CHAPTER 14

Tracking Key CAADP Indicators and Implementation Processes

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Introduction

In the 2003 Maputo Declaration on *Agriculture and Food Security*, African heads of state and government resolved to urgently implement the Comprehensive Africa Agriculture Development Programme (CAADP)—a continentwide framework for reducing poverty, food insecurity, and hunger and revitalizing agriculture through increased investments (AU 2003). Early on, the two main CAADP targets were allocating 10 percent of national budgets to the agricultural sector and achieving a 6 percent agricultural growth rate at the national level. In 2014, African leaders reasserted their commitment to CAADP and broadened the agenda by adopting the Malabo Declaration on *Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods*. Through seven broad commitments in the Malabo Declaration, the leaders resolved to uphold CAADP principles and values, increase investment in agriculture, end hunger and halve poverty by 2025, boost intra-African agricultural trade, enhance resilience to climate variability, and strengthen mutual accountability for actions and results by conducting a continental Biennial Review (BR) of progress made in achieving the commitments (AUC 2014).

The Regional Strategic Analysis and Knowledge Support System (ReSAKSS) was established in 2006 to provide data and knowledge products to facilitate CAADP benchmarking, review, dialogue, and mutual learning processes.[1] Starting in 2007 at the behest of the African Union Commission (AUC), ReSAKSS led the development of the first CAADP monitoring and evaluation (M&E) framework for assessing CAADP implementation progress and performance. The CAADP M&E framework identified key indicators for tracking progress in allocating resources and achieving targets; outlined the required data, sources, and methods for estimating the indicators; and laid out a plan for successfully implementing the framework (Benin, Johnson, and Omilola 2010). With the adoption of the 2014 Malabo Declaration, AUC and the African Union Development Agency–New Partnership for Africa's Development (AUDA-NEPAD) developed the CAADP Results Framework (RF) for 2015–2025 to benchmark progress in CAADP implementation including progress toward meeting the seven Malabo commitments (AUC and NPCA 2015).

To help report on the provisions of the Malabo Declaration, the CAADP RF is organized into three levels: (1) outcomes, (2) outputs, and (3) inputs. Level 1 of the CAADP RF includes broader development outcomes and impacts to which agriculture contributes, including wealth creation; food and nutrition security; enhanced economic opportunities, poverty alleviation, and shared prosperity; and resilience and sustainability. Level 2 encompasses the outputs from interventions intended to transform the agricultural sector and achieve inclusive growth, including improved agricultural production and productivity; increased intra-African trade and functional markets; expanded local agro-industry and value chain development, inclusive of women and youth; increased resilience of livelihoods and improved management of risks in agriculture; and improved management of natural resources for sustainable agriculture. Level 3 involves inputs and processes required to strengthen systemic capacity to deliver CAADP results and create an enabling environment in which agricultural transformation can take place: it includes effective and inclusive policy processes; effective and accountable institutions that regularly assess the quality of implementation of policies and commitments; strengthened capacity for evidence-based planning, implementation, and review; improved multisectoral coordination, partnerships, and mutual accountability in sectors related to agriculture; increased public and private investments in agriculture; and increased capacity to generate, analyze, and use data, information, knowledge, and innovations. There are 38 indicators in the CAADP RF: 14 for level 1, 12 for level 2, and 12 for level 3 (Table 14.1). ReSAKSS tracks progress on CAADP indicators in the CAADP RF for 2015–2025 through its flagship Annual Trends and Outlook Report (ATOR) and website (www.resakss.org).

Although the CAADP RF is intended to help track progress in implementing the Malabo Declaration, the CAADP Biennial Review (BR) process initiated in 2015 introduced indicators to monitor the specific commitments in the declaration using the Africa Agriculture Transformation Scorecard (AATS) (Table 14.1). Data on many of the CAADP RF indicators are available for a larger number

1 ReSAKSS is facilitated by AKADEMIYA2063 and works closely with CAADP stakeholders across the continent. The ReSAKSS activities discussed in this chapter were carried out in collaboration with partners such as the African Union Commission, the African Union Development Agency-New Partnership for Africa's Development, regional economic communities, national governments, farmer organizations, members of the African and international research communities, and development partners.

TABLE 14.1—NUMBER OF INDICATORS IN THE CAADP RESULTS FRAMEWORK AND BIENNIAL REVIEW

CAADP Results Framework	Number of indicators
Level 1: Agriculture's contribution to growth and development	14
Level 2: Agricultural transformation and inclusive growth	12
Level 3: Systemic capacity to deliver results	12
Total number of indicators	38
CAADP Biennial Review and Africa Agriculture Transformation Scorecard	**Number of indicators**
Theme 1: CAADP processes and values	3
Theme 2: Investment finance in agriculture	6
Theme 3: Ending hunger by 2025	21
Theme 4: Halving poverty by 2025	8
Theme 5: Boosting intra-African trade in agricultural commodities and services	3
Theme 6: Enhancing resilience to climate variability	3
Theme 7: Mutual accountability for results and actions	3
Total number of indicators	47

Source: Authors, based on AUC and NPCA (2015) and AUC (2014).

of countries and for longer time periods. This in turn allows for aggregation across countries and an examination of trends over long time periods and across different country groupings (for example, organized by economic categories, regional economic communities, and stage of CAADP implementation) that are not considered by the BR. While the CAADP BR indicators are broader in coverage, there is considerable overlap between these indicators and those in the CAADP RF. Although ReSAKSS tracks progress in most of the overlapping indicators, some of the indicators in both the CAADP RF and the CAADP BR are not yet included in the ReSAKSS database because data are not yet consistently available or are not available across all countries to allow for cross-country aggregation. These include several indicators on access to finance, private sector investment, postharvest loss, women's empowerment, food safety, and resilience. Discussions on filling data gaps are underway among CAADP technical partners, but increasing data availability in these areas is challenging and will require concerted efforts by countries and their partners to define methodologies and develop and fund data collection efforts.

Objectives of the Chapter

This chapter discusses progress on 27 of the 38 CAADP RF indicators for which cross-country data are available (Table 14.2)—details of the indicators and aggregate statistics are available in the data tables in Annexes 1–3 of this report. Eighteen of the 27 indicators tracked are also CAADP BR indicators. Progress is discussed across different geographic and economic groupings on the continent, comparing trends in the RF indicators during the first five years after the adoption of CAADP (2003 to 2008) with later CAADP subperiods. In keeping with the 2021 ATOR report's thematic focus on the COVID-19 pandemic, which has severely impacted economic activity in Africa, the chapter discusses Africa's performance prior to the pandemic while highlighting its performance in 2020 during the pandemic using available 2020 data or recent studies. The ReSAKSS database has 2020 data for indicators related to GDP, household consumption expenditure, employment, agricultural value added and productivity, and government agricultural expenditure; for indicators for which 2020 data are not available, the chapter reviews projections and emerging findings from other studies.

Starting with the next section, the chapter also discusses the CAADP implementation process itself in terms of country and regional progress in developing evidence-based, Malabo-compliant national agriculture investment plans (NAIPs) and operationalizing CAADP mutual accountability processes to support agricultural sector review and dialogue. The CAADP implementation process is led by the AUC and AUDA-NEPAD in collaboration with partners including national governments, regional economic communities (RECs), development and technical partners, and nonstate actors. The chapter describes general progress in the implementation process while highlighting the contribution of ReSAKSS as a technical partner.

Progress in CAADP Implementation Processes

CAADP implementation under the Malabo Declaration has four components (AUC and NEPAD 2016). Implementation starts with the domestication of the Malabo Declaration commitments and is followed by NAIP appraisal (or formulation). The third component is the implementation of the NAIP with the

TABLE 14.2—CAADP RESULTS FRAMEWORK INDICATORS DISCUSSED

Level 1: Agriculture's contribution to economic growth and inclusive development
1. L1.1.1 GDP per capita (constant 2010 US$)
2. L1.1.2 Household final consumption expenditure per capita (constant 2010 US$)
3. L1.2.1 Prevalence of undernourishment (% of population)
4. L1.2.2a Prevalence of underweight, weight for age (% of children under five years of age)
5. L1.2.2b Prevalence of stunting, height for age (% of children under five years of age)
6. L1.2.2c Prevalence of wasting, weight for height (% of children under five years of age)
7. L1.2.3 Cereal import dependency index
8. L1.3.1 Employment rate
9. L1.3.3 Poverty gap at $1.90 a day (2011 PPP)
10. L1.3.4 Extreme poverty headcount ratio at $1.90 a day (2011 PPP), % of population
Level 2: Agricultural transformation and sustained inclusive agricultural growth
11. L2.1.1 Agriculture value added (million, constant 2010 US$)
12. L2.1.2 Agriculture Production Index (2004–2006 = 100)
13. L2.1.3 Agriculture value added per agricultural worker (constant 2010 US$)
14. L2.1.4 Agriculture value added per hectare of agricultural land (constant 2010 US$)
15. L2.1.5 Yield for the five most important agricultural commodities
16. L2.2.1 Value of intra-African agricultural trade (constant 2010 US$, million)
17. L2.4.2 Existence of food reserves, local purchases for relief programs, early warning systems, and school feeding programs
Level 3: Strengthening systemic capacity to deliver results
18. L3.1.1 Existence of a new NAIP/NAFSIP developed through an inclusive and participatory process
19. L3.2.1 Existence of inclusive institutionalized mechanisms for mutual accountability and peer review
20. L3.3.1 Existence of and quality in the implementation of evidence-informed policies and corresponding human resources
21. L3.4.1 Existence of a functional multisectoral and multistakeholder coordination body
22. L3.4.2 Cumulative number of agriculture-related public-private partnerships that are successfully undertaken
23. L3.4.3 Cumulative value of investments in public-private partnerships
24. L3.5.1 Government agriculture expenditure (GAE) (billion, constant 2010 US$)
25. L3.5.2 GAE (% of total government expenditure)
26. L3.5.3 GAE (% of agriculture value added)
27. L3.6.2 Existence of an operational country SAKSS

Source: Authors, based on AUC and NPCA (2015).

Note: GDP = gross domestic product; NAFSIP = national agriculture and food security investment plan; NAIP = national agriculture investment plan; PPP = purchasing power parity; SAKSS = Strategic Analysis and Knowledge Support System; Highlighted indicators are also BR indicators.

aim of realizing the commitments in the Malabo Declaration. The fourth component refers to mutual accountability whereby the progress of the NAIP implementation is measured through the agriculture joint sector reviews (JSRs). The development and implementation of national or regional agriculture investment plans that are aligned with goals and targets of the Malabo Declaration is central to operationalizing the Declaration. The Malabo NAIP domestication event, led by AUC, AUDA-NEPAD, and RECs, convenes national CAADP constituencies to discuss and agree on a country roadmap to review and revise the NAIP. The roadmap specifies roles, timelines, and coordination modalities needed to generate the NAIP. To date, domestication events have been held in 25 countries (Table L3(a) in Annex 3d). By the end of September 2021, a total of 42 African countries had drafted, reviewed, and/or validated a Malabo-compliant NAIP (Table L3(a)).

Between 2016 and 2020, ReSAKSS, under the leadership of AUC and AUDA-NEPAD and in partnership with local experts, provided analysis to inform the design of country NAIPs in the form of three main deliverables: the Malabo Status Assessment and Profile (SAP), the Malabo Goals and Milestones Report (MGM), and the Policy and Program Opportunities Report (PPO). By the end of September 2020, ReSAKSS had completed SAP reports for 31 countries, MGM reports for 25 countries, and PPO reports covering policy best practices in nine thematic areas (Table L3(a)), including regional trade, value chain development, food security and nutrition, gender, climate-smart agriculture, social protection, agricultural technical vocational education and training (ATVET), and mutual accountability. In addition, country-specific

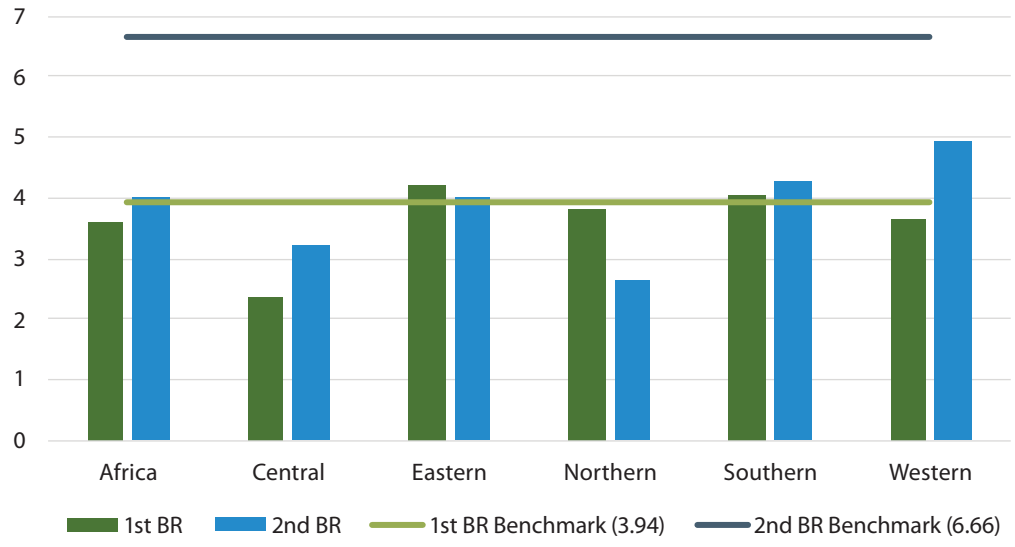
PPO reports were also completed for 8 countries: Angola, Botswana, Eswatini, Gabon, Lesotho, Namibia, Zambia, and Zimbabwe.

