4. Policy, resources, actors and capacities

Vinaye Dey Ancharaz

Agricultural policies are important determinants of food security outcomes. Finance, investment, institutions, actors and capacities interact with policies in playing a key role in resource allocation along the food value chain, from production to consumption, from supply to demand. Such policies are most effective when they are evidence-based and adapt to changing realities.

To coordinate agricultural policies across the continent, a common framework for such initiatives has long been an objective of the member states of the African Union and its predecessor, the Organisation of African Unity. The 2003 African Union (AU) Comprehensive Africa Agriculture Development Programme (CAADP) compact responded to this collective aspiration. This chapter discusses how effective Africa's agricultural policies are, as well as how far countries have implemented the framework set out in CAADP.

4.1 Agricultural policy and implementation

The effort to provide a continental policy framework on agriculture can be traced back to the 1980 Lagos Plan of Action, which recognised the need for the sector to be prioritised for economic development and poverty reduction. However, this effort fell short of proposing a continental strategy for the agricultural sector and was overshadowed by the structural adjustment programmes of the era (Badiane, Collins and Ulimwengu 2020). With the establishment of the African Union in 2001 and the reorientation of its development priorities through the New Partnership for Africa's Development (NEPAD), agriculture came back into focus. In 2003, the CAADP compact was agreed. The AU's Agenda 2063 revalidated CAADP in 2013 as the continent's strategy for achieving agricultural development and food security.

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CAADP has three key emphases:

- Continent-wide coordination of agricultural policies, with support from the AU, that should be market-driven and private sector-led.
- Evidence-based agricultural policymaking underpinned by public investment in infrastructure, research and extension services.
- Modernisation of the farming practices of smallholder farmers, who constitute the bulk of Africa's agricultural producers.

In pursuit of these objectives, policymakers committed to two key targets under CAADP: achieving an average 6 per cent growth in agricultural output per year and allocating 10 per cent of public expenditure at minimum to agriculture. Brüntrup (2011) describes CAADP as 'Africa's attempt to reverse the negative trends in the agriculture sector'. Examples of these negative trends include the sector's sluggish growth and declines in the shares of public spending and official development assistance directed towards the sector.

The CAADP compact included national and regional implementation arrangements. At the country level, AU member states were required to develop national agriculture (and food security) investment programmes (NAIPs). The regional economic communities (RECs) were tasked with including regional agriculture investment programmes (RAIPs) in their activities. In 2014, a CAADP review resulted in the adoption of the AU's Malabo Declaration, which added granular commitments to the original CAADP objectives. These were enhancing finance in agriculture; ending hunger; halving poverty; boosting intra-African trade in agricultural goods and services; enhancing agriculture's resilience to climate variability; and active monitoring of actions and results through biennial reviews. Specific goals and targets, to be achieved by 2025, were set for each commitment.

Regional and international institutions concerned with agricultural development aligned their activities to CAADP and Malabo Declaration. This included the Alliance for a Green Revolution in Africa (AGRA), which was established in 2006 as an inclusive a consortium of stakeholders to build agricultural capacities and provide technical assistance. When the African Development Bank (AfDB) launched its High 5 priorities in 2016, among which was Feed Africa, a strategy for agricultural transformation in Africa for the decade 2016–2025, it broadly aligned with the CAADP's goals and Malabo Declaration commitments. International organisations like the Food and Agriculture Organization of the United Nations (FAO) and the International Fund for Agricultural Development (IFAD) also operate within the CAADP framework.

Assessments of CAADP implementation generally suggest that its impact has been limited (Signé 2017). While most countries had made varying degrees of progress towards the Malabo goals and targets between the first biennial review (BR1) in 2017 and the second (BR2) in 2019, only a handful were on track to meet the goals by 2025 (Makombe and Kurtz 2020). The third

Table 4.1: Progress in achieving the Malabo commitments as assessed in BR3

Commitment area	Number and countries on track	Compared to previous level in BR2
Overall	1: Rwanda	Major deterioration (from 4)
1. Recommitment to the principles and values of the CAADP process	3: Rwanda, Tanzania, Zimbabwe	Slight improvement (from 2)
2. Enhancing investment finance in agriculture	4: Egypt, Eswatini, Seychelles, Zambia	Major improvement (from 0)
3. Ending hunger by 2025	1: Kenya	No change (from 1)
4. Halving poverty through agriculture by 2025	2: Ghana, Morocco	Major deterioration (from 9)
5. Boosting intra-African trade in agricultural commodities and services	4: Botswana, Nigeria, Senegal, Sierra Leone	Major deterioration (from 29)
6. Enhancing resilience to climate variability	15: Burundi, Cabo Verde, Cameroon, Egypt, Ethiopia, Gambia, Ghana, Lesotho, Malawi, Mali, Morocco, Namibia, Rwanda, Seychelles, Zimbabwe	Slight improvement (from 11)
7. Enhancing mutual accountability for actions and results	11: Mali, Ethiopia, Rwanda, Morocco, Mauritania, Tanzania, Tunisia, Senegal, Ghana, Botswana, South Africa	Slight deterioration (from 14)

Source: Author's compilation based on BR3 and BR2.

biennial review (BR3) – in 2021 – reached the same finding. At the time of writing, the result of the fourth bilateral review was not available.

Table 4.1 shows the countries that are on track on each of the seven commitment areas of the Malabo Declaration according to BR3, indicating whether this represents an improvement over BR2. The seven commitments are tracked through 24 targets and 47 indicators. Of the 51 reporting member states, only one (Rwanda) was on track. This is a regression from the four countries that were on track in BR2. While 19 other countries were classified as 'progressive', the continent as a whole was deemed off target.

Member states scored especially poorly in commitment areas 1 to 5. Several countries registered improvements across the three indicators that constitute the first commitment. In general, however, the average score remained below 50 per cent, and the progress achieved was not robust enough to meet the targets set for the 2021 BR. On the second goal, of enhancing investment finance in agriculture, only four countries were on track. While this is an improvement over BR2, where no country was on track, progress on this critical goal is very slow. BR3 confirms that most African countries have fallen short of the CAADP goal of achieving 10 per cent. And the picture appears only to have got worse – according to estimates from FAO, the agriculture budget's share in Africa's total public expenditure was even lower for 2019–2021 than for 2014–2018 (author's cross check with 'SDG Indicators' n.d.). The target for agricultural growth of 6 per cent per annum has also remained elusive (Badiane, Collins and Ulimwengu 2020).

The third goal, the Malabo commitment on ending hunger by 2025, is particularly ambitious in comparison to the UN's Sustainable Development Goal (SDG) 2, on achieving zero hunger globally. The latter allows for a longer time frame of 15 years up to 2030 for ending hunger, compared to just 10 years in the Malabo Declaration. Only one country (Kenya) appears to be on track. The commitment of halving poverty through agricultural development by 2025 may be judged to be equally ambitious. Only two countries reported to be on track, down from nine countries in the BR2 cycle. Conversely, significant progress was noted on the target of achieving at least 6 per cent growth in agricultural value added per year, with 21 countries meeting the target, compared to only three in 2019. This achievement, however, was eclipsed by a major lapse on another indicator, namely the proportion of rural women empowered in agriculture (target 20 per cent by 2025, for which only 10 out of 51 member states that reported on this target were on track in 2020, up from eight in 2018).[1] For the target on creating jobs for 30 per cent of youth in in agricultural value chains by 2025, difficulty collecting data on the indicator meant that only 34 countries reported on the target, of which 17 were on track by 2020 (compared to 13 in 2019 and 14 in 2018). Eleven countries had already achieved the target for 2025 by 2020.

The Malabo goal of boosting intra-African trade in agricultural goods and services is also closely related to the question of regional food security discussed in earlier chapters. In this area, too, there is need for greater progress since only four countries, and none of the regions, were reportedly on track as of 2021. Efforts at improving the conditions for trade are not yet translating into higher volumes of formal regional food trade. While 18 countries were on track to create an enabling environment for intra-African trade, only one country (Nigeria) achieved the target of tripling intra-African trade in agricultural products. The role the African Continental Free Trade Area (AfCFTA) could play in intra-African food trade is discussed in Chapters 5 and 6. The analysis presented suggest that trade liberalisation under the AfCFTA will have only limited impact in boosting intra-African trade. A much stronger

impact will be generated by tackling non-tariff barriers through customs, trade facilitation and related border reforms.

The results of BR3 are broadly in line with other empirical assessments of CAADP that are available. For example, an assessment of CAADP implementation against the UN Food System Summit carried out an assessment that focused on five action tracks, namely (1) access to safe and nutritious food; (2) shifting to sustainable consumption patterns; (3) boosting nature-positive production; (4) advancing equitable livelihoods; and (5) building resilience to vulnerabilities, shocks and stress. These action tracks were triangulated with the BR3 performance indicators (Kapuya et al. 2022). The assessment revealed that fewer countries were on track in 2021 than had been in 2019, although the Covid-19 pandemic may have had an impact (Kapuya et al. 2022).

