

Accelerating the Private Sector for Food Systems Transformation in Africa





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ISSN: 2313-5387

Correct Citation: AGRA. (2024). Accelerating the Private Sector for Food Systems transformation in Africa (Issue 12). Nairobi, Kenya: AGRA.

Technical Advisor: Thomas Reardon
Managing Editor: Jane Njuguna (AGRA)
Editor: Sylvia Maina
Design and Layout: Conrad Mudibo, Communication Specialist
Cover Concept: Conrad Mudibo (Ecomedia)

AGRA acknowledges the following contributing institutions:



Dalberg



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Foreword

The agri-food private sector in Africa is a dynamic and multifaceted component of the continent's economy playing a critical role in shaping food systems, employment, and economic growth. Yet, this role is often misunderstood or oversimplified leading to misconceptions that can hamper effective policy-making and business strategies.

This year's Africa Agriculture Status Report (AASR) aims to clarify and deepen our understanding of the private sector in Africa, particularly in the agri-food industry, by presenting a nuanced analysis of its various components. The Report begins by defining the private sector, which encompasses both micro, small, and medium enterprises (MSMEs) and upper medium/mid-sized and large enterprises. These enterprises operate across diverse value chain segments, from input supply to retail, and vary in scale, ownership, and market orientation.

Although often informal, MSMEs are the backbone of Africa's domestic food economy and handle a substantial portion of both rural and urban food consumption. In contrast, large enterprises, whether domestic or foreign-owned, typically engage in both domestic and regional markets with some also reaching extra-African markets.

The private sector in Africa also faces numerous opportunities and challenges many of which are

categorized in this report. On the demand side, domestic urban markets are the primary drivers with rural markets and emerging international markets also presenting significant potential. On the supply side, challenges such as inadequate infrastructure, informal practices, and poorly functioning factor markets pose significant barriers to growth.

An analysis of the interaction between the off-farm private sector and farming enterprises emphasizes need for business models that support smallholder farmers and enhance rural employment particularly for women and youth. A deeper understanding of these interactions is needed to develop robust and evidence-based policies that foster productive partnerships and sustainable growth.

The 2024 AASR sets forth a comprehensive agenda for exploring the development pathways of Africa's private sector with a focus on policies and business models that can drive inclusive growth, reduce transaction costs, and enhance the sector's contribution to food security and economic development. As Africa continues its journey towards economic transformation, understanding and supporting the diverse components of the agri-food private sector will be essential in achieving sustainable and inclusive growth. The Report contains useful information for guiding policy formulation and implementation for the benefit of our people.

Frank K. Tumwebaze

Minister of Agriculture, Animal Industry and Fisheries of Uganda
and Chair of the African Union Specialized Technical Committee on Agriculture,
Rural Development, Water and Environment (STC-ARDWE)

Preface

It is three years since Africa countries and the world came together with the mission to transform food systems in which the agriculture sector plays a major part. While considerable progress has been made in many areas, the role of the private sector has not yet been fully developed in the food systems transformation journey.

The African agrifood private sector plays a pivotal role in shaping the continent's food economy. Yet, the sector's true scope and nature are often misunderstood and viewed narrowly through the lens of large, formal enterprises. This is a lost opportunity.

This 2024 Africa Agriculture Status Report(AASR24) seeks to redefine Africa's private sector by recognizing the vast array of micro, small, and medium enterprises (MSMEs) that dominate the landscape alongside the larger, growing African-owned upper medium/mid-sized firms (and foreign owned upper medium/mid-sized firms) that are key in shaping markets.

Food systems transformation and the private sector's role in it calls for a good understanding of the relationships within the sector—ranging from input suppliers to retail and food service providers—and their significant contributions to the domestic, regional, and global markets. Also crucial are spatial considerations highlighting how urbanization, proximity to cities, and the spontaneous clustering of enterprises are vital to the sector's growth and dynamism.

This exploration is fundamental to addressing Africa's core development challenges. It has practical implications for addressing the challenges and seizing the opportunities that the sector faces. AASR24 categorizes these opportunities and challenges focusing on how they differ across markets and the policies that can either enable or hinder growth. Special attention is given to the interaction between off-farm and farm private sector especially in terms of how these interactions affect smallholder farmers and rural employment and with a particular focus on women and youth.

AASR24 draws out the pathways and conditioning factors that drive the development of the private sector in Africa and linkages between off farm and farm actors. It proposes relevant policies and business models that can foster a more inclusive and productive agrifood sector on the continent. While the right evidence-based policies to unlock faster private sector-led growth are crucial for this transformation, the desired changes also call for informed dialogue and effective coordination between government and growth-oriented private sector actors. This year's AASR also interrogates the financing gaps which curtail faster growth of the African agrifood private sector and proposes a model to address them.

We hope that the AASR24 will serve as a practical guide for policymakers, development practitioners, and private sector leaders on lifting the sector's performance and potential toward economic transformation across the continent.



Dr. Agnes Kalibata
President, AGRA

Acknowledgments

We extend our deepest gratitude to all who contributed to the development of the Africa Agriculture Status Report 2024 (AASR24), which highlights the crucial role of the private sector in Africa's agrifood systems. The insights and expertise provided by each contributor have been invaluable in shaping and delivering this comprehensive resource.

On behalf of AGRA, I am particularly indebted to Professor Thomas Reardon, the technical advisor of AASR24, for his technical support and guidance throughout the development of its content. We also express our profound gratitude to AGRA President, Dr. Agnes Kalibata, whose leadership and guidance has led AGRA and the continent in the adoption, roll out and investment in food systems thinking. We are grateful to all the individuals and institutions that provided various forms of support towards the preparation and production of this report.

In particular, we extend our thanks to the following chapter authors and contributors:

Chapter 1: Overview

- Prof. Thomas Reardon, (Michigan State University & International Food Policy Research Institute, IFPRI)

Chapter 2: Private Sector Micro, Small, and Medium Enterprises in the Hidden Middle of African Agrifood Value Chains

- Saweda Liverpool-Tasie, (Michigan State University & International Institute of Tropical Agriculture, IITA)
- Prof. Thomas Reardon (Michigan State University & IFPRI)

Chapter 3: Medium to large-scale agribusiness firms in Africa: Triggers, Drivers, and Investment Strategies defining Private Sector-Led Growth

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Chapter 6: Coordinating Governments around the Needs of Private Sector-Led Growth Opportunities

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Chapter 7: Synthesis of Findings and Policy Implications

- Prof. Thomas Reardon, Michigan State University & IFPRI

We appreciate the support and feedback from our colleagues and partners, whose constructive critiques have helped refine this document.

This report would not have been possible without the expert coordination and management by Jane Njuguna (AGRA), the technical leadership of Jonathan Said (AGRA), and the overall support provided by Betty Vata (AGRA). We would also like to acknowledge all AGRA staff who contributed to the production of this publication.

AASR24 is a significant accomplishment and, we hope, a timely and relevant publication. We extend our gratitude to everyone who contributed to its conceptualization and completion and apologize for any inadvertent omissions in this acknowledgment.



Andrew Cox

Director - Strategy, Monitoring & Evaluation and Learning
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Acronyms and Abbreviations

AAFDI	Association of African Development Finance Institutions	GIRSAL	Ghana Incentive-Based Risk Sharing System for Agricultural Lending
AASR24	2024 Africa Agriculture Status Report	HPAI	Highly Pathogenic Avian Influenza
ACGS	Agricultural Credit Guarantee Scheme	HPAI	Highly Pathogenic Avian Influenza
AfDB	African Development Bank	IAIPs	integrated agro-industrial parks
AIPs	agro-industrial parks	ICT	Information and communication technologies
ANAPRI	African Network of Agricultural Policy Institutes	IDZ	Industrial Development Zone
ASD	Agricultural Services Division	IFFCO	Indian Farmers Fertiliser Cooperative Limited
AVCs	agri-food value chains	IFPRI	International Food Policy Research Institute
BOI	Bank of Industry (Nigeria)	IISD	The International Institute for Sustainable Development
C-TPAT	Customs-Trade Partnership Against Terrorism	IT	Information technology
CGS	Credit Guarantee Scheme	KCCCL	Kahama Cotton Company Limited
CIT	corporate income tax	KINFRA	Kerala Industrial Infrastructure Development Corporation
COFCO	China National Cereals, Oils and Foodstuffs	MIDEPLAN	Ministry of Economic Planning and Policy (Costa Rica)
CORFO	Production Development Corporation of Chile	MITI	Ministry of International Trade and Industry (Japan)
COVID-19	Coronavirus 2019	MLE	upper-tier medium/mid-sized, and large enterprise
CSAF	Council on Smallholder Agricultural Finance	MOP	Muriate of Potash
DAP	Diammonium phosphate	MSME	micro, small, and medium enterprises
DDF	District Development Fund	NBFIs	non-banking financial institutions
DDF	District Development Fund	NCPB	National Cereals and Produce Board
DRC	Democratic Republic of Congo	NCPB	National Cereals and Produce Board
DRC	emocratic Republic of Congo	NFSP	National Fertilizer Subsidy Programme
ECA	United Nations Economic Commission for Africa	NFSP	National Fertilizer Subsidy Programme
FAFIN	Fund for Agricultural Finance in Nigeria	NGOs	non-government organizations
FAO	the United Nations Food and Agricultural Organization	NIOMR	Nigerian Institute for Oceanography and Marine Research
FAOSTAT	FAOSTAT: FAO Statistical Databases	NIRSAL	Nigeria Incentive-Based Risk Sharing System for Agricultural Lending
FDI	foreign direct investment	NMAIPs	National Modern Agricultural Industrial Parks
FISP	Farmer Input Support Programme	NMAIPs	National Modern Agricultural Industrial Parks
FISP	Farmer Input Support Programme	NPK	Nitrogen, phosphorus, and potassium
FMD	Foot and Mouth Disease	PDBs	public development banks
FMD	Foot and Mouth Disease	PFI	Presidential Fertilizer Initiative
FSO	Free State Oil (Pty) Ltd.		
FTEs	full time equivalents		
GIL	Global Industries LimitedFree State Oil (Pty) Ltd.		

PFI	Presidential Fertilizer Initiative	TADB	Tanzania Agricultural Development Bank
PIA	Plateforme Industrielle d'Adétikopé" (Togo)	TAIDF	Tanzania's Agro-Industrialization Development Flagship
PIA	Plateforme Industrielle d'Adétikopé" (Togo)	TAIDF	Tanzania's Agro-Industrialization Development Flagship
PPPs	public-private partnerships	TDV	Tanzania Development Vision
RAI	Responsible Agricultural Investment Tool	US	United States
RSG	RussellStone Group	USAID	United States Agency for International Development
RTCs	Rural transformation centres	USD	United States Dollar
SAGARPA	Secretariat of Agriculture and Rural Development	VAT	value added tax
SAPZs	special agro-industrial processing zones		
SCPZs	staple-crop processing zones		
SEZ	special economic zone		
SMEs	small and medium enterprises		
SSA	Sub-Saharan Africa		

1 Accelerating the Private Sector for Food Systems Transformation in Africa: Introduction

Thomas Reardon¹

The issues and focus of the 2024 Africa Agriculture Status Report

In 2014, Dr. Ousmane Badiane² gave a speech in which he said “The African food system is like a huge jet that has already taken off and is flying at 10,000 feet; but as it surmounts its challenges it could climb to reach the full altitude of 35,000 feet.” Today, in 2024, we are one decade on, and the African food system is enormous and has continued to fly high and climb—but is still faced with challenges.

The 2024 Africa Agriculture Status Report (AASR24) focuses on the role of the private sector in African food systems including understanding:

- (1) how the private sector is growing with the aim of best harnessing and leveraging its strengths and potential and supporting it to actualize this;
- (2) how the private sector impacts small farmers and food security;
- (3) how the private sector development is driven (or held back) by policy and non-policy factors;
- (4) what innovative, practical, and creative business and organizational models the private sector is coming up with in the African context
- (5) how the private sector still constrained and challenged;
- (6) what policies and strategies can be brought to bear to help the private sector “fly higher and faster” and play an even greater role in transforming African food systems to be more dynamic, inclusive, resilient, and sustainable.

