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Sanitary and Phytosanitary (SPS) Standards under the Kampala CAADP Declaration: Enhancing Awareness and Reducing the Cost of Compliance

By Getaw Tadesse and Fatima Kareem

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Editorial

Since its adoption by the African Union (AU) in 2003, the **Comprehensive Africa Agriculture Development Programme (CAADP)** has been Africa's primary policy framework for agricultural transformation, wealth creation, food security, economic growth, and prosperity. It guides the African Union Commission (AUC), the African Union Development Agency-New Partnership for Africa's Development (AUDA-NEPAD), Regional Economic Communities (RECs), and Member States in driving agricultural transformation toward a self-reliant and productive Africa.

The **Kampala CAADP Declaration** on “**Building Resilient and Sustainable Agrifood Systems in Africa**” and the associated **CAADP Strategy and Action Plan (2026-2035)** will build on the success and deepen the progress achieved after two decades of CAADP implementation, during which Africa significantly improved in economic and agricultural growth, poverty reduction, nutrition outcomes, and agricultural trade expansion. The next 10-year cycle of CAADP implementation must further deepen its focus by incorporating lessons learned and responding to emerging challenges to accelerate sustainable agrifood systems transformation in the context of climate change and multifaceted stressors and shocks.

The longevity and continued success of CAADP can be attributed to its legitimacy as a shared framework that guides Member States toward agricultural transformation and economic growth. Guided by CAADP principles and values, particularly African ownership and mutual accountability, and strengthened through review and benchmarking mechanisms, data and analytics have been central to CAADP's evidence-based planning and implementation. As Africa embarks on the implementation phase of the Kampala CAADP Declaration, which took effect on January 1, 2026, evidence and robust data analysis will remain indispensable to successful on-the-ground implementation. This is the rationale behind AKADEMIYA2063's Kampala Policy Brief Series.

The policy briefs serve as reference documents for policy analysts and planners across AU Member States as they prepare their programs in response to the Kampala CAADP Declaration. The series provides a synthesis of a large body of research addressing topics of strategic relevance to Africa's development agenda, alongside key issues to be tackled during the new phase of CAADP implementation, with the aim of generating insights, examining emerging ideas, reviewing cross-cutting thematic areas, and proposing policy recommendations that can be adapted and replicated for sustainable impact.

The evidence presented in the Kampala Policy Brief Series draws on published research and data from AKADEMIYA2063's scientists and collaborators across Africa and beyond. These lessons are made accessible to policymakers, non-state actors, practitioners at continental, regional, and national levels, and development partners to support the implementation of CAADP 2026-2035. In addition to packaging the lessons and insights into comprehensive yet accessible knowledge products, AKADEMIYA2063 facilitates policy dialogue through webinars. During these sessions, the findings are presented to a broad range of stakeholders to inform programmatic interventions that support the implementation of the Kampala CAADP Agenda.

Introduction

Sanitary and Phytosanitary (SPS) standards are designed to ensure safe and healthy food systems while facilitating cross-border trade. However, compliance-related challenges often turn these standards into barriers to trade, leading to significant health risks and productivity losses. Unsafe food can cause illness and even lead to death, preventing people from working and thriving. According to a World Bank study, low- and middle-income countries lose approximately US\$95 billion in productivity each year as a result of unsafe food (Jaffee et al. 2019). It also undermines food and nutritional security, places a heavy burden on the food economy and public health systems, and disrupts international trade.

The Kampala CAADP Declaration underscores the urgent need to enhance SPS standards and implement One Health protocols to safeguard food safety and protect human, animal, plant, and environmental health (AUC and AUUDA-NEPAD 2025). In line with this vision, the CAADP Strategy and Action Plan (2026-2035) outlines six interventions to strengthen food safety and SPS measures across Africa, including formulating and enforcing comprehensive food safety laws and regulations at the national, sub-regional, and regional levels.

For countries to effectively domesticate and adapt these interventions, it is essential to ground implementation efforts in solid evidence. Understanding the underlying drivers, constraints, and institutional contexts that shape SPS compliance is critical to designing policies that are both feasible and sustainable.

This policy brief focuses on two key challenges that continue to undermine SPS compliance and enforcement in Africa: 1) Limited awareness among value chain actors of existing standards and their benefits; and 2) The high cost of compliance, which disproportionately affects producers and private operators.

