Collaborations and Partnerships to Promote Agricultural Development in Africa

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Summary

Agriculture is a fundamental sector for economic development, providing food and livelihoods for hundreds of millions of people and contributing to social stability. It is also central to broader economic transformation. Exploring effective development pathways for agriculture is essential to advancing Africa's modernization and to achieving the Sustainable Development Goals (SDGs).

Africa is endowed with rich agricultural resources, including approximately 45% of the world's arable land, abundant untapped water resources, diverse agro-ecological conditions, and a large and young labor force. Nevertheless, as an important cornerstone for economic development, agriculture remains positioned at the lower end of value chains, with limited production capacity, and acute food security challenges.

Shaped by historical legacies, turbulent external environment, and internal structural factors, Africa's agriculture faces multiple constraints. (1) Inadequate public expenditure and market-based investment, resulting in limited access to finance for smallholders and small and medium-sized enterprises (SMEs); (2) A systemic deficit and weak maintenance of infrastructure, including irrigation, transport, and logistics infrastructure, leading to significant production volatility and high post-harvest losses; (3) Insufficient research and development of context-appropriate agricultural technologies, compounded by weak extension services and underdeveloped product standards; (4) Limited organizational support for small and fragmented farmers, contributing to a poorly integrated value chain; (5) An unfavorable position in global markets alongside weak regional market integration, constraining Africa's participation in higher value-added activities; (6) High vulnerability to climate change and extreme weather events.

Despite these challenges, some African countries, including Kenya and Ethiopia, have leveraged their resource endowments and comparative advantages to promote agricultural development. Through coordinated efforts among governments, private sectors, and local communities, they have gradually established development pathways adapted to national conditions. Advancing agricultural transformation in Africa requires sustained engagement from both domestic and international stakeholders. Priority areas include (1) Strengthening data collection and policy experimentation to establish a solid evidence base for agricultural development; (2) Improving the feasibility of development strategies and enhancing fiscal commitment; (3) Supporting cooperatives and farmer organizations; (4) Innovating financing mechanisms and expanding domestic and cross-border infrastructure; (5) Promoting agro-processing industry to increase value addition; and (6) Deepening integration into global and regional markets by leveraging comparative advantages.

CONTENTS

Acronyms and Abbreviations

AfCFTA	African Continental Free Trade Area
ATA	Agriculture Transformation Agency
ATI	Agricultural Transformation Institute
AU	African Union
CAADP	Comprehensive African Agriculture Development Programme
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
GDP	gross domestic production
KTDA	Kenya Tea Development Authority
NEPAD	New Partnership for Africa's Development
OCHA	United Nations Office for the Coordination of Humanitarian Affairs
ODA	official development assistance
PPP	Public-Private Partnership
R&D	research and development
SAPs	Structural Adjustment Programs
SDGs	Sustainable Development Goals
SMEs	small and medium enterprises
SMS	short message service
SNNPR	Southern Nations, Nationalities, and Peoples' Region
SSA	Sub-Sahara Africa
TFA	Trade Facilitation Agreement
TFP	total factor productivity
UNCTAD	United Nations Trade and Development

Collaborations and Partnerships to Promote Agricultural Development in Africa

Agriculture plays a critical role in Africa's economic development, providing food and livelihoods for hundreds of millions of people and contributing to social stability. Despite possessing over 45% of the world's arable land and the untapped freshwater endowment, Africa's agricultural sector remains relatively underdeveloped. The continent experiences high levels of extreme poverty, food insecurity and severe malnutrition. Although African countries have made sustained efforts over the past half century and achieved noteworthy progress in agriculture development, they still face substantial challenges. Delineating critical bottlenecks of the sector and exploring effective agricultural development paths are essential for advancing African modernization and the Sustainable Development Goals (SDGs).

1. CURRENT STATE OF AGRICULTURAL DEVELOPMENT IN AFRICA

Africa possesses abundant natural and labor resources for agricultural development. (1) Abundant arable land and freshwater endowment. In 2023, based on the Food and Agriculture Organization of the United Nations (FAO) statistics, the per capita arable land in Sub-Saharan Africa (SSA) was 0.19 hectares, twice that of Asia and above the global average. Africa holds about 45% of the world's arable land, two thirds of which is located in eight countries including Angola, the Democratic Republic of Congo, Madagascar, Mozambique, South Sudan, Sudan, Tanzania, and Zambia (World Bank 2013). In 2022, SSA had approximately 3160 m^3 of renewable internal freshwater resources per capita[1]. It also contains more international rivers than any other continent in the world, including the Congo, the Nile, and the Zambezi. (2) Diverse crop suitability. Owing to diverse climates and significant topographical variations, Africa can cultivate a broad range of crops from tropical to temperate zones, offering unique structural advantages for intra-continental agricultural trade and export-driven growth. (3) A large and expanding labor force. Africa's total population reached 1.46 billion in 2023, accounting for approximately one-sixth of the global population, with an average annual growth rate of 4.5%. The population is projected to increase to 22% of the global total by 2050, a substantial youth demographic forming a significant labor pool. Ample and low-cost labor resources render comparative advantages in labor-intensive agriculture on a global scale, such as fine-leaf tea harvest, hand-picking coffee beans, and fruits and vegetables production.

Agriculture is a fundamental pillar of Africa's economic development but remains locked at the lower end of the value chain. For decades, agriculture has contributed about 15% of Africa's gross domestic product (GDP) and 50% of its employment, and raw food commodity exports have made up around 10% of its merchandise exports (Figure 1). Despite its importance, agriculture is primarily rain-fed and exports are dominated by primary commodities with low added value, preventing smallholder farmers from benefiting from value addition. In 2023, of Africa's food exports, 27.7% were raw products, and 28.22% were minimal processing. A prominent example is cocoa: Africa is the world's largest producer, yet exports about 70% of its cocoa beans in unprocessed form. Farmers receive only 6.6% of the total value in the whole value chain, whereas chocolate manufacturers and retailers capture 35.2% and 44.2%, respectively (UNCTAD 2016).