The Malabo Declaration commitment on mutual accountability calls for (1) a systematic biennial review using the CAADP RF of the progress made in implementing provisions of the Declaration and (2) enhanced multisectoral efforts and multi-institutional platforms for peer review, mutual learning, and mutual accountability (AUC 2014). Under the CAADP agenda, the principle of mutual accountability has been operationalized at the country and regional levels through agriculture JSRs and at the continental level using the CAADP BR process. JSRs provide an inclusive, evidence-based platform for multiple stakeholders to jointly review progress; hold each other accountable for actions, results, and commitments; and based on gaps identified, agree on future implementation actions. Moreover, because JSRs are the bedrock for inclusive and comprehensive mutual accountability processes, AUC, AUDA-NEPAD, and technical partners such as ReSAKSS have called on and supported countries and RECs to embed their BR process into the country and regional JSR processes. Doing so helps to streamline and institutionalize mutual accountability processes in the countries and RECs. At the request of AUC and AUDA-NEPAD, ReSAKSS has been strengthening agriculture JSRs since 2014 by conducting assessments of JSR or JSR-like processes at the country and regional levels. To date, ReSAKSS has completed JSR assessments in 21 countries and in 2 RECs: the Economic Community of West African States (ECOWAS) in 2015 and the East African Community (EAC) in 2019 (Table L3(a)). The assessments evaluate the institutional and policy landscape as well as the quality of current agricultural review processes, identifying areas that need strengthening in order to help countries and RECs develop JSR processes that are regular, comprehensive, and inclusive. The COVID-19 pandemic has delayed JSRs and JSR assessments in several countries; as JSR activities restart, ReSAKSS will continue to support the enhancement of review processes.

The CAADP BR is a process for promoting mutual accountability by reviewing country performance toward meeting Malabo Declaration commitments by 2025. To date, Africa has successfully held two BRs in 2017 and 2019. The third BR took place in 2021, with the report and scorecard expected to be presented at the AU Summit in early 2022. On average, Africa achieved stronger performance in the inaugural BR in 2017 compared to the second BR in 2019. In particular, 20 countries and 2 regions (eastern Africa and southern Africa) were on track toward achieving the overall Malabo commitments in 2017 compared to just 4 countries (Rwanda, Morocco, Mali, and Ghana) being on track in 2019 (Table L.3(a)). The slowdown in progress in 2019 partly reflected the higher overall benchmark score of 6.66 out of 10 that the continent, sub-regions, and countries needed to achieve to be on track, as compared to the overall score of 3.94 out of 10 in 2017. Many countries also made less progress or even regressed on some of the BR indicators and themes (Benin 2020). Nonetheless, the 2019 BR report shows that 36 out of 49 reporting AU member states improved their overall agricultural transformation scores compared to the 2017 BR.

During both BRs, Africa as a whole was off track in achieving the overall Malabo Declaration commitments by 2025 (Figure 14.1). Despite the continent being on track to meet four out of the seven Malabo commitments in 2017, it

FIGURE 14.1—AFRICA'S PERFORMANCE IN THE 2017 AND 2019 BRS (AVERAGE AGRICULTURAL TRANSFORMATION SCORE)



Source: Authors' compilation based on AUC (2018) and AUC (2020).

was off track to meet a single commitment in 2019. In 2017, the continent was on track to meet the following four commitments: recommitment to the CAADP process (commitment 1), halving poverty through agriculture (commitment 4), tripling intra-African trade in agriculture (commitment 5), and mutual accountability to actions and results (commitment 7).

In 2021, ReSAKSS published an analysis of the 2019 BR in 16 briefs for Angola, Botswana, Burkina Faso, Eswatini, Kenya, Lesotho, Madagascar, Mauritius, Mozambique, Namibia, South Africa, Uganda, Zimbabwe, EAC, ECOWAS, and the Southern African Development Community (SADC). The briefs highlight policy and programmatic adjustments made by countries and RECs in order to meet the Malabo commitments by 2025. Adjustments include pledges to increase the agriculture budget share to at least 10 percent in Lesotho, Mali, and Mozambique; promotion of private sector agricultural investments in Mozambique; and the establishment of new agriculture financing mechanisms in Benin, Burkina Faso, Côte d'Ivoire, Niger, Nigeria, and Togo (Matchaya et al. 2021; Seiwoh et al. 2021; Vilisa et al. 2021).

The third BR process was launched at the country level in April 2021 following continental training workshops in March and early April. Along with other technical partners, ReSAKSS supported the process by contributing to technical improvements and updates to BR guidelines and tools as well as providing training for country and REC focal points. It also made improvements to the digital eBR data entry platform to reduce errors and enhance the platform's functionality. In addition, ReSAKSS supported countries with BR data collection, review, and validation. By early September 2021, a total of 51 countries had submitted their 2021 BR data to their respective RECs (Table L3(a)). Following data submission by the countries, ReSAKSS supported RECs with data reviews and regional validation and supported AUC in analyzing the data and drafting the continental BR report in September 2021. The 2021 BR Report and Africa Agriculture Transformation Scorecard will be reviewed by AUC's Specialized Technical Committee on Agriculture, Rural Development, Water and Environment in late 2021 in preparation for its launch at the AU General Assembly in early 2022.

Progress in CAADP Indicators

This section discusses Africa's performance on 27 of the 38 CAADP RF indicators for which data are available, organized by the three RF levels.[2] Data on the 27 indicators are presented in Annexes 1–3. Progress on the quantitative indicators is presented at the aggregate level in seven different breakdowns: (1) for Africa as a whole; (2) by the AU's five geographic regions (central, eastern, northern, southern, and western); (3) by five economic categories (countries with less favorable agricultural conditions, countries with more favorable agricultural conditions, mineral-rich countries, lower-middle-income countries, and upper-middle-income countries); (4) by the eight RECs (Community of Sahel-Saharan States [CEN-SAD], Common Market for Eastern and Southern Africa [COMESA], EAC, Economic Community of Central African States [ECCAS], ECOWAS, Intergovernmental Authority on Development [IGAD], SADC, and Arab Maghreb Union [UMA]); (5) by the period during which countries signed the CAADP compact (CC0, CC1, CC2, and CC3);[3] (6) by the level or stage of CAADP implementation reached by the end of 2015 (CL0, CL1, CL2, CL3, and CL4);[4] and (7) by the distribution of countries in formulating first- and second-generation NAIPs (N00, N10, and N11).[5] Annex 4 lists countries in the various geographic, economic, and REC categories; Annex 5 lists the countries in the different groupings for CAADP compact signing or level of implementation reached; and Annex 6 lists countries by NAIP formulation category. Progress is also reported over different subperiods, with achievement in the early CAADP subperiod of 2003–2008 compared with achievements in later

2 Several of these indicators are also part of the CAADP BR and AATS.

3 CC0 = group of countries that have not yet signed a CAADP compact; CC1 = group of countries that signed the compact in 2007–2009; CC2 = group of countries that signed the compact in 2010–2012; CC3 = group of countries that signed the compact in 2013–2015.

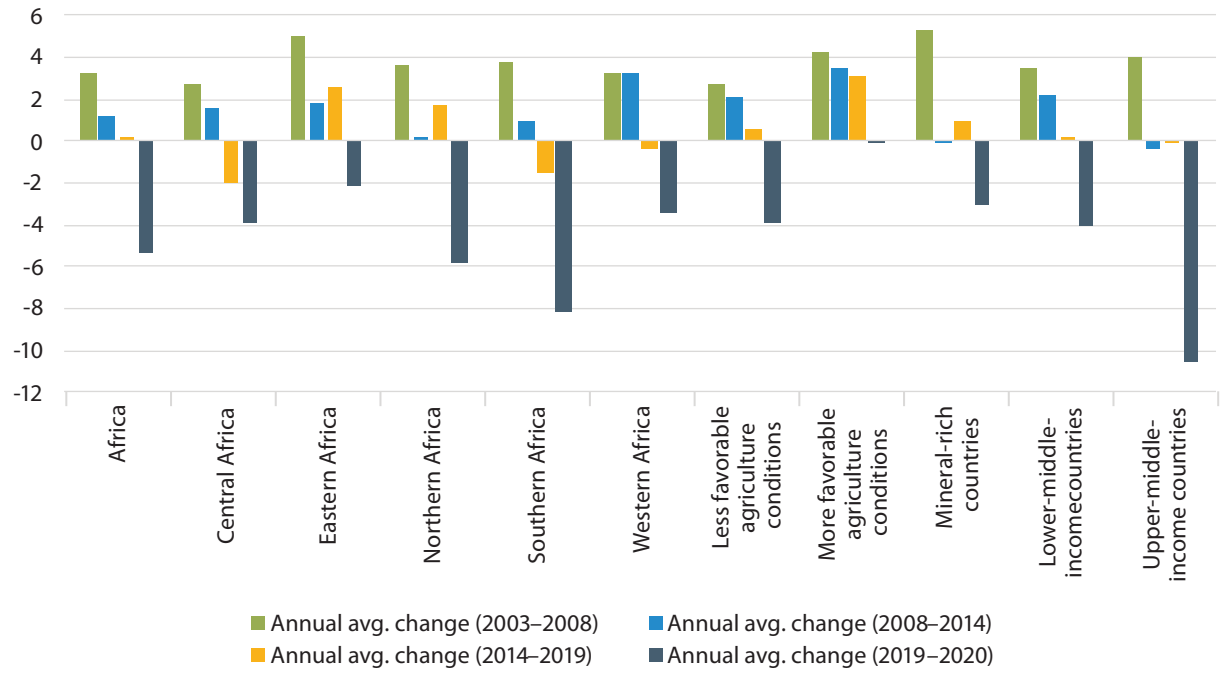
4 CL0 = group of countries that have not started the CAADP process or have not yet signed a compact; CL1 = group of countries that have signed a CAADP compact; CL2 = group of countries that have signed a compact and formulated an NAIP; CL3 = group of countries that have signed a compact, formulated an NAIP, and secured one external funding source; CL4 = group of countries that have signed a compact, formulated an NAIP, and secured more than one external funding source. Obtaining funding for NAIPs is a key step in CAADP implementation, and countries that have secured external funding sources are expected to be better able to implement NAIPs and other agricultural investments (Benin 2016).

5 N00 = group of countries that have neither a first-generation NAIP (NAIP1.0) nor a second-generation NAIP (NAIP2.0); N10 = group of countries that have NAIP1.0 but do not have NAIP2.0; N11 = group of countries that have both NAIP1.0 and NAIP2.0.

subperiods of 2008–2014 and 2014–2019, as well as with status in 2020.[6] 2020 is considered separately in order to highlight the effects of the COVID-19 pandemic, which had severe impacts on many of the CAADP RF indicators.

The discussion of trends and changes in CAADP indicators pertains to country categories or groupings as a whole and not individual countries within the categories; for example, it relates to Africa as a whole, central Africa as a group, ECOWAS members as a group, and groups of countries categorized by their stage of CAADP implementation and NAIP formulation experience. Presenting the trends by different groups helps to determine how the implications for strengthening or maintaining desirable outcomes or for reversing undesirable outcomes may differ across the continent, without inference of causality. Unless otherwise stated, all monetary values have been converted into constant 2010 US dollar prices for intertemporal and cross-country or cross-category comparisons.

FIGURE 14.2—GROSS DOMESTIC PRODUCT PER CAPITA (CONSTANT 2010 US DOLLARS), ANNUAL AVERAGE PERCENTAGE CHANGE, 2003–2020



Source: ReSAKSS, based on World Bank (2021) and ILO (2021a).