We argue that the success of SPS enforcement largely hinges on the awareness levels and compliance costs faced by private enterprises, who ultimately make operational decisions about whether to adhere to—or neglect—these standards. Therefore, gaining a clearer understanding of the perceptions, knowledge, and financial burdens borne by these actors is vital. Such insights will inform the design of targeted investments and policy interventions that enhance compliance, promote safe and competitive agrifood systems, and facilitate intra-African and international agricultural trade.



Awareness of SPS Measures by Private Enterprises

Across much of Africa, there is a significant lack of comprehensive and enforceable standards to effectively manage emerging food safety risks. This regulatory gap leaves food systems vulnerable to contamination and other safety hazards. Compounding the problem, many value chain actors—including farmers, processors, and agribusiness operators—have limited awareness or understanding of the standards that do exist. As a result, compliance remains low, and critical food safety practices are often neglected.

In 2023, a research team from AKADEMIYA2063 conducted a study in four African countries (Ethiopia, Morocco, Nigeria, and Rwanda) to assess the extent of awareness among private value chain operators (farmers, processors, and traders) of the SPS requirements for selected export commodities. The study assessed awareness of both domestic and foreign standards. Figure 1 presents the results of the study, showing the percentage of enterprises that reported little or no awareness across the four sample countries and key agricultural products. The results indicate that awareness of SPS measures varies widely across domestic and foreign standards, countries, and commodities. Generally, private operators are more aware of local standards than of foreign standards, except in the case of avocado in Rwanda (Kareem and Tadesse 2025).

Ethiopia

In Ethiopia, the majority of coffee producers—approximately 79 percent—reported being unaware of domestic SPS measures, and exposure to international standards was even lower. About 90 percent of respondents reported either little (40 percent) or no (50 percent) awareness of SPS trade requirements governing their products. This finding contrasts sharply with results from the sesame seed and tomato value chains, where roughly 85 percent and 89 percent of respondents, respectively, reported moderate to full awareness of domestic SPS measures.

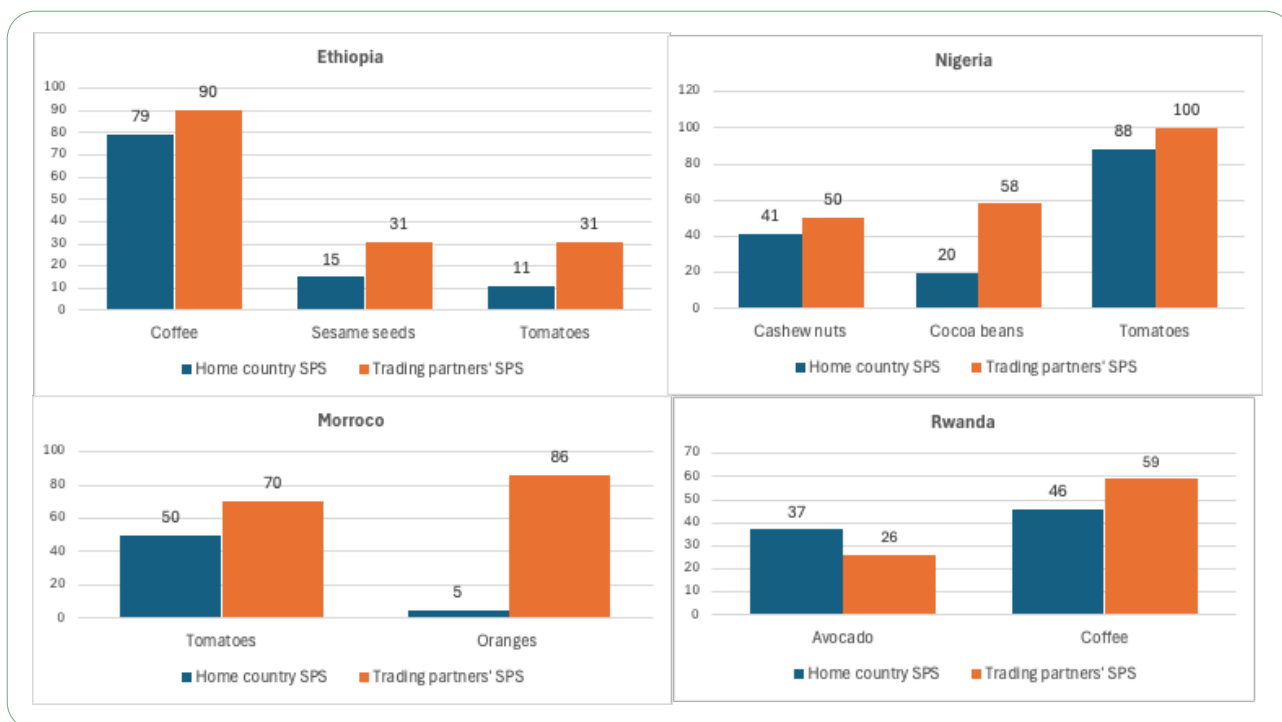
However, a considerable share of respondents in both sectors still lacked knowledge of foreign SPS standards, a particularly surprising outcome in the case of sesame, given its strong export orientation. Even more striking is the result for coffee, Ethiopia's leading export commodity. The widespread lack of awareness among coffee producers regarding both domestic and international SPS standards underscores a critical gap that could undermine product quality, market access, and the country's overall competitiveness in global trade.