Agricultural productivity in Africa is below the world average, underscoring the continent's persistent food-security challenges. (1) Labor

1 https://data.worldbank.org/indicator/ER.H2O.INTR.PC?locations=ZG

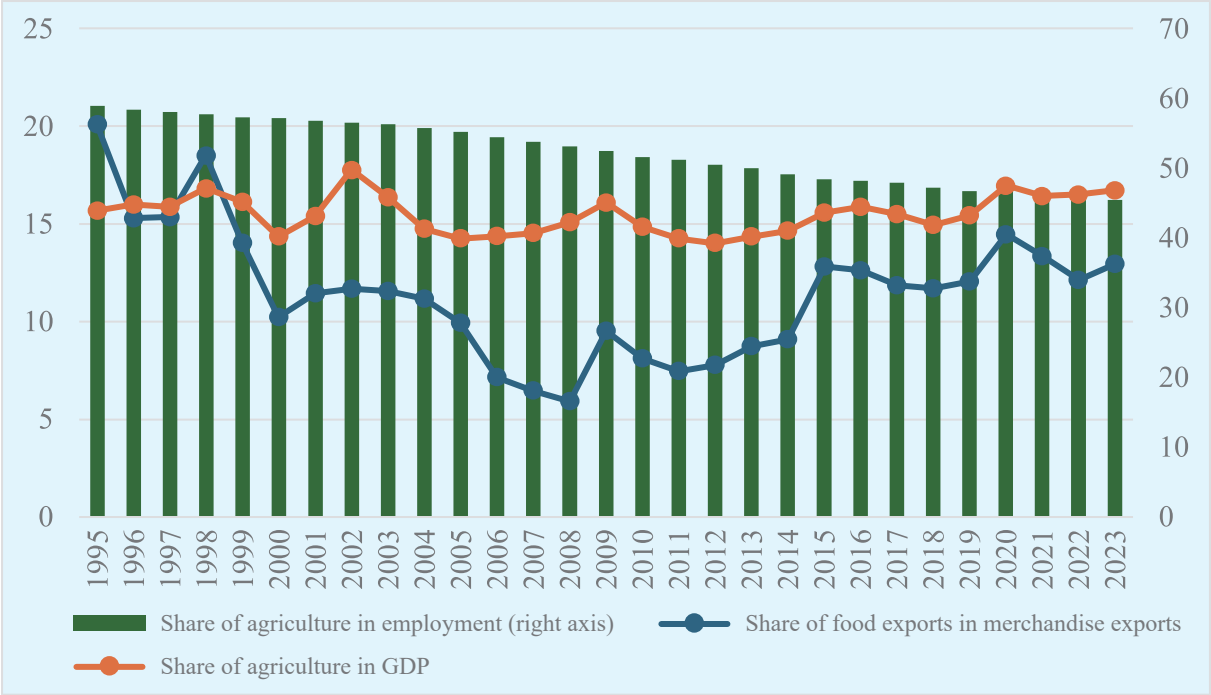

FIGURE 1

Share of agriculture in GDP, share of food exports in merchandise exports, and share of agriculture in employment in Africa (%)

Source: United Nations Trade and Development (UNCTAD)

productivity is low and growth has stagnated. In 1991, SSA's agricultural labor productivity was approximately half of the global average. By 2023, it had reached only $1,457.83 per capita per annum (constant 2015 prices), equivalent to merely one-third of the global average and matching the world's 1991 level. While the world has achieved steady labor productivity improvement since 1990, growth in SSA remained sluggish, dropping below 2% after 2018 (Figure 2). Labor productivity achieved by SSA in 2023 is equal to global labor productivity in 1991, (2) Land productivity is low. In 2022 average cereal yield in SSA was 1,612.8 kg/ha, roughly two fifths of the global average. (3) Total factor productivity (TFP) in agriculture is also weak. From 2013 to 2022, the average annual growth rate of agricultural TFP in SSA was 0.37%, which is 0.37 percentage points below the world average (Agnew, J. and Nakelse, T. 2024). (4) Food security and nutrition conditions are deteriorating in many SSA countries. Since the 1990s, Africa's share of global cereal production has experienced a slow increase but has remained low over the long term. From 2018 onwards, per capita cereal output has shown a declining trend (Figure 3). For nearly three decades, Africa's per capita cereal output has remained stagnant at around 0.14 tons, showing no significant improvement. As a result, there was inadequate food supply to meet continuously growing demand, leading to worsening nutritional status and chronic malnutrition. Between 2019 and 2024, moderately and severely food insecure people in SSA increased by an average of 36.18 million annually, the fastest deterioration among all regions[1].

1 https://www.fao.org/faostat/en/?data.#data/FS

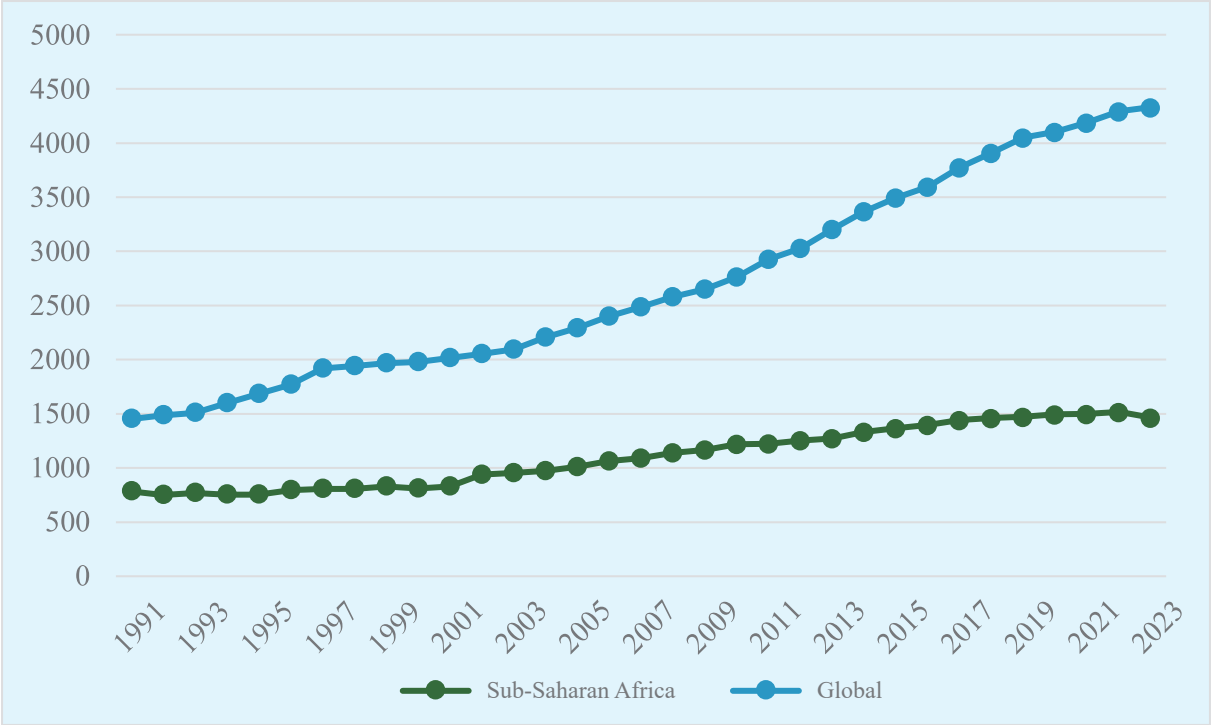

FIGURE 2

Agricultural labor productivity in Sub-Saharan Africa ($ per person per year, constant 2015 prices)