Another study, based on computable general equilibrium modelling, found that the six countries considered – Côte d'Ivoire, Ethiopia, Malawi, Mozambique, Niger and Rwanda – would make only limited progress on the Malabo commitments by 2035. While implementing NAIPs would help, this would not allow all of these countries to meet all CAADP targets. Even Rwanda, the only country found to be on track in BR3, would miss some CAADP targets along with its poverty reduction and equity objectives even if it implemented its NAIP (Diallo and Wouterse 2023). Other assessments reach similar conclusions (Brüntrup 2011; OECD and FAO 2022).

This record engenders scepticism about whether CAADP can live up to its goal of transforming African agriculture. According to Action Aid (2013), to be more effective in supporting agricultural development, African countries could consider programmes targeted to the needs of female and smallholder farmers, as well as exploring the potential of sustainable agriculture, which can carry greater benefits for food security (Adenle, Wedig and Azadi 2019).

However, CAADP has still been useful as a policy initiative. It has provided a comprehensive approach to agricultural development under the auspices of the AU and is mainstreamed into planning at the national and REC levels. The compact provides a basis for mutual accountability. Some development partners including the US are aligning their interventions with CAADP processes. The World Bank operates a dedicated CAADP fund and has stepped up its awareness and capacity-building support (Benin 2018). These aspects are helping CAADP to adapt its implementation experiences and stakeholder expectations. It has been observed that CAADP's foundation on mutual accountability and the framework it provides for aligning external support are probably why the programme remains a rallying policy tool when some other AU initiatives have withered away (Brüntrup 2011).

4.2 Resources

Implementation of the CAADP was initially estimated to require total investment in the region of US$251 billion, or US$17.9 billion per annum, over the

period 2002–2015. More recently, AGRA has estimated that Africa would need US$40–77 billion a year in public investment (equivalent to 9–17 per cent of fiscal revenues, or 7–13 per cent of public spending, in Africa as of 2019) and as much as US$180 billion in private investment between 2022 and 2030 to boost agricultural transformation and attain SDGs like ending hunger and halving poverty (AGRA 2022; author's analysis of Economic Commission for Africa, African Development Bank Group and African Union Commission 2021). Reaching these levels of investment calls for ramped-up efforts by governments to mobilise investment and to meet or exceed the CAADP target of 10 per cent of public expenditure allocated to agriculture. It also calls for simultaneous actions on a number of fronts including incentives for the private sector to invest in agriculture and agribusiness, including by reducing risk and subsidising investment, which are allowed under WTO rules on the 'development box' under the Agreement on Agriculture as discussed in Chapter 9; attracting larger flows of foreign direct investment (FDI) in agriculture; and the utilisation of innovative instruments such as risk-sharing, guarantees, quasi-guarantee products like warehouse receipts that enable access to finance, public–private partnership schemes, supply-chain financing, leasing facilities and financial technology (fintech). Resources that are provided through new approaches to financing sustainability in the context of climate change can also be tapped.

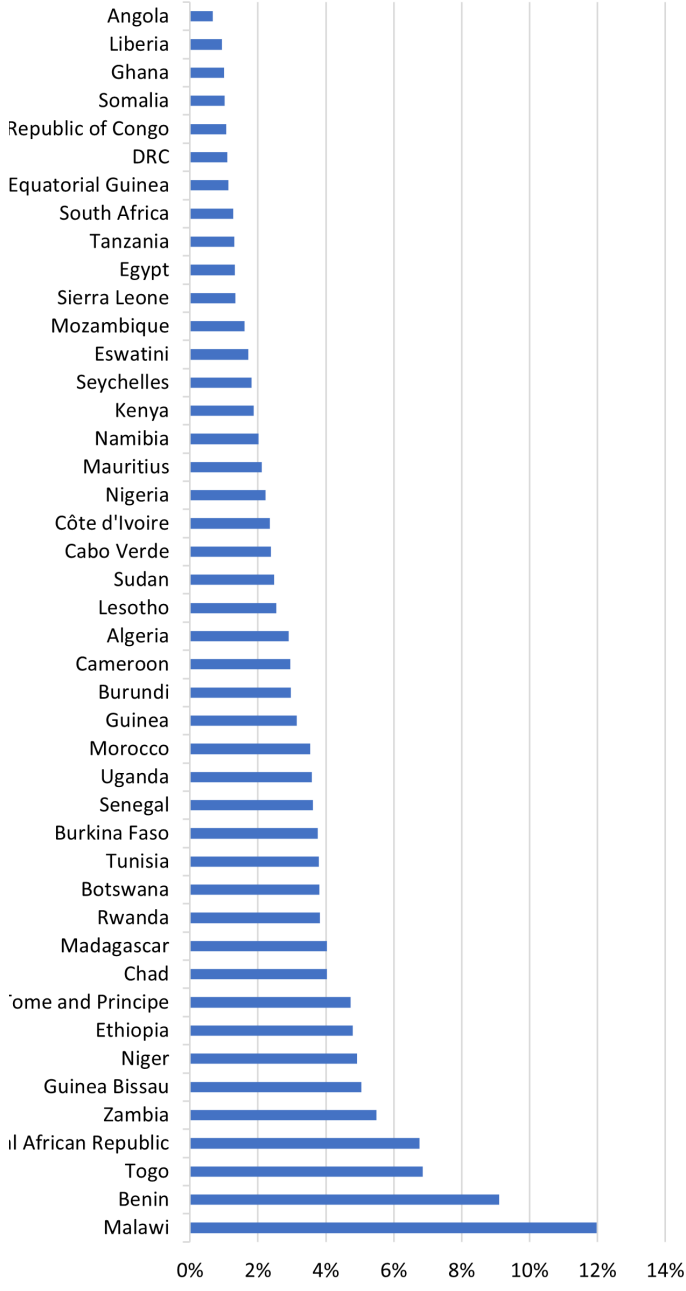
Public expenditure

CAADP's 10 per cent public expenditure is an aggregate requirement. It does not distinguish between recurrent spending (such as the cost of providing seeds and fertilisers, research and extension, and training and information), capital spending (such as infrastructure, machinery and equipment) and expenditure on adaptation and mitigation measures related to agriculture in nationally determined contributions (NDCs). In practice, the distinction may not matter. For instance, fertilisers may also be considered a capital expenditure, or investment, since they help restore soil quality and, thus, support enhanced yields in the future (Mengoub 2018). However, it is useful to note that investment tends to have longer-term impacts on productivity. For example, investments in rural infrastructure (roads, transport and storage systems, input supply networks, etc.) are known to support agricultural competitiveness and generate growth.

Figure 4.1 provides an overview of the average share of public expenditure allocated to agriculture during 2017–2021. However, it should be noted that the data does not make a distinction between operational or capital expenditure. Some data is also missing for some years for some countries.

On the whole, the share of public expenditure allocated to agriculture has remained consistently low. Malawi is the only country where the share is above 10 per cent. In Benin, Togo, Central African Republic, Zambia and Guinea-Bissau, the share has averaged above 5 per cent in recent years.

Figure 4.1: Share (in percentage) of public expenditure allocated to agriculture, averages for 2017–2021



Source: Author's calculations based on FAOSTAT data.
Note: Data for 2020 or 2021 is not available for several countries. In these cases, the average is calculated on data for 2017–2020 or 2016–2019, respectively.

The reasons for the low level of public investment in African agriculture are complex and go beyond the perennial resource constraint and poor policies. Political economy considerations would suggest that the geographically scattered smallholder farmers – the main beneficiaries of agricultural spending – generally lack influence on agricultural policy (Beintema and Stads 2017). Public goods such as technology adoption, market research and rural infrastructure are generally underfunded. Agricultural research, in particular, tends to be neglected despite its high returns on investment in the long run.

Yet, from a political economy perspective, governments also intervene to facilitate food imports to meet food security objectives, as we saw in Chapter 2 and will discuss further in Chapter 8.