CAADP Results Framework
Level 1 Indicators: Agriculture's Contribution to Economic Growth and Inclusive Development

Wealth Creation

The COVID-19 pandemic caused Africa to undergo its first economic recession in approximately 25 years (World Bank 2020). In 2020, Africa's *GDP per capita* contracted by 5.3 percent in real terms from its 2019 level. This decline presents a sharp contrast with the average annual growth rate of 3.3 percent recorded during the early CAADP period, 2003–2008; growth then declined to 1.2 percent and 0.2 percent during the 2008–2014 and 2014–2019 periods, respectively (Table L1.1.1 and Figure 14.2). Prior to the pandemic, the growth deceleration observed in recent years was associated with the economic slowdown and lower commodity prices recorded at the global level. The pattern of positive but slowing GDP per capita growth before the COVID-19 crisis is observed among most geographic regions and country groups, with some exceptions; growth had

6 Considering that CAADP was launched in 2003, renewed in 2008, and renewed again 2014 with the Malabo Declaration, the years 2003, 2008, and 2014 represent important milestones. Therefore, the post-CAADP subperiods for reporting on progress use overlapping years to mark these milestones that usually occurred during the middle of the year in June, that is, 2003–2008, 2008–2014, and 2014–2019.

already declined in central, southern, and western Africa during the 2014–2019 period. In 2020, the GDP per capita contraction was the lowest in eastern Africa at 2.1 percent and the highest in southern and northern Africa at 8.2 percent and 5.8 percent, respectively. Countries with more favorable agriculture conditions appeared to be the most resilient group, recording the smallest decline in 2020 of 0.1 percent. The countries that have formulated both a first-generation NAIP1 and a second-generation NAIP2 (N11) and the groups of countries that joined the CAADP process early (CC1 & CC2) or advanced farther along the CAADP implementation process (CL3 & CL4) also showed relatively lower rates of reduction.

During the successive CAADP subperiods, real GDP per capita for Africa as a whole grew from an average level of $1,736 during 2003–2008 to $1,932 and $2,010 during 2008–2014 and 2014–2019, respectively.[7] GDP per capita declined to $1,911.60 in 2020, equivalent to the value recorded a decade prior in 2010 and 2011. Real GDP per capita in 2020 was the highest for the upper-middle-income countries ($6,747.60). UMA ($3,855), the group of countries that have not yet embarked on a NAIP ($3,580.90), northern Africa ($3,460.20), and southern Africa ($3,292.40) also recorded relatively higher GDP per capita in the same year. Countries with less favorable agricultural conditions and countries with more favorable agricultural conditions showed the lowest real GDP per capita levels throughout the entire CAADP period, reaching $635.20 and $737.30 respectively in 2020.

Household expenditure is a major catalyst of countries' economic growth (Chai 2018) and consists of all spending made to meet the daily needs of households. In 2020, *household consumption expenditure per capita* declined for Africa and the various country groupings except for central Africa, northern Africa, COMESA, EAC, ECCAS, and mineral-rich countries. Similar to GDP per capita, a decelerating trend was already in place for most of the subgroupings as well as for Africa as a whole during the 2014–2019 period, but the contraction was notably higher in 2020. For Africa as a whole, growth in household consumption expenditure per capita declined from an annual average of 1.7 percent during 2003–2008 to 1.1 percent during 2008–2014 and 0.4 percent during 2014–2019 (Table L1.1.2). In 2020, household consumption expenditure per capita contracted by 3.56 percent from the 2019 level. For the same period, relatively higher rates of contraction were observed for mineral-rich countries (10.53 percent), upper-middle-income countries (8.75 percent), western Africa (7.25 percent), and southern Africa (6.62 percent).

Food and Nutrition Security

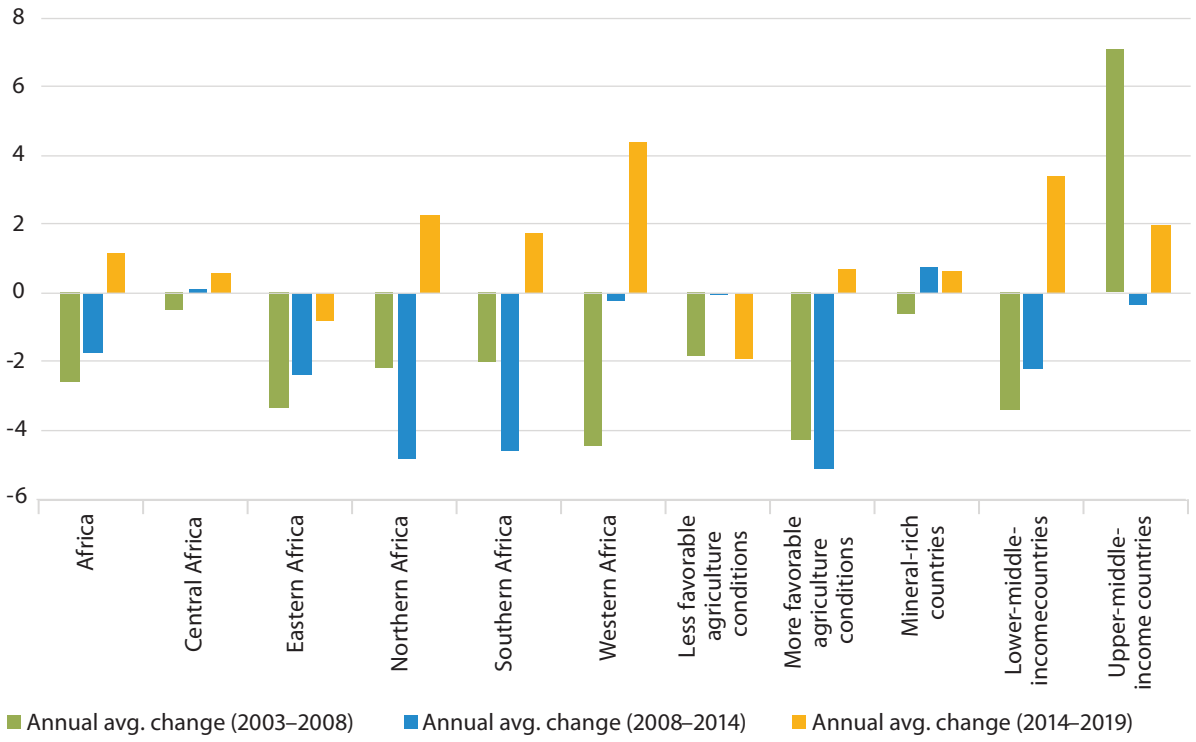
The *prevalence of undernourishment* measures the proportion of the population whose food intake is below the minimum dietary energy requirement. For Africa as a whole, the prevalence had been falling during the initial CAADP subperiods before the trend reversed in recent years and undernourishment began to rise again. As Table L1.2.1 and Figure 14.3 show, the prevalence of undernourishment declined by an annual average of 2.6 percent during the early CAADP period (2003–2008) and by 1.8 percent during 2008–2014. In the most recent period of 2014–2019, the prevalence of undernourishment increased by an annual average of 1.1 percent. Several factors have influenced this trend of rising undernourishment, including economic instability, conflict, and climate variability (FAO et al. 2021). In level terms, Africa's undernourishment prevalence rose slightly to 18.8 percent in 2019 from an average of 18.3 percent during 2014–2019.

The prevalence of undernourishment is likely to have worsened in 2020 as the COVID-19 pandemic exacerbated the various drivers of undernourishment. According to FAO et al. (2021), the prevalence is projected to reach 21 percent for Africa as a whole in 2020, adding 46.2 million more people to the undernourished category. The same report estimates that the majority of the additional undernourished people are located in western Africa (24.6 million) and eastern Africa (13.8 million); these two regions are also expected to see the largest increases in the prevalence rate, at 5.2 and 2.5 percentage points, respectively. The number of additional undernourished people in the other regions is estimated to be smaller, with 4.2 million for central Africa, 1.9 million for northern Africa, and 1.7 million for southern Africa (FAO et al. 2021).

The pre-pandemic undernourishment growth trends observed at the continental level were similar for most of the country groupings. All country classifications recorded a decline in the prevalence rate during 2003–2008. The decline was maintained during 2008–2014 except in central Africa, which recorded an annual average increase of 0.1 percent. During 2014–2019, all

7 All dollar amounts listed in the chapter are constant 2010 US dollars, unless stated otherwise.

FIGURE 14.3—PREVALENCE OF UNDERNOURISHMENT, ANNUAL AVERAGE PERCENTAGE CHANGE, 2003–2019



Source: ReSAKSS, based on World Bank (2021) and ILO (2021a).

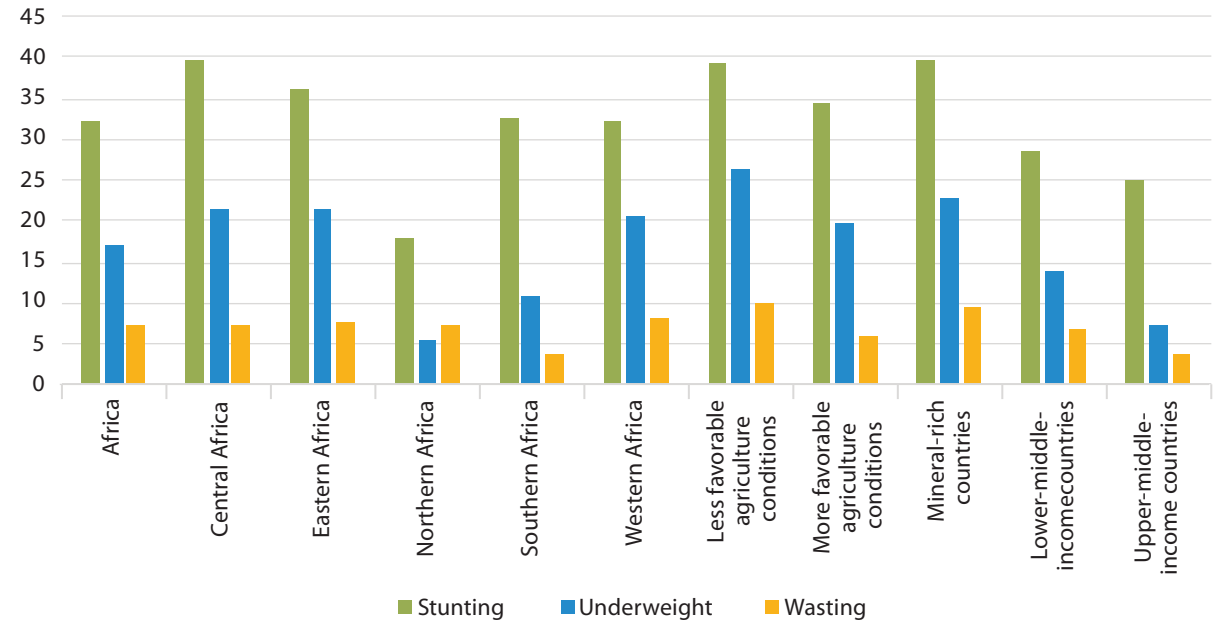
country groups except eastern Africa, countries with less favorable agriculture conditions, IGAD, and the group of countries that are yet to embark on NAIP formulation (N00) recorded increases in the prevalence rate, ranging from 0.6 percent per year (in central Africa) to 4.4 percent per year (in western Africa). Among geographic regions, only eastern Africa reduced its undernourishment level, by an annual average of 0.8 percent. Reviewing trends from the various country groupings shows that the countries that are yet to embark on NAIP formulation (N00) saw a gradual fall in the prevalence rate throughout the entire CAADP period, while for the other categories (N10 and N11), the decline observed in the initial CAADP period was not sustained in more recent years. Lower- and upper-middle-income countries recorded a notable deterioration during 2014–2019 when compared with the other economic categories.

Child growth is recognized worldwide as a crucial indicator in gauging the health and nutritional status of children (Mitsunaga and Yamauchi 2020). The three measures of child malnutrition presented in this section are child underweight, child stunting, and child wasting. For Africa as a whole, the *prevalence of child stunting*, a measure of low height for age in children under the age of five, declined steadily but slowly from an average of 38.4 percent in the 2003–2008 period to 35 percent and 32.1 percent in 2008–2014 and 2014–2019, respectively (Table L1.2.2B; Figure 14.4). Despite the declining trend in the prevalence rate, Africa is the only continent that recorded an increase in the number of children with stunting, from 54.4 million in 2000 to 61.4 million in 2020 (UNICEF et al. 2021). As an indicator of chronic malnutrition, stunting is expected to further increase due to the negative impacts of the COVID-19 pandemic on food security. One study estimates that the number of stunted children in low- and middle-income countries could increase by 2.6 million by 2022 (Osendarp et al. 2021); however, the full impacts of the pandemic on stunting may take years to become apparent, depending on the duration of the pandemic's negative economic effects as well as its impacts on maternal nutrition (UNICEF et al. 2021). Although most of the country classifications recorded declines in stunting during the entire 2003–2019 period, many subgroups still showed high rates of more than 30 percent in the most recent CAADP period of 2014–2019; stunting remained close to 40 percent in central Africa and ECCAS.