Source: The World Bank database

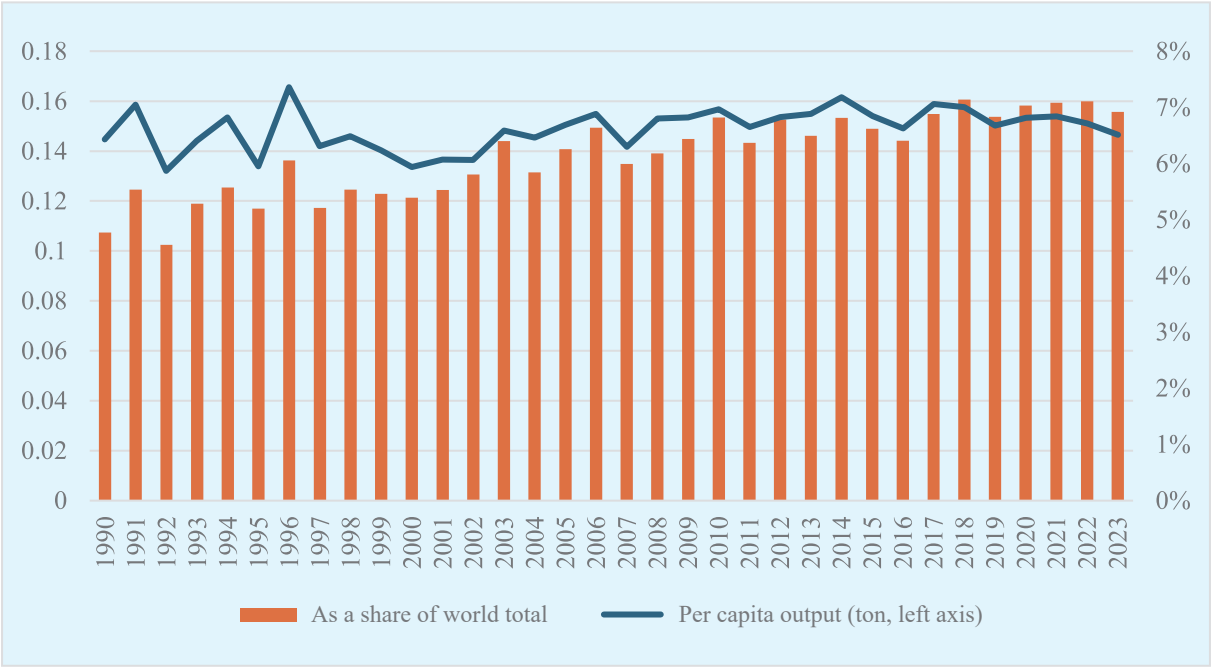

FIGURE 3

Cereal output in Africa

Source: FAO

2. MAJOR CHALLENGES FACING AGRICULTURAL DEVELOPMENT IN AFRICA

2.1 Insufficient investment in agriculture

Agriculture is the primary source of employment and a crucial economic sector in Africa, yet both public finance and market-based finance for agriculture are severely inadequate. (1) Public spending is insufficient. According to the Fourth Comprehensive African Agriculture Development Programme (CAADP) Biennial Review Report by the African Union (AU), agricultural expenditures in SSA countries accounted for less than 5% of government budgets, far below the at least 10% target established under the Maputo and Malabo Declarations. Persistent underinvestment in agricultural infrastructure, as well as research and extension sevices has impeded the improvement in production conditions and farmers' capacity to manage risks. (2) Commercial credit is limited. Commercial banks generally consider agricultural production in Africa to be high-risk and charge high interest rates of 20-40%. These high financing costs and the broader scarcity of long-term credit significantly limit farmers and agricultural SMEs from adopting modern inputs, upgrading technology, and expanding to more efficient scales of operation. (3) In international development cooperation, support for food security predominantly takes the form of food aid, while relatively limited funding directed toward agricultural production. In 2022, food aid accounted for 55% of the total assistance in the food security sector, while official development assistance (ODA) for agricultural development—including support for inputs, land, and water resources—fell back to the level in 2012 (UN Global Crisis Response Group 2024).

2.2 Poor agricultural infrastructure

Agricultural infrastructure is severely inadequate in Africa, resulting in low productivity and high post-harvest losses. (1) Transport networks are weak. Rural road density in Africa is only half that of the European Union (EU). Around 43% of the agricultural population lives in areas with unpaved roads (Mikou et al. 2019), and only about one third of the rural population resides within two kilometers of roads. The railway density in major African countries is merely 3 km/1000 km^2. Regional connectivity is poor, often requiring frequent inspections and transfers for cross-border transport. (2) Logistics systems are underdeveloped. The lack of warehousing and cold chain facilities leads to serious post-harvest losses. More than 30% of food produced in SSA is lost after harvest, equating to roughly $4 billion annually, with even greater losses for perishable products such as fruits and vegetables. (3) Existing infrastructure suffers from poor maintenance. Some facilities, including roads, railways, ports, irrigation systems, and electricity networks, have

become nonfunctional due to inadequate upkeep, further diminishing the efficiency of agricultural production and distribution.

2.3 Inadequate context-specific R&D and extension services of agricultural technologies

Research and development (R&D) of agricultural technologies suitable to local environments and smallholder farming systems are insufficient in Africa. (1) Locally suitable agricultural technologies are scarce. Only a small portion of existing agricultural patents align with the needs of low-income countries. Limited research capacity and weak local innovation hinder the development of technologies adapted to specific soil and climatic conditions. (2) The agricultural technology extension system has limited reach. In some areas, a single extension agent serves thousands of farmers, making it difficult to provide timely technical guidance and effective training. Farmers generally lack knowledge of and access to quality seeds, farming inputs, and agricultural machinery. (3) The system of agricultural product standards is incomplete. Most African countries have not yet established complete product standards, quality certification organizations, and laboratories, resulting in higher testing costs and delay risks for export products.