The African food system is considered here as the set of agri-food value chains (AVCs) that produce food and farm inputs and supply them to African consumers and farmers. AASR24 focuses on the off-farm sectors of the food system, in particular, off-farm private sector enterprises in AVCs:

- (1) upstream from farms in farm input and agricultural services value chains;
- (2) downstream from farms in output value chains, particularly in the midstream segments of wholesale and processing, and downstream in retail;
- (3) “lateral” value chains such as the important third-party logistics (3PLS) supplying all food system segments.

AASR24 does not focus directly on the farm sector but includes treatment of how the off-farm segments affect small farms.

While many people tend to think of only big companies when they hear the term “private sector”, AASR24 applies the term to mean two sets of enterprises: (1) micro, small, and (lower tier) medium enterprises (MSMEs), which form about 85 percent of the volume of activity of Africa’s agri-food private sector; and (2) (upper-tier) medium/mid-sized and large enterprises (MLEs) which form roughly 15 percent of the private sector in volume in Africa. In this context, MSMEs tend to focus on the domestic market (which forms between 85% and 90% of African food consumption in tonnage per FAO data) while MLEs operate in both domestic and export markets; note that export markets are the destination of about 5% of African food output.

² Dr. Ousmane Badiane is a Fellow of the African Association of Agricultural Economists, recipient of the 2015 Africa Food Prize and member of the World Academy of Sciences. He currently serves as the Executive Chairperson of AKADEMIYA2063, which supports efforts by African Union (AU) Member States to create state-of-the-art technical capacities towards the goal of Africa’s Agenda 2063 to transform national economies to boost growth and prosperity.

¹ Michigan State University and the International Food Policy Research Institute (IFPRI)

The importance and dynamism of the agri-food private sector in Africa

Private sector off-farm enterprises of AVCs are enormously important to African food security and competitiveness in several ways:

- (1) MSMEs in particular are crucial to small farmer incomes, profitability, and productivity as they supply them the great majority of farm inputs and services and market small farmers' output. They are also critical to small farmers' climate resilience as these firms supply farmers their irrigation equipment, livestock and crop disease resilience as they supply farmers with antibiotics and pesticides, among other inputs. Both MSMEs and MLEs sometimes supply other services such as training and information, credit, and logistical support.
- (2) MSMEs also hold a special importance in rural settings with regard to rural employment in general and of youth and women in particular. Rural employment in full time equivalents (FTEs) and off-farm activities in AVCs forms between 20 percent and 25 percent of total rural employment in Africa (compared with 4% for farm wage employment and 39% for own-farming employment) and about 25 percent of African urban employment (Dolislager et al. 2021).
- (3) MLEs are especially important to African export volumes and competitiveness as well as handling of food imports and production of manufactured foods that form a part of urban food market consumption.
- (4) MSMEs in particular as well as MLEs are central to procuring, moving, processing, wholesaling, and retailing the enormous volume of food purchases in Africa each year. This is so important that the next section provides a quick snapshot with some stunning figures.

It is often incorrectly thought and argued that African AVCs are traditional and stagnant, "stuck in the mud", broken, the "missing middle", failed, as commonly heard references to African food supply chains and the

private sector that operates them. However, the fact, as amply demonstrated in this report, is the private sector in African AVCs is vastly dynamic and, in many cases, growing as fast as its Asian counterparts that are often touted as successes. There has been a rapid growth in the number and total volume of MSMEs and MLEs in Africa in the past several decades in response to the enormous growth of food demand both in basic grains (including processed grains) and in fruits, vegetables, and animal products.

There is a graphic and surprising numerical exercise that demonstrates how dynamic and enormous Africa's agri-food private sector is and how far it is from failing and flailing.

- 1) According to the World Bank, the population in Sub-Saharan Africa (SSA) more than doubled (grew by 2.4 times) from 516 million in 1990 to 1.24 billion in 2022. FAOSTAT data show that the total population of Africa (that is, SSA plus North Africa) population rose from 580 million in 1990 to 1.42 billion in 2022.
- 2) FAOSTAT data also provide that in 1990, African food production was 414 million tons, while exports were 15 million tons, and imports were 42m tons. By 2022, food production had soared to 1.18 billion tons, with exports reaching 62m tons, and imports, 198m tons. Consumption by disappearance³ was 441 million tons in 1990 and 1.3 billion tons in 2022 – a threefold increase in food consumed compared with a 2.4-fold increase in population. Even domestic food output tripled (a 2.85 times increase), thus growing faster than population.
- 3) Beyond the stunning growth is the enormous volume of food that the private sector moves each year in AVCs in Africa. FAOSTAT data show that 1.3 billion tons of food is consumed every year in Africa. Liverpool-Tasie et al. (2021) show that a surprising 85 percent⁴ of that total—the equivalent of 1.1 billion tons are purchased and thus represent food managed/operated by African private sector AVCs.

³ Production less exports plus imports

⁴ 85 percent is derived from summing urban and rural shares of purchases: 100% of the urban food consumption (about 60% of total food consumption) and 60% of rural food consumption (which is about 40% of total food consumption).

Besides the overall food demand pull from population and income growth, the private sector of AVCs in Africa has grown quickly for two other reasons.

First, rapid urbanization has driven the development of rural-urban supply chains. Longer and bigger supply chains have driven the proliferation of wholesale and logistics MSMEs in both rural and urban areas. This is pulled by the powerful motor of the rise of Africa's cities which will be a major factor in AVC development for at least the next decade or two.

Today, by far the largest food market facing the African private sector and farmers is the African urban market, which is far larger than the export market. The urban market has grown as fast as the export market; from 1990 to 2023, the urban population more than tripled (3.5 times rise) from 145 million in 1990 to 508 million in 2023. Moreover, the urban market food consumption share⁵ of food output in Africa grew from 28 percent in 1990 to 43 percent in 2023 (in tons terms) compared with exports which grew from 3.5 percent in 1990 to 5 percent in 2023. Thus, the African urban market was eight times larger than the export market in 1990 and nine times larger in 2023 and growing about as fast as exports.⁶

Secondly, a huge rise in consumption of processed foods and non-grain products (fruits, vegetables, and animal products) in Africa in the past several decades has been another important factor propelling the growth of MSMEs and MLEs in food processing, wholesale and logistics, and crop inputs and animal feed (with derived demand for MLE services in soy crushing, peanut cake processing, and others as recounted in this report). The dynamism of these sectors is stunning: for example, the domestic demand and supply of these horticulture and animal products for the African market has grown faster than in Asia or Latin America in the past two decades (Reardon et al. 2024); together they now exceed the consumption of basic grains.

The challenges of the agrifood private sector in Africa

Despite the dynamism of the MSME and MLE sectors in Africa, serious challenges and constraints remain. These are of different types depending on the sector both because of the scales of the firms and the types of markets that they tend, up to now, to focus on; but some challenges cross-cut both MSME and MLE sectors.

First, both MSMEs and MLEs critically depend on hard and soft infrastructure—what this report terms the “blood and bones of the food system” (Reardon and Vos, 2022). These include roads, wholesale markets, electricity, water, information technology (I.T.) infrastructure, and basic governance such as the control of crime and conflict. AASR24 shows that where these are in place, both small and large private sector tends to grow rapidly. Where this hard and soft infrastructure is missing or poor, transaction costs, business snags, risks, headaches and heartaches abound and businesses fail altogether, grow slowly, or fail to make the necessary upgrades to move up the value ladder of markets. These blood and bones are fundamentals, they are necessary government investments before and beyond all else.

Secondly, in places and product lines facing constraints in infrastructure and attendant business costs such as of transport and electricity, MSMEs are burdened by diverse risks such as highway banditry and violent conflicts and climate shocks in their sourcing, transit, and selling areas. Moreover, while they often self-finance or depend on informal mechanisms, they also report feeling constrained by lack of access to formal finance such as bank credit.

Third, MLEs face challenges of poor infrastructure as well as diverse risks related to policy changes and constraints for them to produce for and sell to particular markets. These challenges could be lack of adequate phytosanitary public services, changing and fickle regulations, subsidies and assistance that comes and goes or are not adequately implemented, and importantly, the persistence of market access constraints among African countries (where trade facilitation programs are not fully implemented).

⁵ The urban share in food consumption here is proxied as a lower bound by the urban share in population. This chapter refers to “lower bound” as empirical evidence showed that typically, the share of urban areas in national food consumption is at least 25 percent higher than their share in population because urban areas have higher incomes than rural incomes and a greater total expenditure on food. See Liverpool-Tasie et al. (2021).

⁶ The rural food market is also large, as around 60 percent of rural food consumption is purchased (Dzanku et al. 2024). In addition, there has been rapid growth in farm demand for inputs such as fertilizer (Liverpool-Tasie et al. 2019) and herbicides (Haggblade et al., 2017). These markets are supplied by rural-rural and urban-rural AVCs run by the private sector.

Approach and structure

This year's AASR is short and highlights the pertinent points and messages while still delving into the rigorous arguments and facts supporting these points for a succinct but well-rounded read. AASR24 is aimed at addressing the six questions stated at the start of this chapter with the chapters structured to first address the six questions as they relate to the two pieces of the private sector "pie"—MSMEs and the MLEs, in Chapters 2 and 3. Three chapters focus on particular challenges and practical approaches and policy frameworks; these chapters complement the Chapters 2 and 3 on MSMEs and MLEs. Chapter 4

focuses on agro-industrial parks (AIPs) as they have considerable current interest as a way of supporting the private sector, particularly MLEs, to ramp up competitiveness for particular advanced markets. Chapter 5 focuses on finance options and challenges exploring in-depth the very topical subject of blended finance as a way to address finance challenges particularly of MSMEs. Chapter 6 takes a step back and a step up by contending, with illustrations such as from Asia, that there is a need for coordinated agro-industrial policies to act as integrated strategic frameworks for the various specific policies. Chapter 7 concludes with a synthesis of findings and major policy messages.

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2 Private Sector Micro, Small, and Medium Enterprises in the Hidden Middle of African Agrifood Value Chains

Saweda Liverpool-Tasie¹, Thomas Reardon²

KEY MESSAGES

1

MSMEs are important in Africa and are by far the majority of the private sector in agri-food value chains (AVCs) on the continent. The volume of food they handle is enormous with a billion African consumers and 100's of millions of African farmers depending on them.

2

As a sector, midstream MSMEs are dynamic, growing quickly and fueled by the avid investment of millions of entrepreneurs; it is often considered a “missing middle”, but that is deeply wrong, it is not missing; it is present, enormous and dynamic but largely hidden from policy and partner debates. It is thus referred to as the “hidden middle” (Reardon, 2015; Reardon et al., 2019).

3

Government investments in hard and soft infrastructure have historically been the primary policy conditioner of the rapid rise of MSMEs across the globe. This also applies for Africa.

4

Midstream MSMEs are important and have been shown to have positive impacts on the employment of small farmers and food security. Their practices condition food safety. Midstream MSMEs serve as a market for farmer inputs and outputs directly affecting farmer incentives to invest in the farm enterprise and adopt good agronomic practices while also contributing to the profitability of farming via improved yields and output commercialization opportunities.

5

While African MSMEs have broadly been a success story in terms of growth and presence, they still face important challenges that require policy attention and public investments; doing the latter will make the MSME sector develop even faster and more inclusively.

Introduction

MSMEs in African AVCs have proliferated rapidly over the past three decades in three sets of AVC segments:

- (1) **Upstream from farmers:** farm inputs wholesalers and retailers (agrodealers) (Liverpool-Tasie et al., 2019); and emerging outsource agricultural service MSMEs (e.g., in Ethiopia, Minten et al. (2020));
- (2) **Downstream from farmers:** agricultural output value chain midstream segments (wholesalers and processors) and downstream segments (retailers and food services/restaurants);

- (3) **Lateral value chains** (Meyer et al., 2021; Reardon et al., 2019b) supplying services and inputs to all segments and inter-segment links in input and output value chains. Examples include logistics, packaging, and equipment repair services MSMEs.