The country groupings with lower child stunting rates include northern Africa (17.8 percent) and UMA (14.8 percent).

The *prevalence of child underweight* (low weight for age) in children younger than five years of age showed an improving trend with varying rates during most of the review period (Table L1.2.2A; Figure 14.4). For Africa as a whole, the prevalence declined from an average of 21.3 percent during 2003–2008 to 19.1 percent and 17.2 percent during 2008–2014 and 2014–2019, respectively. In the most recent subperiod 2014–2019, central, eastern, and western Africa showed prevalence rates higher than the Africa average. Northern and southern Africa not only had lower prevalence rates but also recorded the largest annual average reductions at 4.2 percent and 5.1 percent, respectively. Between the most recent (2014–2019) and earliest (2003–2008) CAADP periods, a reduction of five percentage points or more in the prevalence rate was recorded in eastern Africa, countries with more favorable agricultural conditions, IGAD, countries that joined CAADP early (CC1), countries that are most advanced in implementing CAADP (CL4), and countries that formulated both NAIPs (N11).

FIGURE 14.4—PREVALENCE OF STUNTING, UNDERWEIGHT, AND WASTING IN AFRICA (PERCENTAGE OF CHILDREN YOUNGER THAN FIVE), 2014–2019



Source: ReSAKSS, based on World Bank (2021) and ILO (2021a).

The *prevalence of child wasting* (low weight for height), a measure of acute undernutrition in children younger than five years of age, declined moderately during the review period. For Africa as a whole, wasting prevalence declined from an average of 8.8 percent in the 2003–2008 period to 8 percent in 2008–2014 and 7.2 percent in 2014–2019. Between 2003–2008 and 2014–2019, a number of country groupings managed to improve child wasting from a "high prevalence" level (that is, more than 10 percent) to "moderate prevalence" (less than 10 percent). This includes western Africa, central Africa, countries with less favorable agricultural conditions, mineral-rich countries, CEN-SAD, ECOWAS, and the countries that joined CAADP early (CC1). Similarly, some country groupings managed to join the low wasting category with less than 5 percent prevalence during 2014–2019. These groups include southern Africa, upper-middle-income countries, SADC, and UMA, with a range of 4.5 percent to 3.9 percent. Conversely, northern Africa recorded a steady increase in wasting prevalence throughout the CAADP period, from 6.1 percent during 2003–2008 to 7.3 percent during 2014–2019 (Table L1.2.2C; Figure 14.4). This is the only country group that showed a worsening of child wasting during 2014–2019. According to UNICEF (2021), deteriorating social, economic, and health conditions due to ongoing conflicts over many years have negatively affected the nutritional status of children in northern Africa. In 2020, an estimated 12.1 million children younger than 5 years were wasted in Africa, with most living in western Africa (4.5 million) and eastern Africa (3.5 million), and the smallest

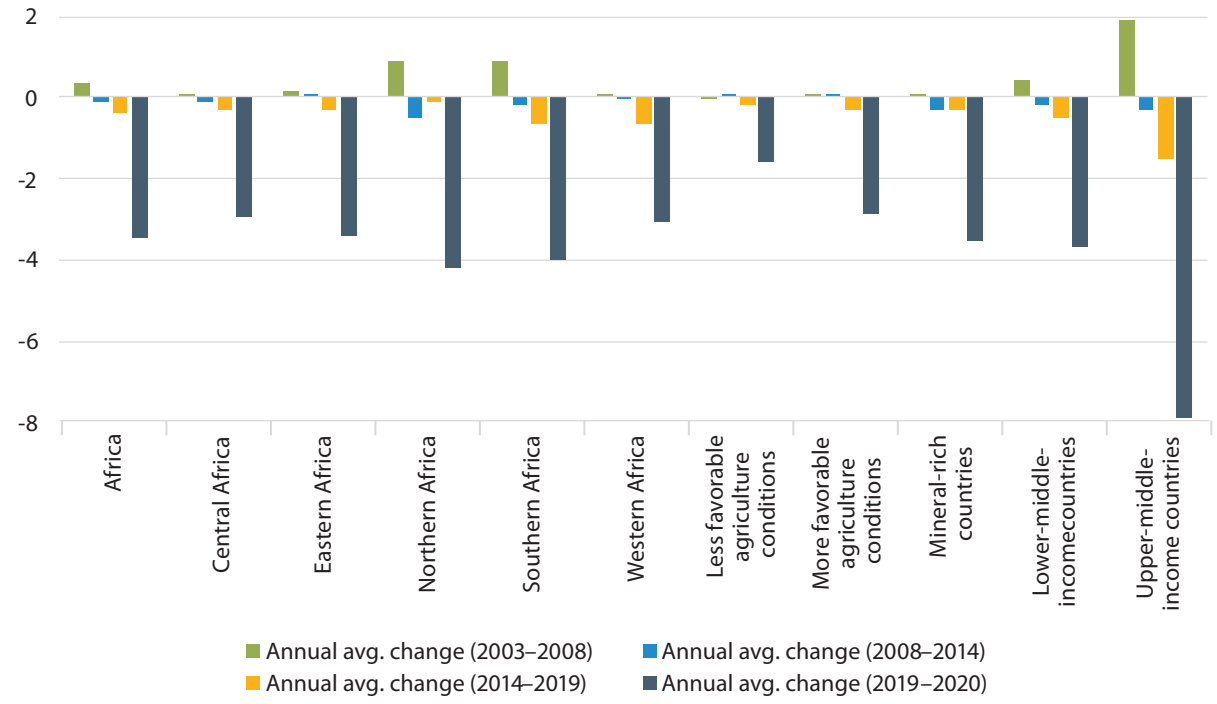
number in southern Africa (200,000) (UNICEF et al. 2021). In addition, the COVID-19 pandemic is expected to reverse previous progress and exacerbate the prevalence of wasting in low- and middle-income countries in Africa and elsewhere for several reasons, including severe deterioration in household incomes, interruption of services such as social protection and health, and fluctuations in the availability and affordability of healthy diets (Headey et al. 2020). According to FAO et al. (2021), between 2020 and 2022 the number of wasted children younger than five years of age in low- and middle-income countries will increase by 11.2–16.3 million. This estimate indicates that the impact of the pandemic will persist in coming years and will require concerted action to reverse.

Africa's dependency on cereal imports increased steadily but marginally during the whole CAADP period (Table L1.2.3). The continent's cereal import dependency ratio, or the share of imports in total cereal supply, increased from an average of 25.6 percent in the 2003–2008 period to 26.4 percent in 2008–2014 and to 27.6 percent in 2014–2017. The average for Africa conceals notable differences among the various country groupings. For the most recent subperiod for which data is available (2014–2017), more than half of cereal demand in northern Africa was met through imports, while eastern Africa had the lowest import dependency ratio of less than 15 percent. Countries that were less engaged with CAADP—those that had not yet signed a CAADP Compact (CC0), those that had not begun the CAADP process (CL0), and those that had not yet developed a NAIP (N00)—had the highest cereal import dependency ratios of more than 40 percent. The import dependency ratio increased by an annual average of 2.3 percent for Africa as a whole during the 2014–2017 period. Annual average growth in cereal import dependency was notably higher for upper-middle-income countries, at 16.5 percent, due to a rise in cereal imports starting in 2015.

Employment

Africa's *employment rate*, which is measured as a proportion of the labor force (Table L1.3.1A) and as a proportion of the population 15 years of age and older (Table L1.3.1B), recorded a slight decline since 2008, which accelerated significantly in 2020. For Africa as a whole, the employment rate as a proportion of the labor force marginally declined from 93.5 percent during 2008–2014 to 93.2 percent in 2014–2019. When the population 15 years of age and older is considered, the employment rate declined from 60 percent during 2008–2014

FIGURE 14.5—EMPLOYMENT RATE (PERCENT OF LABOR FORCE, 15–64 YEARS OF AGE), ANNUAL AVERAGE PERCENTAGE CHANGE, 2003–2020

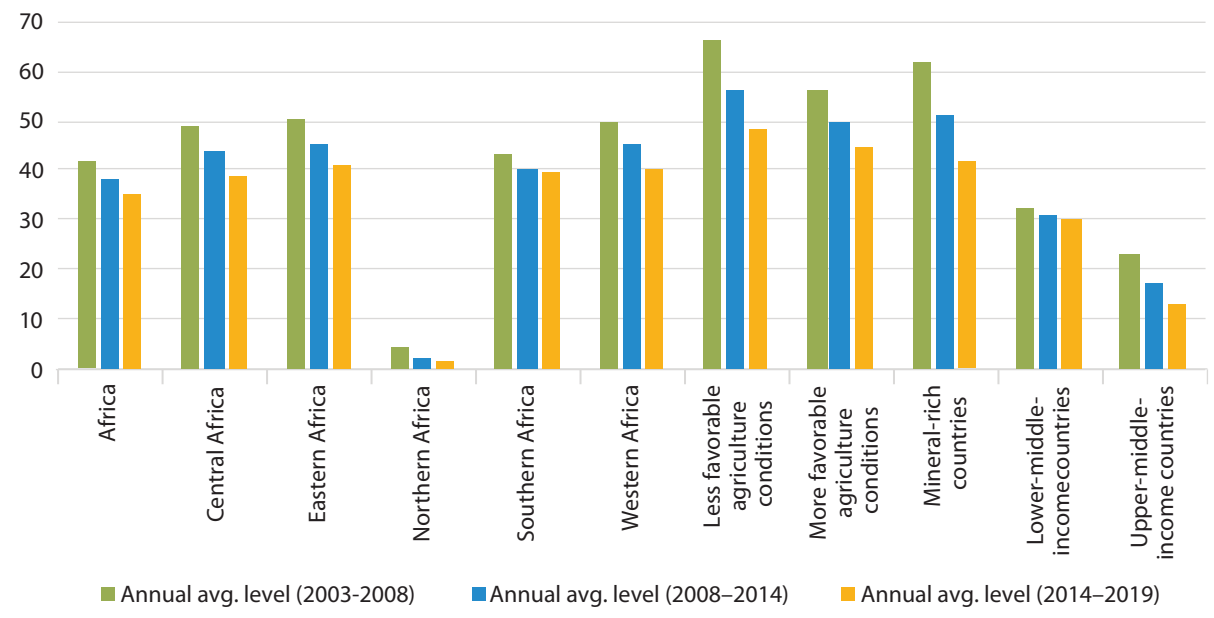


Source: ReSAKSS, based on ILO (2021a).

to 58.8 percent in 2014–2019. With the onset of the COVID-19 pandemic, the reduction in employment in 2020 was notably higher. The decline in the employment rate (measured as a proportion of the labor force) for Africa in 2020 amounts to 3.4 percent, much higher than the 0.04 percent annual average job loss recorded during 2014–2019 (Figure 14.5). In 2020, job losses higher than the average for Africa were recorded in northern and southern Africa, lower- and upper-middle-income countries, and the group of countries that are yet to formulate their NAIP (N00). According to the AU Labour Migration Advisory Committee (2020), about 20 million jobs are estimated to have been lost in Africa in 2020 due to the pandemic. The hardest hit are those employed in the informal sector, the majority of whom are women.

A report by the International Labour Organization (ILO) (2021b) similarly estimates that the crisis has resulted in the loss of 17 million jobs in Africa in 2020 compared to the situation in the absence of the pandemic. Different food system segments have been affected by the pandemic to varying degrees. At a global level, the food service and hospitality industries are expected to have suffered the heaviest employment losses, while agricultural employment is believed to have remained fairly stable (ILO 2021b). Preliminary analysis of enterprise survey data from the Democratic Republic of the Congo suggests that agricultural and agroprocessing firms experienced less severe COVID-19-related employment losses during the second quarter of 2020 than firms in many other sectors, including non-agricultural manufacturing (Collins and Ulimwengu 2021).

FIGURE 14.6—POVERTY HEADCOUNT RATIO AT $1.90 (2011 PPP) PER DAY (PERCENT), 2003–2019



Source: ReSAKSS, based on World Bank (2021) and ILO (2021a).