Morocco

In Morocco, awareness levels vary considerably between tomato and orange enterprises. Overall, there appears to be a relatively high degree of awareness of national SPS regulations, particularly among orange enterprises. Only about 5 percent of respondents in this group reported little or no awareness of domestic SPS requirements. In contrast, awareness among tomato enterprises was notably lower: approximately 50 percent of respondents indicated limited or no knowledge of national SPS measures.

The situation is even more concerning with respect to international SPS standards, where the knowledge gap is even wider. About 86 percent of respondents from orange enterprises and 70 percent from tomato enterprises reported little or no awareness of foreign SPS measures. Given that oranges are among Morocco’s most important export commodities, this widespread lack of awareness poses a serious challenge to ensuring food safety and to expanding access to high-value export markets.

Figure 1. Percentage of Food Enterprises with little or no awareness about domestic or foreign SPS requirements



Source: Kareem and Tadesse (2025).

Nigeria

As in other countries, findings from Nigeria show significant variation in awareness across the three commodities studied—cashew nuts, cocoa, and tomatoes. At the domestic level, between 20 and 88 percent of respondents reported little or no awareness of national SPS regulations, with the lowest awareness in the tomato sector. The situation is even more concerning regarding international SPS standards.

All surveyed tomato enterprises reported having no knowledge of international or regional SPS requirements, which may reflect the fact that tomato production in Nigeria is primarily oriented toward domestic consumption rather than export markets.

However, the results for cashew nuts and cocoa—two of Nigeria’s major export commodities—are particularly concerning. More than half of respondents in these sectors reported little or no awareness of international SPS requirements. This lack of knowledge poses serious challenges to maintaining product quality and ensuring compliance with the standards required by global markets.

Rwanda

A similar pattern is observed in Rwanda, particularly for two of its major export commodities—coffee and avocado. For coffee, only 54 percent and 41 percent of respondents reported being moderately or fully aware of national and international SPS measures, respectively. These figures suggest that a significant proportion of coffee producers and exporters remain inadequately informed about SPS requirements, which could hinder compliance and limit export competitiveness.

By comparison, awareness among avocado enterprises was somewhat higher, with 63 percent and 74 percent of respondents reporting moderate to full awareness of domestic and foreign SPS measures, respectively. Notably, avocado producers were more familiar with international SPS requirements than with domestic ones. This finding may suggest that although Rwanda’s avocado sector is relatively export-oriented, the domestic avocado market remains under-regulated or weakly enforced regarding SPS compliance. Nevertheless, a substantial number of value chain actors across both commodities still have limited or no awareness of SPS standards.