2.4 Ineffective organizational support for smallholder farmers

Smallholder farmers, who constitute the backbone of African agriculture, are widely dispersed and poorly organized, limiting the sector's modernization and commercialization. (1) Land ownership is fragmented. The land system is fragmented, with a low rate of land rights confirmation. Most land is managed by villages or farmers informally, restricting large-scale farming operation and leading to high production costs and low product standardization. (2) Agricultural value chain has gaps. Farmers lack collective organizations such as cooperatives and stable partnerships with processors and exporters, reducing their market bargaining power. Since individual smallholder farmers cannot afford to build storage and cold chain facilities, post-harvest losses in the African agricultural sector are high, resulting in great loss of value along the value chain.

2.5 Limited market linkages for agricultural products

Both Africa's marginal position in the global market and its inadequate internal market integration constrain value addition in the agricultural industry. (1) Africa has a weak position in the global agricultural product market. While Africa is home to approximately 16% of the global population, it accounted for merely 6.5% of global agricultural exports and for only 4% of imports from 2019 to 2022. Despite being the foremost producer of commodities such as cocoa and coffee, Africa has been stuck at the lower end of these value chains and marginalized in the international economic and trade landscape. (2) Integration of intra-continental agricultural markets is insufficient. Less than 15% of African agricultural products were traded within the continent in 2022. Cross-border trade is still hindered by cumbersome checkpoints, redundant obstacles, and non-tariff barriers. (3) Heavy external dependence diminishes development resilience. For example, the outbreak of the Russia-Ukraine conflict caused significant volatility in global food, energy, and fertilizer prices, placing substantial pressure on

African countries that depend heavily on food imports. Meanwhile, increasingly stringent global trade regulations concerning food safety, carbon footprints, and traceability pose challenges related to access thresholds, certification, and testing for African agricultural exports.

2.6
High vulnerability to climate change

African agricultural production remains highly dependent on rainfall and therefore extremely vulnerable to climatic shocks such as droughts and heavy rainfall, which cause significant fluctuations in crop production (FAO et al. 2023). Less than 7% of farmland on the continent is irrigated, and the proportion is only about 4% in sub-Saharan Africa—far below the global average[1]. In 2022, climate-related disasters caused $8.5 billion in losses across Africa, affecting over 110 million people, particularly in agriculturally dependent countries (UNCTAD 2025). From 2020 to 2022, the Horn of East Africa experienced its most severe drought in 40 years, leading to reduced grain outputs and widespread livestock deaths and impacting more than 20 million people (OCHA 2023). In 2024, multiple African countries were hit by extreme heavy rainfall, affecting over 10 million people (OCHA 2025). As climate change intensifies, the instability and systemic risk to agricultural production in Africa are on the rise.

1 Source: World Bank Open Data, primarily for 2018 or earlier. The highest regional irrigation rate is about 20.2% in Mauritius and the lowest is only 0.01% in Botswana. Most SSA countries have irrigation rates below 1%.

3. HISTORY OF AGRICULTURAL DEVELOPMENT IN AFRICA

The challenges facing African agricultural development today are deeply rooted in the complex historical processes. Throughout the arduous exploration of effective paths for agricultural development, both external environmental changes and internal structural constraints have shaped policy choices and development trajectories across African countries.

3.1 Colonization period: Late 19th and early 20th centuries

In this stage, there were three defining characteristics of Africa's agriculture development. (1) Shift towards export-oriented monoculture, leading to a continuous reduction of food crops. Family farms were forced to replace traditional crops with cash crops such as cotton, rubber, peanuts, and tobacco, to serve as cheap raw materials for colonial powers. Food crops were confined to the least fertile lands, causing a sharp decline in both cultivated area and crop yield. (2) Coexistence of large plantations and smallholder farms. Colonial plantation economies expanded by seizing vast areas of high-quality land to establish monoculture cash-crop estates. Meanwhile, landless indigenous peoples, as well as smallholder farmers from regions with relatively harsh natural environments, cultivated marginal lands known as "reserves". (3) Persistent technological stagnation among smallholders. The forced shift in cropping patterns of family farms dramatically undermined traditional farming system and disrupted the transmission of agricultural knowledge. While colonial plantations improved agricultural technology, equipment and inputs, smallholder farmers still depended on traditional tools and practices. African agriculture as a whole remained characterized by labor-intensive methods and extremely slow adoption of capital-intensive, labor-saving technologies.

3.2 Early independence period: 1950s and 1960s

After independence, African countries explored agricultural development paths as the government playing a leading role, exhibiting several key features. (1) Implementation of large-scale land reforms. Due to colonization, land ownership in Africa was highly complex. Upon independence, African countries redistributed land to smallholder farmers through diverse approaches adapted to domestic conditions. This policy effectively motivated farmers for agricultural production. (2) Promotion of agricultural cooperatives. As consistent with traditional communal practices of collective ownership and shared harvests, agricultural cooperatives were encouraged. Governments also provided farmers with free or subsidized agricul-

tural inputs, and invested in irrigation and water conservancy projects, which facilitated rapid agricultural growth. (3) Establishment of state-owned farms. In many African countries, former colonial plantations were nationalized and converted to state-owned farms. These farms inherited sound infrastructure and fertile land from plantations and were regarded as "symbols of modern agriculture". (4) Development of agro-processing industries. As part of broader import-substitution industrialization strategies, many African countries created large state-owned agro-processing enterprises, forming the initial foundation of their modern industrial sectors.

Although the "state-led" development model contributed to agricultural growth in the initial period, it did not establish robust or sustainable institutional mechanisms for long-term development due to weak agriculture market system and production incentives. The external shocks of the 1970s, including the oil crisis and sharp commodity price fluctuations, deeply impacted Africa's agricultural development. By the early 1980s, agriculture in Africa fell back to difficulty and productivity had declined.

3.3
Economic liberalization period: 1980s to late 20th century

In the 1980s, a surge in external debt pushed many African countries to seek financial assistance from international organizations. These loans were tied to Structural Adjustment Programs (SAPs), which introduced sweeping reforms in the agricultural sector. Key agricultural reforms under SAPs included complete liberalization of agricultural markets and removed price controls; elimination of state procurement monopolies; abolition of agricultural subsidies, including those for fertilizers, pesticides, and credit; promotion of cash crop production to expand foreign exchange reserves; significant reduction in financial support for public agricultural research and extension systems. The impact of SAPs on African agriculture was largely negative: (1) Sharp decline of food supply. Privatization of state farms weakened national food security, as private operators prioritized export cash crops over staple foods. (2) Deteriorating livelihoods of smallholder farmers. The removal of input subsidies sharply increased production costs, reducing smallholders' profitability and limiting their capacity to invest. (3) Deepened dependence on monoculture. To increase foreign exchange earnings, African countries were required to expand the production and export of single cash crops. It made agriculture more vulnerable to price volatility and environmental shocks. (4) Weakening of public agricultural support systems. Public agricultural expenditure fell drastically—from 15 percent in 1980 to just 6 percent in the early 1990s, undermining research, extension, and institutional capacity.