Poverty

As a measure of extreme poverty, the *poverty headcount ratio* measures the proportion of the population living below the international poverty line ($1.90 per day in 2011 PPP). During the entire review period, the poverty headcount ratio for Africa as a whole consistently declined from an average of 41.7 percent in the 2003–2008 period to 38.1 percent in 2008–2014, and further down to 35.2 percent in 2014–2019 (Table L1.3.4; Figure 14.6). However, the absolute numbers of people living in poverty have increased throughout the CAADP period. The COVID-19 pandemic is expected to further worsen poverty both in Africa and worldwide. The number of people living in extreme poverty globally is projected to increase in 2020 for the first time in more than 20 years (UN 2021). Compared to estimates of poverty in the absence of the pandemic, the number of poor is estimated to have increased by about 97 million in 2020 (Mahler et al. 2021), with Africa south of the Sahara accounting for nearly one-fourth of this projected rise. During the 2014–2019 period, UMA and northern Africa had the lowest poverty headcount ratios at less than 2 percent.

Poverty headcount ratios remain above 30 percent for all other geographic regions and RECs, with the highest rates—above 40 percent—in eastern Africa and EAC. Poverty is especially high in the group of countries which signed a CAADP Compact but did not advance further in the CAADP process (CL1), at 55.5 percent during 2014–2019.

The *extreme poverty gap* serves as a gauge of the severity of poverty by measuring the average shortfall in income from the poverty line. Table L1.3.3 shows that the poverty gap for Africa as a whole declined consistently during the whole CAADP period, dropping from an average of 16.4 percent in the 2003–2008 period to 14.1 percent in 2008–2014 and 12 percent in 2014–2019. The depth of poverty is the least severe in northern Africa and UMA, with poverty gaps of less than 0.4 percent, while the gap is highest in SADC and in the group of countries that signed a CAADP Compact only (CL1), with poverty gaps higher than 19 percent. The pandemic is expected to increase the depth of poverty and further widen the gap between the different income groups. The increase in COVID-19-induced poverty is not surprising given the outlook for wealth and employment status in Africa discussed in earlier sections. That is, the contraction in GDP per capita and job losses can be expected to worsen living standards and increase the proportion of the population living under extreme poverty.

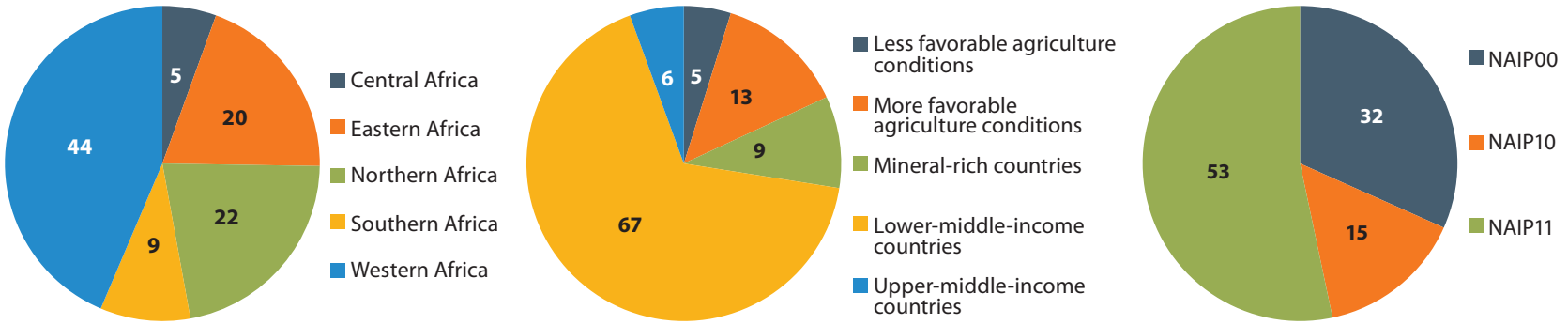
CAADP Results Framework Level 2 Indicators: Agricultural Transformation and Sustained Inclusive Agricultural Growth

Agricultural Production and Productivity

In Africa, the agricultural sector occupies a substantial social and economic position (Goedde, Ooko-Ombaka, and Pais 2019). It is a mainstay of the African economy, employing a significant portion of Africa's population, and as is shown in the section below, it is a source of growing intra-African trade. For Africa as a whole, *agriculture value added* increased from $222.3 billion in 2003 to $384.9 billion in 2020 (Table L2.1.1). During the CAADP period, the highest growth in agriculture value added was recorded during 2008–2014 with an annual average rate of 3.5 percent, which later dropped to 3 percent in 2014–2019. From 2019 to 2020, agriculture value added increased at a slightly slower rate of 2.4 percent. Among the different geographic regions, northern Africa showed the highest agriculture value added growth during 2014–2019 of 4.1 percent, followed by western Africa with 3.4 percent; agriculture value added declined by an annual average of 1.7 percent in southern Africa.

Western Africa accounts for the largest share of Africa's total agriculture value added with a share of 43.6 percent during 2014–2019, followed by northern Africa and eastern Africa with 21.9 percent and 19.7 percent, respectively.

FIGURE 14.7—AGRICULTURE VALUE ADDED, PERCENTAGE SHARE IN AFRICA TOTAL, 2014–2019

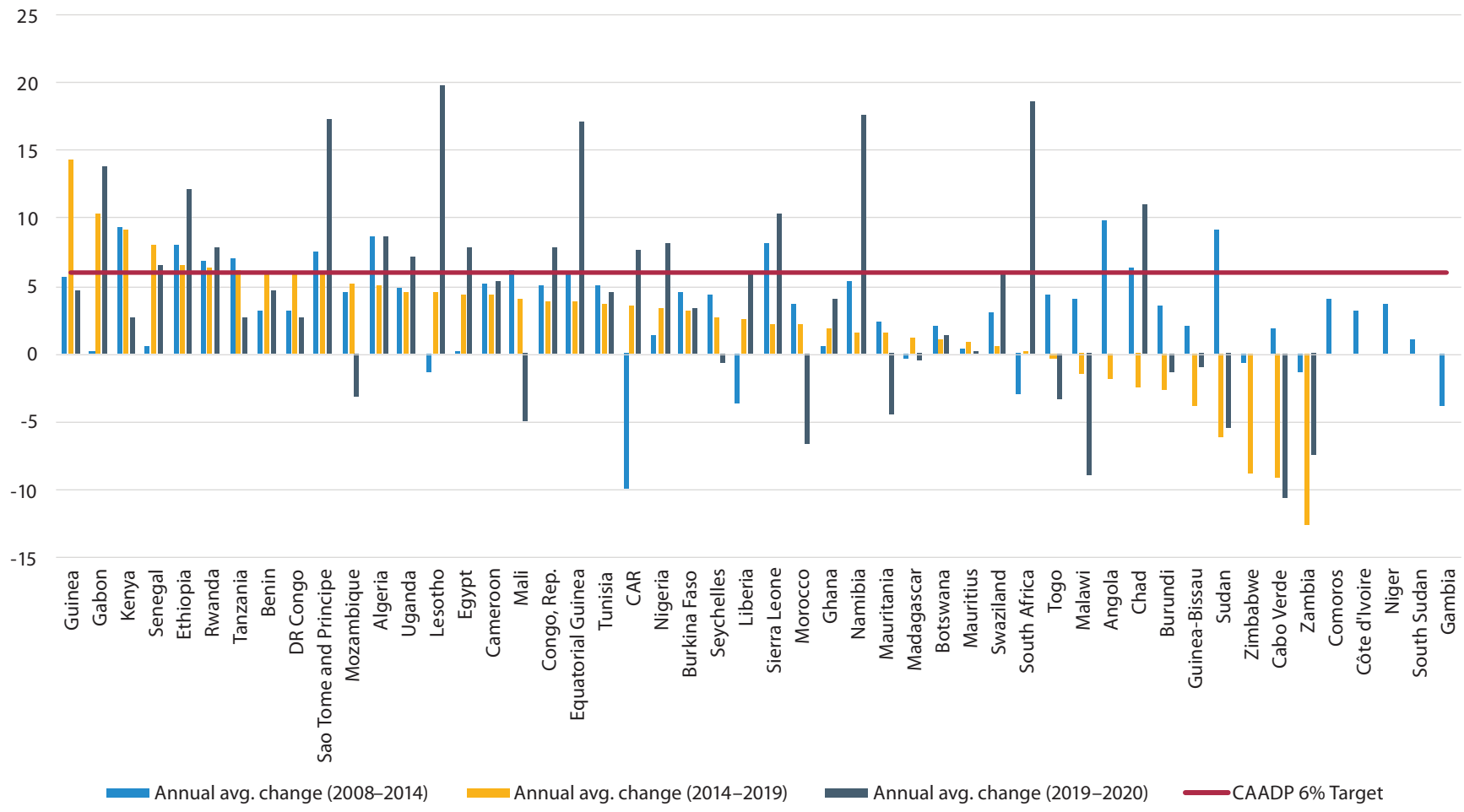


Source: ReSAKSS, based on World Bank (2021).

Central Africa has the smallest share of 5.5 percent. Among the economic categories and the groupings by NAIP progress, lower-middle-income countries and the countries that formulated both NAIP1 and NAIP2 (N11) account for the largest shares of agriculture value added (Figure 14.7).

Performance at the country level shows marked differences. Even though the majority of countries recorded positive agriculture value added growth during most of the CAADP period, only a few countries managed to meet or surpass the 6 percent CAADP growth target (Figure 14.8).

FIGURE 14.8—AGRICULTURE VALUE ADDED ANNUAL AVERAGE GROWTH (PERCENTAGE), 2008–2020

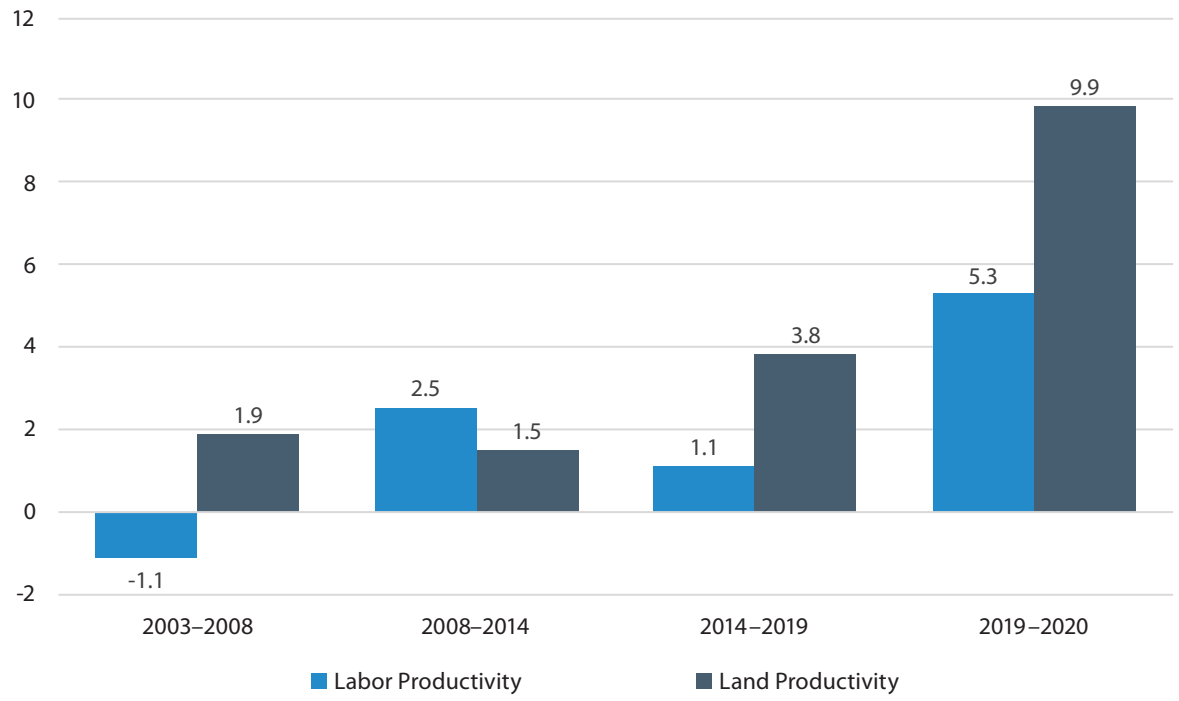


Source: ReSAKSS, based on World Bank (2021) and ILO (2021a).

Note: Countries are listed in order of their average change during the 2014–2019 period. Data are missing for some periods for Angola, Central African Republic (CAR), Comoros, Côte d'Ivoire, Gambia, Niger, South Sudan, and Zimbabwe.