The Cost of SPS Compliance

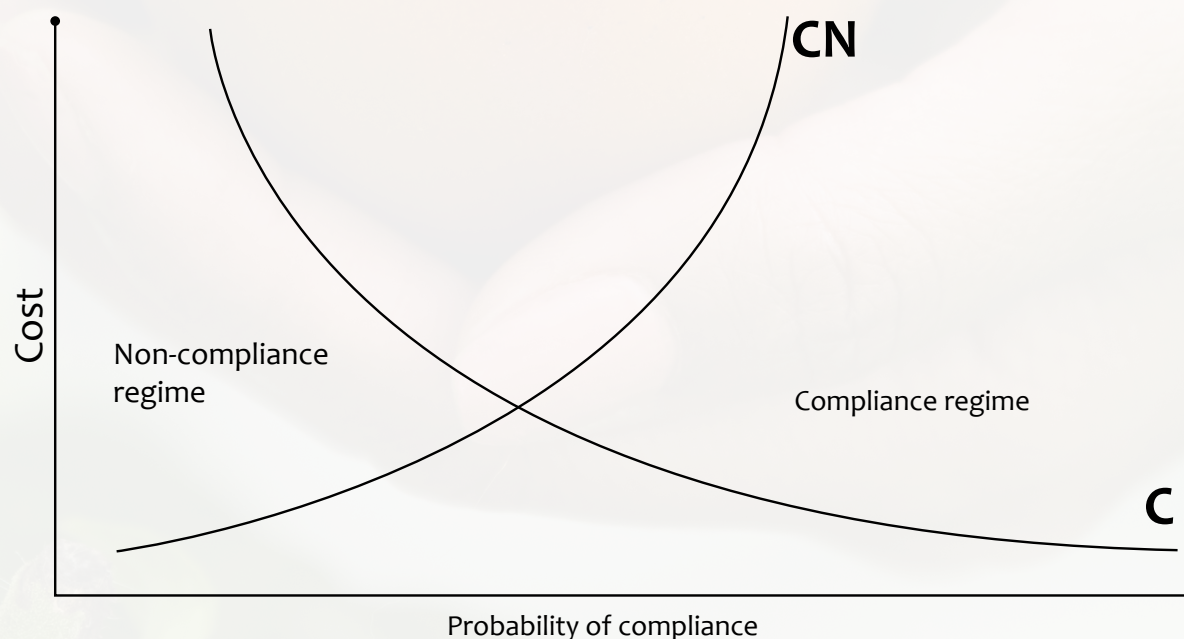
Conceptual analysis

The cost of compliance refers to the operational and investment expenses firms incur to meet SPS requirements. These include costs for laboratory testing, certification, inspection, and other activities necessary to ensure food safety and plant and animal health. In a broader sense, compliance costs also include non-monetary factors, such as the time and administrative effort required to obtain certifications and meet regulatory procedures.

The cost of non-compliance, on the other hand, captures the economic, reputational, and regulatory consequences of failing to meet SPS standards. For firms, these may include trade or product rejections, price losses, reputational damage, and fines imposed by regulatory bodies. Such costs can undermine competitiveness and market access, especially for exporters, with wider negative implications for the whole economy.

The balance between compliance and non-compliance costs determines firms' incentives to comply with SPS requirements (Figure 2). When the cost of compliance (CC) is lower than the cost of non-compliance (CN), firms are more likely to adhere to SPS measures. However, if compliance becomes more costly, non-compliance may appear more attractive—particularly for smaller or resource-constrained enterprises. Policy actions to enforce compliance should aim either to reduce the cost of compliance or impose higher non-compliance costs.

Figure 2. The Interplay between Costs of Compliance and Non-compliance



Source: Authors

Note: CC = cost of compliance; CN=cost of non-compliance.

The costs of complying with SPS measures are largely determined by access to SPS-related services and the level of investment required to meet these standards. SPS services encompass a wide range of elements, including access to certification and laboratory testing, inputs necessary to ensure food safety, qualified and competent human resources, appropriate technology and infrastructure, and access to finance. These components collectively shape the compliance costs faced by private enterprises engaged in production, processing, trade, and distribution.

In contrast, the costs of non-compliance stem from economic and reputational losses. These may include trade rejections, damage to a firm's long-term reputation, diminished price premiums for safe and standardized products, and regulatory sanctions such as fines for violating SPS standards. Regulators impose such penalties because violations of SPS measures can have far-reaching social and economic implications—ranging from threats to public health to stagnation in industrial and export development.

Importantly, violations of SPS standards by one firm often have spillover effects on the broader industry, potentially undermining market confidence and competitiveness. To prevent these adverse outcomes, public regulators impose non-compliance costs as deterrents. Consequently, private firms can minimize or circumvent these burdensome penalties by adhering to SPS measures and investing in compliance systems that promote safety, quality, and sustainable market participation.



