CHAPTER 1 Introduction

John M. Ulimwengu, Ebenezer Miezah Kwofie, Julia Collins, and Augustin Wambo Yamdjeu

Overview

Africa Agriculture Development Programme (CAADP), which was launched with the Maputo Declaration in 2003. With CAADP, African leaders committed to promoting agricultural growth as a key catalyst of broader economic development. After the first decade of CAADP implementation, characterized by strong agricultural and economic growth across the continent, the CAADP agenda was broadened under the 2014 Malabo Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods. The Malabo Declaration reaffirmed the commitments of African heads of state to the original CAADP targets of achieving a 6 percent agricultural growth rate and a 10 percent agricultural expenditure share, while adding further commitments to be achieved by 2025 in areas including nutrition, poverty, resilience, and trade.

With 2025 approaching, the African Union, regional economic communities, and countries are embarking on the process of designing the next phase of CAADP implementation. The post-Malabo agenda will need to build on the significant successes of CAADP in the past 20 years while learning from mistakes and failures. Moreover, the next CAADP cycle must expand to focus on additional key areas that have emerged in the past decade. In particular, the importance of applying a food systems lens to policy has been widely acknowledged; this involves taking into account the wide range of actors and activities involved in the production, distribution, and consumption of food and the interlinkages among them. Through CAADP, as reinforced under the Malabo Declaration, African leaders already envisioned a food systems approach to trigger an agricultural-led economic transformation across the continent. Extensive reflection in the years following the Malabo Declaration has helped to clarify continental priorities for food systems transformation and brought to light additional strategic areas that should be addressed through food systems transformation efforts. The development of the post-Malabo agenda is therefore an opportunity to deepen the focus on food systems and further strengthen CAADP implementation to promote sustainable food systems transformation.

The main objective of the 2023 Annual Trends and Outlook Report (ATOR) is to generate evidence on the implementation of the CAADP/Malabo agenda and thus contribute to the design of the post-Malabo phase of CAADP implementation. The remainder of this introductory chapter briefly reviews the current state of the food systems transformation agenda in Africa before highlighting the ATOR's 12 substantive chapters.

Advancing Transformation of Africa's Food Systems

Food systems can be broadly defined as encompassing the group of actors and activities involved in the production, processing, distribution, consumption, and disposal of food, as well as the surrounding environment (von Braun et al. 2021). Food systems transformation refers to changes in food systems toward desirable outcomes; it generally encompasses movement toward food systems that are productive, resilient, and environmentally sustainable; support remunerative livelihoods; and provide healthy diets for all.

Africa's food systems face threats from several fronts that will only intensify in the future and thus need to be addressed as a matter of strategic priority. The COVID-19 pandemic, the Russia-Ukraine war, and resulting global commodity market disruptions, as well as extreme weather events linked to a deepening climate crisis, are all indicative of shocks and stressors that put significant pressures on global and African food systems (Badiane and von Braun 2022). In addition to long-term dynamics such as demographic changes, urbanization, and a continentwide nutrition transition, these shocks represent a complex web of challenges to African food systems. When left unmitigated, the likely effects of shocks and stressors on agricultural yields and productivity, infrastructure, broader economic growth, and community livelihoods risk unraveling the progress made in improving food security and nutrition and alleviating poverty.

Food systems challenges cannot be addressed in isolation, but require coordinated actions to remove constraints on multiple fronts. For example, efforts to increase farm productivity may not result in improved incomes for farmers or increased availability of food in domestic markets if transport infrastructure

is inadequate to bring harvests to markets. Investments in irrigation or mechanized processing equipment may not improve productivity if energy supplies are unreliable. Increased supply of nutrient-dense foods may not improve nutrition if consumers cannot access them due to lack of financial resources or physical access to markets, or if they choose not to due to preferences or lack of knowledge. Because of the interlinked nature of such challenges, a food systems approach that considers the entire constellation of actors and activities and the interactions among them is essential to advancing development goals.