With few exceptions, SAPs failed to help African countries recover from economic stagnation and decline but instead caused rural poverty and food insecurity. SAPs did not produce the expected outcomes, leaving these countries in a difficult situation.[1]

1 The 1990 Declaration on the Political and Socioeconomic Situation in Africa and the Fundamental Changes Taking Place in the World, adopted at the 26th Ordinary Session of the Assembly of Heads of State and Government of the Organization of African Unity, stated that "most of our countries have entered into SAPs with the international financial and monetary institutions—mostly at heavy political and social costs. But we realize that these are short term measures and are by themselves insufficient to completely restore our economies to sound footing and lay firm foundation for future growth." The 1994 World Bank report titled "Adjustment in Africa: Reforms, Results, and the Road Ahead" also recognized that adjustment programs are necessary but not enough to raise economic growth.

3.4

Pursuing independent development paths: Early 21st century to present

In the early 21st century, African countries began to pursue independent development at the regional level, promoting agricultural development through strategic planning and regional integration. This stage exhibits three main features. (1) Formulation of independent regional development strategies. In 2003, CAADP and the New Partnership for Africa's Development (NEPAD) was launched by the AU, marking a significant shift from externally imposed policy frameworks to regionally owned, strategic planning for agricultural development. (2) Acceleration of regional integration and market harmonization. The establishment of the African Continental Free Trade Area (AfCFTA)—covering 54 countries and a population of 1.2 billion—aims to remove tariff and non-tariff barriers, expand intra-African agricultural trade, and enhance the continent's food security resilience by building a unified market. (3) Advancement of agricultural technology innovation and dissemination. African countries have strengthened agricultural science and technology through joint laboratories, technology demonstration centers, and public–private partnerships. Notable progress has been achieved in localized crop breeding, soil management, and digital agriculture. For example, China's agricultural technology demonstration centers integrate research, demonstration, and training functions while experimenting with commercial models that significantly support technological upgrading in Africa.

4.
COUNTRY CASE STUDIES

Despite various challenges to agricultural development in Africa, a number of countries have leveraged their resource endowments and institutional innovations to drive progress. By promoting effective collaboration among governments, businesses, and communities, these countries have gradually fostered development paths suited to their own conditions. Notable progress has been made in the fields of agricultural technology innovation, industrial chain expansion, and agricultural digitalization, contributing to diversified agricultural systems.

4.1
Kenya

Agriculture is the pillar industry and the top source of foreign exchange in Kenya. In 2024, the agricultural sector accounted for 16.3% of the GDP and over 40% of the total employment (Figure 4). Smallholder farmers dominate the agricultural sector, contributing 70-80% of the total output. In 2024, Kenya's agricultural exports reached $4.3 billion, an increase of 15% year-on-year.[1] Kenya's agriculture is primarily rain-fed farming and production conditions vary substantially across regions. Kenya is one of the world's largest producers and a major exporter of black tea. In 2024, the tea industry generated approximately $1.67 billion in revenue, 84% of which came from exports.

Agricultural development plans have been consistently maintained and effectively implemented in the long term. The tea industry in Kenya, in particular, has long benefited from sustained and targeted government support. Since independence in 1963, Kenya has positioned the tea economy as an important strategic component of its national economy. Policies have been continuously adapted to respond to different stages of development and emerging challenges. These include conducting agricultural resource surveys, restructuring the Kenya Tea Development Authority (KTDA), supporting the establishment and upgrading of the Mombasa Tea Auction, and formulating and amending the Tea Act. Notably, a series of policies aimed at supporting smallholder tea farmers have contributed to industrial development and poverty reduction. At the early stage of industry development, Kenya restricted the expansion of foreign-funded tea plantations to encourage the development of smallholder tea farmers. Preferential policies and strengthened collaboration with multinational companies further promoted the expansion and commercialization of smallholder production. By 1988, smallholder farmers in Kenya surpassed multinational planta-

1 https://www.fas.usda.gov/data/kenya-agricultural-trade-kenya-opportunities-us-exporters-changing-landscape