As the chapter is brief, it focuses especially on MSMEs in the midstream segments of output AVCs including wholesalers and processors, and in the lateral value chains, especially third-party logistics (3PLS). These three sets of MSMEs are important for the functioning of AVCs in Africa and, by extension, food security in Africa. Moreover, the midstream is important because it is the proximate interface with small farmers and forms the majority of AVCs that deliver food to consumers.

¹ Michigan State University and International Institute of Tropical Agriculture (IITA)

² Michigan State University and International Food Policy Research Institute (IFPRI)

MSMEs dominate African agrifood value chains and the African Agrifood Private Sector

MSMEs are important for African food security and are by far the majority of Africa's agrifood private sector. This strong claim is premised on the following:

An enormous volume of food moves through Africa's AVCs each year. An analysis of FAOSTAT Food Budget Sheet data shows that in 2021, Africa consumed approximately 1.3 billion tons of food. Calculations show that roughly 85 percent of that, or 1.1 billion tons of food, were purchased.

The 85 percent approximation is based on the fact that: (a) about 60 percent of African food consumption is by urban areas as derived from the authors' calculations using Living Standards Measurement Study (LSMS) data (Liverpool-Tasie et al., 2021); (b) of the 40 percent of African food consumption by rural consumers, an estimated 60 percent is purchased (versus home produced on own farms), based on LSMS data from a wide set of African countries (Dzanku et al., 2024).

Second, MSMEs handled approximately 85 percent of the food in AVCs in Africa in the sense of wholesale, logistics, processing, and retailing. Large firms accounted for the other 15 percent (Reardon et al., 2019).

The rapid rise of micro, small, and medium enterprises in the off-farm segments of agrifood value chains in Africa: policy and non-policy drivers and illustrations

Demand and supply side drivers have propelled the rapid rise of MSMEs in African AVCs. It is important to understand them to properly identify good policies and programs that can reduce constraints and help MSMEs to develop further and leverage the rapid momentum inherent in their development.

Demand side: Food consumption changes in volume, location, and types drove and will drive more MSME development

a) Vast increase in the overall African food market a key driver of MSME growth

There has been a huge rise in food consumption and a somewhat lower rise in population in Africa in the past three decades; between 1990 and 2022, there was a 300 percent growth in food consumption versus a 230 percent rise in population.³ The quadrupling of food consumption implies a big increase in farm output and of MSMEs over three decades just to handle that huge increase in food.

b) MSME growth has been spurred in part by the huge rise of the urban food market

It is also important for the MSME development story that the increase in food consumption and population took place at the same time as both consumption and population became far more urbanized in Africa. The share of urban population in total population in sub-Saharan Africa (SSA) over that period grew from 28 percent to 42 percent between 1990 and 2022. As we have shown elsewhere (e.g., Liverpool-Tasie et al., 2021), the share of national food consumption in cities is higher than the share of population in cities; for example, in Nigeria, in 2019, the urban population share was 51 percent and the urban share of total national food expenditure was 58 percent with similar findings for Tanzania at 32 percent and 46 percent respectively. A key reason that the urban consumption share is higher than the urban population share is that urban incomes average more than rural incomes.

The point then is that the urban market vastly expanded just from the perspective of population of consumers (from 145 million to 508 million over 30 years) with an even greater expansion in the urban food consumption market as urban income increases have outpaced rural income growth.

The expansion of urban markets per se is important to our discussion of MSMEs from several viewpoints. First, as noted above, 85 percent of AVC volume is handled by MSMEs; urban areas depend nearly entirely (100%) on AVCs for food supply. Thus,

³ Specifically, total food consumption in Africa (Sub-Saharan plus North Africa) in terms of tons per year (per FAOSTAT data) went from 15m exported, 41m tons imported, and 414m tons produced in 1990 to 62m tons exported, 198m tons imported, and 1,182m tons produced in 2022. Defining consumption-by-disappearance as production less exports plus imports, consumption went from 440m in 1990 to 1,318m in 2022. SSA population went from 517m to 1.21 billion, a 230% rise.

urban market expansion automatically implies vast proliferation of MSMEs; the MSME sector must therefore be dynamic as it must and has matched the growth in the gigantic urban market. Vast numbers of MSMEs supply city markets with wholesale services, first stage processing (e.g., maize milling), second stage processing (food manufacture), all manner of 3PLS (truckers and small vehicle operators), as well as vast numbers of retailers and food service MSMEs. Based on these figures, we calculate that urban food MSMEs are literally the main group of private-sector AVC actors in Africa.

Moreover, African cities source food from near the city but also and increasingly from far outside the city. For example, Ibadan, Nigeria, sources the great majority of its tomatoes (the leading vegetable consumed) from Northern Nigeria, a 800-1000km distance; the same goes for maize, its main staple grain (Liverpool-Tasie et al., 2017; Liverpool et al., 2023b). Dar es Salaam sources the great majority of its tomatoes (again, the leading vegetable) from south and central Tanzania, 500km and 200km away respectively (Ijumba et al., 2024).

Importantly, this AVC “lengthening” trend is driving the extreme importance and rapid rise of 3PLS MSMEs for example, in Nigeria’s tomato and fish AVCs in Nigeria (Reardon et al., 2023 and Liverpool-Tasie et al., 2023b) and maize AVCs (Liverpool-Tasie et al., 2017).

c) Rural market growth has also driven rural MSME development

Rural market growth has also propelled MSME proliferation in rural areas and towns in ways similar to urban growth. World Bank statistics show a rural population increase from 295 million in 1990 to 702 million in 2022—more than double. For this chapter’s theme of MSME development, an even more important element is observed: in the 1980’s, rural households largely comprised subsistence farmers, purchasing little. By 2024, with some variation among countries, about 55 to 60 percent of rural household food consumption in Africa is purchased. This means that rural Africa is now a vast food market, with rural-rural AVCs and urban-rural AVCs supplying it. For example, much of the maize flour sold in village retail shops in rural Tanzania comes via rural 3PLS MSMEs from maize milling MSMEs in nearby towns and secondary cities. Rural households buy a lot of maize flour driven by supplies from towns and their own drive to save time in home processing and preparation due to widespread involvement in rural non-farm employment by women (Sauer et al., 2021; 2023; Hazell et al., 2024).

d) Diet change has been key to and also facilitated by MSME proliferation: the rise of consumption and agri-food value chains of processed foods and horticultural and animal products

Both urban and rural diet patterns have changed rapidly over the past several decades in Africa. This change has occurred not just among the middle class but also among the poor (Dolislager et al., 2022). This shift has been crucial to propelling (and being facilitated by) rapid development in MSMEs. Three consumption trends are particularly important for MSME development.

First, there has been a rapid increase in consumption of processed foods, mainly first-stage processed (such as milled flour, and also second-stage processed foods, with a concomitant rapid spread of food processing MSMEs (Reardon et al., 2021). This has occurred in both urban and rural areas as noted above. It has been accompanied by the spread of food service (e.g., street vendors and restaurants) MSMEs especially in urban areas, such as in Tanzania (Sauer et al., 2021) and for prepared millet dishes in Senegal (Gaye et al., 2003).

Second, there has been a rapid increase in the demand and supply of fruits and vegetables and animal products in Africa. These products’ AVCs are intensive in handling by MSMEs and have given rise to rapid growth in logistics, wholesale, and processing MSMEs (illustrated below) as well as farming of course. Even though African consumption of fruits and vegetables and animal products falls below the nutritional requirements (Harris et al., 2022) and fruits and vegetables are still too expensive (Masters et al., 2018) there has been rapid increase in demand as well as supply of these products (as the share of them imported is low) in the past several decades.

Reardon et al. (2024) showed that the domestic supply of fruits and vegetables and animal products has grown quickly (albeit from a low starting point) over the past decade, with a jump of 36 percent of the output of vegetables, 43 percent of fruits, and 29 percent of animal products from 2010 to 2020. This growth is as fast or faster than in Asia and much faster than in Latin America. An analysis of FAOSTAT data found that while from 2000 to 2020 SSA population nearly doubled, dairy output grew by more than double (2.6 times) and poultry and eggs nearly quadrupled (3.8 times) both faster than population growth.

Third, a crucial point is that the rapid development of food purchases and changes in diet have occurred in

both rural and urban areas and in similar ways so that demand changes were more or less evenly spread over a given country's population even though supply of particular foods tends to be clustered in particular zones (discussed in the next section). This has led to lengthening AVCs the have favored (and required) the proliferation of wholesale markets, wholesalers, and logistics MSMEs.

In Nigeria, Senegal, and Tanzania, tomato and onion consumption occurs in similar shares of diets over the zones of those countries. However, farm production of these items is concentrated in a few major "spontaneous clusters" in certain zones of these countries. AVCs stretch from those zones across the country including towns and rural areas. MSMEs have set up and operate these AVCs (Faye et al., 2023; Parkhi et al., 2023; Lazaro et al., 2024). The spontaneous clusters are discussed further below.

Supply side: The crucial role of "spontaneous clusters" of MSMEs and farms in the development of Africa's agri-food private sector and what policies facilitated them

The changing consumption patterns discussed above have stimulated dynamic supply response that has given rise to the rapid expansion of various subsectors such as poultry and fish and the supply chains for their main ingredients such as maize and soybeans (Liverpool-Tasie et al., 2021, Nuhu et al., 2021, Liverpool-Tasie et al., 2017; Gona et al., 2018). There has also been rapid expansion of domestic supply chains for fruits and vegetables, often driven by spontaneous clusters of MSMEs (Reardon et al., 2024).

"Spontaneous clusters" of MSMEs have been crucial in both developing MSMEs and building "spontaneous" linkages to small farmers. These linkages far exceed the linkages related to contract farming with large firms in Africa in quantitative significance.

The clusters have emerged "spontaneously", that is, without external management or establishment by government, development partners, or NGOs and even without "anchor firms" such as large processors (Reardon et al., 2024). They also tend to be financed by own funds from other nonfarm employment, some informal lending, and especially from profits generated as they supply profitable urban markets; analysis for this chapter did not identify any cases in which formal finance or finance from large value chain actors such as processors has played a role. The clusters tend to span the various segments of AVCs as well as small and

medium farms. These clusters play a crucial role in the development of MSMEs on the supply side of private sector activity. They also tend to emerge and then develop rapidly, essentially self scaling, as illustrated below.

These can be contrasted with "managed clusters" such as agroparks, which have played a minor role in MSME development in Africa but are emerging as a policy option as discussed in Chapter 4.

Moreover, the great majority of cases featured in research towards the development of this chapter show that the spontaneous clusters focus on the domestic market, primarily the huge urban market, with only a secondary (or absent) orientation toward export markets. Several key characteristics of two emblematic illustrations of spontaneous clusters are outlined below:

a) The spontaneous cluster of fish in Kebbi State, Nigeria featuring urban and rural MSMEs, fish farmers, and fishers

This chapter draws on data from a rapid reconnaissance study of hundreds of supply chain actors (Liverpool-Tasie et al., 2024) and a 10-year recall of numbers by size strata of supply chain actors in the set of four main fishing/fish farming clusters in Kebbi State (Gona et al., 2018). The clusters in Kebbi, like those in the other three Nigerian states analyzed in Liverpool-Tasie et al. (2024), have several characteristics in common. They are based in areas with good water resources for fish production, are well-connected by highways built by the Government to major cities near and far, and are well served by wholesale markets also developed by the Government. They all display dynamic transformation in the structure and conduct of the value chains whose actors are present in the clusters and are dominated by MSMEs which responded to increasing demand and favorable conditions. They further all mainly supply domestic markets in general and urban markets in particular. Large companies do not feature in these cases as buyers or aquaculture producers.

To demonstrate the size and growth of primary producers in these clusters, this chapter focuses on findings from the Kebbi State clusters (one big cluster in Yauri and a few smaller ones) which, by 2018, included around 21,000 fishers and fish farmers (about two-thirds small-scale and a third medium-scale). Over the prior decade, there had been a 182 percent increase in fishers and a 200 percent increase in fish farmers (Gona et al., 2018), as rapid an increase

as in Asian aquaculture “success stories” such as Bangladesh (Hernández et al., 2018).