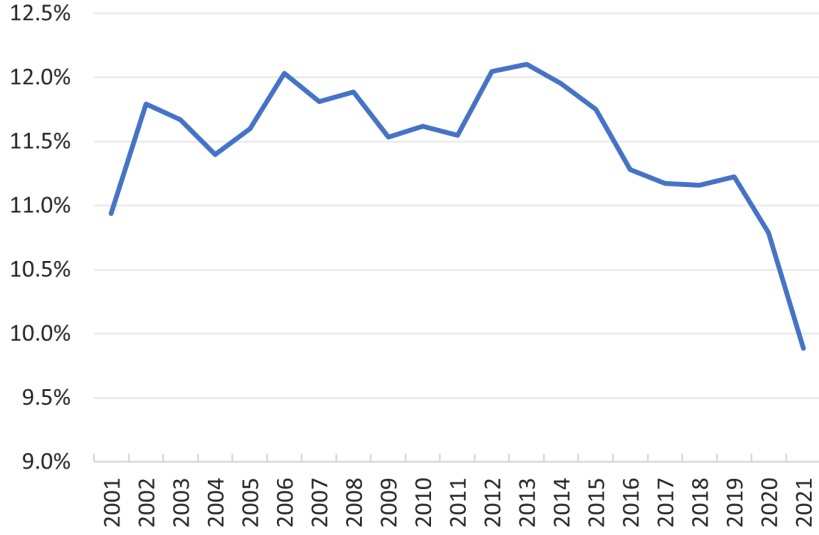
Private investment

Reliable data on domestic private investment in agriculture is not available; however, to the extent that the private sector (comprising farms and enterprises at various levels of scale) dominates agricultural investment in many countries, gross fixed capital formation in agriculture (as a share of value added) could serve as a rough approximation for investment by the private sector in agriculture. In Africa, this share has fluctuated between 10 and 12 per cent for much of the past two decades and averaged 10.8 per cent during 2017–2021 (Figure 4.2). The share is low and does not reflect Africa's comparative advantage in agriculture. There is also substantial variation across Africa, with a higher (20 per cent) share in Southern Africa and a lower (6.7 per cent) share in East Africa. Worryingly, since reaching a peak at 12.1 per cent in 2013, the trend has been downward, with the decline worsening sharply since 2019.

At the national level, less than one-third of African countries have agriculture investment shares in value added above 10 per cent, and only 12 countries have a share higher than the African average (Figure 4.3). Southern African countries like Namibia, South Africa, Eswatini, Zambia, Zimbabwe and Mauritius are leaders at the continental level. Some North African countries (including Morocco, Tunisia and Algeria) also feature among the top investors, as do West African countries like Nigeria, Côte d'Ivoire, Cameroon and, to a lesser degree, Senegal and Ghana. Conversely, Eastern African countries rank much lower. Countries like Kenya (5.7 per cent), Ethiopia (6.2 per cent) and Madagascar (5 per cent) boast significant agricultural potential but attract low levels of investment in agriculture.

There are typically two sources of financing available to smallholders – personal savings and commercial loans – both of which are limited. Like micro, small and medium-sized enterprises, African smallholder farms face major barriers to formal credit (Mengoub 2018). Lacking education, knowledge and information, smallholder farmers are typically unable to prepare a viable business plan as a basis for obtaining a bank loan. This makes it difficult for banks to evaluate and price risk appropriately. This adverse combination of factors

Figure 4.2: Share (in percentage) of agricultural investment in value added, 2001–2021



Source: Author's calculations using FAOSTAT data.

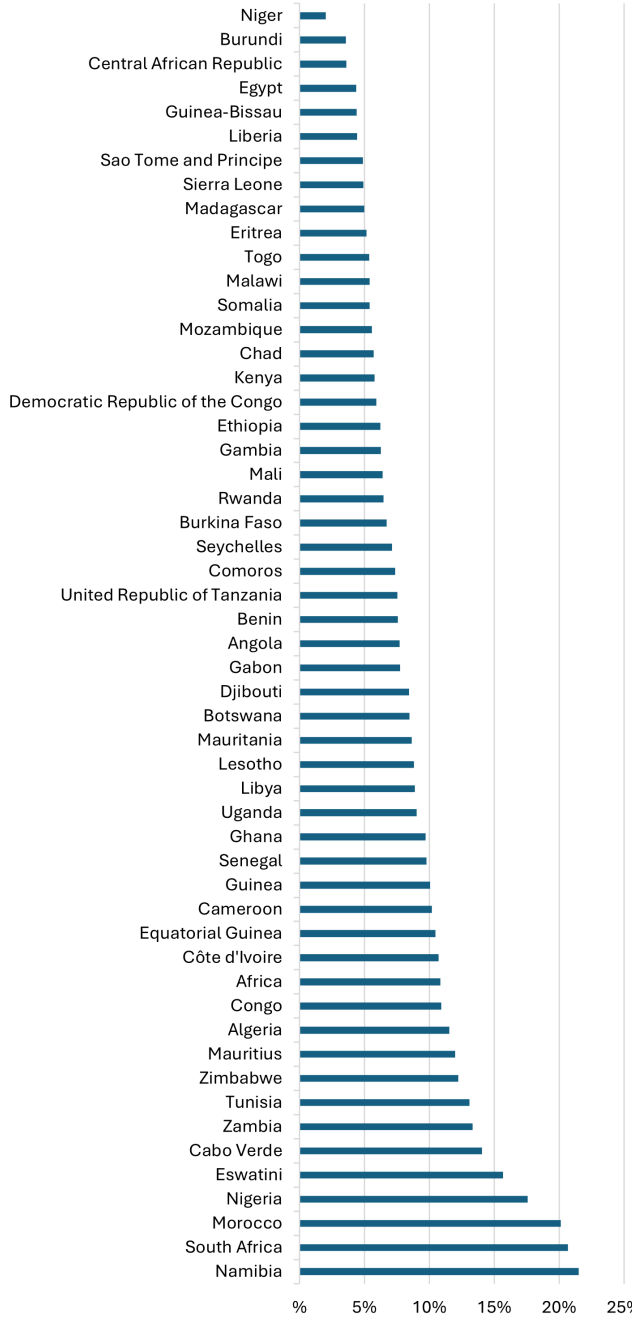
along with relatively high levels of inflation generate interest rates as high as 47 per cent, which was the five-year average across Africa for 2017–2021.

Commercial or middle-scale farmers should, in theory, enjoy better access to finance. However, there is a dearth of evidence that mid-scale farmers have better access to finance than smaller farmers even if they are better organised and more educated and try to maximise profits and grow their business (rather than just providing a livelihood for themselves and their families).

The share of bank credit going to agriculture varies widely across countries, with a few countries, notably Malawi, Sudan and Zambia, posting shares averaging 15 per cent or more during 2017–2021. However, at the level of Africa, this share has hovered around 4 per cent, which is a strong indication that very little bank credit flows to the agriculture sector – even in countries that are known to have a strong agricultural vocation (Figure 4.4).

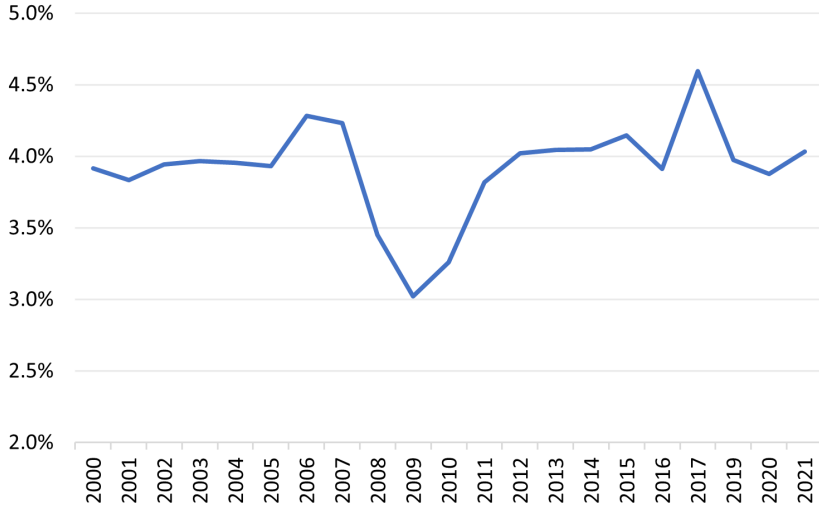
The excessive caution of banks and other financial institutions in providing credit has provided an opening for microfinance institutions (MFIs) and development finance institutions (DFIs) as credit facilitators. The microfinance movement is gaining ground across Africa. Although agriculture may represent a small share of MFIs' portfolios, they nevertheless serve a key role in easing farmers' access to credit. This supports productivity improvement through the acquisition of better-quality seeds, fertilisers and machinery. A two-year randomised controlled trial in Chipata, Zambia, suggests that farming households that had access to microcredit produced on average 8 per cent

Figure 4.3: Share (in percentage) of agricultural investment in agricultural value added, averages for 2017–2021



Source: Author's calculations based on FAOSTAT data.

