



Agricultural Growth Trends in Africa

Brief overview

- This brief is based on a working paper¹ which seeks to inform the research planned for the Agricultural Policy Research in Africa (APRA) consortium, and sets out some of the main features of the context for smallholder commercialisation in sub-Saharan Africa.
- In so doing, the brief helps address the debates about the feasibility of developing smallholder agriculture through commercialisation. In particular, it addresses the following questions:
 - How has thinking about agricultural development evolved since 2010? How has the context for smallholder commercialisation evolved?
 - How much growth of agriculture and agricultural productivity has been seen in Africa since 1990? How much does agricultural growth correlate with change to national income, poverty and nutrition?

1. Wiggins, S. (2018) Agricultural growth trends in Africa, APRA Working Paper, Brighton: Agricultural Policy Research in Africa <https://www.future-agricultures.org/apra/#aprapublications>

Changing ideas about agricultural development

Recent thinking about agricultural development in Africa addresses both longstanding concerns, such as how to increase the uptake of more productive crop technology among smallholders; as well as more recent interests arising from changes within Africa, such as renewed economic growth, rising rural population, and changes external to Africa, such as spikes in world markets for agricultural commodities. Since 2010, five broad themes can be seen in the literature on agricultural growth and performance in Africa:

1. **Agriculture and its relation to economic growth and structural transformation:** the revival of economic growth in many African countries since the early 1990s has been welcomed. However, observers have been concerned that much of this growth has come from agriculture and mining, buoyed up by the commodity price boom of 2008-2014, rather than through the growth of services and industry. Economic growth has not been accompanied by the transformation in economic structure (from agriculture to services and industry) seen in the history of high-income countries and in the emerging economies of Asia. For Africa, that puts the onus on agriculture to provide livelihoods for large rural populations that, for the time being, cannot find more productive employment in industry. At the same time, farmers need to raise productivity to make it possible for some labour to move into other sectors without the loss of agricultural output.
2. **Agricultural intensification and new technology:** interest in intensification arises from the observation that, given rising rural populations, the majority of farmers in rural Africa now reside in areas of quite dense settlement, of 200 or more per km². With land increasingly scarce, and labour relatively abundant, parts of Africa should now have the conditions that encourage the uptake of land-saving innovations which marked the Asian green revolution. To some extent, this type of intensification is taking place in Africa — seen in the reduction of fallowing and more frequent cropping — but use of external inputs often remains low, and farm households increasingly gain much of their income from non-farm activity.

Several barriers may prevent farmers from adopting more productive technologies:

- For example, improved techniques may not generate an adequate return in farmers' conditions, especially when rural transport costs are high, making inputs costly and reducing the value of output at the farm gate;
- New techniques may entail risks, either in variable harvests or exposure to market prices. For farmers on low incomes with few savings, these risks may be too high. This problem is exacerbated because few farmers have access to formal insurance, owing largely to high transaction costs in rural financial markets;
- Rural markets typically fail to supply smallholders with appropriate inputs at a reasonable price, or to offer credit to buy inputs. This arises because input dealers are unsure of farmer demand, while farmers are unsure of what is on offer. Failing rural markets may thus trap farmers in poverty, even when the technical means for them to raise production and incomes exist.

In the 2010s, attempts are being made to lower these barriers, some involving novel solutions. For example, investments in rural roads lower transport costs; innovations to offer farmers micro-insurance indexed against the weather promise some relief from risk; programmes to develop agro-dealer networks are making inputs more available; and the use of mobile text messaging and internet platforms promises to provide farmers with more and better information than before.

- 3. Demand for land:** the commodity price spike of 2008 had several effects on agriculture, including the direct stimulus to farmers to increase output in order to take advantage of higher prices, even if the transmission of international to local prices was imperfect. Internationally higher prices sparked the interest of international investors to acquire land to farm. They were joined by the governments of some emerging economies with rising agricultural imports, mainly in Asia and the Near East, who feared that higher prices heralded chronic shortages of food so that they might not be able to import the food they needed. Both investors and governments reacted by seeking land for farming, with several African countries being targeted owing to their stocks of apparently little-used potential agricultural land. Hence, in the years following 2008, land deals saw foreign investors and state agencies offered large tracts of land, often of more than 10,000 hectares.

However, it seems that many more land deals, affecting larger areas, have been domestic affairs. Local investors, often based in urban areas, acquired land as business investments, usually in blocks of tens to hundreds of hectares. Consequently, in some countries, medium-scale farms between 10 and 100 hectares in size have been created, constituting significant shares of the total area farmed. One recent estimate is that medium-scale farms occupy 20% of agricultural land in Kenya, 32% in Ghana, 39% in Tanzania and more than 50% in Zambia.