There has been intensification of aquaculture in the Kebbi clusters such as diffusion of use of antibiotics and commercial feed (Liverpool-Tasie et al., 2024). Supplying that farm technology intensification has been rapid growth in fish farm input value chains such as the emergence of long-distance (cross-state) trade in fish seed from clusters of MSME hatcheries in areas with good environmental conditions and transport.

By 2018, there were nearly 9,000 output supply chain midstream actors (MSME wholesalers, processors, and transport logistics) in the Kebbi clusters with dynamic growth in these segments. For example, the number of rural and urban MSME wholesalers in the clusters grew 1.3-fold over the decade (fish producers nearly doubled—grew 1.9-fold—implying an increase in trader scale over the decade). Urban fish retailers in the state jumped 2.5-fold. These midstream intermediaries were in urban and rural retail markets, rural and urban wholesale markets, farmgate markets, and trader collection points totaling around 255 over the period (Gona et al., 2018).

The technologies and supply chain organization of midstream actors transformed in the Kebbi as well as the Oyo and Ebonyi clusters (Liverpool-Tasie et al., 2024). An example includes the rapid development of 3PLS MSMEs in private and public transport.

The fish farming-centered spontaneous clusters in Nigeria were not directly developed by the Government but the Government played several integral roles. First, it invested in road and water infrastructure both of which proved crucial for example to the Yauri cluster in Kebbi State (Gona et al., 2018; Gona and Sunday, 2023). The Government built the A1 Highway, which runs diagonally through the area in Southeast Kebbi State watered by the River Niger (the largest river in West, and the third-longest in Africa after the Nile and the Congo) and Kainji Lake (a large reservoir on the River Niger built by the Government between 1964 and 1968, and a dam which now supplies electricity to much of Nigeria). This confluence of highway, river, and reservoir is the water and transport hub of the large Yauri cluster.

Second, the Government built wholesale markets and some fish collection points in the fish farming areas and along the rivers and has also recently built some cold storage rooms in these wholesale markets.

Third, the Government invested in fish seed multiplication centers. For example, in Oyo State, the Government through the Federal Department of Fisheries’ Fish Seed Multiplication Centers and the Nigerian Institute for Oceanography and Marine Research (NIOMR) made the initial investment in fish seed multiplication. This led to the emergence of private sector seed multiplication MSMEs. The Kebbi State Government provided various breeds of fingerlings to farmers and also stocked the rivers.

b) Vegetable spontaneous clusters in Tanzania focused on the domestic market

There has been a rapid diffusion of horticulture farming in Tanzania in the past 15 years (National Bureau of Statistics, 2021). In 2008, 9.5 percent of Tanzania farms grew FV; just 12 years later (2020) the share doubled to 21%. The fastest shift was among small-scale farmers, from 8% of farms to 20%. For medium-scale farms, the shift was from 24% to 38%, and large farms, from 16% to 26%. Overall, area under fruit and vegetables jumped 130% - adding 240,000 hectares in that decade. Half of that increase in area was a jump in area under tomatoes. By contrast, cereal area expanded only 27%.

While green leafy vegetables are grown throughout Tanzania in small-scale plots in rural areas or near cities, most of the other main vegetables like tomatoes and onions are grown on farms clustered in specific zones with favorable climates and soils and water and near highways. An example is the clusters of irrigated tomato farms and MSMEs in the center of the country (Morogoro-Dodoma), in the Southern Highlands (such as Iringa), and in the eastern region of Dar es Salaam, sending out tomatoes to cities and rural areas all over the country (Ijumba et al., 2024).

The vegetable AVCs function through urban and peri-urban fair value (FV) wholesale markets peppered around the country. These markets have spread quickly in a short time keeping pace with rapid urbanization and income increases. The first multiple city survey of these markets was undertaken in 2023 (Ijumba et al., 2024) and identified 55 FV wholesale markets in eight cities in Tanzania, of which 31 sold tomatoes wholesale. Nearly all had started in the past three decades and two-thirds of them in only the past 20 years meaning that about 10 of these markets were started in each of the past three decades. Municipal/district governments started 84 percent of the markets and represent important public investments in the enabling environment over time. Moreover, the

number of wholesalers in these 31 markets nearly doubled in just the past 10 years.

The Government did not play a direct role in establishing tomato farms, marketing vegetables or even distributing inputs. All these functions have been served by private sector MSMEs and small-scale and medium-scale farms. However, the government played a key facilitating role in building roads and establishing (or supporting private sector in establishing) vegetable wholesale markets.

Impacts of MSMEs on small farms, employment, and safe and nutritious food

1. *MSMEs are an important source of employment in rural and urban areas including for women and youth*

While many African farms are commercialized (i.e., purchasing inputs and/or marketing farm products), an increasing number of the jobs along Africa's food supply chain are in the midstream and downstream such as agri-food processing, logistics, wholesale, retail, and food service (Liverpool-Tasie et al., 2021; Reardon et al., 2021; Dolislager et al., 2020). These opportunities span both rural and urban areas.

Using nationally representative data from six African countries (Ethiopia, Malawi, Niger, Nigeria, Tanzania, and Uganda), Dolislager et al. (2020) document that employment in MSMEs off farm (as self- or wage-employment) accounted for about 25 percent and 31 percent full-time equivalent (FTEs) in rural and urban SSA respectively. This compares to about 40 percent of FTEs on-farm and only 3 percent in wage labor on farms. (Dolislager et al., 2020).

Moreover, the development of the maize processing and horticulture and animal product AVCs (and clusters) noted above are driven by MSMEs, which typically have higher labor/output ratios than large enterprises creating more opportunities for employment (Reardon et al., 2021; Snyder et al., 2015). Reported labor use across nodes of the poultry and maize value chain in Nigeria revealed that the subsector engages over 1 million people directly (Sauer et al. 2020). A study on spontaneous vegetable cluster in the Rift Valley of Ethiopia (supplying the Addis Ababa market) showed that a single cluster provided jobs for about 4,300 workers (Minten et al., 2020).

Alongside direct employment (self and wage), the growth of food supply chains and spontaneous clusters of MSMEs has multiplier effects that create additional employment opportunities. For example, there are numerous employment and entrepreneurial opportunities in the logistics sector; a crucial lateral supply chain to all segments of the food supply chain (i.e., input suppliers, producers, processors, wholesalers, retailers and food service enterprises). Many farmers and commodity traders depend heavily on third party logistics for transportation and storage. Although 40 percent of chicken farmers in a study in Nigeria delivered chickens to the market, less than 15 percent owned a vehicle and thus depended on hired transport (Liverpool-Tasie et al., 2021; Liverpool-Tasie et al., 2017). Liverpool-Tasie et al. (2017) also note that 80 percent and 70 percent of rural and urban maize traders respectively use hired transport services to move their products while 20 percent and 50 percent of traders and feed mills rent warehouses from 3PLS firms.

2. *MSMEs as important facilitators for smallholder adoption of improved technologies and improved welfare*

While the food systems literature has focused on improved market opportunities for farmers via contract farming arrangements (providing farmers access to input and output markets), most smallholder farmers do not engage in formal contract farming arrangements and their ability to benefit from these is often limited (Nuhu et al., 2021; Ton et al., 2017). A recent scoping review of literature on the interaction between smallholder farmers and input and market output channels from 2000 to 2020 found that smallholder farmers in developing regions engage with numerous MSMEs and SSPs in the absence of formal contracts. This engagement is largely through repeated interactions relying on their close physical and social proximity (Liverpool-Tasie et al., 2020). The scoping review found that these small and medium scale enterprises often provide multiple services to producers; for example, an agro-dealer sells seeds or fertilizer to a farmer but also provides the farmer with complementary services such as training and/or credit. From 202 publications reviewed, 43 percent of studies involving traders found that they provided credit to farmers while about 31 percent, 25 percent and 25 percent of studies involving traders noted that they supplied inputs, arranged for transport, or provided training to farmers respectively. The provision of these complementary services was found to be an important factor in the farmers reporting a positive outcome from

their interaction with the MSMEs. Three examples below illustrate this:

In a study in Zambia, Nuhu et al. (2021) found small-holders selling soybeans to MSMEs in the midstream of the Zambian soybean value chain to be associated with 34 percent higher crop income. The recent expansion of the Zambian livestock subsector has created new market opportunities for soybean farmers (due to rapid growth of soybean traders and processors) where even smaller farmers can get a 15 percent premium from selling to these midstream actors.

In another example, Reardon et al. (forthcoming) found that numerous outsource agricultural service enterprises have sprung up all across Africa that are also supporting farmers in addressing shortfalls in information, skills, labor, and equipment that can greatly improve their productivity. These enterprises include stand-alone, such as wholesalers trying to reduce search costs and risks, or by input—agro-dealers servicing customers and/or agribusinesses supporting their outgrowers, or medium/large farmers with excess capacity for some of their equipment (e.g., a combined harvester).

Finally, Liverpool-Tasie et al. (2023) found a positive association between selling output to medium scale farms (who often serve as SMEs engaged in crop aggregation for food and feed companies) and farmer welfare. They found evidence that small-scale producers benefit from receiving training or purchasing inputs from their medium-size farmer neighbors, which increased their productivity and improved their welfare measured by higher household income and lower experience with poverty.

While more empirical evidence is needed on the nature and effectiveness of the different mechanisms through which MSMEs engage with farmers, these studies demonstrate that it is possible for MSME-led food systems transformation underway in Africa to benefit small-scale producers.

3. MSMEs as important determinants of nutritious and safe food

MSMEs are an important source of nutritious food for many. For example, SMEs are the mainstay of the Ugandan modern milk subsector engaged in processing, logistics, and wholesale of milk for consumers (van Campenhout et al., 2021). In addition, fruit and vegetable vendors in traditional markets are the main source of horticultural products for African consumers. However, SMEs along food supply chains in

Africa can also significantly affect prices for producers (upstream) and/or the cost and quality of food available to consumers. High costs of operation are translated into lower prices for farmers or higher prices for consumers (Emana and Nigussie, 2011; Liverpool-Tasie et al., 2017; Parkhi and Liverpool-Tasie, 2020).

The role of MSMEs in increasing the availability of safe food has important demand and supply side factors. On one hand MSME provision of safe food is determined by the existence of effective demand for safe products but also by the existence of food safety standards and their enforcement.

A study by Sanou et al. (2021) showed that maize traders respond to consumer demand and preferences in the form of higher willingness to pay for maize safety—attributes that their clients demonstrate a preference for. However, all across SSA, food safety and hygiene regulations are either non-existent or not enforced. Traditional food markets remain the main source of food for African consumers but pose severe food safety challenges due to poor hygiene and food handling practices stemming from poor infrastructure and limited capacity for food safety management (Jaffee et al., 2018; DeWaal et al., 2022; Mensah et al., 2002). In a study of Nigerian vegetable traders, while good hygiene practices were found to reduce consumer exposure to microbial contaminants such as E.coli, inadequate toilet facilities and high use fees discourage the adoption of good hygiene practices among vegetable traders (Martins et al., 2024). Low effective demand alongside poor enforcement of food standards makes SMEs with unsafe practices due to ignorance and non-conducive environments with poorly enforced regulations a danger to consumers.

Some key challenges faced by African MSMEs and policy implications

While MSMEs have proliferated rapidly in the past several decades to wholesale and process and deliver a vast amount of food to African consumers as well as inputs and agricultural services to millions of African farmers, they continue to face several key challenges that impede their growth and productivity or create disincentives for their adoption of good handling practices.

First, at the broad macro and meso (zone) levels, as noted above, government investments in hard and soft infrastructure, in particular roads and wholesale markets, water and electricity, security and good governance (low requirement of bribery) were the primary policy facilitators of the spontaneous clusters

of MSMEs (and farmers) discussed above. Those, especially hard infrastructure items, have been crucial and will need to be central to facilitate even more MSME private sector development in future. These have been referred to here as the “blood and bones” of the food system (Reardon and Vos, 2023).