Figure 4.4: Share (in percentage) of agriculture in total bank credit in Africa



Source: Author's calculations using FAOSTAT data.

more than those in villages without such access (Stewart 2020). MFIs have also had a transformative impact on women in agriculture, empowering them with financial resources and training, and breaking gender barriers. In Uganda, Kenya and Tanzania, for example, the Women's Microfinance Initiative has helped aspiring women entrepreneurs in the food supply chain to build an income-generating business to improve household living standards. The initiative has resulted in a fivefold increase in clients' incomes in some cases within a relatively short period of time (World Bank 2018). However, other studies have found more ambiguous effects of microfinance programmes in Africa's agricultural sector (Economic Commission for Africa 2019, pp.29–32; van Rooyen, Stewart and de Wet 2012). And some MFIs have sparked controversy for charging excessive interest rates or demanding collateral that borrowers are incapable of providing. Banerjee et al. (2015) argue that microfinance borrowers are likely to be subsistence or 'reluctant' entrepreneurs rather than 'gung-ho' or transformational ones, which limits the impact of microcredit on entrepreneurship and poverty alleviation.

Moreover, instead of channelling scarce development finance towards micro-enterprises that are not always very productive, governments may wish to focus on supporting high-potential businesses that have a good chance of raising living standards on a much broader scale. These can capture export market share, reduce the cost of food for domestic consumers and pay decent wages based on high worker productivity (Economic Commission for Africa 2017; Economic Commission for Africa 2019, pp.29–32).

With a mandate to de-risk investments, DFIs are playing a critical role in deepening financial services for Africa's farming community, especially smallholder farmers. Some DFIs have attracted significant amounts of donor funding while others have departed from their mandate and taken an increasingly commercial route as funding from public sources thinned out. However, DFIs face challenges of their own, which significantly limit the support they could provide to smallholders. Most of them are urban-based and thereby removed from their agricultural constituents. While frequent field visits by liaison officers can resolve this problem, DFIs do not invest sufficiently in this cadre of personnel, or in specialised investment professionals, who can help develop a pipeline of bankable projects. There is scope for DFIs to adopt more innovative financial products that are tailored to the unique needs of smallholder farmers, and leverage partnerships with donors and community-based organisations working closely with farmers (Savoy 2022).

There is emerging evidence of financial flows into African agriculture from a variety of nontraditional sources. These include venture capital and private equity funds, innovative instruments such as value chain financing, green bonds, insurance and credit guarantee schemes, blended finance, impact investment funds, and fintech solutions such as crowdfunding, peer-to-peer lending, and mobile payment applications. A recent report reveals that venture capital investment flows doubled in 2021, albeit from a low base in 2020 (AgFunder 2022). Although, in absolute terms, the amount represented less than 1 per cent of global venture capital spending on agriculture, it is nevertheless encouraging since investment of this type was negligible just a decade ago and there are signs that it is growing (Grow Further 2022). Private equity investment in agriculture is also gaining prominence across the continent, with the rise of equity funds, such as the African Agricultural Capital Fund, and private equity firms like Phatisa and Sahel Capital. These firms have demonstrated success in supporting agribusiness enterprises, emphasising sustainable and impactful investments (Phatisa 2021).

Innovative financing instruments play a crucial role in addressing the diverse needs of the agricultural sector. Value-chain financing, for instance, involves providing financial services to actors along the agricultural supply chains such as farmers, processors, and distributors (SME Finance Forum 2017). Value chain financing can take into account existing relationships in the value chain to reduce the perceived risk of the investment (Cuevas and Pagura 2016, p.50). A good example is the Partnership for Inclusive Agricultural Transformation in Africa, which utilises value chain financing to enhance financial inclusion in the farming sector.

Green bonds have emerged as sustainable financing options for African agriculture, aligning with the sector's growing emphasis on environmental responsibility and climate-smart practices. Impact investment funds are blended finance initiatives that combine public and private funds to achieve a financial return along with targeted social or environmental impacts. They

focus on projects that contribute to sustainable development, poverty alleviation, and environmental conservation. The FAO (2018) notes that agricultural investment funds have flourished around the world, including in Africa, aided by investors' searching for impact opportunities. Several case studies have documented the developmental impacts of these funds, which are 'fast becoming the vehicle of choice for governments and donors looking to invest in African agriculture and encourage private sector investors to do the same' (Castell 2019).

Finally, fintech can potentially revolutionise agrifinance by introducing digital solutions to traditional challenges. M-Pesa (a mobile money service in seven African countries), for instance, has provided smallholder farmers with a convenient and secure means of paying and receiving cash in regions where access to banking services is limited. However, while numerous studies have documented the positive impacts of M-Pesa, including on poverty and rural women's empowerment, empirical evidence of the use of mobile financial services for agricultural activities has been scant. A rare, recent study based on nationally representative data from Kenya reveals that, while more than 80 per cent of Kenyan farmers use mobile money, less than 15 per cent of them use it for agriculture-related payments. Moreover, mobile loans for agricultural investment are used by less than 1 per cent of farmers (Parlasca, Johnen and Qaim 2022). This suggests that the use of mobile financial services in agriculture is lower than commonly perceived and a transformative impact on smallholder farming is yet to emerge. Similarly, innovative financing models, such as crowdfunding and peer-to-peer lending platforms, have opened new possibilities for agricultural start-ups in Africa, but their potential remains to be harnessed.

Foreign direct investment (FDI)

Data on FDI in Africa's agriculture sector is patchy. It nevertheless shows that agricultural FDI as a share of total FDI inflows is as low as 0.025 per cent for Nigeria to 3.9 per cent for Tanzania.[2] At the continent-wide level, in 2022, less than 2 per cent of FDI to new subsidiaries ('greenfield' investments) in Africa, and around 3 per cent of incoming international project finance flows into the continent, went to agri-food systems (United Nations Conference on Trade and Development 2023). It seems that the appeal of the extractive sector in some countries has proved a bane for agriculture. Elsewhere, fiscal incentives to attract FDI into manufacturing or services have had the effect of crowding out the agriculture sector. In Mauritius, for example, incentive schemes to attract FDI into property development since 2004 have been overly successful such that the country receives hardly any FDI in the productive sectors. According to FAO data, only 0.27 per cent of FDI inflows to Mauritius between 2017 and 2020 went to agriculture, forestry and fishing.

According to UNCTAD Stat, aggregate FDI inflows to Africa in 2021 represented a mere 5.2 per cent of global FDI flows. At the regional level, East Africa received the lowest share of aggregate FDI inflows to Africa (an average 15 per cent during 2017–2021). While FDI was fairly evenly distributed among the other four regions of Africa, there is strong evidence of concentration in South Africa, which accounts for 96 per cent of FDI inflows to Southern Africa. In Central Africa, Congo, Democratic Republic of the Congo and Gabon received 77 per cent of the region's FDI inflows. At the continental level, five countries (South Africa, Egypt, Congo, Ethiopia and Ghana) accounted for 56 per cent of all FDI flows during 2017–2021. With the exception of Ethiopia, a common feature of these top FDI destinations is that they are all major commodity-producing countries, with FDI targeted at the minerals sector rather than at agriculture and food production. This suggests that much of African FDI is resource-seeking, with the extractive sector as the magnet (Gerlach and Liu 2010). However, as of 2022, the majority of 'greenfield' FDI and international project finance deals directed to Africa went to the continent's energy sector (i.e. producing energy for use on the continent, not extracting fossil fuels form the ground) (United Nations Conference on Trade and Development 2023).

There is a dearth of empirical evidence on the impact of FDI on agriculture and food security. A review of case studies paints a mixed picture, with the impacts varying significantly across countries, depending on the terms of the investment, the type of business model and the institutional framework in place in the host country. A case study of eight countries – Egypt, Ghana, Madagascar, Mali, Morocco, Senegal, Sudan and Uganda – provides some evidence that FDI in agriculture generated benefits such as employment creation, higher productivity, improved access to finance and markets for smallholders, and technology transfer. However, these impacts varied across countries and across locations within a given country (Gerlach and Liu 2010). For instance, job creation was correlated with the capital intensity of investment projects, but FDI in Mali substituted local labour for foreign (Chinese) workers, while farmers displaced by land acquisitions in Madagascar were unable to find other employment.

Husmann and Kubik (2019) finds that agricultural FDI flows to Africa tend to be positively correlated with the size of the domestic market, the contracted plot size, and the quality of infrastructure and institutions, and have positive impacts on farm and labour income and on technical innovation. There is much less evidence on the impact of agricultural FDI on food security. A rare study based on panel data from 56 developing countries (not all African) found that FDI in agriculture has a mixed effect on food security in the host country, but that the impact is more favourable where land governance systems are well established (Dogan 2022). The findings suggest that land tenure reforms that formalise customary land rights, and mechanisms that ensure greater transparency of agricultural investment processes, can enhance the impact of FDI on food security.