Empirical evidence

Empirical evidence on the costs of SPS compliance in Africa remains limited, and where available, it is often outdated. Existing studies reveal that the financial burden of compliance is substantial for firms across sub-Saharan Africa. Firm-level data from 16 developing countries, including several sub-Saharan African economies (Kenya, Nigeria, Senegal, South Africa, and Uganda), indicate that the investment cost of SPS compliance varies across commodities and countries. In sub-Saharan Africa, the average is about 7.65 percent of total firm sales, but in extreme cases it can reach as high as 124 percent of total sales (Czubala et al. 2009; Maskus et al. 2005). This figure is remarkably high compared to other regions globally, where average compliance costs are typically less than half of those observed in Africa. For example, the average investment cost of compliance is 3.74 percent in Eastern Europe, 2.56 percent in Latin America, 6.67 percent in the Middle East, and 1.79 percent in South Asia.

These findings underscore the disproportionately high cost burden faced by African exporters relative to other regions. Earlier estimates from 2003 suggested that the cost of compliance for some African countries—excluding various operational expenditures—amounted to approximately 3.1 percent of total food exports. The initial accreditation costs for compliance were estimated at around US\$40,000 per certification, and the total cost could rise to US\$180,000 when including associated expenses such as implementation, laboratory testing, facility upgrades, and other operational costs (Shafaeddin 2007). The same study indicates that the operational cost of compliance alone is estimated to be between 2 and 11 percent of export value in Africa.

A sector-specific example further illustrates the magnitude of these costs. In the late 1990s, the Kenyan fisheries sector implemented food safety standards—particularly those related to the Hazard Analysis and Critical Control Point (HACCP) system—due to concerns about the safety of Nile perch exports. The total cost of upgrading fish-processing facilities and meeting HACCP standards was estimated at US\$557,000, averaging US\$40,000 per plant (Jaffe and Henson 2004).

The study across four African countries—Ethiopia, Morocco, Nigeria, and Rwanda—finds that compliance costs vary widely across components, with smallholder producers bearing the greatest burden. Among these components, inspection, certification, and risk assessment account for the largest share of total compliance costs (Kareem and Tadesse 2025).

These findings collectively highlight the significant financial implications of SPS compliance for African exporters. The high costs of meeting international sanitary and phytosanitary standards often pose a major barrier to trade competitiveness, particularly for small and medium-sized enterprises with limited financial and technical capacity to adapt to evolving global standards. Existing evidence indicates that although SPS measures and other non-tariff measures have a substantial impact on African global trade, their effect on intra-African trade is not statistically significant (Tadesse and Badiane 2018).



Conclusion and Recommendations

The empirical findings and conceptual analyses presented above indicate generally low awareness of SPS regulatory requirements, coupled with disproportionately high compliance costs—burdens that fall primarily on agricultural producers across Africa. Although the degree of awareness varies across agricultural value chains and between domestic and international standards, producers consistently face significant financial and logistical challenges in meeting SPS obligations.

The high cost of compliance stems not only from the substantial initial investments required to establish SPS-compliant production and processing systems but also from ongoing operational expenses, including inspection, testing, and certification fees. These costs can be prohibitive, especially for smallholder farmers and agribusinesses operating with limited access to capital and technical support.

To address these challenges, **targeted public and private investments** are essential. These investments should focus on strengthening knowledge and capacity across agricultural value chains, streamlining certification processes, and developing shared infrastructure to reduce per-unit compliance costs. **Strengthening institutional frameworks, building capacity at the enterprise level, running awareness campaigns, and fostering partnerships among governments, producers, and exporters** can collectively ease the compliance burden. Ultimately, these measures will not only improve SPS compliance but also contribute to transforming Africa's agrifood systems—making them safer, more competitive, and better positioned for sustainable participation in regional and global markets.

To reduce the cost of compliance, **regulatory authorities** can generally pursue one of two main approaches. They may facilitate targeted investments that enable private actors to access essential compliance services—such as testing, inspection, and certification—at more affordable rates. Alternatively, they may strengthen enforcement mechanisms by imposing sanctions and penalties that increase the cost of non-compliance, thereby creating stronger incentives for private actors to adhere to regulations.

The appropriate balance between these two approaches largely depends on each country's specific institutional and economic context. In situations where the costs of both compliance and non-compliance are already high, regulatory agencies tend to prioritize investment-oriented interventions to reduce the financial burden of compliance. This scenario is particularly common across many African countries, where producers face significant infrastructure and financial constraints.