Conversely, and the main challenge and thus policy implication, is that where road infrastructure is poor, wholesale markets are lacking or in poor shape and where electricity is lacking, MSME development is constrained.

Second, how much weight is given to what constraint or challenge differs somewhat by the AVC segment of the MSMEs and by what kind of shocks or challenges the MSMEs face.

For example, survey evidence shows that wholesalers and transporters are especially sensitive to road and wholesale market infrastructure and security measures such as lighting at night and policing and protection on the highways against bandits and the need to bribe officers. These points were emphasized in Nigeria by Kwon et al. (2024). They undertook a “best-worst policy option ranking” survey of 300 maize wholesalers in Nigeria investigating the types of shocks that traders face such as weather and conflict shocks. When considering conflict shocks, the traders strongly expressed their interest in improved road and market security followed by hard infrastructure (such as warehouse lighting). Faced with weather shocks, they rated the need for improved road and market flood protection most highly.

In both cases, loans came third with grants usually ranked the lowest. The authors’ hypothesis is that this is because it is common for MSMEs not to trust that grants and loans will be made available even if a program is declared. An example of this fear being validated was during COVID-19 in Nigeria when loans and grants programs were publicly announced and touted but then only a low share of MSME respondents reported having received these (Liverpool-Tasie et al., 2021). It is thus not enough for there to be well-conceived finance programs and relief efforts; implementation is a major challenge and need.

Moreover, in an analysis of World Bank MSME data related to agri-food related enterprises in Nigeria, Mather et al. (2022) found that 66 percent of food manufacturing firms ranked electricity outages as the most severe challenge, followed by 45 percent declaring corruption to be a severe problem, 33 percent declaring finance to be their most severe

problem, 27 percent cited political instability, and 18 percent taxation.

The above highlights that for a subset of firms, access to finance is an issue to which one can add access to managerial/owner technical capacity (Liverpool-Tasie et al., 2020).

This chapter’s reading of the evidence in Africa is that infrastructure is a catalyst for structural transformation and the provision of good infrastructure such as water, electricity, good roads and rail infrastructure when available are less prone to elite capture and poor implementation and thus more likely to have the desired/positive impact than programs that are not properly implemented or policies/rules that are not enforced.

Finally, when the subject of MSMEs arises in debates it is often said that they should be formalized because the great majority of them are in the informal sector. This is, for example, a part of Nigeria policy objectives (Omonona et al., 2023). However, this chapter authors’ review of the limited literature on this issue in Africa shows that requirements of registration (e.g., of MSME processors) are weakly enforced mainly because it is administratively challenging to do so.

MSMEs also face macro challenges regarding policies (such as multiple taxation and bureaucratic processes that make it difficult for SMEs to formalize or take off) and weak regulatory systems overseeing a majority of Africa’s food systems (Liverpool-Tasie et al., 2020; Liverpool-Tasie et al., 2021).

African MSMEs are already vibrant contributors to Africa’s ongoing food system transformation. Governments and development partners should therefore facilitate their success through investments in infrastructure (both soft and hard) to reduce their cost of operation and expand their access to the necessary resources and markets. Governments should design and implement policies that help ameliorate the high transaction costs that many African MSMEs face. These costs are high for both firm establishment and operation. Governments and development partners should also design programs and policies to incentivize MSMEs to continue providing key services to farmers and safe food to consumers. Chapter 6 makes the case for an “agro-industrial policy” strategy of coordination across policy entities such as ministries to maximize the effectiveness of conception and implementation of the kinds of policies recommended here.

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3 Medium to large-scale agribusiness firms in Africa: triggers, drivers, and investment strategies defining private sector-led growth

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KEY MESSAGES

- 1 Medium and large-scale agribusinesses are playing an increasingly important role in Africa's agro-food system with new value chain investments that are capturing opportunities for growth over the past 10 to 15 years. These new investments have been triggered by a combination of factors such as food price crises and policy incentives and driven by growing local, regional and international food demand underpinned by rising incomes, urbanization, and changing diets.
- 2 Government policy reforms supporting import replacement and localization have created incentives that de-risk investments and unlock opportunities for private sector-led growth. Sustained over finite periods of time, these policy reforms are driving the adoption and use of new productive technologies and supporting the emergence of competitive value chains.
- 3 Digital technologies are enabling medium and large-scale agribusinesses to create new innovative business models and platforms that reduce search and transactions costs, create efficiencies, and enhance value chain actors' access to productive inputs, information, and markets.

Context

This chapter presents instances of private-sector led growth in agriculture and agro-processing in Africa that were led by medium and large-scale agribusiness. It also seeks to identify the triggers, drivers, and strategies behind this.

In the past, medium to large-scale agribusinesses – particularly those dominated by international capital – were historically linked to exploitative and exclusive investment models that were neither beneficial nor impactful to local rural communities (Tandon, 2010). In spite of tax breaks and other incentives to attract Foreign Direct investment (FDI), new capital from foreign large-scale agribusiness firms often failed to live up to the promise of delivering jobs, income growth, skills and technology transfer, and other spillover effects to smallholder farmers (Vermulen and Cotula, 2010). In fact, in many reported cases, investments led to land expropriation, forced relocation of rural families, and stripping away of farming communities' land rights (Anseeuw, 2013).

In the 2000 to 2010 decade, Africa experienced an increased capital inflow into agriculture, which initially seemed to mimic previous cycles of exclusionary asset accumulation at the expense of smallholder farmers and SMEs. However, there was a greater demand for inclusive agribusiness investments that integrate smallholder farmers into value chains and meaningfully improve employment and household incomes while creating wider positive spillover effects from technology adoption and skills. The shift in discourse towards equity and inclusion was reflected in various policy documents. For instance, the United Nations Economic Commission for Africa (ECA), the Food and Agricultural Organization (FAO), and the United States Agency for International Development (USAID) went as far as publishing a set of guiding principles on how large-scale land investments could be done in a way that preserved the rights of local communities and marginalized groups (ECA, 2014; Committee on World Food Security, 2014; Boudreaux, and Neyman, 2015, Thiombiano et al., 2017). The International Institute for Sustainable Development (IISD) developed a Responsible Agricultural Investment Tool (RAI Tool) to be used by agribusinesses and

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agricultural value chain actors to assess their compliance with responsible agricultural investments (IISD, 2024). This increasing emphasis on responsible investments reflects the important role for both medium and large-scale agribusiness in Africa in driving inclusive growth and transformation.

In keeping with the spirit of equity and inclusion, terms such as “inclusive business models” (Lashitew and van Tulder, 2017; Chamberlain and Anseeuw, 2019), “hub and spoke models” (Africa Fertilizer and Agribusiness Partnership, 2023; Syngenta Foundation for Sustainable Agriculture, 2024), “lead-firm approach” (Fold and Larsen, 2011) and various innovations around “nucleus outgrower schemes” (Hobden and Sands, 2017; Ag-DevCo, 2019) have become a popular ways of defining how commercial agribusiness operations can link small-holder farmers and SMEs to markets. The underlying objective of such models is to attain sustainable and equitable outcomes through agribusiness investments that facilitate the inclusion of disadvantaged and resource-poor communities in value chains, increase their incomes, and transition them out of poverty thereby stimulating overall rural development.

The popularization of these approaches signifies a shift in the way agriculture in general and agribusiness in particular are defining the growth of the sector on the continent over the past decade to decade-and-a-half. This chapter explores cases of growth in the sector that are mainly driven by medium to large-scale agribusiness firms whether local or foreign owned.

Section 2 of the chapter outlines key definition of terms that will be frequently used namely, triggers, drivers, and strategies. Subsequent sections unpack the triggers that have created opportunities for investment by medium to large-scale agribusiness, articulate the drivers of growth that are positively sustaining investment opportunities, and provide a taxonomy of medium to large-scale agribusiness strategies. The chapter also unpacks how these strategies mitigate the risks and threats faced by these firms further outlining key policy implications of the triggers, drivers, and strategies of medium and large-scale agribusiness in Africa.

Definitions

Sectors that exhibit growth led by medium to large agribusiness firms can be analyzed within three key dimensions namely, (i) triggers, (ii) drivers, and (iii) strategies, defined here:

- (i) **Triggers** are events or occurrences that cause changes in the operational environment. They could either be man-made (such as policies and regulations, new markets, technological innovations, infrastructure—hard and soft, civil conflict, and wars) or natural (for example, pandemics, droughts, floods, crop and animal disease outbreaks, and locust invasions). Triggers initiate and reshape incentives and opportunities while being typically short-term in nature. At times, high food prices could be a consequence of triggers.
- (ii) **Drivers** are long-term socio-economic, political, environmental and technological trends that sustain the momentum of incentives and opportunities that arise from triggers. For instance:
 - Socio-economic drivers include urbanization, changes in dietary preferences, population growth, skills, income growth, employment, inflation, exchange rates, and interest rates.
 - Political drivers include agricultural policies and plans, industrial and trade policies, land governance, and climate change policies.
 - Environmental drivers entail natural factors such as changes in weather and climate (for example, frequently recurring droughts and floods),
 - Technological drivers include biotechnology policies (for instance, seed breeding techniques and genetic improvements), adoption of information and communication technologies (ICT), cellphone network coverage, access to the internet, access to farm-level machinery, and agro-processing technologies).
- (iii) **Strategies** entail actions taken by private sector (and regulators), with or without the aid of government, in response to changes that arise because of triggers or sustained by drivers. These strategies seek to capture opportunities, optimize market operations, or mitigate the risk of loss arising from any adverse impacts.

Figure 1 outlines a conceptual framework of how triggers and drivers provide incentive signals, sometimes in a manner that is mutually re-enforcing, to elicit strategy and investment responses from medium and large agribusiness firms.

It is important to note that there may be overlaps between triggers and drivers, for example between policies and regulations, climate change, and

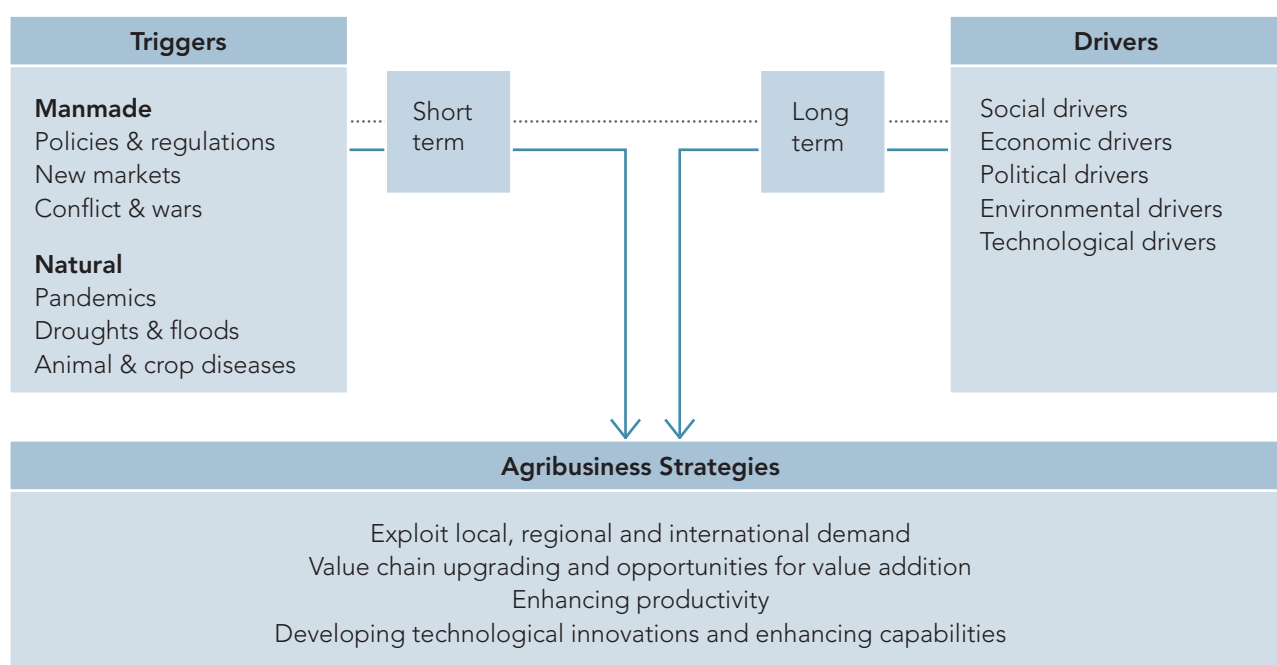


Figure 1: Conceptual framework for assessing triggers, drivers, and strategies for agribusiness

technology. However, the distinction between triggers and drivers is contingent on whether the effects are short-term (in which case it is a trigger), or long-term (and thus, drivers). The latter elicits a sustained market response that (re)shapes opportunities and incentives with lasting effects that can eventually cause some structural changes in markets over time.