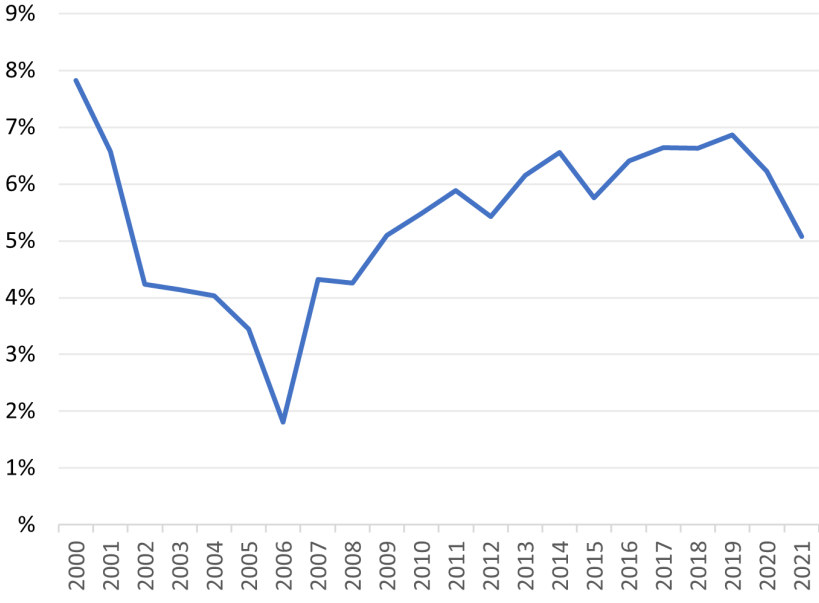
Some investment deals that require land acquisition lacked transparency. That is, they were not accompanied by appropriate impact assessments, resulting in smallholders being displaced or dispossessed of their land or in other adverse impacts on local communities and the rural environment. However, there is evidence to suggest that the so-called 'land grabs' in Africa have not provided the returns that were expected. The continent features the highest proportion of 'failed' land deals. These are investment contracts or negotiations that were cancelled, partly because of disputes with local communities (Feyertag and Bowie 2021). In fact, half of all 'failed' transnational agricultural land deals between 2000 and 2020 occurred in sub-Saharan Africa (Lay et al. 2021).

Several factors have contributed to the low level of agricultural investment in Africa including weak land laws and governance institutions (Maina 2022; WEF 2016).

Foreign aid to African agriculture and food security

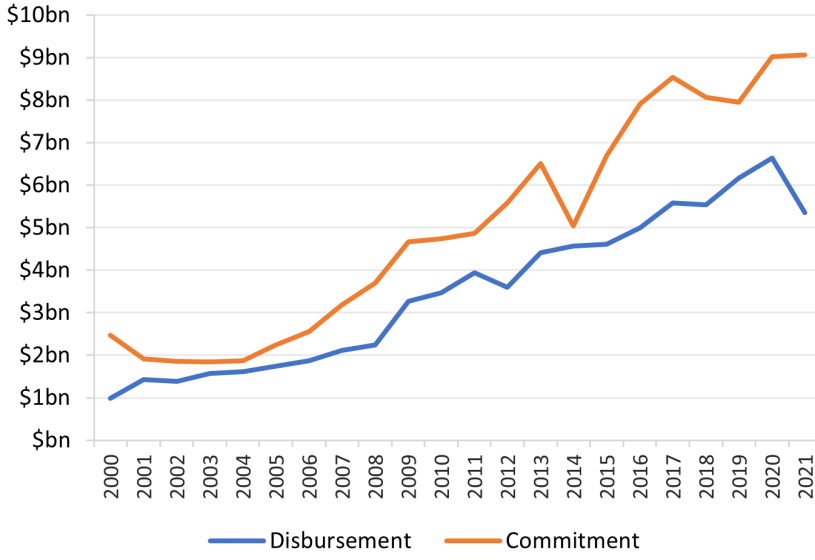
Official development assistance (ODA) aid disbursement to the agricultural sector in Africa is small and has never surpassed 8 per cent of total aid flows to Africa since 2001 (Figure 4.5). After edging steadily up from a low

Figure 4.5: Aid disbursement to the agriculture sector in Africa as a share (in percentage) of total disbursements, 2000–2021



Source: Author's calculations based on FAOSTAT data.

Figure 4.6: Aid flows to agriculture: Commitment vs. disbursement (US$ billion, current prices), 2000–2021



Source: Author's calculations based on FAOSTAT data.

of 1.8 per cent in 2006, the share has fallen since 2019 to reach 5.1 per cent in 2021. Figure 4.6 shows that, while aid commitments and disbursements have generally increased over the years, the gap between the two has also widened.

During 2017–2021, disbursements amounted to two-thirds of commitment levels, revealing an important gap between what donors promise and what they actually deliver. African governments should call for scaled-up and additional aid to support the agriculture sector.

There are two distinct pathways through which foreign aid (or ODA) is channelled to African agriculture and food security. The first pathway provides resources for agricultural development and building food security capacities. The second pathway is food aid, which is specifically aimed at making food available including through cash transfers such as balance of payments support for financing food imports. This section is on the first pathway, foreign aid to African agriculture; the next section is on food aid.

The empirical literature supports the view that development assistance to agriculture is beneficial. McArthur and Sachs (2018) use three stylised scenarios to show how foreign aid can be targeted to support agricultural productivity through optimal input use. They find that ODA can trigger an expansion of the agricultural sector and generate permanent productivity and welfare gains, which could render such aid unnecessary in the long run. In the same vein, an econometric study based on 47 African countries

finds similar effects of agricultural aid on GDP and productivity. There is also some evidence that bilateral aid has bigger productivity effects than multilateral aid (Alabi 2014). Some of Africa's bilateral partners in food and agricultural trade have technical cooperation schemes in place alongside the mutual trade transactions, as discussed in Chapter 8. Ssozi, Asongu and Amavilah (2019) suggest that better host institutions and liberalised markets are prerequisites for ensuring that the impact of aid on agricultural growth and food security is maximised.

At least four distinct aspects of foreign aid to African agriculture can be identified. The first is Aid for Trade, an initiative sponsored by the WTO and monitored by the Organisation for Economic Co-operation and Development (OECD).[3] A significant share of Aid for Trade from both bilateral and multilateral sources goes to rural infrastructure such as roads, irrigation systems and storage facilities. For example, the AfDB's 'Feed Africa' strategy has committed to investing US$24 billion in the next decade to agricultural infrastructure to boost agricultural productivity, reduce post-harvest losses, and support marketing processes.[4] Although included in OECD–WTO reporting as Aid for Trade, these investments also benefit production for local markets.

Second, ODA can support mitigation and adaptation in the agricultural sector, enabling farmers to adopt modern best practices. Box 4.1 provides a summary of the emerging role of climate finance, which has profound implications for agricultural development. Climate-related initiatives through specialised bilateral and multilateral sources are increasingly being directed to support agricultural development. For example, AGRA is working with host governments and local non-governmental organisations (NGOs) to promote the use of improved seeds, appropriate fertilisers and modern farming techniques across the continent. The International Centre for Tropical Agriculture collaborates with national agricultural research agencies to develop climate-smart solutions such as the implementation of drought-resistant crop varieties and soil conservation techniques, enabling farmers to adapt to climate change. The World Agroforestry Centre is assisting African farmers through its Evergreen Agriculture initiative – an approach that combines tree planting with agricultural support – to increase crop yields, improve soil fertility and diversify income sources.[5]

Third, ODA can facilitate access to finance and credit for smallholder farmers. For example, the IFAD provides financial support and technical assistance to small-scale farmers in Africa, enabling them to improve their farming techniques, diversify income sources and, ultimately, achieve food security for their households and communities.[6]

Fourth, foreign aid can empower women in agriculture. Several bilateral development partners specifically require that their resources benefit women. The UN's Women's Entrepreneurship Development Programme is an example of an initiative that is aimed at supporting women farmers in Africa through training, financial services and access to markets.[7]

Box 4.1: Climate finance

It is estimated that US$2.8 trillion will be needed from 2020 to 2030 to implement the commitments African countries have made in NDCs as part of the implementation of the Paris Agreement. Mitigation accounts for two-thirds of reported climate finance needs for the period 2020–2030, distributed across the following four sectors: transport (58 per cent), energy (24 per cent), industry (7 per cent) and agriculture, forestry and other land use (AFOLU, 9 per cent). Adaptation represents only 24 per cent of total climate finance, even though for Africa adaptation, rather than mitigation, remains the dominant priority. African governments have committed to contributing 10 per cent of the total cost of climate action. This means that US$2.5 trillion (or an average of US$250 billion annually) needs to be mobilised externally from climate funds and donor support. In 2020, Africa's climate finance flows, both domestic and international, totalled US$30 billion, or about 12 per cent of the need. The funding gap is significant.