The countries that managed to consistently achieve the CAADP target during 2008–2019 include Kenya, Rwanda, and Tanzania. During the most recent CAADP period of 2014–2019, Guinea and Gabon surpassed the 6 percent growth target by achieving annual average growth rates higher than 10 percent. Other countries that recorded notable growth and met the CAADP target of 6 percent in the same period include Niger, Senegal, Côte d'Ivoire, Benin, Democratic Republic of Congo, and Mozambique. Among country groupings, only EAC met the growth target through the entire 2008–2019 period, and only EAC and countries that signed CAADP compacts during 2010–2012 (CC2 countries) met the target in the most recent period of 2014–2019. The group of countries that signed a compact and formulated a NAIP (CL2 countries) came close to meeting the target, with an average annual growth rate of 5.9 percent (Table L2.1.1). Although few countries and country groups met the target in the most recent period, analysis by Benin (2016) found that advancement in the CAADP process had a positive effect on agriculture value added.

FIGURE 14.9—LABOR AND LAND PRODUCTIVITY IN AFRICA, ANNUAL AVERAGE PERCENTAGE CHANGE, 2003–2020



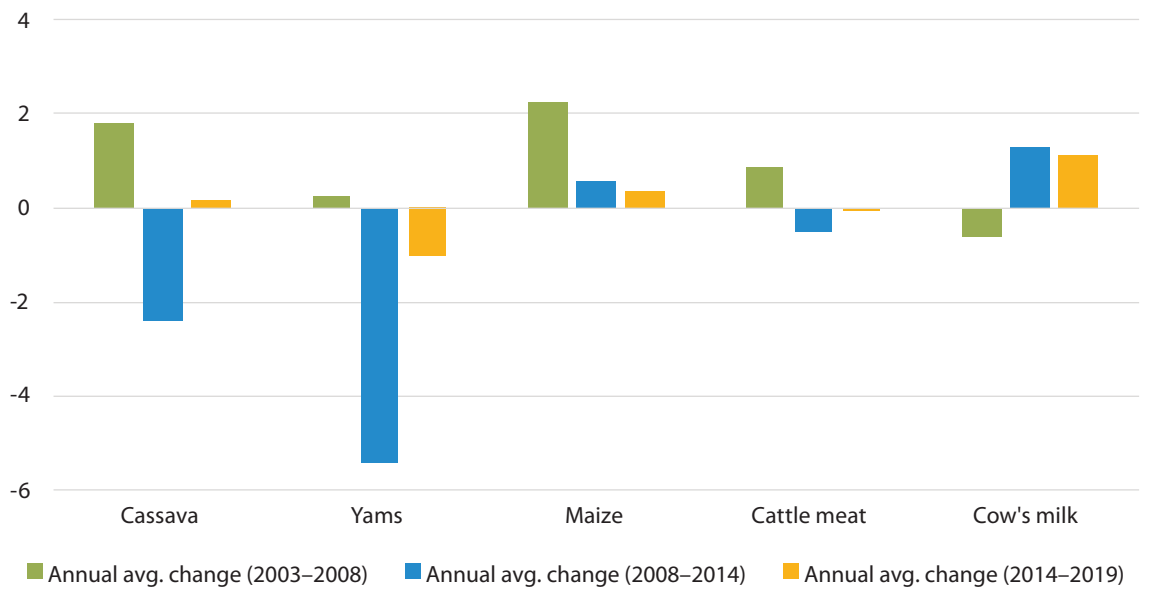
Source: ReSAKSS, based on World Bank (2021) and FAO (2021).

Despite the negative impacts of the COVID-19 pandemic on many economic sectors, agricultural output in Africa south of the Sahara increased in 2020 compared to 2019 (Zeufack et al. 2021). Many countries experienced strong agricultural growth, and nearly 20 countries met the CAADP 6 percent growth target in 2019–2020 (Figure 14.8). While this growth is likely due to many factors, it reflects research findings that the agricultural sector was not as adversely affected by the COVID-19 pandemic as other economic sectors (Bouët, Laborde, and Seck 2021; Amankwah, Gourlay, and Zezza 2021). Surveys in several African countries found that more households entered than exited agriculture in mid-2020, suggesting that households may have turned to agriculture to fill income and food gaps (Amankwah, Gourlay, and Zezza 2021).

The *agriculture production index* (API),[8] a measure of change in agricultural output, consistently increased for Africa as a whole and for the different country groupings throughout the pre-CAADP and post-CAADP periods. This indicates continued agricultural productivity growth in the continent. Table L2.1.2 reveals that API increased from an average of 76.1 points during 2003–2008 to 88.4 and 103.6 points during 2008–2014 and 2014–2019, respectively. The average growth

8 The API is calculated based on agriculture value added. Index values of 100 correspond to the average level of agriculture value added during the 2014–2016 period.

FIGURE 14.10—YIELDS FOR THE FIVE TOP AGRICULTURAL COMMODITIES IN AFRICA, ANNUAL AVERAGE PERCENTAGE CHANGE, 2003–2019



Source: ReSAKSS, based on FAO (2021).

rate of the API increased over time, indicating accelerating production growth, before slowing slightly in the 2014–2019 period. Trends in the API growth rate were similar among the various subgroupings despite some differences; central Africa consistently had the highest API growth among the geographic regions. During 2014–2019, the API growth rate was highest for countries with less favorable agriculture conditions at 5.3 percent and lowest for upper-middle-income countries at 0.4 percent.

Agricultural productivity growth benefits smallholder farmers in terms of improved incomes, employment, and livelihoods. It also helps consumers by reducing prices and increasing food availability. Therefore, productivity growth plays a critical role in improving food security and contributing to poverty alleviation efforts. *Agricultural labor productivity*, measured by agriculture value added per agricultural worker, declined for Africa as a whole during 2003–2008 at an annual average of 1.1 percent before rebounding to 2.5 percent growth in 2008–2014 (Figure 14.9). However, the growth rate slowed to 1.1 percent during 2014–2019. Between 2008 and 2019, consistently high and increasing labor productivity was recorded in northern Africa, while productivity fluctuated for many of the other country groupings (Table L2.1.3).

Studies show that agricultural growth in Africa south of the Sahara is mainly a result of area expansion and cropping system intensification rather than productivity improvement (OECD/FAO 2016). Despite this general trend, the recent performance shows that agricultural land productivity, measured by agriculture value added per hectare of arable land, recorded notable growth for Africa as a whole, increasing by an annual average of 3.8 percent during 2014–2019 (Figure 14.9). A similar trend is also observed among the different country groupings, indicating the presence of consistent land productivity growth since 2014.

Agricultural productivity growth notably increased during 2020, with land and labor productivity rising by 9.9 percent and 5.3 percent, respectively, between 2019 and 2020 for the continent as a whole. This strong productivity growth is reflected in the positive and robust agricultural value added growth seen in many countries (Figure 14.8).

The gross production value is a monetary measure of production. The average gross production value in 2014–2016 constant prices shows that cassava, yams, maize, cattle meat, and cow's milk are the five major agricultural products for Africa during the CAADP period.[9] Except for cow's milk, growth in yields of these major products has declined from average rates during the 2003–2008 period (Tables L2.1.5A, L2.1.5B, L2.1.5C, L2.1.5D, L2.1.5E; Figure 14.10). For cassava, yams, and cattle meat, negative yield growth, indicating absolute declines in yield, was recorded during 2008–2014; for yams, the negative yield

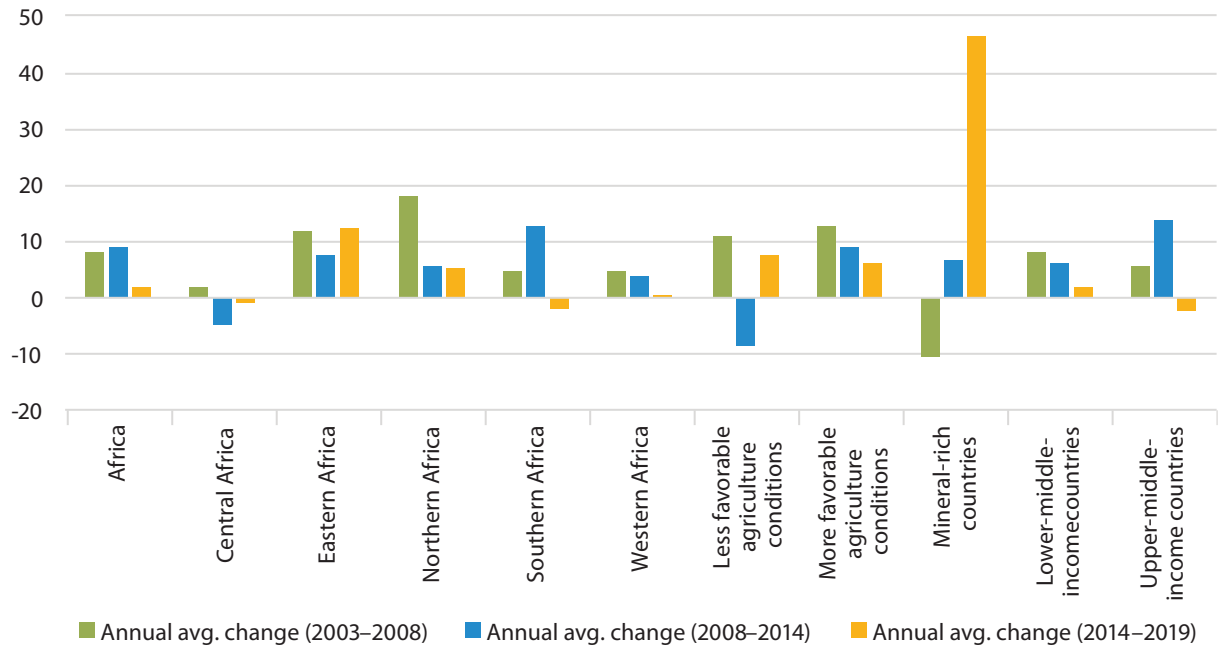
9 Data on gross production values during 2003–2019 are from FAO (2021).

growth persisted throughout 2014–2019 albeit at a slower rate. Even though growth in maize yield remained positive throughout the entire CAADP period, its rate has decelerated since the 2003–2008 period. Figure 14.10 also shows that growth in milk yield remained consistently positive since 2008.

Intra-African Agricultural Trade

Africa's annual food imports reached an average of $80 billion in the 2015–2017 period, having doubled within a decade (FAO and AUC 2021). Africa imports more than 80 percent of its food demand from outside of the continent, with spending amounting to approximately $35 billion (Akiwumi 2020). Increasing intra-African agricultural trade would permit a larger share of Africa's food demand to be met by producers within the continent, providing benefits that include job creation and improved incomes. In this regard, the 2014 Malabo Declaration includes a commitment to triple intra-African trade in agricultural commodities and services by 2025 (AUC 2014). Between 2015 and 2019, intra-African agricultural exports grew by only 10.5 percent.[10] Analysis from the 2021 Africa Agriculture Trade Monitor (AATM) shows that intra-African trade in processed agricultural products is growing faster than trade in raw materials, accounting for nearly half of intra-African agricultural trade by 2019. Efforts to boost regional trade should emphasize the acceleration of trade in processed products (Goundan and Tadesse 2021).

FIGURE 14.11—INTRA-AFRICAN AGRICULTURAL EXPORTS, ANNUAL AVERAGE PERCENTAGE CHANGE, 2003–2019



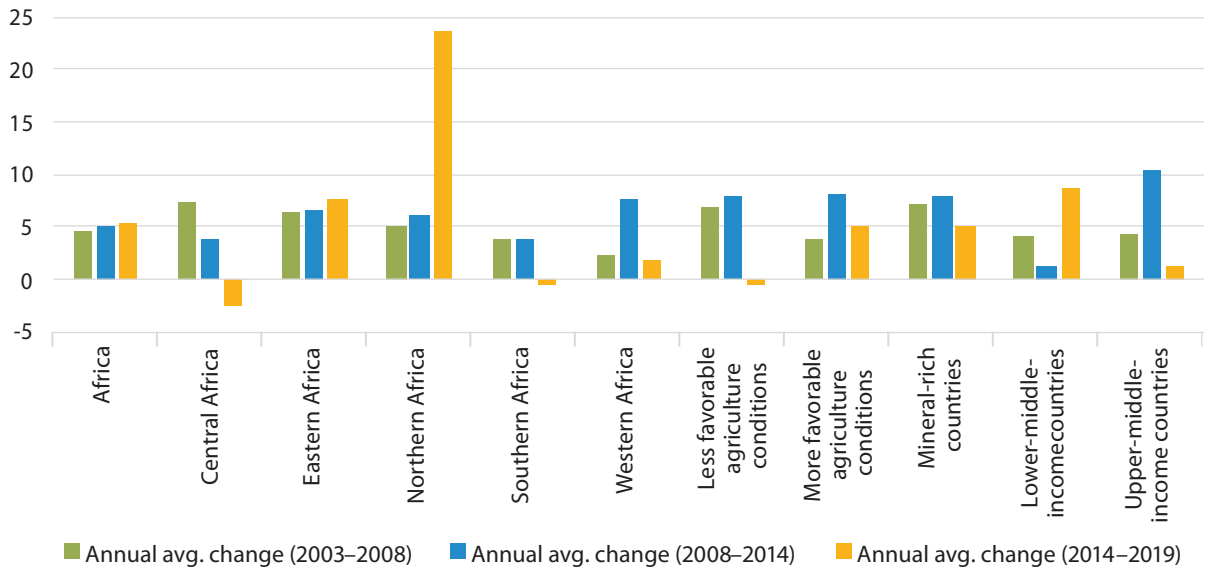
Source: ReSAKSS, based on UNCTAD (2021) and World Bank (2021).