- 4. Environment and climate change:** it is increasingly recognised by governments and development partners that agricultural development in sub-Saharan Africa has to be both environmentally sustainable and adapted to climate change. Key environmental challenges include avoiding soil degradation

and erosion, and preventing conversion of valued habitats such as forest and wetlands to farm use. Climate change means that farmers will need to adapt to new patterns of weather — above all to more variable rainfall, temperature and storms. An opportunity to mitigate global warming exists, if farming systems that capture more carbon in trees and the soil can be adopted. However, it is not clear that public and private investment and public policy has been sufficiently redirected to respond adequately to these challenges.

- 5. Policy thinking and practice:** policies for agricultural development in most African countries have undergone very considerable changes since the 1980s, when the state took a leading role, and policies tended to depress prices for farmers while making competing food imports cheaper.

Moreover, the early 2000s saw a major increase in the priority given to agriculture by governments across the continent, most clearly signalled in the 2003 Maputo Declaration by Africa's ministers of agriculture. This set a target of 6% annual growth for agricultural output, supported by allocating 10% of public budgets to agriculture. Donors and private foundations have supported this by channelling additional finance into agricultural development since 2000, with a focus on stimulating production and supply through the adoption of improved technology.

Where formerly the public sector was expected to lead, most countries have moved to seeing the private sector as a key actor, with government supporting private initiatives.

Development since 1990

Economic growth and structural change

Across much of Africa, economic growth has returned following the slump in the 1980s. Growth rates since 1990 match those seen in parts of Asia. However, given the rapid population growth of Africa, growth per person has been more modest, well below Asian levels.



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Structurally, agriculture has seen a modest decline in its share of the economy, as services and industry have increased their share — as would be expected and desired for development. Nevertheless, structural transformation is not as developmental as some would like, since manufacturing is, if anything, shrinking as a share of the economy in many countries of Africa: expansion has often been mainly in services and construction.

Population growth

Population growth remains high across much of Africa. Rural populations may be growing more slowly than national populations, but they are still increasing at around 1–2 % a year in the 2010s, with only a slow reduction in the rate of the growth since 1990. Fertility levels in rural Africa are much higher than in Asia, and are falling slowly. Population density is therefore rising in most rural areas. For at least another generation, most rural areas will have to accommodate more people, with denser settlement and consequent pressure to sub-divide smallholdings.



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Agricultural growth

Agricultural output has grown quite strongly in Africa since 1990, doubling or more in most cases. The increases in output are similar in scale to those seen in Asia over the same period. However, when population growth is taken into account, the gains in agricultural output per person are much more modest, although positive for most regions and countries of Africa. African agricultural growth per person lags well behind that of Asia, where population growth has been much less rapid.

African farm output remains dominated by staples: cereals, roots and tubers, and pulses. Since 1990, little change can be seen in the composition of output; however, there has been a shift in output among the staple crops, with the share of roots and tubers increasing at the expense of cereals.

Land and labour productivity

Increased farm output in Africa has come primarily from considerable additions to land and labour since 1990. Even so, land productivity has risen in much of Africa by around 50% since 1990: an effect that can be seen for the specific case of maize yields. The qualification is that land productivity in the early 2010s in Africa is, for most areas, still low — well behind that seen in Asia. Yields of many crops are much less than can be achieved by applying better technology.

A lack of farmer records, and the loose structure of the agricultural workforce, makes it difficult to measure the labour used in agriculture — many farm workers do so part-time, seasonally and with varying lengths of working days. The indications from half a dozen African countries are that labour productivity has been rising since 1990, but modestly so — with increases typically of between 30 and 60% since then.

Agricultural trade

Agricultural imports to Africa have grown more strongly than agricultural exports since 1990, leading to a deficit on agricultural trade. For sub-Saharan Africa, the agricultural trade balance worsened from a surplus of US\$2.4 billion to a deficit of US\$9.5 billion between 1990 and 2013.

Interestingly, this has not resulted from stagnating exports; on the contrary, the value of farm exports has increased at a faster rate than growth of output since 1990, as an increasing share of agricultural output is being exported across much of Africa. The trade deficit arises from the even faster increase in agricultural imports. Cereals imports to Africa, in particular, have increased almost four-fold since 1990. However, some of those imports are less the result of domestic agricultural shortfalls, and more the consequence of urban populations demanding staples seen as superior, such as wheat and rice, in preference to indigenous staples such as cassava, yam, millet and sorghum.