In 2021, the United Nations Food Systems Summit (UNFSS) focused attention on the importance of applying a food systems lens to development efforts. Africa participated enthusiastically in the UNFSS, holding numerous regional and thematic dialogues to garner experiences and ideas from across the continent on challenges facing its food systems and potential solutions. Going into the UNFSS, the African Union Commission (AUC) and African Union Development Agency-New Partnership for Africa's Development (AUDA-NEPAD) developed the Africa Common Position on Food Systems after extensive stakeholder consultations. The Common Position highlights key action areas involving national, regional, and continental interventions with necessary thematic and sector coherence, alignment, and interdependences (AUC and AUDA-NEPAD 2021). It also underscores the urgent need to pursue sustainability and resilience as a means of achieving food systems transformation by catalyzing rapid expansion in agricultural and food productivity and production, boosting investment financing for Africa's food systems transformation agenda, ensuring access to safe and nutritious food for all, and strengthening and harnessing Africa's growing local food markets. Africa also engaged with the UNFSS at the country level, with a majority of countries developing national pathways documents that outline priorities, actions, and commitments for food systems transformation.

The momentum created by the UNFSS has begun to drive action to achieve food systems transformation goals throughout Africa. However, a few critical hurdles are yet to be overcome, including the challenge of generating evidence to support the design of policies and interventions for food systems transformation. Operationalizing the national pathways after the summit has also proved difficult. During preparations for the UNFSS+2 Stocktaking Moment in 2023,

representatives from African countries identified several obstacles to implementing national pathways, including recent overlapping health, climate, and conflict-related shocks affecting food systems; high inflation, which has lowered access to agricultural inputs as well as healthy food; lack of financial resources; and technical capacity constraints (UN Food Systems Coordination Hub 2023). Other challenges include a lack of clarity on the division of responsibility for food systems transformation within governments, as well as insufficient coordination (Morrison 2022).

Informing the Development of the Post-Malabo Agenda

Addressing the challenges to achieving Africa's food system goals requires evidence to inform policy choices and the design of implementation plans. Knowledge and analysis has been an important factor for CAADP in successfully informing the development of its agenda, as well as its implementation at the regional and country levels. In the early years of implementation, African centers of expertise, known as Pillar Institutions, provided knowledge support related to sustainable land and water management, market access, food supply and hunger, and agricultural research. The Regional Strategic Analysis and Knowledge Support System (ReSAKSS) was established in 2006 to provide data and evidence in support of CAADP implementation, as well as strengthening evidence-based policymaking systems. African universities, think tanks, and research organizations also contribute to generating and analyzing evidence to guide implementation. The post-Malabo agenda should continue to emphasize the strong role of locally relevant evidence to strengthen the development of broad strategies, as well as the design of detailed implementation plans and investments.

The goal of this report is to begin the process of consolidating evidence and knowledge to guide the design of a robust and comprehensive post-Malabo agenda for continued food systems transformation in Africa. The report chapters (1) assess the current status of food systems, explore methodological issues, and review the alignment of food system commitments with other global goals, and (2) provide detailed assessments of key food systems components and cross-cutting issues, and offer recommendations for their coverage in the post-Malabo agenda.

The report begins with a detailed examination of performance under the Malabo Declaration. In chapter 2, Ulimwengu, Tefera, and Wambo Yamdjeu analyze Africa's performance in the last three Biennial Reviews (BR) and assess the efforts still needed to meet the Malabo Declaration goals and targets by 2025. In addition to descriptive analysis, the study uses structural equation modeling to empirically assess the causal relationships hypothesized in the Malabo theory of change. Although CAADP aims to help African countries reach a higher path of economic growth through agriculture-led development, the chapter shows that the goals of CAADP have not yet been met. The authors argue that the lack of progress in achieving CAADP/Malabo targets is a complex issue that encompasses numerous factors including policy and institutional failures. They emphasize the importance of quality data to help translate the CAADP/Malabo agenda from policy to effective action and stress that success requires the involvement of private sector players, international partners, and local communities in addition to governments.

The complex nature of food systems, with their multiple interlinked activities and actors, can pose challenges for designing and implementing food systems policies because of the potential synergies and trade-offs between food system components. In chapter 3, Matchaya and Guthiga demonstrate the potential role of food system diagnostics to inform policy options for guiding food systems transformation. Food system diagnostics is an analytical approach to assess the various components and interdependencies within a food system, describing dynamics and highlighting strengths, weaknesses, and challenges. It allows stakeholders to identify food systems policy gaps, determine achievable targets, promote sustainable agricultural practices, and explore existing opportunities for food systems transformation. The authors carry out food system diagnostic analysis for Malawi, providing a detailed assessment of the current status of major food system components and identifying gaps in food system policy coverage. The chapter highlights the importance of robust stakeholder involvement in any food system diagnostic analysis as an iterative, collaborative process.