Triggers

Various man-made and natural triggers—as outlined in Figure 1—typically manifest as market price shocks/movements which signal a need for a supply response. In other instances, triggers in the form of policies and regulations create incentives and essentially “de-risk” agribusiness investments and thus create new opportunities for growth and expansion in sectors. The three cases below provide instances in which price shocks and policy triggers created opportunities for medium to large-scale agribusinesses investments that stimulated growth. They relate to fertilizer price spikes, food price spikes, and localization and import replacement policies.

2007/08 and 2022/23 fertilizer price spikes as a trigger for African countries to invest in fertilizer processing capacity and reduce heavy dependency on global imports.

Africa has been experiencing a growth in yield over the past two decades; cereal yields increased by 28 percent from 1.36 tons/ha in 2002 to 1.74 tons/ha in 2021 (FAO, 2024; World Bank, 2024).⁶ However, African cereal yield levels still lag far behind the rest of the world, with the United States (US) averaging 8 tons/ha, China 6.4 tons/ha, Brazil 4.9 tons/ha, and Ukraine 4.6 tons/ha. Evidence from other parts of the world shows that increasing fertilizer use can further increase crop yields in Africa. For instance, a third of yield and output growth is directly related to the use of fertilizers, while other research argued that fertilizer use could account for much as 50 percent of yield growth, such as the case in Asia (Ornella and Fan, 2024). However, fertilizer use in Africa remains low (averaging 34.6 kg/ha) due to high prices which are beyond the reach of resource-poor smallholder farmers (Harawa, 2019; Harawa et al., 2019).

Ornella and Fan (2024) argue that increasing fertilizer production in Africa can minimize fertilizer importation cost. Over the past 15 years, medium to large-scale agribusiness have invested in new manufacturing and processing capacity due to price triggers and a growing demand over time. Investment in about 80 percent of the continent’s blending facilities took place in the period between the 2007/08 and 2022/23

⁶ This is based on a weighted average yield calculated from FAO and World Bank data.

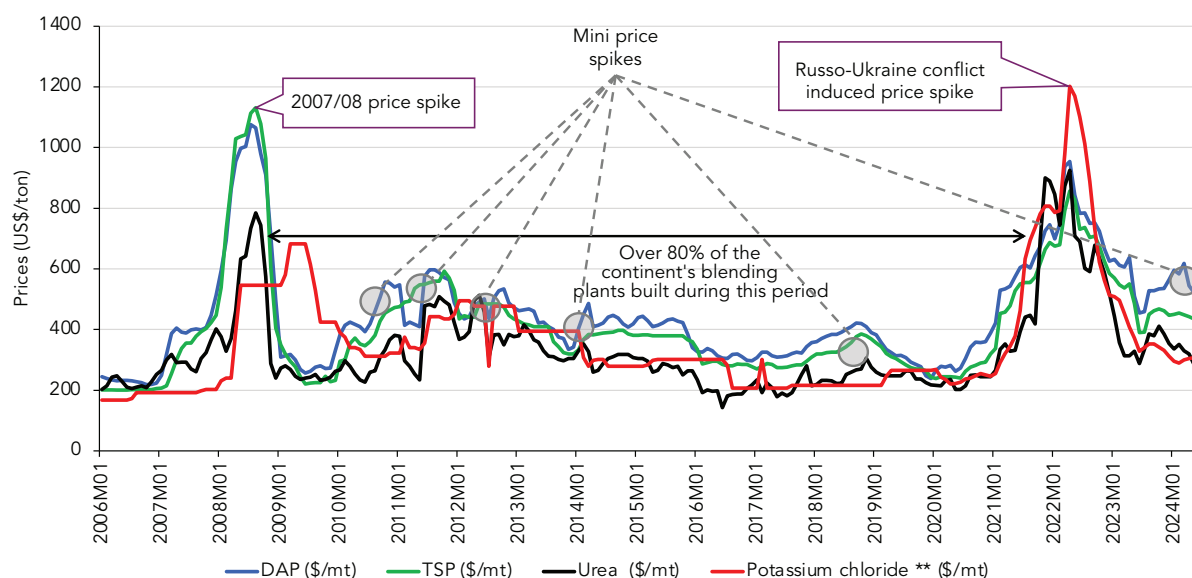


Figure 2: Price triggers for Monthly Global Fertilizer Prices, US\$/ton, 2006-2024

Source: World Bank (2024)

fertilizer price spikes (see Figure 2). During and in the immediate aftermath of the second price spike, about seven new manufacturing plants and 12 new processing plants were either commissioned or are still under construction in Africa.

From a demand perspective, African fertilizer use averages 32.4kg/ha, and consumption per unit area has increased by 8.5 percent since the 2006 Abuja Declaration (World Bank, 2024).⁷ Countries driving this growth include Ethiopia, Kenya, Nigeria (see Box 1), and Mali, which are among the major consumers of fertilizer that have experienced surges in demand over the past two decades (Rusike, 2021). In response, the private sector has invested in (manufacturing and) blending facilities that provide various fertilizer blends that suit specific soil needs. This has contributed to doubling of fertilizer use in Africa over the past decade (Jayne and Sanchez, 2021).

An example is Nigeria, which consumes an average of 1.5 million tons of fertilizers per year at an average usage rate of 18.6kg/ha. This is far below the Abuja Declaration target of 50kg/ha. Bringing the consumption in line with the Abuja Declaration target would imply increasing consumption to at

least 5 million tons per annum. The private sector has responded through a marked increase in manufacturing and blending capacity added over the past few years. Indorama Eleme Fertilizers and Chemicals Ltd. and Dangote Fertilizers Limited added 5.8 million tons of urea manufacturing capacity in 2016 and 2021 respectively, a 15-fold increase from the previous 402,500 tons (i.e., Notore Chemical Industries PLC and Cybernetics Nigeria Ltd.).

The rest of the fertilizer consumed in Nigeria is imported from countries such as Morocco, Russia, Ukraine, and Belgium as Muriate of Potash (MOP) and Diammonium phosphate (DAP) straights⁸ and nitrogen, phosphorus, and potassium (NPK) blends, with a lot of blending also occurring in-country. There are approximately 84 blending facilities with an installed processing capacity of over 1.1 million tons per annum (AfricaFertilizer, 2024), from which 914,000 tons was added in the last 10 to 15 years. Some 85 percent of this additional blending capacity was from medium and large-scale firms.⁹

⁷ We compute a weighted average of North Africa vs. sub-Saharan Africa to get a more approximate and accurate use estimate. North Africa fertilizer consumption averages 80.8kg/ha, while sub-Saharan Africa averages 22.6kg/ha.

⁸ FAO defines straight fertilizers as fertilizers that have a declarable content of only one of the three primary plant nutrients (nitrogen, phosphorus or potassium). They are more affordable than other fertilizers. More often than not it is necessary to mix this fertilizer with others for enhanced crop results from the emerging mixed or compound fertilizer.

⁹ This chapter estimates medium-scale blenders at between 30 and 50 tons/day and large-scale blenders as any capacity more than 50 tons/day.

Box 1: Dangote Fertilizer Limited as an example of how price triggers re-enforced by high local and international demand as well as a conducive policy environment can unlock private sector investment

In 2021, Dangote Fertilizer Limited's US\$2.5 billion urea and ammonia fertilizer plant began operations with an installed capacity of manufacturing 2.8 million tons of urea per year. Although it is the second-largest in capacity after Indorama, it is the largest "granulated urea" fertilizer complex in Africa. The plant's location in the Lekki Free Zone affords it access to special incentives regulated by the Nigerian Export Processing Authority. This includes null income tax on income generated within the Free Zone, null withholding tax on dividends, zero-rated value added tax (VAT) on purchases made within the Free Zone, no customs duties on raw material imports, exemptions on foreign exchange controls, and no expatriate quotas. These incentives are a key driver to the establishment of the manufacturing plant and help establish the plant's competitiveness.

Due to its relatively large capacity, Dangote Fertilizer Limited not only produces fertilizer for the domestic market (i.e., directly selling to farmer associations, corporate farms, NPK Blenders, development partners, and federal and state governments among others) but also exports to regional and international markets. The plant opened in July 2021 during the height of the fertilizer price spike, which surged by as much as 70 percent in the first year of the plant's operation (Mbachu, 2022).

The company has an Agricultural Services Division (ASD) whose aim is to provide extension/crop advisory and soil testing services to support the improvement of soil and farm yields. The ASD trains scientists at their Songhai farm facility and holds field days and farm demonstrations as a way of dispensing product knowledge to farmers and other value chain players. This is a critical part of ensuring that blenders, distributors and agro-dealers receive technical knowledge and knowhow in understanding the product as well as its use in developing blending options that are customized to different soil types across various regions. This approach resolves a major challenge that has previously affected the industry.

Bhatia-Murdach and Wallace (2022) argued that investments in urea are creating matching incentives across the value chain—from private and public sector to farmers—because domestic sales provide a higher return relative to exports. This is why value-added services—such as those from ASD—are playing the strategic role of strengthening smallholder farmers' access to fertilizers.

The National Fertilizer Quality Control Act (2019) has created a more conducive environment, which sets a framework for effective quality control of fertilizers in the market. Before the Act became law, the 2017 Presidential Fertilizer Initiative (PFI) was the major policy directive on fertilizer production and marketing. The PFI was aimed at moving the fertilizer industry away from importation of final fertilizer products and encouraging domestic production and blending to increase availability and reduce prices. It appears that the policy environment is setting the industry on a path of progressive transformational and inclusive growth.

With these additional investments, in-country blending by the private sector now accounts for 65 percent of total fertilizer consumed in the market (about 980,000 tons), with 35 percent under government subsidy programs (for example, the Presidential Fertilizer Initiative (PFI) and state-driven bulk procurement system, among others).

In contrast, policy triggers can be an important factor that can hinder private sector-led growth and investment. For example, in Kenya, fertilizer consumption averaged 59 kg/ha of arable land between 2017 and 2021 (World Bank, 2024), with per capita consumption growing at 2.3 percent per year on a per ha basis up to 2021. Until 2020, Kenya's consumption of fertilizer was growing peaking at 835,000 tons that year (Opiyo et al., 2023). Growing demand for fertilizers,

particularly blends, saw an increase in local blending capacity from 22,100 tons per annum in 2004 to 73,000 tons per year by 2022. Out of the 51,000 tons of additional capacity, 92 percent came from medium and large-scale firms such as Yara East Africa Limited, Timac Agro, Elgon Kenya Limited, and ETG Kenya Limited (AfricaFertilizer, 2024).¹⁰

However, a change in the Government's delivery model of subsidized fertilizer under the second phase of the National Fertilizer Subsidy Programme (NFSP II) excluded last-mile micro, small, and medium-scale enterprises (MSMEs). Instead, the Government opted to use the distribution system under the state-owned National Cereals and Produce Board (NCPB),

¹⁰ The blending capacity does not include KEL Chemicals Limited, and thus the national capacity is larger than reported here.

which lacks last-mile delivery actors. Not leveraging the existing private sector input distribution network crowded out fertilizer market actors (both small, medium, and large-scale agribusiness firms) with volumes handled by last-mile agrodealers falling by between 77 percent and 88 percent in 2023 (Opiyo et al, 2023). Consequently, fertilizer consumption declined by 20.5 percent, from 835,000 tons in 2020 to 663,400 tons in 2022 and is anticipated to have declined further in 2023 (Opiyo et al, 2023).¹¹ With SME agrodealers ceasing operations, the fertilizer supply chain is dysfunctional, and, as a result, medium to large-scale blenders are likely to downscale operations while holding significant volumes of unsold stock. Policy triggers are therefore equally effective in inadvertently causing disinvestment that either halts or reverses years of growth in a sector that is private sector-led.