Climate finance remains central to addressing climate change equitably and efficiently, including achieving adaptation goals. Multilateral climate funds, such as the Least Developed Countries (LDC) Fund, the Special Climate Change Fund (SCCF), the Adaptation Fund and the Green Climate Fund (GCF) are the main global initiatives dedicated to combating climate change. Several developed countries have also launched climate finance initiatives of their own or are providing climate finance through bilateral development assistance agencies. Examples include the International Climate Fund (United Kingdom), the Hatoyama Initiative (Japan) and the Global Climate Change Alliance (European Commission) (Watson and Schalatek 2020). Complementing these channels of climate finance are non-concessional lending by multilateral development banks; bilateral non-concessional lending (government-to-government loans); and international private finance (e.g. equity investments or external loans) (Ahluwalia and Patel 2022, p.317).

At the latest (at the time of writing) Conference of the Parties (COP) 28 in November 2023, new climate finance commitments were made. The second replenishment of the GCF was boosted by new pledges, taking total commitments to US$12.8 billion. New commitments to the LDC Fund and the SCCF amounted to US$174 million, while the Adaptation Fund attracted US$188 million in pledges. The main COP 28 highlight was the agreement on the operationalisation of a loss and damage fund that had until then proved elusive. By the time of writing, it had received pledges of up to US$700 million, an amount too small when compared to the projected economic costs of loss and damage, which should be between US$290 billion and US$580 billion for developing countries, according to one set of estimates (Markandya and González-Eguino 2019; UNFCCC 2023).

(continued)

(continued)

The multilateral climate funds have been criticised for their lack of transparency (Transparency International 2022) and limited consultation with the civil society and indigenous communities (Kumar 2015). For example, the GCF does not have a disclosure policy or accountability mechanism. The World Bank, which will house the Loss and Damage Fund, has also been criticised for failing to account for 40 per cent of its reported climate spending (Harvey 2022). Some critics have noted that a substantial amount of climate finance flows through international institutions and multilateral banks instead of being sent directly to the project implementers on the ground. (However, previous research suggests that there is no clear evidence that bilateral aid is better than multilateral aid, or vice versa, and that multilateral aid earmarked for a specific purpose may achieve the best of both worlds (Biscaye, Reynolds and Anderson 2017; Gulrajani 2016).)

Food aid

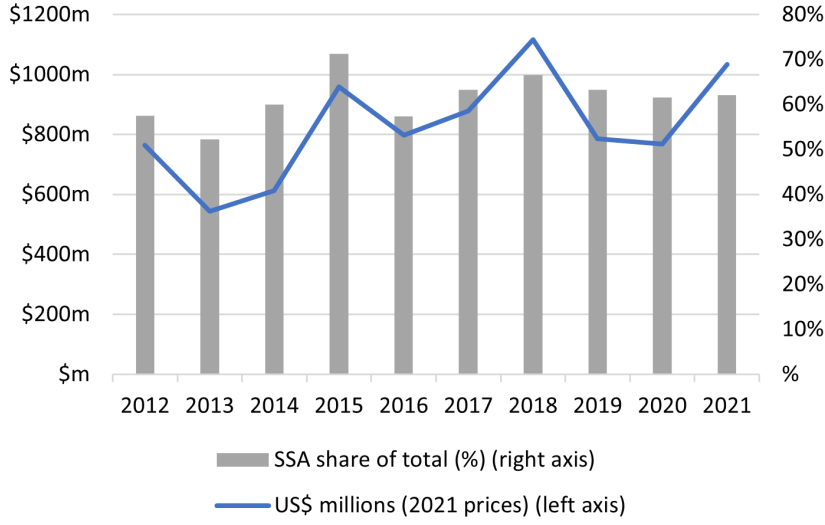
Historically, food aid emerged as a response to acute emergencies, such as conflicts, natural disasters and famines, with the primary objective of saving lives and preventing starvation (WFP 2021a). Over time, food aid efforts have evolved to incorporate a developmental dimension aimed at enhancing long-term food security and fostering sustainable agricultural practices (Barrett and Maxwell 2007).

Food aid can be categorised according to its intended objectives and supply methods. In relation to objectives, three aspects can be identified. First, programmatic food aid is provided for balance of payments or budgetary support to finance food imports. The second is project food aid, which targets poverty alleviation and disaster prevention for specific vulnerable groups or areas. And the third is relief aid, provided for distribution to disaster victims. These distinctions can be blurred, especially in crises. In relation to supply methods, food aid includes direct transfers from donors, exchanges between countries, and local purchases for domestic distribution (Organisation for Economic Co-operation and Development n.d.).

Given Africa's vulnerability to food insecurity, the region is a major recipient of food aid, accounting for almost two-thirds (63.3 per cent) of all food aid provided to developing countries between 2017 and 2021. After declining during the pandemic years, food aid has bounced back, reaching US$1 billion in 2022 (Figure 4.7). Eastern Africa attracted 60 per cent of all food aid to Africa in recent years, of which a quarter went to Ethiopia alone.

The effect of food aid on food security is mixed. On one hand, food aid plays a critical role in mitigating acute food shortages and preventing immediate hunger-related fatalities (FAO 2021). For instance, during the 2011 Horn of

Figure 4.7: Development food assistance to sub-Saharan Africa (SSA)



Source: Author's calculations based on data from the OECD Creditor Reporting System database.

Africa drought, food aid helped avert a major humanitarian catastrophe by providing essential sustenance to vulnerable populations (Béné, Devereux and Sabates-Wheeler 2012). During the 2014 Ebola outbreak in West Africa, food aid contributed significantly to the containment of the epidemic by ensuring that affected communities received adequate nutrition (FAO 2014). Food aid can also provide a safety net and bring about unexpected positive outcomes. In Malawi, for example, a school feeding programme to combat malnutrition among children has led to improved school attendance (WFP 2021b). As noted in Chapter 1, the WFP was awarded the 2020 Nobel Peace Prize for its efforts to combat hunger during the Covid-19 pandemic and more generally in conflict-affected areas.

However, the overall effect of food aid on food security is subject to debate. Some critics have argued that food aid, if not properly managed, can undermine local agricultural production by flooding markets with imported goods, which in turn may depress prices and disincentivise local farmers (Barrett and Maxwell 2007). This phenomenon is well illustrated by the case of Malawi, where the influx of food aid disrupted local markets and discouraged farmers from investing in crop production (Jere 2007). In Burkina Faso, the arrival of food aid caused a decline in cereal prices, with adverse impacts on producers and traders (Béné, Devereux and Sabates-Wheeler 2012). The global implications of subsidised food production are discussed in Chapter 9 on the WTO legal framework and food security.

To move beyond the short-term relief offered by food aid and achieve sustainable food security in Africa, more comprehensive and holistic strategies

are needed. Targeted support for both agricultural production and social safety nets are strategies that are increasingly being applied (Mogues, Fan and Benin 2015). For example, the Purchase for Progress initiative by the WFP encourages the procurement of food from local sources, thus boosting agricultural production and the local economy. Moreover, the OECD (2006) estimates that food aid in kind entails efficiency costs in excess of 30 per cent; thus, switching to local sourcing of food, where possible, can generate substantial efficiency gains. Nevertheless, the best approach to procuring food aid (local vs. regional vs. long distance) can depend on the context and the programme's objectives (Harou et al. 2013; Lentz, Passarelli and Barrett 2013).

4.3 Actors and capacities

Capacities play a key role in the functioning of food systems that underpin food security. It will be recalled that food systems were defined in the Preface as the sum of actors and interactions along the food value chain – from input supply and production of crops, livestock, fish and other agricultural commodities to marketing, transportation, processing, wholesaling, retailing, preparation of foods, consumption and disposal (AGRA 2022). Several institutions with varying capacities, challenges and opportunities are among these actors. These include farmers operating as smallholders or at a larger scale, functioning as contract farmers or organised in cooperatives. Actors also include market intermediaries, commodity exchanges, marketing boards and agribusiness multinationals that mediate markets and trade. This section reviews the role of these actors in how Africa eats.

Smallholder farmers

Smallholder farmers, operating on family land plots of less than five hectares, provide the foundation for African agriculture and food security. They produce up to 90 per cent of the continent's food and therefore play a crucial role in how Africa eats (IAASTD 2009). Yet many exist in a perpetual cycle of poverty. Over 80 per cent of smallholder farmers produce at the subsistence level (Oyewole 2022). Lacking skills and resources, smallholders are often unable to take advantage of agribusiness opportunities or fully commercialise their output, thereby producing well below their potential (Malhotra and Vos 2021). Inadequate supporting policies and weak institutions remain overarching barriers to the transformation of African food systems (Ulimwengu, Nwafor and Nhlengethwa 2022). This is one of the main reasons why the 'green revolution' has largely bypassed Africa.