In addition to the outputs of the 2021 UNFSS, several other global and continental frameworks have been developed to achieve sustainable and healthy food systems, including the seven food systems priority policy actions proposed by the World Health Organization (WHO) to improve the ability of food

systems to ensure good nutrition. The complexity of the food systems transformation agenda means that it is important to evaluate the degree to which different commitments and frameworks reinforce each other. In chapter 4, Nanema, Amevinya, and Laar assess the alignment of Africa's UNFSS commitments with the seven WHO food systems priority policy actions as well as selected CAADP BR performance categories. They find that national and continental UNFSS commitments are only partially aligned with the frameworks examined, and that alignment of UNFSS commitments with BR performance categories is higher than their alignment with the WHO policy actions. The UNFSS commitments place significant emphasis on combating hunger and food security through sustainable increases in production, as well as building resilience to shocks and stressors. In addition to these essential areas, more attention should be paid to the areas included in the WHO priority policy actions, which aim to improve the food environment to promote healthy diets.

Africa's nutrition challenges are multifaceted. In addition to persistent undernourishment and growing issues of overweight and obesity, micronutrient deficiencies, also known as "hidden hunger," are widespread. In chapter 5, Ulimwengu, Magne Domgho, and Collins make the case for nutrition-smart food systems that deliver not only sufficient quantities of food, but sufficient quality to address micronutrient deficiencies. Using the cases of Senegal and Rwanda, the authors estimate and map three types of nutrient adequacy: nutrient production adequacy, nutrient market adequacy, and nutrient household adequacy. Differences in adequacy patterns at different stages provide insight into potential areas of loss or gain of nutrients within the food system. The analysis also demonstrates the varying patterns of adequacy within countries and between different nutrients, highlighting the need for context-specific solutions to improve nutrition.

Food safety is a key component of food and nutrition security. Africa suffers from a disproportionate burden of foodborne diseases, which are associated with increasing health and economic repercussions. In chapter 6, Ayalew, Kareem, and Grace review the current food safety landscape in Africa, discussing available evidence on the burden of unsafe foods, identifying key challenges to improving food safety, and reviewing continentwide initiatives to strengthen food safety systems. They call for a paradigm shift in food safety governance in Africa, with emphasis on food safety as a shared responsibility,

greater prioritization of domestic food safety needs, sustained funding to strengthen food safety systems and capacities, and investments in quality data on food safety. The authors make recommendations for the post-Malabo agenda to adequately capture and measure food safety systems and health outcomes.

The importance of resilience, or the ability to withstand and recover from stressors and shocks, was recognized in the Malabo Declaration, which included a commitment to increasing the resilience of livelihoods and production systems to climate variability and other risks. The years since the Malabo Declaration have underlined the importance of strengthening the resilience of households, communities, and food systems to a wide range of shocks. Efforts to boost resilience require an understanding of its current status and drivers, but measuring resilience poses significant methodological challenges.¹ In chapter 7, Agyemang and colleagues argue that the resilience of food systems should be assessed in combination with sustainability due to the interlinked nature of these two concepts. They develop an analytical framework to assess food system resilience and sustainability at multiple scales, and carry out a case study assessment of continental and regional food systems. The authors also propose a digital decision-support system to allow decision-makers to carry out such assessments and simulate the impacts of different interventions to advance food systems transformation.

Climate change poses major risks to food systems transformation, and climate shocks and related extreme weather are major contributors to food insecurity in Africa. Chapter 8, by Wouterse and colleagues, examines the climate-food security nexus with a focus on incorporating climate risk and adaptation solutions in food systems transformation efforts. The chapter explores the components of climate risk in selected African countries as well as the economic implications of climate change and the potential impacts of climate-adaptive agricultural production strategies. The authors propose a typology for microregion climate risk to improve the targeting of adaptation interventions. The chapter finds that climate-smart agricultural practices have the potential to lessen the negative economic impacts of climate change, but that countries' adaptive capacities need to be strengthened to ensure continued uptake of relevant technologies and practices. Due to differences in risk patterns between countries, adaptation strategies must be tailored to local contexts.

Women in Africa often face disproportionate challenges in accessing resources, which reduces individual welfare as well as broader productivity and efficiency. The relationship between food systems transformation and gender equality is complex. In chapter 9, Quisumbing and colleagues explore the potential contribution of food systems transformation to increased gender equality and women's empowerment, as well as the potential for equality and empowerment to help accelerate food systems transformation. The chapter finds evidence that women's empowerment and gender parity can have positive impacts on several key food systems transformation outcomes, while the changes created by this transformation can have both positive and negative impacts on equality and women's empowerment. Gender-transformative interventions must be grounded in an understanding of context-specific factors, which requires collecting gender-related data on the costs and benefits of changes in food systems for both men and women.