(i) Food price crises of 2007/08 and 2011 triggered farmland purchases by medium and large-scale agribusiness investments. The post 2021/22 food price crisis is seeing a shift towards off-farm investments.

During the 2007/08 and 2010/11 food price crises, many commodity trading and/or agribusiness firms integrated into farm-level production as a means of ensuring tight control and secure supplies of raw material inputs for their end-to-end value chain investments. While the fundamental objective of securing grain and oilseed supplies was the same, business models that involve farmland acquisitions by medium to large-scale agribusinesses ranged from nucleus farm outgrower scheme to structured farm partnerships and a partially in-sourcing integrated agribusiness that procures additional supplementary commodities from third parties in spot or futures markets.

For example, in 2014, Olam Nigeria implemented a 6,000 ha rice nucleus farm investment in Ondorie, Nasarawa State, which would supply paddy to its integrated rice milling plant located at the farm (Reidy, 2014; Olam, 2024). With a capacity of processing 60,000 tons per year, the facility would also take paddy from a targeted 16,000 smallholder farmers who supply between 30 percent and 40 percent of raw material to the mill (Reidy, 2014; Onyekwena, 2016). Apart from employing up to 1,000 workers, the nucleus farm

operations also provided extension and training to smallholder farmers on good agricultural practices to ensure they produce high quality paddy competitively and subsidies of up to 77 percent of the cost of improved seed variety (Reidy, 2014; Onyekwena, 2016).¹²

Meanwhile, COFCO International—a Chinese multinational and one of the largest global agricultural and food companies—is running a “farming partnership” with local commercial producers, a model that it first piloted in 2009 with Bloukop farm in Mpumalanga Province in South Africa. In this farming partnership, COFCO International enters into an agreement to acquire ownership and use rights of farmland for a specific period of time and the farmers act as contractor/ service providers that play a farm management role. The agribusiness provides structured incentives for the partner farm to reduce costs and improve production efficiencies. By 2022, this partnership model had been scaled out to 52 farming units holding a total farmland size of 70,000 hectares to produce maize, soybeans, sunflower, cotton, and wheat (COFCO, 2024). COFCO International produces 327,000 tons of commodities through these partner farms (15% of its total commodities) (Yingqun, 2022; COFCO, 2024), and the rest of the commodities are bought under contract in futures markets. The soybean crop acquired from partner farms and third parties is crushed at the Standerton soybean crushing plant, the largest soybean processing facility in South Africa, with a capacity to process more than 420,000 tons per year (Yingqun, 2022).

Agrivision Africa, a Mauritia-based multinational established in 2009, has integrated agribusiness operations in Zambia. The agribusiness acquired a combined area in excess of 10,000 ha of farmland in Mkushi and Somawhe in addition to its milling plant in Mpongwe with a capacity to process 60,000 tons of maize and 16,000 tons of wheat per year. The mill sources most of its maize from smallholder farmers. Agrivision’s investment model has been to acquire underperforming large-scale commercial farms in Zambia’s Copperbelt Province with the expansion being facilitated by additional capital funding from institutional investors such as Norfund. Agrivision farms produce 10 percent of Zambia’s wheat consumption employing local skills and filling national and regional demand for food through exports to Botswana, Malawi, Mozambique, Tanzania, the Democratic

¹¹ Meanwhile, the volume handled by Government more than doubled from 191,000 tons in 2017 to 472,000 tons by 2023 thus the share of subsidized fertilizer in the market increased from 28 percent to over 50 percent over the same period.

¹² Reidy (2024) reported additional investments by Olam, which included a 40km road network to link smallholder farmers and surrounding rural communities to the mill while also investing in essential services for the community, (for example, a school, hospital and water reticulation systems, among others).

Republic of Congo (DRC) and South Africa (AATIF, 2016).

The three illustrations discussed above show variations in approaches and strategies to farmland acquisitions by medium and large-scale agribusinesses in response to food price triggers. They are just microcosms of a wider phenomenon that has transpired across the African continent over the past 15 years over three food price crises (see Figure 3). Medium to large-scale agribusinesses acquired about 9.7 million ha of land between 2017 and 2021, 86 percent of which were purchased between the 2007/08 and 2011 food crises. However, a significant share of farmland acquired by medium to large-scale agribusiness firms is yet to be operationalized with only 27 percent of land being productively used (Anseeuw, 2020). The main reasons for low utilization of the land are high establishment and transaction costs, high risks related to less developed physical infrastructure, land conflicts with local communities, and governance and policy uncertainty (ibid).

The pace and magnitude of farmland acquisitions by medium and large-scale agribusiness has scaled down significantly since the 2021/22 food price trigger. The realization that most potentially available arable land cannot be viably brought into production has shifted the focus towards two inter-related investment strategies. These include producing more output with the current limited land resource stock through “yield-driven growth” and improving cost competitiveness of supply chains (Goedde et al., 2019). Thus, in the aftermath of the 2021/22 food price trigger, investments by medium to large-scale agribusiness are geared towards research and development and extension (R&D&E) efforts that facilitate the adoption and use of higher yielding inputs (e.g., seed, fertilizer, agronomic practices, and feed) to increase output per hectare/animal. Furthermore, firms are strategically integrating value chains through asset and infrastructure acquisitions and/or streamlining supply chain distribution networks to unlock efficiencies that can reduce costs. This chapter will expand on this in the later sections under the discussion on strategies defining private sector-led growth.

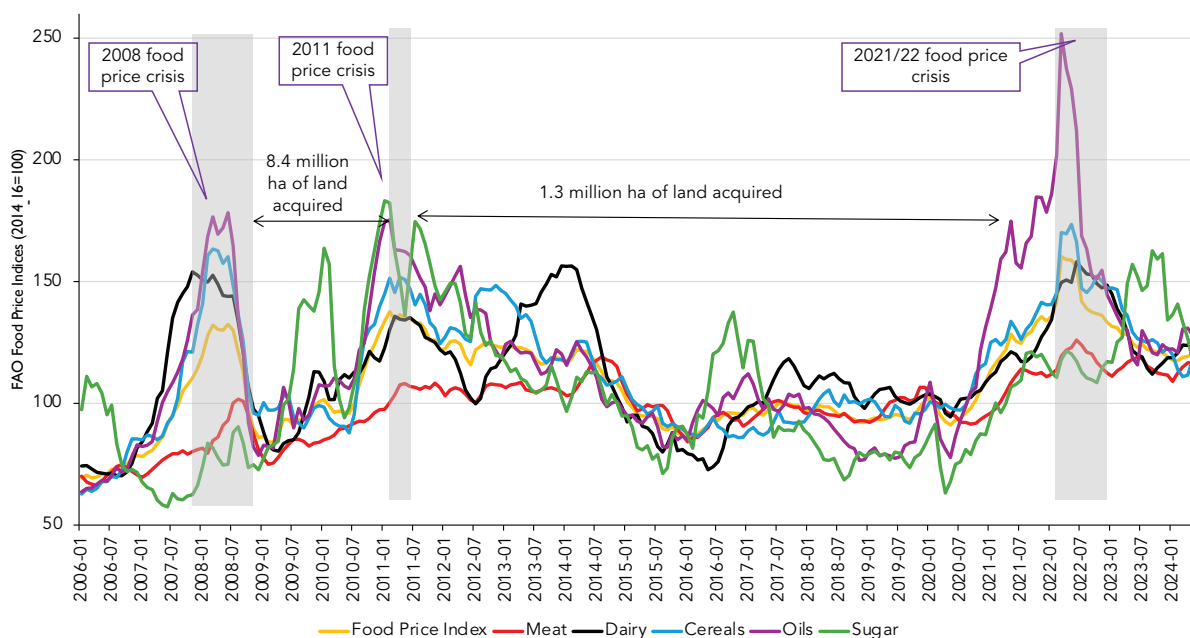


Figure 3: Food price triggers: shifting agribusiness investments from large-scale land acquisitions to off-farm value chain segments, (2006-2024)

Source: FAO (2024), Land Matrix (2024)

(ii) *Import replacement or localization policy strategies, which shape new market-led incentives and opportunities to create competitive advantage in value addition of key food products.*

Medium to large-scale firms respond to import replacement policies as governments implement programs and policies that incentivize investments in the trade, marketing, and processing of basic staples for domestic consumption and, much less so, for export.

For example, part of Tanzania's Agro-Industrialization Development Flagship (TAIDF) focused on developing and end expanding the sunflower seed value chain. From 2017, the Tanzanian Government implemented a range of tax exemptions on solvent extraction processing plants and oil refining equipment to promote investment in local sunflower seed oil value addition and production. To add, the government also increased import tariffs on palm oil and crude sunflower oil. Since then, the sector has seen a more than 100,000 ton increase in investments for new sunflower seed processing capacity from medium to large-scale private sector companies such as:

- Pyxus Agriculture Tanzania, a subsidiary of Pyxus International, Inc., which established a crushing plant in Dodoma in 2019 with a processing capacity of 21,600 tons of seed per year.¹³
- Gilitu Enterprises Limited, a grains and oilseeds processing agribusiness (i.e., production of sunflower and cottonseed oils, maize flour, rice, etc.) with a plant in Shinyanga and a capacity to crush 30,000 tons of oilseed per annum.
- Nyarusai Limited in Kahama with a processing capacity of 10,000 tons per annum
- Kahama Cotton Company Limited (KCCL) in Kahama with dual capacity to crush 45,000 tons of cottonseed and sunflower seed per year.

¹³ Pyxus Agriculture Tanzania closed operations in 2022 after operational challenges of side-selling among contracted smallholder farmers who received input credit support, lack of consistent supply of high-quality seed, and the influx of illegally imported edible oil. However, it is not clear the extent to which these operational challenges played a role in the closure of Pyxus Agriculture Tanzania's Dodoma plant, given that Pyxus International Inc. had filed for Chapter 11 Bankruptcy in March 2021 ([Pyxus International Inc.](#), 2021).

- Mount Meru Limited expanded its operations in Singida to add to its existing Arusha plant for a combined 110,000 ton capacity per annum under solvent extraction.¹⁴

Agribusinesses such as Pyxus Agriculture Tanzania implemented a contract model that promoted the adoption and use of new hybrid seed coupled with extension services to support at least 4,800 smallholder farmers in sound agronomic practices to fully unlock the potential of their new mechanical extraction technology. Smallholder farmers have progressively shifted from the use of low-quality retained seed to locally-produced, higher-yielding hybrid certified seed. Smallholder farming tripled from 0.65 tons/ha to 1.96 tons/ha (FarmAfrica, 2022). This was part of an effort to ensure that the firms receive good-quality, high-yielding seed for optimal oil extraction rates to support the new processing technologies. Sunflower seed production increased from 390,000 tons in 2009 to over 1,070,000 tons in 2022 with yields improving from 0.78 tons/ha to 1.1 tons/ha over the same period (FAO, 2024).

Despite efforts by medium to large-scale agribusinesses to support smallholder farmers with access to input credit, the risk of side-selling has been a challenge with firms making losses on investments in farmers who eventually renege on contracts to capitalize on higher market prices elsewhere. Moreover, policy risks have emerged as another threat to the survival of these kind of arrangements. The Tanzanian Government suspended tariffs on edible oil imports to avert the impact of high fertilizer and food prices caused by the Russo-Ukraine conflict. The influx of competitively priced palm oil placed local processors at a distinct disadvantage and led to the closure of some sunflower seed processing plants.

While there are clear imperatives for the need to nurture and develop value addition capacity in Africa's food system, it is important to note that import replacement policies which incentivize investment from medium- to large-scale agribusinesses must be measured and balanced through a sustainable and market-led approach. In that sense, developing "infant industry" needs to be timebound with clear timelines for agribusiness firms to become globally competitive.