However, the COVID-19 pandemic has severely obstructed intra-African trade. Movement restrictions, border closures, and other measures put in place to mitigate the spread of the disease also had the effect of disrupting food supply chains and impeding the movement of goods both within countries and across borders. Findings by Yade and colleagues in this volume demonstrate the large staple food price swings that occurred in the early months of the pandemic following movement restrictions that disrupted both international trade and domestic transport of goods. Complete data on intra-African trade in 2020 are not yet available, but several studies show large negative impacts on cross-border trade, particularly informal trade, an important income source for many households. For example, data collected at three border posts in Uganda suggest that formal trade declined by 16.4 percent between 2019 and 2020, while informal

10 It should be noted that ReSAKSS data on intra-African trade, which are based on data from the United Nations Conference on Trade and Development (UNCTAD), concern agricultural goods, while the Malabo Declaration intra-African trade commitment refers to trade agricultural services as well as goods. Tracking trade in agricultural services remains a major challenge, and defining methodologies to measure services trade has been identified as a priority by the AUC, AUDA-NEPAD, and technical partners supporting the BR process, including ReSAKSS (Fofana 2021).

trade fell by 77.6 percent (Bouët, Laborde, and Seck 2021). Similarly, informal maize trade measured at select borders in 11 East African countries was 58 percent lower in the second quarter of 2020 than the five-year second quarter average (FSNWG 2020). The pandemic also delayed the launch of trading under the African Continental Free Trade Area (AfCFTA) agreement by six months until January 1, 2021 and caused the postponement of other AfCFTA activities and events (Iroulo 2020). Disruptions in supply chains and trade resulting from the pandemic have highlighted the need for countries to ensure that health-related restrictions do not further impede food trade (FAO 2020).

FIGURE 14.12—INTRA-AFRICAN AGRICULTURAL IMPORTS, ANNUAL AVERAGE PERCENTAGE CHANGE, 2003–2019



Source: ReSAKSS, based on UNCTAD (2021) and World Bank (2021).

For Africa as a whole, *intra-African agricultural exports* nearly doubled from an annual average of $7.9 billion during 2003–2008 to $15.3 billion in 2014–2019 (Table L2.2.1A). For the continent as a whole, growth in intra-African agricultural exports has decelerated, increasing at an annual average of 9 percent during 2008–2014 but slowing to 2.1 percent in 2014–2019 (Figure 14.11). During 2014–2019, export growth was highest for mineral-rich countries, with annual average increases of more than 40 percent; however, this country group accounts for a very small share of intra-African agricultural trade. Among the geographic regions, eastern Africa experienced the largest increase in intra-African agricultural exports of 12.4 percent during the 2014–2019 period; exports declined slightly in central and southern Africa. For Africa as a whole, the value of *intra-African agricultural imports* increased from an annual average of $8.2 billion during 2003–2008 to $15.1 billion in 2014–2019 (Table L2.2.1B). Annual growth in intra-African agricultural imports for the continent as a whole remained around 5 percent on average during the 2003–2008, 2008–2014, and 2014–2019 periods (Figure 14.12). Over the 2014–2019 period, northern Africa saw rapid increases in imports of more than 20 percent per year on average, while imports declined slightly in central and southern Africa. It is important to note that the majority of African countries have already ratified the AfCFTA agreement (Tralac 2021). AfCFTA implementation is expected to expand intra-African trade by lowering barriers to the free movement of goods and services, thus enhancing the benefits of trade in terms of incomes, employment, and food security.

Resilience of Livelihoods and Management of Risks

The existence of food reserves, food insecurity response programs, and early warning systems is a key indicator for assessing the resilience of livelihoods and production systems to climate variability as well as for managing risks associated with the agricultural sector. As of September 2020, 42 countries had food reserves, conducted local purchases of food for relief programs, had early

warning systems, and were implementing school feeding programs (Table L3(b)). It is important to note that resilience-enhancing investments and interventions extend beyond those retained as indicators in the CAADP Results Framework. The BR process has highlighted the need to clarify what "building the resilience of production systems" encompasses in order to ensure that it includes areas such as irrigation, soil conservation and improved soil fertility, agroforestry, drought-resistant crop varieties, and other technologies and practices that can boost resilience and sustainably increase productive capacity.

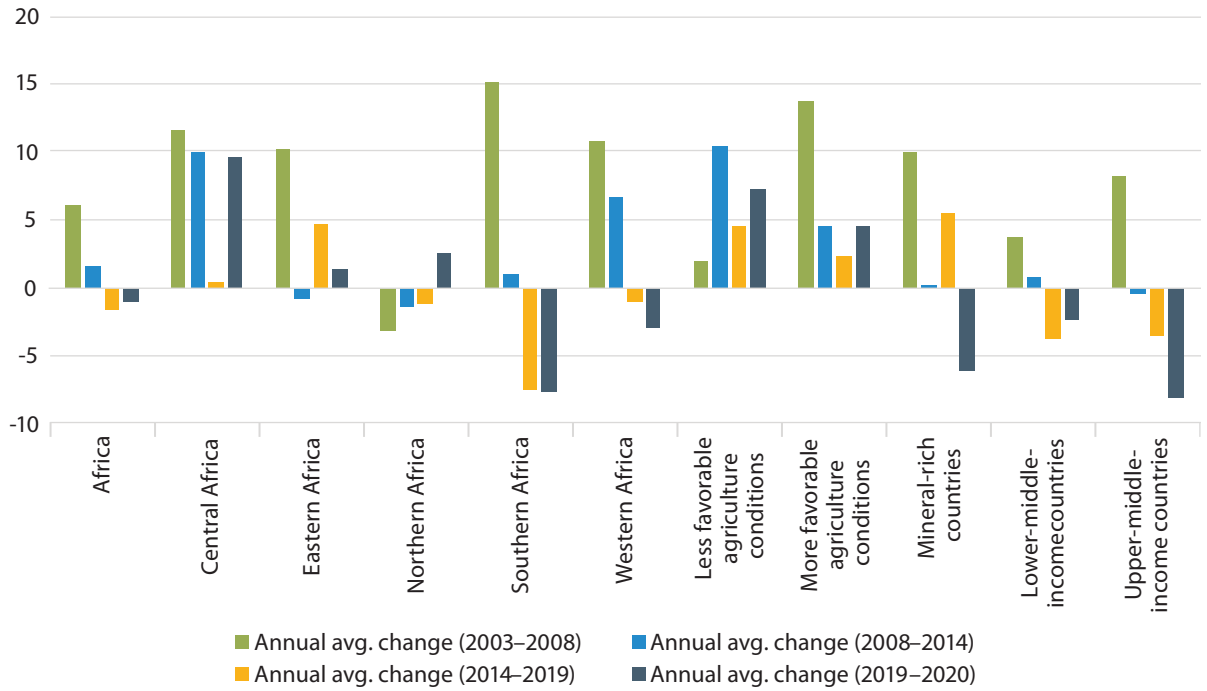
CAADP Results Framework Level 3 Indicators: Strengthening Systemic Capacity to Deliver Results

Capacities for Policy Design and Implementation

Progress in the implementation of actions intended to strengthen systemic capacity for agriculture and food-security policy planning and implementation is presented in Table L3(b). As of September 2021, 42 countries had drafted or formulated new or revised second-generation NAIPs through inclusive and participatory processes; 28 had inclusive institutionalized mechanisms for mutual accountability and peer review (mainly JSRs); 36 were implementing evidence-based policies; 31 had functional multisectoral and multistakeholder coordination bodies—mainly agricultural sector working groups; and 22 had successfully undertaken agriculture-related public-private partnerships to boost specific agricultural value chains.

As highlighted in JSR assessments carried out by ReSAKSS,[11] processes in many countries can be improved in terms of inclusivity and comprehensiveness, but are already strengthening accountability standards, improving coordination, and providing opportunities for a broader group of agricultural sector stakeholders to participate in policy formulation and evaluation (Ulimwengu et al. 2020). In addition, Strategic Analysis and Knowledge Support System (SAKSS) platforms, which help countries meet their specific data, analytical, and capacity needs, have been established in 14 countries. Ensuring the sustainability and performance of SAKSS platforms requires local ownership, engagement with an inclusive group

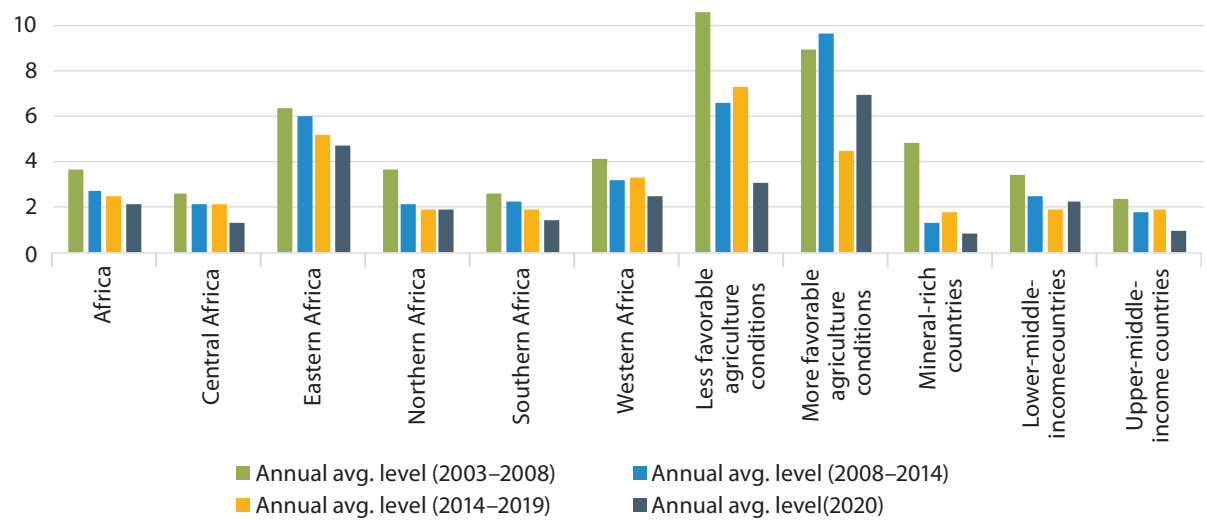
FIGURE 14.13—GOVERNMENT AGRICULTURE EXPENDITURE, ANNUAL AVERAGE PERCENTAGE CHANGE, 2003–2020



Source: ReSAKSS, based on IFPRI (2019), World Bank (2021), and national government sources.

11 JSR assessment reports are available at https://www.resakss.org/publications/aw?key=&type=Agriculture+Joint+Sector+Review+%28JSR%29+Assessment+Report&country=0&topic=0.

FIGURE 14.14—SHARE OF GOVERNMENT AGRICULTURE EXPENDITURE IN TOTAL GOVERNMENT EXPENDITURE (PERCENT), 2003–2020



Source: ReSAKSS, based on IFPRI (2019), World Bank (2021), and national government sources.

of local partners, links with policy agenda-setters, and robust financial support from multiple sources (Johnson and Flaherty 2011).