But this is not to suggest that smallholder farmers are unproductive. There is evidence to suggest that small farms can be more productive depending on the context and level of technological development (Larson et al. 2014; Fan and Rue 2020). Indeed, African smallholders encounter significant challenges along the agricultural value chain, at both pre- and post-production stages.

Pre-production, small plot sizes preclude economies of scale and make investment in equipment and irrigation unviable. Lack of access to credit, limited technical knowledge about inputs and poor information about input prices are major limitations farmers face in purchasing and using appropriate inputs in the right quantity. Post-production, smallholders often fail to obtain a fair value for their produce and remain vulnerable to downstream actors and high rent extraction. Other challenges include deficient storage facilities, resulting in post-harvest losses averaging 30 per cent of production, according to some estimates (Oyewole 2022). Lack of information on markets, weak linkages to regional markets and product quality are other difficulties (de Brauw and Bulte 2021). These privations generate the conditions for informal markets to thrive. These markets are a ubiquitous feature of African food markets including for cross-border trade as discussed in Chapter 5.

Medium-scale farmers

Medium-scale farmers are very often agricultural entrepreneurs who engage in farming as a business. Their rise has been triggered by the opportunity created by a surge in food prices (Muyanga and Jayne 2018) and the emergence of a mainly urban-based entrepreneurial class (Jayne et al. 2016). Survey evidence from Zambia and Nigeria suggests that medium-scale farmers have plot sizes greater than 10 hectares (Goedde, Ooko-Ombaka and Pais 2019; Jayne et al. 2014). As better-informed entrepreneurs, medium-scale farmers have better access to inputs, technology and markets. In Tanzania and Zambia, medium-scale farmers account for about 40 per cent of agricultural output (Jayne et al. 2016). There is evidence to suggest that the activities of medium-scale farmers have a positive impact on the rural economy mainly through local sourcing for labour, services and other inputs. But there is also evidence, notably from Ghana, that the rise of medium-scale farmers displaces smallholders (Hall, Scoones at Tsikata 2017).

Contract farmers

Contract farming describes a situation where farmers sign a contract with a purchaser, under which the farmer 'commits to producing a given product in a given manner and the buyer commits to purchasing it' (ActionAid 2015, p.3). Compared to smallholder or medium-scale farming, where the farmer takes all the risks associated with the production and marketing, under contract farming these risks are substantially transferred to the buyer (Meemken and Bellemare 2019). The farmer may also benefit from technical assistance, inputs and credit provided by the buyer (Minot 2015). Contract farming is essentially based on the out-grower model.

Contract farming has been hailed as a 'win–win' business model (Hall, Scoones and Tsikata 2017). It provides a ready market for the farmer's produce

at a guaranteed price while ensuring a means of secure supply to the buyer for processing and other downstream activities.

Proponents of contract farming argue that engaging famers at different levels of scale, from smallholders to medium-scale farmers, provides them with an environment conducive to productivity improvement, growth and diversification into high-value commodities. Critics argue that the balance of power in out-grower schemes is often harmful to smallholders. Large agribusiness companies wield substantial monopsony power that allows them to force lower prices onto the farmers than they would receive in more open markets. In some cases, smallholders may be excluded from contract farming, leading to their marginalisation and causing income inequality in rural areas (Minot 2015).

A study of cassava growers in Ghana showed that contracts that simply guarantee a market for smallholders' output are not sufficient to ensure mutually beneficial outcomes. Inclusive contracts provide welfare benefits and embed targeted technical services (Poku, Birner and Gupta 2018). But this finding is at variance with results from a field experiment on contract farming in the rice sector in Benin, which show that even the simplest contract has important impacts since it eliminates commodity price risk, giving farmers comfort and confidence to address other constraints on their own (Arouna, Michler and Lokossou 2021).

On the whole, the evidence indicates that contract farming comes with challenges on both sides of the contract: high rates of turnover of schemes, legal restrictions on direct contact between farmers and their contractors, side-selling by smallholders in violation of their contracts, risk of default on the part of buyers when market prices fall below the contracted price, difficulty of dealing with geographically dispersed farmers (Minot 2015). However, if contract farming is tailored to the local context and is inclusive in its reach, it can be an important contribution towards enabling smallholders to increase, diversify and market their production and for fostering agribusiness development in Africa.

Farmer organisations or cooperatives

By joining forces, farmers can exercise leverage in input and output markets. While the cooperative movement has strong roots in many African countries going back to the colonial era, its history has been chequered. After independence, some cooperatives became instruments of political patronage, which, along with food price controls, undermined their effectiveness. Structural adjustment reforms of the 1980s and 1990s ridded cooperatives of failed policies, but revenue loss and falls in membership and viability persisted through the mid-2000s (FAO 2010). Recent years have seen a revival of cooperatives alongside the policy framework provided by the CAADP initiative (Mercier 2020).

Agricultural cooperatives vary in form and functionality. Most are focused on production, including the purchase and sharing of agricultural inputs and

equipment, or marketing, which has been their traditional role, or both. Saving and credit cooperatives (SACCOs) are also active in rural communities. While these may not conform to the traditional understanding of the role of farmers' cooperatives, they are a vital support to agriculture, providing farmers with much-needed funding, both for investment and to sustain household consumption during the growing season. SACCOs have witnessed rapid growth in many countries and are becoming the largest part of the cooperative sector (Mercier 2020).

The evidence on the impact of cooperatives is mixed. On the one hand, some studies suggest that cooperatives boosted farmers' bargaining power, empowering them to attract institutional buyers for their products (World Bank 2007). UN organisations such as IFAD and NGOs working in agriculture report that cooperatives have helped smallholders reduce costs and reach larger markets, improving their incomes and food security. In many countries, they are used as a conduit by government and NGOs for farmers' training, knowledge transfer, and research and extension services including those directed at women and youth (Sifa 2014; UN Women 2020). Evidence from South Africa suggests that NGO-supported cooperatives have fared better than those controlled by the government (Sikwela, Fuyane and Mushunje 2016). In Eastern and Southern Africa, cereal marketing cooperatives are seen as more effective at inducing commercialisation than macroeconomic and trade policy interventions (Barrett and Mutambatsere 2008).

On the other hand, a study of the impact of marketing cooperatives on smallholder commercialisation of cereals in rural Ethiopia found that cooperatives secured higher prices but did not achieve any significant increase in the share of cereal production. It is suggested that farmers *reduced* their marketed output in response to higher prices (Bernard and Taffesse 2012).

Market intermediaries

Market intermediaries or 'middlemen' play an important role in agricultural marketing in many parts of Africa. They link farmers to traders and final markets, providing valuable feedback to farmers in addition to critical facilities such as warehousing, insurance and finance. However, intermediaries have often been described as opportunistic agents who profit at farmers' expense and drive commodity prices up.

This perception is often the result of the inefficiencies in African agricultural market systems, and may be erroneous (Eleta 2020). Examining the view that intermediaries exploit farmers by exercising monopsony power, Enete (2009) finds that cassava farmers in a sample of African countries typically sold more through intermediaries than in their absence. Moreover, cassava prices were found to be more stable in Nigeria, where intermediaries competed for farmers' produce, than in other countries where the 'middleman' culture was lacking. Abebe, Bijman and Royer (2016) provide corroborating

evidence from Ethiopia. Although they find that gross profit for farmers was, on average, 225 per cent higher without intermediation, they attribute this outcome to better-quality inputs and better contractual arrangements, suggesting that the more well-endowed farmers self-selected into trading directly with wholesalers.

The Economist (2022) goes in the same direction, describing intermediaries as the 'invisible links' in African agriculture and the 'human infrastructure' of African economies. Anecdotal evidence from Ugandan coffee farmers suggests that they nurture a relationship of trust with 'middlemen', who often assume the role of non-existent agricultural banks, providing cash when it is needed.

Some critics have called for a 'better class of middlemen' or cutting them out altogether (Cordaid 2021). Mitchell (2019) argues that 'middlemen', as part of an ecosystem of 'inclusive intermediaries', can play a key role in the commercialisation and industrialisation of agriculture. But this needs to take the form of multi-stakeholder partnerships, involving government and non-state actors.

Commodity exchanges

Commodity exchanges are organised markets where future delivery contracts for specific agricultural products are bought and sold. They range from simple auctions, providing a platform for small farmers to sell their produce at quasi-market-determined wholesale prices, to more sophisticated derivatives markets, allowing participants to hedge commodity price risk. Commodity exchanges act as coordination mechanisms, enhancing information flow, reducing transaction costs and smoothing short-term price variability. They also enhance liquidity by allowing trade in futures contracts (Rashid, Winter-Nelson and Garcia 2010).