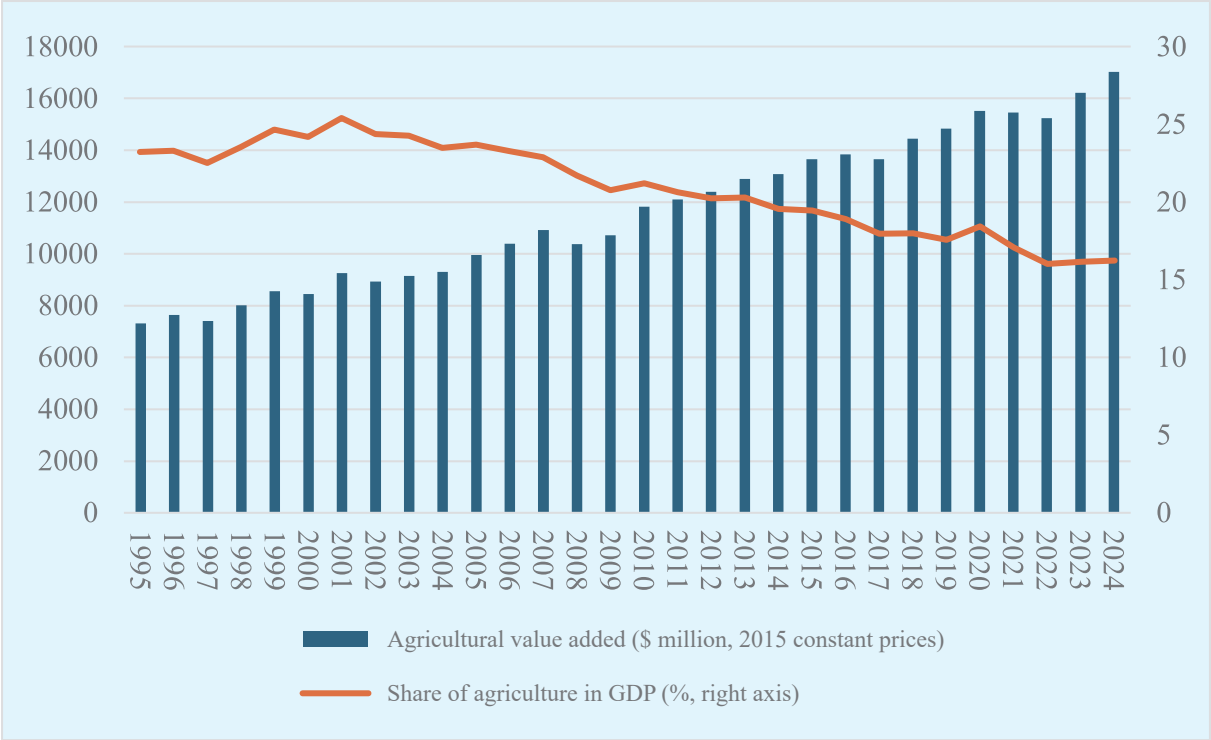

FIGURE 4

Agricultural value added in Kenya and its share in GDP

Source: FAO

tions in tea production. In 2024, they accounted for about 52% of tea production.

The organization of smallholder farmers has been strengthened, expanding the industrial value chain. Kenya has effectively organized thousands of smallholder tea farmers through KTDA. This institutional arrangement helps dispersed farmers overcome technical challenges, greatly increase their bargaining power and capture greater value along the tea value chain. Established in 1964 as an independent agency built on the Special Crops Development Authority, KTDA has undergone privatization and governance reforms to better meet the needs of the tea industry and the core interests of smallholder farmers. Operating with a cooperative-like structure and enterprise mechanisms, KTDA provides farmers with integrated services from cultivation processing to marketing. These include marketing the Kenya black tea brand, offering preferential loans and technical assistance, establishing an efficient fresh-leaf collection system from farmers, facilitating convenient tea processing, and ultimately selling the tea through the Mombasa Tea Auction. After sales, KTDA distributes most of the revenue directly to tea farmers with deducts production, transport, and management costs. In addition, KTDA manages the "Tea Farmers Retirement Benefit Scheme", which provides old-age security for tea farmers. KTDA has not only increased the incomes of smallholder farmers and created numerous jobs through extended industrial value chain but also contributed significantly to the development of rural communities.

Digital technology has empowered agricultural development. In recent years, Kenya has leveraged digital technology to promote financial inclusion and expand the coverage of financial ser-

vices to support agricultural development. From 2006 to 2021, the rate of financial inclusion[1] in Kenya increased from 58.7% to 95.3%, largely driven by the rise of digital currency and mobile banking. Fintech companies like M-Pesa have addressed the limitations of traditional financial institutions - high entry barriers and operational costs – and achieved extremely high penetration rates by collaborating with agents throughout rural areas such as small retailers, post offices, and gas stations. By establishing a data-driven credit scoring system that assesses repayment ability, fintech firms can ease credit constraints of smallholder farmers and small and micro enterprises in agricultural sector, which are lacking collateral. In addition, through mobile apps and SMS services, fintech firms provide real-time information on market prices and weather conditions, and production risks, enabling farmers to make informed decisions and improve profitability. It is estimated that M-Pesa has lifted 194,000 Kenyan households, particularly female-headed households, out of poverty by enabling more savings, enhancing financial resilience, and boosting nonfarm employment (Suri and Jack 2016).

Despite noteworthy progress in export-oriented agriculture, particularly tea and cut flowers, Kenya's agricultural system remains highly vulnerable to climate variability, with more than 98 percent of farmland dependent on rainfall. Droughts and floods induced by climate change pose direct threats to its agricultural ecosystem. Moreover, low-value staple crops such as maize and wheat often lose out in competition for land against higher-value products, and the country's heavy reliance on imported inputs such as fertilizers pushes up production costs. Food security remains to be a major challenge in Kenya.

4.2 Ethiopia

Ethiopia is the only African country that was never fully colonized, and it has been actively pursuing modernization since the late 19th century. Agriculture has been the cornerstone of Ethiopia's economy, accounting for 30.5% of the GDP, about 70% of the employment, and over 90% of the export revenue in 2024 (Figure 5). Ethiopia is known as the "water tower of Africa" due to abundant water resources; however, the rate of irrigation is low and highland rain-fed farming is dominant. The country leads Africa in coffee and barley production, and ranks high in crops like sorghum, maize, and wheat. Ethiopia possesses the largest livestock population in Africa. All land in Ethiopia is owned by the state, but smallholder farmers have long-term usage and inheritance rights. Small-scale farming covers 95% of the cultivated land, with an average size of less than one hectare per household. The government has consistently prioritized agriculture as a key sector and gradually promoted the shift from traditional smallholder farming towards market-oriented and export-oriented production through strategic planning and policy support. At the same time, Ethiopia has enhanced the value addition and competitiveness of its agricultural products by establishing agro-industrial parks, laying important groundwork for industrialization.

The strategic importance of agriculture has been reinforced through top-level design. The Ethiopian government has formulated the Ten-Year Development Plan (2021–2030), placing agriculture at the center of economic structural transformation. This plan explicitly aims to boost food production, promote the commercialization

1 Financial inclusion is measured by formal financial access, among others, which captures individuals with an active account in their own name in the last twelve months with at least one financial service provider, in the financial access surveys published by the Central Bank of Kenya.