Conversely, when the costs of non-compliance are disproportionately low relative to compliance costs, robust enforcement measures become necessary to ensure that adherence to standards is the more rational and profitable choice for private actors. However, when compliance costs remain prohibitively high, a strategy that combines public investments with strict enforcement is essential to achieve effective regulation and broad participation in standard-compliant value chains.

Ultimately, a socially optimal and economically efficient SPS system is one with low compliance costs—enabling producers to meet standards without undue burden—and high non-compliance costs that discourage unsafe or substandard practices. Achieving this balance is critical to fostering inclusive, sustainable, and competitive agrifood systems in Africa.

References

AUC (African Union Commission) and AUDA-NEPAD (African Union Development Agency-New Partnership for Africa's Development). 2025. *Kampala CAADP Declaration on Building Resilient and Sustainable Agrifood Systems in Africa*. Addis Ababa: AUC; Johannesburg: AUDA-NEPAD.

Czubala, W., B. Shepherd, and J.J. Wilson. 2009. "Help or Hindrance? The Impact of Harmonized Standards on African Exports." *Journal of African Economies*, Volume 18, Issue 5: 711–744. <https://doi.org/10.1093/jae/ejp003>

Jaffee, S.M., and S. Henson. 2004. *Standards and Agro-food Exports from Developing Countries: Rebalancing the Debate*. World Bank Policy Research Working Paper No. 3348. Washington, DC: World Bank.

Jaffee, S.M., S. Henson, L. Unnevehr, D. Grace, and E. Cassou. 2019. *The Safe Food Imperative: Accelerating Progress in Low- and Middle-Income Countries*. Agriculture and Food Series. Washington, DC: World Bank. <http://hdl.handle.net/10986/30568>

Kareem, F., and G. Tadesse. 2025. "The Challenges of SPS Compliance and Investment Needs: An Exploratory Study in Four African Countries." Unpublished manuscript.

Maskus, K.E., T. Otsuki, and J.S. Wilson. 2005. *The Cost of Compliance with Product Standards for Firms in Developing Countries: An Econometric Study*. Unpublished manuscript. Policy Research Working Paper; No. 3590. Washington, DC: World Bank. <http://hdl.handle.net/10986/8961>

Shafaeddin, M. 2007. *Who Does Bear the Costs of Compliance with Sanitary and Phytosanitary Measures in Poor Countries?* MPRA Paper No. 6646. Neuchâtel: Institut de recherches économiques (Institute of Economic Research), University of Neuchâtel, Switzerland. https://mpra.ub.uni-muenchen.de/6646/1/MPRA_paper_6646.pdf

Tadesse, G. and O. Badiane. 2018. "Determinants of African Agricultural Exports." In *Africa Agriculture Trade Monitor Report 2018*, edited by O. Badiane, S. Odjo, and J. Collins. Washington, DC: International Food Policy Research Institute (IFPRI). <https://www.resakss.org/node/6533>

ABOUT AKADEMIYA2063

AKADEMIYA2063 is a pan-African non-profit research organization with headquarters in Kigali, Rwanda, and a regional office in Dakar, Senegal. Inspired by the ambitions of Agenda 2063 and grounded in the recognition of the central importance of strong knowledge and evidence systems, the vision of AKADEMIYA2063 is an Africa with the expertise we need for the Africa we want. This expertise must be responsive to the continent's needs for data and analysis to ensure high-quality policy design and execution. Inclusive, evidence-informed policymaking is key to meeting the continent's development aspirations, creating wealth, and changing livelihoods for the better. AKADEMIYA2063's overall mission is to create, across Africa and led from its headquarters in Rwanda, state-of-the-art technical capacities to support the efforts of the Member States of the African Union to achieve the key goals of the African Union's Agenda 2063: transforming national economies to boost growth and prosperity. Following from its vision and mission, the main goal of AKADEMIYA2063 is to help meet Africa's needs at the continental, regional, and national levels in terms of data, analytics, and mutual learning for the effective implementation of Agenda 2063 and the realization of its outcomes by a critical mass of countries. AKADEMIYA2063 strives to meet its goals through programs organized into five strategic areas—policy intelligence, knowledge systems, data intelligence and governance—as well as partnerships, and communication and outreach activities. For more information, visit www.akademiya2063.org.



Building Resilient and Sustainable Agrifood Systems in Africa



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