021


47. Ammonia manufacturing contributes 1% of worldwide carbon dioxide emissions. See LK Boerner, Industrial ammonia production emits more CO2 than any other chemical-making reaction. Chemists want to change that, *Chemical & Engineering News*, 15 June 2019


49. Indorama Petrochemicals, About IEPL, Port Harcourt


54. Food and Agriculture Organization, *Food wastage: Key facts and figures*

55. InspiraFarms, Our team

56. The improvements in yields are similar in magnitude to the improvements seen in South Asia between 1980 and 2020, and in a similar timeframe. Indeed, South America achieved a much more rapid increase between 2000 and 2010, moving from roughly 7.8 tons per hectare to about 11.8 tons.

57. Chart 14 presents the reduction in extreme poverty in African countries across the low- and middle-income categories. The reduction in extreme poverty in Seychelles, Africa’s only high-income country, is negligible.

58. The contribution of agriculture as a proportion of the Seychelles’ economy, the continent’s only high-income island state, was about 4% in 2019.

59. Some of these constraints can be overcome through technology, such as the use of precision irrigation and application of precise amounts of fertiliser exactly where they are required. Then there is also the potential of vertical farming, which could produce 180 m tons of food globally, according to some analysts.


61. Food and Agriculture Organization, *Government expenditure on agriculture*, 2019


63. Intergovernmental Panel on Climate Change, Working Group II: *Impacts, adaptation and vulnerability*, 2018


65. The International Institute of Tropical Agriculture does particularly impressive work in this regard. See: https://www.iita.org/
Reuse our work

- All visualizations, data, and text produced by African Futures are completely open access under the Creative Commons BY license. You have the permission to use, distribute, and reproduce these in any medium, provided the source and authors are credited.

- The data produced by third parties and made available by African Futures is subject to the license terms from the original third-party authors. We will always indicate the original source of the data in our documentation, so you should always check the license of any such third-party data before use and redistribution.

- All of our charts can be embedded in any site.

Cite this research

Jakkie Cilliers is the founder and former executive director of the Institute for Security Studies (ISS). He currently serves as chair of the ISS Board of Trustees and head of the African Futures and Innovation (AFI) programme at the Pretoria office of the ISS. His 2017 best-seller Fate of the Nation addresses South Africa’s futures from political, economic and social perspectives. His two most recent books, Africa First! Igniting a Growth Revolution (March 2020) and The Future of Africa: Challenges and Opportunities (April 2021), take a rigorous look at the continent as a whole.

About African Futures