Bioeconomy is an approach that applies science, technology, and innovation for sustainable production and value addition based on biological resources. Improved bioeconomy adoption can contribute to environmental sustainability, food and nutrition security, energy security, economic growth, and social welfare. In chapter 10, Aidoo and colleagues explore Africa's bioeconomy landscape and future prospects. The chapter examines the current status of bioeconomy adoption in different components of food systems, highlighting gaps and potential actions; reviews bioeconomy policies, strategies, and regional commitments; and provides recommendations for the design and implementation of an Africa-wide bioeconomy strategy. Successfully developing a robust strategy will require further diagnostic work to assess national and regional bioeconomy potential across the continent, as well the establishment of an inclusive design process that allows farmers, youth, civil

¹ Chapters 10 and 11 of the 2021 ATOR, Building Resilient African Food Systems after COVID-19 (Ulimwengu, Constas, and Ubalijoro 2021), also explored methodologies and frameworks for measuring resilience. See Constas, Wohlgemuth, and Ulimwengu (2021) and d'Errico, Jumbe, and Constas (2021).

society organizations, the private sector, and other stakeholders to have a voice in identifying opportunities for bioeconomy adoption.

Efforts to accelerate food systems transformation require timely, high-quality, and reliable data that span the entire food system to guide the design of strategies and programs and enable monitoring, review, and mutual accountability processes. In chapter 11, Matchaya, Makombe, and Mihaylova review data needs and efforts to increase data availability, highlight key data gaps, and provide recommendations for addressing challenges and harnessing opportunities to improve data for decision-making in food systems transformation. The analysis shows that despite efforts to improve data availability and accessibility, numerous challenges persist, including poor data quality related to limited investments in data systems and capacities, as well as gaps in coverage of key areas. Notable data gaps include food processing and packaging; food retailing, distribution, and transportation; food waste and loss; and diet quality and nutrient content. The chapter calls for improved coordination between and among data generators and users as well as greater investments in data systems and capacities.

Increasing agricultural production and productivity is a key goal of the CAADP and Malabo agendas, and an important driver of overall food systems transformation. In chapter 12, Fuglie discusses the role of agricultural productivity growth, key components of and constraints to growth, and opportunities for increasing productivity growth in Africa. The chapter reviews the key role of technological innovation and of agricultural research and development (R&D) systems in particular. The author makes recommendations to strengthen agricultural R&D systems, improve the level and efficiency of agricultural R&D investments, and promote the adoption of productivity-enhancing technologies by farmers. In addition to bolstering public R&D systems, the chapter suggests measures that governments can take to encourage private sector innovation to enhance the contribution of the private sector to productivity growth.

In addition to providing evidence on featured issues relevant to the CAADP agenda, the ATOR also serves as the official monitoring and evaluation report for CAADP. Chapter 13, by Collins, Tefera, and Wambo Yamdjeu, reviews progress in CAADP implementation as well as the status of countries, regions, and the continent as a whole with respect to the indicators of the CAADP Results Framework. The chapter shows that Africa has made

significant progress over the past two decades of CAADP implementation, with increases in incomes and agricultural productivity and decreases in hunger and poverty. However, the relatively rapid and robust progress during the early CAADP years slowed during the second decade of CAADP implementation, and the COVID-19 pandemic and Russia-Ukraine war have further exacerbated remaining challenges. The authors emphasize the need to build on the strengths of CAADP implementation while finding innovative ways to address continuing and new challenges in the post-Malabo agenda.

The 2023 ATOR strives to assess the current state of Africa's food systems, explore strategic issues related to food systems transformation, and reflect on necessary methodologies and approaches to provide a better understanding of key challenges and necessary actions to accelerate transformation. The transformation of African food systems in the post-Malabo era requires a concerted effort that encompasses policy reforms, investment in technology and innovation, commitment to nutrition and food safety, gender equity, and climate resilience strategies. This transformative journey must be underpinned by robust, evidence-based policies, driven by the collective effort of governments, the private sector, and civil societies, and guided by the principles of inclusivity, sustainability, and resilience. The path ahead is challenging, but with strategic collaboration and persistent effort, the vision of a transformed, robust, and sustainable African food system is within reach.