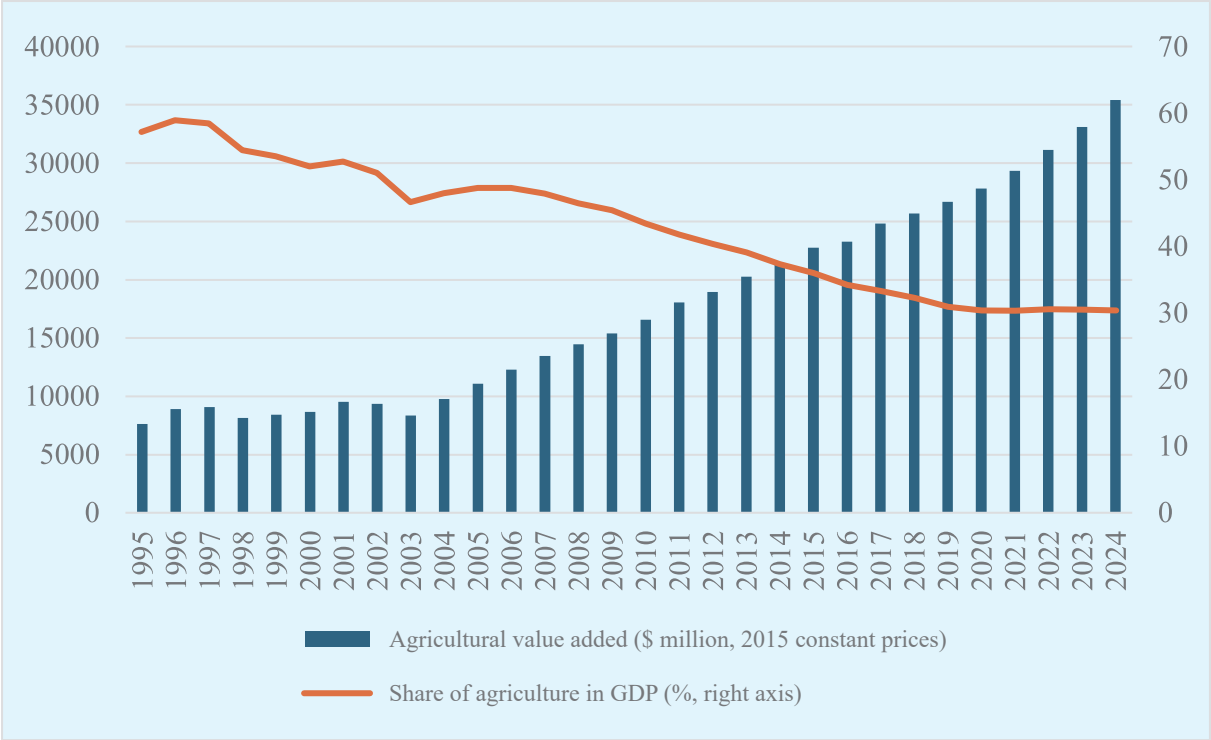

FIGURE 5

Agricultural value added in Ethiopia and its share in GDP

Source: FAO

of smallholder farmers, and develop the agricultural value chain. In addition, the government has developed special plans for farmland irrigation, agricultural input supply, and technology R&D. Beyond the Ministry of Agriculture, the Agriculture Transformation Agency (ATA) was established in 2010 to enhance sector coordination and improve policy implementation efficiency. ATA was reorganized into the Agricultural Transformation Institute (ATI) in 2022, tasked with conducting agriculture-related research, piloting innovative policies, and scaling successful programs. This high-level institute plays a crucial role in fostering collaboration between agriculture and other sectors.

Focus has been placed on agro-processing industries as part of national industrialization strategy. Since the 1990s, the country has pursued a light-manufacturing-led industrialization pathway in which agro-processing serves as a strategic anchor, utilizing agricultural outputs as industrial raw materials and viewing agriculture as a source of capital and markets. Under this framework, agriculture development and industrialization supports each other. To develop the agro-processing industry, Ethiopia has actively built integrated agro-industrial parks, strengthened linkages between agriculture production, manufacturing, and exports. Since 2016, the government has invested $1 billion in planning and constructing 17 agro-industrial corridors and multiple agro-processing parks. Four parks have been established in the regions of Tigray, Amhara, SNNPR, and Oromia. Leveraging local raw materials and transport advantages, these parks facilitated the clustering of agro-processing enterprises and spurred agricultural production. Enterprises in the parks benefit from exemptions on profit tax, import tariffs on machinery, and export

tax rebates. The government also offers preferential credit and tax incentives to foreign-funded agro-processing firms and provides technical support through institutions such as the Leather Industry Development Institute.

Food security of staple crops has been given high priority in recent years. Since 2019, Ethiopia has identified wheat as a national strategic focus and implemented systematic reforms to ensure food security. The annual wheat production grew from 4.65 million tons in 2015 to 5.8 million tons in 2023, with the yield rising from 2,794.1 kg/ha to 3,118.3 kg/ha. This progress has led to self-sufficiency in some regions and even exports to neighboring countries. The key to increasing wheat production lies in strengthening the agricultural extension system and boosting investment in irrigated farming. Efforts focus on three main areas: (1) Enhancing agricultural mechanization. Machinery service centers have been established in major grain-producing areas, offering rental services for sowing, harvesting, threshing, and other operations. Small and medium-sized machinery and equipment suited to the small-scale and intensively cultivated land have been introduced; (2) Expanding irrigated agriculture coverage. The construction of small pumping stations, ditch systems, and other infrastructure led by the government and farmers has effectively increased wheat output. By 2022, the total area of land equipped with modern irrigation system reached 1.8 million hectares[1]; (3) Promoting high-yield and climate-adapted varieties. Ethiopia, in collaboration with the African Development Bank, promoted heat-tolerant and high-yielding wheat varieties in traditional rain-fed agricultural areas and on irrigable farmland, effectively increasing wheat production.

These strategies in Ethiopia have generated early positive results, reflected in sustained agricultural output growth and steady agricultural export expansion. However, Ethiopia's agricultural production remains vulnerable. In 2024, around 15.8 million people nationwide need food assistance due to floods, conflicts, and other challenges. Key export commodities including coffee are highly sensitive to international price fluctuations and exhibit limited resilience. Despite all efforts to promote agricultural commercialization, marketable surplus above farm consumption is limited. Regarding level of commercialization, on average about 20 % of total production is sold to market out of total production which is low compared to many developing economies. Agricultural infrastructure remains the bottleneck of agricultural development and the organization of smallholder farmers requires improvement. Moreover, long-term agricultural development faces constraints from limited financial resources, weak policy implementation, and complex land tenure issues.

Beyond Kenya and Ethiopia, several other African countries have made positive progress in agricultural development. For example, Egypt has significantly boosted food production through enhanced irrigation systems and extensive land reclamation initiatives, aiming for self-sufficiency in major food crops (Fanack Water Editorial Team 2025). South Africa has become one of the most productive and export-capable countries in Africa, driven by its highly mechanized commercial farming system (WEDC 2020). It is actively promoting urban agriculture to enhance urban food security and create job opportunities (South African Government 2025).

1 Ethiopia's Irrigation Coverage Reaches Over 1.8 Million Hectares, Ethiopia New Agency, April, 2024. https://www.ena.et/web/eng/w/eng_4375951#:~:text=Addis%20Ababa%20April%2030%2F2024%20%28ENA%29%20The%20Minister%20of,irrigation%20infrastructure%20coverage%20has%20surpassed%201.8%20million%20hectares.