Africa was home to the world's first commodity exchange – in Alexandria, Egypt, more than 150 years ago. However, it was not until the post-structural adjustment era that a renewed focus on liberalised markets brought them back into the limelight, with a first wave of 'modern' commodity exchanges taking hold in Zambia, Zimbabwe and South Africa in the early 1990s. Ethiopia established a commodity exchange in 2008 in what may be described as the second wave (Rashid, Winter-Nelson and Garcia 2010). A third wave may be underway as new national commodity exchanges are being developed in Ghana, Tanzania, Nigeria, Kenya and Malawi alongside subregional (e.g. the East Africa Exchange) and continental (the Agricultural Commodity Exchange for Africa) initiatives (Songwe 2011). The latter is a proposal for a network of commodity exchanges complete with warehouse receipt systems functioning across major commodity-producing countries in Africa.[8] These exchanges could be merged into a single platform to create a virtual continental network.

An assessment of commodity exchanges in Ethiopia, Kenya, Malawi, Uganda and Zambia reveals that all five have 'drifted far from the original model' and, except for Ethiopia, have fallen short of their objectives (Robbins and Catholic Relief Services 2011). They have neither improved farmer linkages to formal markets nor generated new opportunities or trading relationships, nor substantively increased farmers' incomes. Some of the commodity exchanges did not develop beyond a platform for disseminating market information; others were not linked to a viable warehouse receipt system. Consequently, they failed to attract a critical mass of business on a regular basis. Further evidence from Eastern and Southern Africa suggests that commodity exchanges in the region had limited success in attracting financial institutions both as an agent for settling payments and, crucially, as a lender to exchange participants (Jayne et al. 2014).

Mbeng Mezui et al. (2013) provide a checklist of good practices critical to the success of a commodity exchange. It proposes a measured role for the government, which must provide the regulatory framework, including for a warehouse receipt system, and funding for the exchange as a shareholder, and demonstration of its commitment to making it work. There is also scope for commodity exchanges to utilise digital technologies and enable transactions in commodity futures.

Agricultural marketing boards

Agricultural marketing boards (AMBs) are state-controlled or state-sanctioned entities vested with quasi-monopoly power over the purchase or sale of agricultural commodities. Once preponderant across Africa, AMBs have waned since the structural adjustment era and rarely active in food markets. (Barrett and Mutambatsere 2008). This may be because agricultural marketing boards often offered a poor deal for farmers, forcing them to accept lower prices than if they sold their produce on the open market (Acemoglu, Johnson and Robinson 2005; Williams 1985). Some governments have said that the 'rents' extracted from farmers are used to fund national development, but this has often not happened (Manley, Heller and Davis 2022, p.38).

It is telling that best examples of the current functioning of AMBs come from the commodity sector rather than the food sector. Studies of cocoa marketing boards in Ghana and Nigeria suggest that these institutions have had a positive impact on cocoa production. In Ghana, the state-run marketing board, COCOBOD, controls all aspects of domestic cocoa marketing and has a de facto monopoly on cocoa exports. However, COCOBOD has demonstrated stewardship, leveraged its strengths in quality control and export management, and implemented effective policies, including a price stabilisation mechanism, that protected farmers' revenues (Matthew et al. 2004). Similar best-practice lessons can be drawn from an analysis of the success of the Nigeria Cocoa Marketing Board. The board focused on productivity

improvement and sustainability of the Nigerian cocoa industry, intervening in some unconventional areas, such as disease control, quality assurance and research (Ayinde 2014). The experiences of these AMBs and lessons from the past offer useful insights that other marketing boards can follow.

Multinational market intermediaries

A wide range of multinational businesses exert various degrees of influence on agricultural development and food security on the continent. Their involvement spans the entire agricultural value chain from provision of inputs, machinery, equipment, technology transfer and innovation to investment in agricultural infrastructure, agricultural export processing and marketing. The activities of multinational corporations (MNCs) present both opportunities and challenges, which require careful balancing through strategic partnerships, collaborative solutions, and policy interventions to optimise the benefits that these actors can bring to African agriculture.

In agricultural commodity and food production, MNCs are important suppliers of agricultural inputs such as seeds, fertilisers, pesticides and machinery. Seed and biotechnology companies like Syngenta, DuPont and Bayer lead research and development investments to develop improved seed varieties that are adapted to local conditions. For example, the Water Efficient Maize for Africa project, a partnership between Monsanto and the African Agricultural Technology Foundation, has developed drought-tolerant maize varieties that have shown promising results in countries like Kenya and Uganda (Oikeh et al. 2014). Other MNCs, such as Nutrien, Yara International and BASF, are global suppliers of fertilisers and agrochemicals to African countries and collaborate with African governments and farmer organisations to promote effective fertiliser use across the continent (AFAP 2021). Partnerships between MNCs and local agricultural research institutions also yield context-specific solutions that cater to Africa's unique challenges.

MNCs are further active in agricultural mechanisation, with entities like John Deere and AGCO providing tractors, combine harvesters and other agricultural machinery to African farmers. These technologies can enhance farm productivity and reduce the labour-intensity of agricultural activities (FAO and UNIDO 2008), making them attractive to the youth.

In agricultural processing, marketing and export, MNCs like Olam International have established processing plants across Africa, notably in Ghana and Nigeria (Olam 2021). Local processing activities can reduce post-harvest losses and carry other benefits for producing countries (Urugo et al. 2024). They help to build local capacities to meet sanitary and phytosanitary standards and norms. In the horticultural sector, Syngenta's technologies for pest and disease management have enabled farmers to produce higher-quality and safer products for export, enhancing the reputation and competitiveness of African fruits and vegetables in international markets (Arimond et al. 2013).

However, the involvement of MNCs in African agriculture is not without controversy. One contentious aspect of such involvement has been the acquisition by foreign entities of large tracts of land, or 'land grab', which has raised concerns about land rights, displacement of local communities, and environmental sustainability (Chung and Gagné 2021). While Chinese entities have attracted attention in land deals, entities from other countries have been involved too. For example, land leases by a Saudi Arabian company for the cultivation of rice in a water-scarce region of Ethiopia mainly for export have raised questions about sustainability implications for food security in a country where rice is not widely consumed (Vidal 2010).

MNCs' proprietary control over seeds and biotechnology products can limit farmers' access to critical inputs, perpetuate seed dependency, hinder (sometimes more collaborative) traditional farming practices and undermine agro-biodiversity (Greenberg 2024, p.175; Kloppenburg 2010; Wynberg 2024, p.346). The combination of input market concentration, power imbalances in supply chains, and intellectual property rights provides MNCs with strong advantages over African farmers. African governments have an important role to play in regulating markets, ensuring fair competition and protecting the interests of farmers.

Summary

In CAADP, Africa has a policy blueprint for boosting agricultural development and trade. CAADP requires governments to allocate at least 10 per cent of public expenditure to agriculture and to aim for 6 per cent annual growth in the sector. These goals are reiterated periodically, notably in the 2014 Malabo Declaration. Reviews, however, suggest that only one country – Rwanda – is on track to achieving the CAADP goals. Financial resources remain a major constraint. While there are some good examples of the impact of agricultural financing, there is scope for scaling up private investment, farmers' access to credit, FDI, foreign aid and climate finance. Development partners provide relatively little foreign aid to agricultural development in Africa despite the clear understanding that this sector is critical for achieving international goals on poverty and hunger. Food aid needs to be carefully managed in order not to disincentivise local production. It has been noted that capacities vary among actors and institutions that mediate production, markets and trade such as farmers, 'middlemen', cooperatives, commodity exchanges and agricultural marketing boards.

With the bulk of African agriculture still in the hands of small-scale farmers, any measures to boost investment must necessarily focus on smallholders. However, the rise of contract farming and a class of medium-scale farmers are promising developments especially since this class of farmers have stronger commercial ambitions than the smallholders. Agricultural commercialisation is arguably the most viable pathway for smallholders to

increase their output, income and food security, but there are huge challenges as regards imperfect or missing markets and institutions. Alternatively, some smallholder farmers can seek employment outside agriculture (Fan and Rue 2020). Partnerships with MNCs can be beneficial where local interests are well safeguarded.

Notes

[1] Being 'on track' does not mean that the target has already been achieved. Rather, it means that the African Union has assessed that the target would be met by its specified timeline if progress from the baseline to the target is linear (African Union n.d., p.16).

[2] The data is from FAOSTAT. The data is not available consistently for a common period. The averages are computed for the most recent four years for which data is available for a given country.

[3] See, for example, the WTO-OECD Aid for Trade at a Glance 2022 report (OECD and WTO 2022).

[4] The bank has presented this as Aid for Trade (World Trade Organization 2023, pp.1–2).

[5] See *World Agroforestry* (2024).

[6] See IFAD (n.d.).

[7] See ESCAP (n.d.).

[8] Warehouse receipt systems are '[a] process where owners of commodities deposit their commodities in a certified warehouse and are issued with documents known as Warehouse Receipt as proof of ownership' (Warehouse Receipt System(WRS) n.d.).

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