Poverty and nutrition

The incidence of poverty has been falling in most countries since 1990. Greater and more widespread declines can be seen for the stunting of children over the same period. Senegal, Ghana and Ethiopia, for example, have all cut the incidence of stunting by 40% or more since the late 1980s — with rates falling from 68% in 1992 to 40% in 2014 in Ethiopia, for example. These encouraging improvements in child nutrition cannot necessarily be attributed to increased food production or rising incomes: nutrition is the outcome of several factors in which health is as important as food intake. It is reasonable to surmise that a good part of the improvement results from primary health programmes and better water and sanitation. That said, it would probably be difficult to achieve these results if food intake and feeding had actually worsened since the late 1980s.

Since 1990, agricultural growth per person does not seem to be associated with changes in poverty for the 12 countries, but does seem to be correlated with improvements in child nutrition, even if not strongly so.

Messages for APRA

Agricultural development has returned as a strong priority within strategies and plans for development in many African countries. Even those who stress the importance of transforming African economies away from agriculture and primary production, and towards urban-based industry and services, recognise that this will be achieved more easily if agriculture can become more productive. Moreover, those thinkers who strongly advocate industrialisation see developing industries in the agricultural supply chains that process farm output as a prime means to develop industrial competences.

A broad consensus among policymakers and advisers on agricultural development in the 2010s can be seen. Central to thinking is the need to raise productivity in agriculture through the application of proven technology. To realise this, governments have to provide the appropriate conditions, including a supportive investment climate and rural public goods and services. Beyond these conditions, private initiative is paramount. Farmer investment and innovation needs to be backed up by private firms supplying inputs, advice, finance, and buying and processing output. Stimulating private investment and innovation raises questions about how to overcome the shortcomings of rural markets that have so far left most smallholders without access to quality inputs, services and

finance at reasonable cost. Across Africa, a plethora of initiatives by governments and development partners, NGOs, farmer groups and private firms are being implemented to try and remedy those failings.

Diversifying farming structures

Strategy papers from Africa-wide development centres and think-tanks in the 2010s concur that agricultural development needs to focus first and foremost on smallholders, with their development seen as both feasible and desirable. However, this emphasis is not shared by all governments, where some voices argue that modernising agriculture must necessarily mean (at least some) farming at medium and large scales. Nor does the desirability of smallholder development concur with changes on the ground. The international land deals sparked by the spikes in world prices in 2008 may, for the most part, not have come to fruition; but land acquisition by domestic investors based in urban areas to create medium-scale farms seems to have taken place on a considerable scale in several countries, such as those mentioned above.

On the one hand, the new medium-scale farms may offer new routes for innovation in agricultural development: the more diverse the farm structure within a country, the more models of input supply, finance and marketing that can be tested. Useful partnerships may even be forged between smaller- and larger-scale farmers: for example, in leasing machinery, joint marketing or buying of inputs, or developing irrigation works. On the other hand, the dangers of rentier interests are clear: that medium-scale farms will seek to monopolise land, access to public services, and markets, which will marginalise smallholders in the process.



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Environmental sustainability

A further challenge lies with the environment, which is increasingly under pressure from rural population growth, as well as from climate change that is already altering the weather. The need to adopt more sustainable practices that are adapted to a changing climate, while also mitigating greenhouse gas emissions, is almost universally recognised. However, it is not clear whether policies and investments, both public and private, are being redirected sufficiently to address these challenges.

Policy

Policies for agriculture have changed considerably from those seen in the 1970s and 1980s, when heavy implicit taxation of farmers often stymied agricultural development. Yet recent policies are far from perfect. Farmers' returns are diminished by high costs in supply chains. Public support to agriculture tends to take the form of input subsidies rather than investments in roads and research, which can have greater impact on productivity — and hence higher returns — over the medium-to-long run.

As ideas have changed from 1990, so too have the circumstances in which agriculture develops. In many respects, the context for development has changed for the better during this time. Across much of sub-Saharan Africa, economic growth has resumed, with quite rapid growth in some countries. Urbanisation, with an associated middle class, is creating markets for farmers, especially for higher-value produce. The deficit on agricultural trade also provides scope for replacing imports with domestic production.

Conclusion

This brief sets out the context for the commercialisation of agriculture in sub-Saharan Africa. The opportunities for increased commercialisation are clear, in domestic and international markets. The means to produce and market more are greater than in the past. The political priority accorded to agricultural development is promising. However, substantial challenges arise in overcoming the disadvantages that smallholders face in rural markets, the need to generate decent jobs for the large youth cohorts stepping into the job market, and making agriculture environmentally sustainable and climate-smart.



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