5.
POLICY RECOMMENDATIONS

Agriculture in Africa has a sound foundation for development. Since independence, African countries have undertaken extensive and arduous explorations to develop this sector. Nevertheless, agricultural development continues to face severe challenges due to various constraints, including historical legacies, external development conditions, and internal structural issues. In this context, some African countries have gradually identified unique agricultural development paths tailored to their national realities by utilizing their resource endowments, leveraging comparative advantages, and fostering effective collaboration mechanisms involving governments, businesses, and communities. To advance agricultural transformation and development in Africa, both international and domestic stakeholders could be engaged to maintain efforts in key areas such as implementing strategies and plans, optimizing production organization, upgrading infrastructure, enhancing chain value, and deepening market integration.

5.1
Strengthening data collection and policy piloting for a solid knowledge base of agricultural development

Agricultural surveys are fundamental for formulating agricultural development strategies and policies. Firstly, a dynamic, multidimensional, and accurate national agricultural database could be established to provide a scientific foundation for policy formulation, resource allocation and performance evaluation. Secondly, data collection could be modernized and diversified. In addition to comprehensive natural resource (e.g., land and water) surveys, agricultural surveys could be expanded to encompass a larger sample of farmers, gathering detailed information on production, business conditions, living standards, and land ownership. Advanced technologies such as remote sensing satellites and drones could be fully utilized to improve data accuracy. Thirdly, policy effectiveness could be evaluated through pilot projects. Before scaling up policies, pilot projects could be conducted in areas with representative and diverse resource endowments to inform policy adjustments and minimize trial-and-error costs.

5.2
Enhancing planning feasibility and financial support to ensure effective implementation of development plans

African countries could thoroughly evaluate their agricultural development status, natural resource endowments, and key challenges, so as to formulate agricultural development plans in line

with national contexts and ensure their successful implementation. Firstly, a phased and multi-level strategy system could be established. Annual, medium-term, and long-term agricultural development plans could be designed, supplemented by sectoral and regional plans to enhance policy feasibility. A measurable indicator system is also necessary to evaluate policy performance. Secondly, national budgets could be optimized to prioritize key areas of agricultural development. The goal of allocating at least 10% of the national budget to agriculture needs to be fully implemented, with a focus on areas such as food security, irrigation infrastructure, and production subsidies to enhance fund efficiency and precision. Thirdly, development aid allocation could be rationalized to ensure that international assistance aligns with national development plans and annual budget cycles.

5.3

Supporting cooperatives to strengthen smallholder farmer organization

Organizing fragmented smallholder farmers is a key approach to improving production efficiency and achieving inclusive development. First, support could be provided to develop agricultural cooperatives and other farmer-based organizations. This can be achieved through fiscal measures, tax incentives, and financial assistance, with special attention to cooperatives in remote areas and those those focused on cultivating food security crops. Secondly, stable market linkages for smallholder farmers could be established. This involves strengthening producer organizations and encouraging smallholder farmers to integrate into markets via cooperatives and producer associations. The “contract farming” model is recommended to improve product quality and reduce transaction costs and risks for smallholder farmers engaging with markets.

5.4

Encouraging innovative financing models and advancing domestic and cross-border infrastructure development

Improving infrastructure is essential to unleashing the potential and overcoming the bottleneck for African agricultural development. It is also crucial for strengthening farmer-market connections and extending industrial chains. Firstly, investment could be directed preferentially towards productive sectors like infrastructure. By reforming tax policies and optimizing fiscal management, domestic resources can be mobilized to support infrastructure development. Secondly, innovative financing models can be employed to leverage private sector investment. The Public-Private Partnership (PPP) can be fully utilized to help reduce government deficits, ease financing burdens, and diversify funding sources, creating mutually beneficial outcomes for both businesses and governments. Third, cross-border infrastructure projects could be prioritized to improve landlocked-port connectivity and boost regional agricultural distribution efficiency. To this end, they are fundamental for building a continent-wide agricultural logistics network under AfCFTA.

5.5

Developing the agro-processing industry and adding value along the industrial chain

The agro-processing industry plays a vital role in upgrading the value chain and facilitating the transformation of agriculture into a modern industry, as well as supports industrialization and rural employment. Firstly, the foundation for rural industrial development could be strengthened. Agro-processing parks or industrial clus-

ters could be constructed in major agricultural production zones or logistics hubs. These parks and their surrounding areas could be prioritized for stable power supply, clean water sources, and digital communication networks to foster industrial clustering. Secondly, the business environment for agribusinesses could be improved. This includes introducing more targeted support policies, streamlining approval and supervision processes to reduce burdens (especially on local SMEs), and encouraging firms to develop localized, distinctive deep-processing capabilities. Thereby, they can transform primary products and capture greater added value.

5.6

Actively integrating into global and regional markets by leveraging comparative advantages

Active integration into global and regional markets is an important breakthrough for African agriculture to overcome low-end lock-in and achieve sustainable growth. Firstly, African countries could leverage their comparative advantages to integrate into and benefit from the AfCFTA. Based on resource endowments, differentiated advantages can be converted into competitive strengths in intra-regional trade. African countries could align with and implement the AfCFTA framework, including substantially reducing tariff and non-tariff barriers and accelerating mutual recognition and interoperability of rules, standards, and certification systems. Investment could prioritize cross-border infrastructure networks, particularly cold chain logistics connecting production areas and ports, to improve logistics efficiency. Secondly, international cooperation is advocated to overcome market access barriers. The global community could effectively implement the commitments under the Trade Facilitation Agreement (TFA) and expand targeted programs under Aid for Trade, focused on specialized training for agricultural enterprises and cooperatives to meet international standards. Also, systematic support in capacity building for local certification and quality inspection agencies could be provided. Thirdly, efforts could be made to enhance the market competitiveness of agricultural products. By strategically utilizing expos, e-commerce, and other channels to improve branding and shape consumer demand, African countries could establish their agricultural products as high-quality and trustworthy, significantly boosting competitiveness.

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Introduction to the Global South Research Center

The Global South Research Center (GSRC) was announced by Chinese President Xi Jinping at the Conference Marking the 70th Anniversary of the Five Principles of Peaceful Coexistence in June 2024, and formally launched in March 2025.

The GSRC is an international research platform involving experts and scholars from South and North countries and international organizations. The GSRC's primary responsibilities are to consolidate research resources from around the world, particularly from Global South countries and relevant international and regional organizations, and to carry out research, consultation, and exchange activities concerning key and major issues related to the development and cooperation of the Global South.

The GSRC establishes a Council, chaired by the Minister of the Development Research Center of the State Council (DRC) Lu Hao. The Secretariat of the Council is hosted at the Center for International Knowledge on Development (CIKD).

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