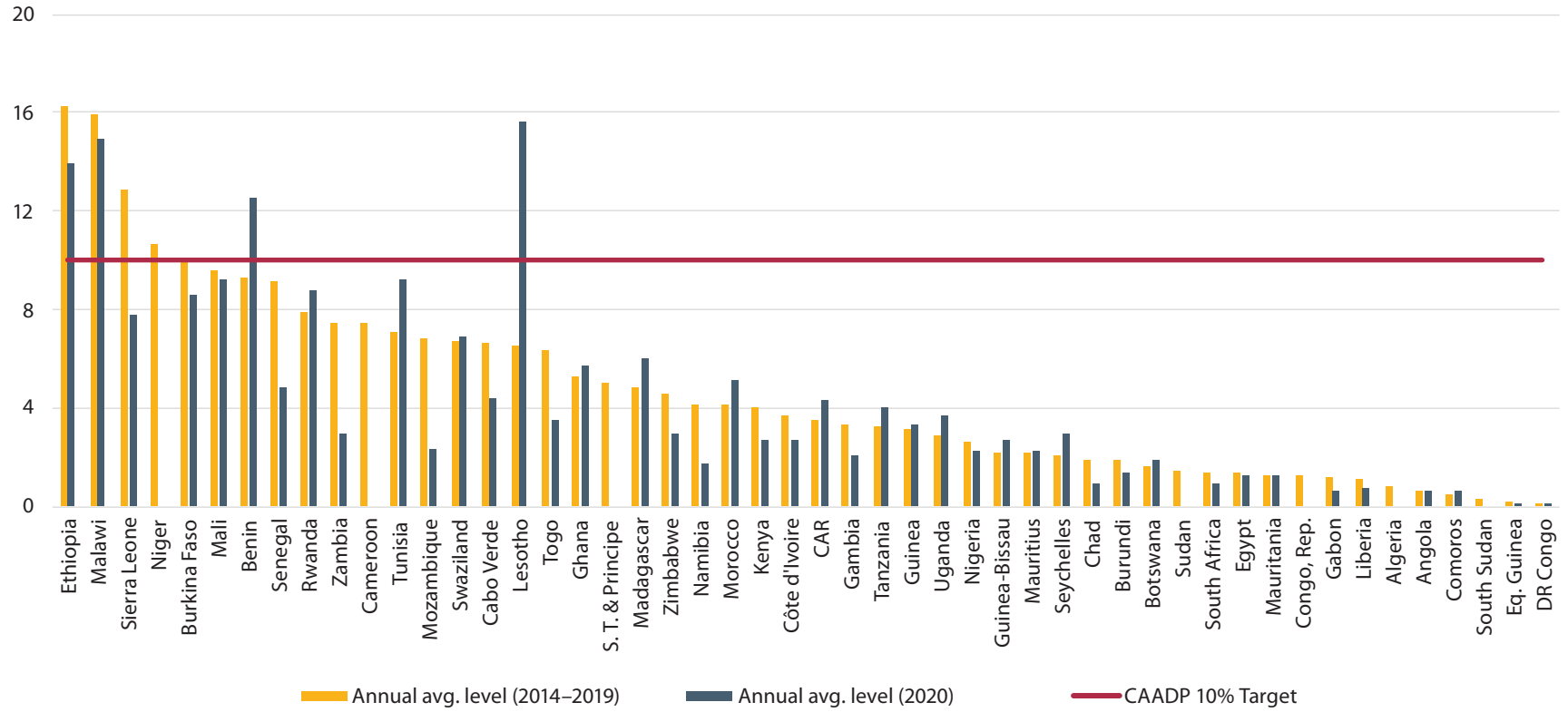
Government Agriculture Expenditure

Government expenditure is one of the key tools that African governments can employ to transform the agricultural sector, reduce hunger and poverty, and promote economic growth. As agriculture is the mainstay of most African economies, increased spending in the sector can accelerate economic growth and transformation on the continent. Yet the growth in Africa's government agriculture expenditure (GAE) has been in decline in recent years. Although GAE experienced strong growth following the launch of CAADP when it rose at an annual average of 6.1 percent from 2003 to 2008 for Africa as a whole, growth has since decelerated—GAE grew at 1.6 percent from 2008 to 2014 but contracted 1.5 percent from 2014 to 2019 and 1 percent from 2019 to 2020 (Figure 14.13 and Table L3.5.1). For Africa as a whole, the declining growth trend continued during the COVID-19 pandemic when GAE marginally fell from an annual average of $16.1 billion in the 2014–2019 period to $15.5 billion in 2020.

In addition to Africa as a whole, the majority of the other country groupings also experienced negative growth in GAE, particularly during 2014–2019 and 2019–2020 (Figure 14.13 and Table L3.5.1). A few country groupings experienced positive growth in GAE during 2014–2019, but only mineral-rich countries and EAC recorded annual average growth rates of at least 5 percent during this period (Figure 14.13). A similar pattern occurred in 2019–2020, when most country groups saw slower or negative growth in GAE. Only three country groups—central Africa, countries with less favorable agriculture conditions, and EAC—recorded annual average growth rates in GAE of at least 5 percent in 2019–2020 (Figure 14.13). While the rate of growth in GAE has slowed, the average level of expenditures has generally increased over time. For example, Africa's GAE increased from an annual average of $13.2 billion during 2003–2008 to $16.1 billion during 2014–2019 and fell slightly to $15.5 billion in 2020.

A key provision of the 2003 Maputo Declaration and 2014 Malabo Declaration is the commitment by African leaders to allocate at least 10 percent of national budgets to the agricultural sector. For Africa as a whole and several country groupings, agriculture expenditure as a share of total government expenditure has not only remained below the 10 percent CAADP target, but it has also been on a declining trend during the post-CAADP period (Table L3.5.2 and Figure 14.14). For Africa as a whole, the annual average share fell from 3.6 percent during 2003–2008 to 2.7 percent in 2008–2014 and down to 2.5 percent in 2014–2019. In 2020, the share dropped further to 2.1 percent. While no country grouping met the CAADP budget share target of 10 percent in 2008–2014, 2014–2019, and 2020, countries with more favorable agriculture

FIGURE 14.15—SHARE OF GOVERNMENT AGRICULTURE EXPENDITURE IN TOTAL GOVERNMENT EXPENDITURE (PERCENT), 2014–2019 AND 2020



Source: ReSAKSS, based on IFPRI (2019), World Bank (2021), and national sources.
Note: 2020 data missing for Algeria, Cameroon, Niger, Sao Tome and Principle, Republic of Congo, South Sudan, and Sudan.

conditions achieved an agriculture expenditure share of at least 5 percent in 2020. Country groupings that achieved at least a 5 percent agriculture expenditure share during 2014–2019 include eastern Africa (5.2 percent), countries with less favorable agriculture conditions (7.2 percent), IGAD (5.9 percent), and the group of countries advanced in implementing CAADP (CL4) (5.5 percent) (Table L3.5.2 and Figure 14.14). The groups of countries that launched the CAADP process early (CC1 and CC2), are most advanced in implementing CAADP (CL4), and those that have completed both first- and second-generation NAIPs (N11) also showed higher agricultural expenditure shares than the groups of countries that joined CAADP later and have not advanced in CAADP implementation.

Although no country grouping met the CAADP 10 percent budget target, several countries met the target during 2014–2019 and even in 2020. Figure 14.15 shows that five countries met or surpassed the 10 percent target in 2014–2019 (Ethiopia, Malawi, Sierra Leone, Niger, and Burkina Faso), while four countries met or surpassed the target in 2020 (Ethiopia, Malawi, Benin, and Lesotho). Three countries—Mali, Benin, and Senegal—came close to meeting the

10 percent target in 2014–2019, while Mali and Tunisia also came close in 2020 with agriculture budget shares of more than 9 percent. While raising the level of expenditure is important, African countries also need to pay close attention to the quality and composition of the expenditure in order to ensure its effectiveness in meeting agricultural transformation objectives (Goyal and Nash 2016; Pernechele et al. 2021). Moreover, in light of the COVID-19 pandemic and the importance of the agricultural sector, governments need to prioritize quality investments in agriculture, which remains a primary source of income and employment in many African countries.

The *share of GAE in agricultural GDP* provides a good measure of the priority a government places on agriculture expenditure relative to the size of its agricultural sector. While GAE as a share of agricultural GDP increased during 2003–2008 following the launch of CAADP for Africa as a whole and most country groupings, it has since declined and remained rather low. For Africa as a whole, the share declined from an average annual level of 5.8 percent during 2003–2008 to 4.6 percent in 2014–2019, before further declining to 4 percent in 2020 (Table L3.5.3). Thus, less and less government agriculture spending has been allocated relative to the size of the agricultural sector. In contrast, the share has remained relatively higher (above 10 percent) in southern Africa and upper-middle-income countries, reflecting, on average, the relatively smaller share of the agricultural sector in the economies of these country groupings (Table L3.5.3).

Conclusion

This chapter discusses Africa's performance on 27 CAADP RF indicators across different geographic and economic groupings, comparing trends during different CAADP subperiods. The chapter assesses Africa's performance prior to the COVID-19 pandemic while also highlighting changes to the indicators during the pandemic in 2020. Prior to the pandemic, during 2014–2019, Africa faced declining GDP per capita growth, a rising prevalence of undernourishment, high proportion of child stunting, increasing number of poor people, and declining share of and growth in GAE. The COVID-19 pandemic has aggravated Africa's performance in these key indicators and further threatened progress toward meeting the commitments of the 2014 Malabo Declaration.

In recent years, before the onset of the COVID-19 pandemic, Africa's economic growth had been decelerating for several reasons, including the economic slowdown and lower commodity prices recorded at the global level. The pandemic worsened these challenges and resulted in an economic recession for the first time in more than two decades. For example, Africa's GDP per capita in 2020 regressed to the amount recorded a decade earlier. Africa's employment rate had been decreasing slightly prior to the pandemic, but employment fell more sharply in 2020, with the pandemic estimated to have cost the continent millions of jobs. Household consumption expenditure per capita also contracted in 2020, reflecting reduced incomes that resulted from the crisis.

For food and nutrition security, similar challenges have also been observed in recent periods. The prevalence of undernourishment increased by an annual average of 1.1 percent during 2014–2019; in 2020, the proportion is estimated to have expanded to 21 percent, with the number of undernourished people in Africa increasing by 46.2 million (FAO et al. 2021). Despite progress in reducing the prevalence of child stunting, underweight, and wasting, levels of child malnutrition remained high prior to the pandemic, and the absolute number of stunted children increased since 2000 (UNICEF et al. 2021). The number of malnourished children likely increased further during 2020 and will potentially continue growing in subsequent years. Several factors contribute to the pandemic's negative impact on nutrition status, including significant reduction in household incomes, interruption of services, and fluctuations in the availability and affordability of healthy diets. These factors will significantly affect Africa's progress toward the Malabo Declaration targets of reducing stunting to 10 percent and underweight to 5 percent by 2025.

Studies show that for the first time in more than two decades, the poverty headcount ratio at $1.90 a day is expected to have expanded globally in 2020. Africa already faced challenges in translating economic growth into poverty reduction prior to the COVID-19 crisis: although the prevalence and depth of poverty declined during the CAADP period up until the onset of the pandemic, the absolute number of poor people was already increasing. Progress toward the Malabo Declaration goal of halving 2015 poverty levels by 2025 has been further threatened by the pandemic.

The agricultural sector plays a pivotal role in Africa in terms of employment, incomes, trade, and food security. Growth in agricultural labor and land productivity—essential for increasing incomes and ensuring adequate food for a growing population—has been positive during most of the CAADP period. Agricultural production and productivity also continued to increase in 2020, in

contrast to many other economic sectors. The continent, however, has not been able to achieve the CAADP and Malabo Declaration target of 6 percent annual growth in agriculture value added throughout the CAADP period. Furthermore, for Africa as a whole, GAE as a share of total government expenditure declined from 2.5 percent during 2014–2019 to 2.1 percent in 2020. Only four countries (Ethiopia, Malawi, Benin, and Lesotho) met or surpassed the CAADP and Malabo Declaration budget share target of allocating 10 percent of the national budget to agriculture in 2020. This suggests the need to not only raise the level of agricultural investments but to also prioritize quality investments to ensure the effectiveness of the expenditures.

Given the severe impacts of the COVID-19 pandemic and the existing challenges in sustaining progress toward development goals, investment in programs and initiatives is urgently needed to reduce vulnerabilities exacerbated by the pandemic. These necessary initiatives include improvements to the coverage of social protection programs, which are essential to preserving households' wellbeing during times of crisis (see chapters 7 and 8 in this volume); expansion of irrigation to reduce climate- and weather-related risks; and other investments in resilience and productive capacity. In particular, governments should increase investments in agricultural productivity, including by adequately funding agricultural research and development.

Although intra-African agricultural exports consistently increased during the CAADP period, they grew at a slower rate of 2.1 percent in the more recent 2014–2019 period. The slower growth may not bode well for achieving the 2014 Malabo Declaration goal of tripling intra-African trade in agricultural commodities and services by 2025. Thus, policies to promote cross-border trade are important to ensure consumers' access to food and producers' access to inputs and broader markets. In addition to trade facilitation efforts, these policies should include initiatives to improve the quality and completeness of trade data, including informal trade, in order to allow countries to better monitor the effects of crises on trade and identify means to mitigate negative impacts (Bouët, Tadesse, and Zaki 2021). The launch of trading under the AfCFTA agreement on January 1, 2021 was an important positive development during the COVID-19 period. AfCFTA implementation should be accelerated in order to ensure that its potential benefits—in terms of increased incomes and food security—contribute to Africa's recovery from the effects of the pandemic.