Drivers of growth

As outlined in Section 2, drivers are essentially long-

¹⁴ Dalberg (2019)

Box 2: How high protein demand and import replacement policy reforms are stimulating medium- to large-scale agribusiness investments in aquaculture in Kenya.

Kenya's fisheries sector directly and indirectly supports about 2 million people including fishers, traders, processors, input suppliers, merchants of fishing accessories and related service providers. Kenya produces an average of 135,000 tons of fish per annum against an annual demand of half a million tons. This deficit necessitates the importation of around 365,000 tons to complement local production. The bulk of imports, around 70 percent, are from China and mainly comprise tilapia, which is produced at scale and at a lower cost.

Kenya's per capita fish consumption is still low (4.7kg/person/year) at less than half the average on the African continent (10kg/person/year) and far below the global average (20kg/person/year). Projected growth in both income levels and population size point to ample additional demand over the coming decade. However, domestic supply has been contracting largely owing to reduced capture from Lake Victoria, which is troubled by overfishing, pollution, and the influence of foreign species.

In addition, boosting local production has been complicated by high costs of feed which make it difficult for producers to compete with imports that land at lower than the cost of local production. The Kenyan Government therefore implemented tariff waivers on raw material imports to reduce the cost of producing feed locally. The waivers entailed zero-rated duties on 58,250 tons of soybeans, 126,300 tons of soybean meal, and 225,950 tons of yellow maize translating to a cost saving of US\$17.1 million between November 2021 and February 2024. In addition, the Government increased tariffs on imported fish from 10 percent to 35 percent and imposed an excise duty of 20 percent of c.i.f. (cost, insurance, and freight) price or KES100,000/ton.

Import duties on fish coupled with tariff waivers on feed (which constitutes 80% of fish production costs), led to new investments in cage culture with production increasing from 13,174 tons in 2021 to 23,560 tons in 2023—an almost 80 percent increase in output. Medium- and large-scale private sector (i.e., Victory Farm) added an additional 10,000 tons of capacity worth US\$21.8 million and 12,500 smallholder farmers and 350 medium-scale farmers added new capacity as well while benefiting from lower feed costs and higher margins. Imports from China declined from an average of 8.6 percent of total freshwater fish supply to 1.8 percent by 2023. The replacement of Chinese imports resulted in US\$31 million gross value added from caged fish production.

Source: Tegemeo, BFAP and IFPRI (2023)

term trends that sustain opportunities and incentives for profitable investments and growth. When interpreted through the lens of a market-led approach, these drivers are factors that are creating and sustaining increasing demand for food and feed, which unlock opportunities for value added agribusiness investments and growth. In this section, this chapter provides three illustrations of drivers of private sector-led growth, namely: (a) demand for meat, which is driving scaled investments in grains, oilseeds, and feed milling; (b) demand for cash crops in regional and international markets; and (c) growing demand for low-cost farm inputs (e.g., fertilizer, machinery, and seed), and access to output markets, which necessitate technology solutions and platforms that connect farmers directly to buyers and sellers.

(i) *Increasing demand for meat, on the back of rising incomes and changing dietary preferences, which unlock the need for increased commercial livestock production underpinned by growth in animal feed output.*

From 1973 to 2013, Africa's consumption of meat and milk grew with demand increasing by 14 million tons yet only accounting for 11 percent of global consumption growth over that 40-year period (Latino et al., 2020). However, from 2013 onwards, Africa entered a "livestock revolution" in which aggregate meat demand is expected to grow by more than 38 million metric tons by 2050—2.7 times faster than the previous four decades (ibid). Although African meat production has almost doubled from 11.59 million tons in 2000 to 19.88 million tons in 2020 (Rich et al., 2022),

it will not meet local demand and about one third of African countries will still need to import more than 20 percent of their total meat supply (Latino et al., 2020). The doubling of per capita incomes and a near-quadrupling of the urban populace as the continent treks toward the 1.2 billion-people-mark by 2050 is expected to drive high and growing meat demand.

Medium- to large-scale agribusiness is responding to the opportunity through significant investments in oilseed crushing and animal feed milling as a means of driving the expansion of commercial livestock production on the continent. South Africa and Zambia are two standout cases where significant expansion of oilseed crushing has been observed driving exponential growth in oilseeds production and feed milling on one hand while stimulating commercial livestock production on the other.

South Africa is the largest producer of beef and poultry in Africa (Rich et al., 2022). About 84 percent of South Africans consume meat daily with poultry and red meat being the most preferred animal protein options (Unilever, 2024). Poultry meat and beef consumption is expected to grow by 18 percent and 17 percent respectively over the next decade (BFAP, 2024). From a production perspective, South Africa's livestock sector has been negatively affected by persistent outbreaks of Highly Pathogenic Avian Influenza (HPAI) and Foot and Mouth Disease (FMD) since 2019, but output has since rebounded and is expected to grow over the next 10 years.

In response to growing meat demand, South African medium- to large-scale agribusinesses expanded processing capacity by 1.5 million tons increasing the total processing capacity to 2.1 million tons between 2012 and 2014. The 3.5 times increase in processing capacity was driven by investments from five main crushers:

- Noble Resources, a subsidiary of Chinese-owned international agribusiness firm COFCO International, added 620,000 tons a year of dual capacity in oilseeds processing;
- RussellStone Group (RSG), an integrated agribusiness with interests in commodity trading, financial services, energy, commercial property in agriculture, manufacturing and tourism, added 310,000 tons per year in oilseeds processing capacity;

- Nedan Oils and Proteins (Pty) Ltd, an integrated agribusiness trading edible oils and operating a 230,000 ton-a-year capacity soybean crushing facility that produces (crude degummed) soybean oil, texturized soy protein, and bulk and packed toasted soy meal for animal feed;
- Free State Oil (Pty) Ltd. (FSO), a subsidiary of VKB Agri Processors, which is an integrated agribusiness firm that includes a broiler abattoir, animal feed plants, white maize mills, a wheat milling plant and, a 186,000 ton-a-year capacity soya bean crushing plant; and
- Willowton Oil, a subsidiary of the Willowton Group, and an integrated agribusiness with interests in edible oil-based products ranging from edible oils and industrial fats,¹⁵ with a combined plant capacity to process 156,000 tons of oilseeds per year.

Some of the soybean processing investments—such as those by the RussellStone Group (RSG)—were supported by the South African Government's Manufacturing Investment Programme (MIP), which was a grant facility intended to stimulate the construction of new production facilities in agro-processing (dtic, 2013).

The demand-pull effect created by this additional processing capacity stimulated a more than tripling in soybean production from 784,500 tons in 2012/13 to 2.77 million tons in 2022/23 (DALRRD, 2024). The production response shifted South Africa from a deficit market to a surplus producer of soybean seed and a net exporter of soybean cake/meal. The growth in soybean production was driven by both increased area and yield gains from large-scale commercial farmers. However, smallholder farmers are going to contribute to future growth with their share of output anticipated to increase from 3.1 percent in 2019 to 12 percent by 2030 (AAMP, 2022).

In Zambia, poultry and beef constitute a combined 78 percent of the population's animal protein sources with the former accounting for half of total meat consumption and the latter making up 28 percent (Sichilima et al., 2015). Between 2012 and 2021, Zambia's beef consumption averaged 184,000 tons per annum growing at 1.5 percent per year. Meanwhile, poultry consumption grew much quicker (by 57%) over the same period from 45,200 tons in 2011 to 71,000

¹⁵ Willowton also manufactures candles, toilet and laundry soaps, margarine and spreads, chocolate, and baking products.

tons in 2021 (FAO, 2024).¹⁶ Poultry has been the key driver for meat consumption growth in Zambia and a key demand-pull for soybean production and feed milling.

Samboko et al. (2018) chronicled how the opportunities created by growing poultry meat demand paved the way for significant and expansive integrated investments from medium- and large-scale agribusiness. They noted that:

- specialized animal feed producer in the country, integrated its operations into the production of day-old-chicks to increase feed sales, and provide raw material inputs for ZamChick, its vertically integrated poultry unit.
- Nutrifeds Zambia, which is part of South African-based Country Bird Holdings Limited, established its own grandparent breeder farm—Ross Breeders Zambia Limited, to fully integrate operations in supplying parent and broiler day-old chicks, broiler hatchings, stock feed, and processed chicken.
- Novatek Animal Feeds was established in 2008 as a subsidiary of Zambeef Products PLC that would supply its other divisions with livestock feed input.
- Zamhatch Limited established a hatchery in Mpongwe in 2013 as a joint venture between Zambeef Products PLC and Rainbow Farms Investments (Pty) Ltd. An additional on-farm feedmill investment was built in 2017 to create additional capacity for Novatek to supply stockfeed to the Group's operations. Novatek's Lusaka and Mpongwe feedmills have a combined 300,000 tons per annum.

The expansion of integrated feedmill operations drove national production of feed from 171,000 tons in 2010 to 372,000 tons in 2014 (Samboko et al., 2018), with output averaging around 320,000 tons per annum over the past decade (FAO and MoA, 2023). National feed milling capacity is estimated at between 450,000 tons and 500,000 tons per year (Competition and Consumer Protection Commission, 2019).

Meanwhile, soybean crushing capacity grew from 125,000 tons per year in 2011 (Technoserve, 2011) to about 550,000 tons per annum in 2019 (Mulenga et al. 2020). However, its believed that the three largest

soybean processors alone have well over 700,000 tons in installed crushing capacity. These comprise:

- Global Industries Limited (GIL), established in 2017 with investment from India, has an installed capacity to crush 360,000 tons of soybean per year.
- ETG Parrogate, a subsidiary of ETG established in 2012, has a total capacity of crushing 156,000 tons of soybean per annum.
- Mount Meru Millers Zambia (MMMZ), established in 2012 as a subsidiary of the Mount Meru Group, an integrated multinational agribusiness, has a total soybean crushing capacity of 200,000 tons per year.

On the back of growing poultry (and beef) demand, Zambia's soybean sector followed a similar trajectory with soybean production all but doubling in a decade from 214,000 tons in 2013/14 to 415,000 tons in 2022/23 (USDA, 2024). The growth in soybean production has been primarily driven by smallholder farmers, who now make up between 40 percent and 45 percent of output up from 17 percent in the 2014/15 season (IAPRI, 2024). The rapid increase in smallholder soybean production came about as farmers substituted land away from traditional cash crops like cotton, which have been in a perpetual state of terminal regression over the past 10 to 12 years.

In both Zambia and South Africa, there is potential for soybean growth (particularly among smallholder farmers) though additional yield increases, which can be achieved by adopting higher yielding seed varieties. Yields of between 1 to 1.2 tons/ha for smallholder farmers (and 1.8 tons/ha for commercial farmers) against 3.2 tons/ha averages of global leading producers such as Brazil, Argentina, and the US show that there is room for expansion through adoption of new technologies and improved agronomic practices.

(ii) High demand for cash crops in key international markets, which stimulates private sector-led export growth

Medium- and large-scale agribusiness firms tend to invest significantly in export crops where there are higher returns and with little to no trade-distortive and interventionist government policies. Examples of such cash crops include cocoa, avocados, cashew nuts, macadamia nuts, and flowers.

¹⁶ Samboko et al. (2018) quote consumption of over 126,000 tons by 2014, which suggests that FAO figures underestimate the national poultry demand.

In Malawi, where there has been a deliberate effort from private sector (as well as Government and donors) to diversify the agricultural export base away from tobacco, which has been in a state of terminal decline,¹⁷ to other cash crops such as peanuts (often also referred to as groundnuts). This has partly been in response to global campaigns against smoking (Chinsinga and Matita, 2021),¹⁸ which are likely to reduce the demand for tobacco and tobacco products in key export markets such as the US, Europe, and China. Particularly from 2018, tobacco companies such as Alliance One Tobacco Malawi Limited have invested significantly in groundnuts (through a subsidiary, Pyxus Agriculture Limited (Malawi)) in keeping with a general drive to make Malawi “the peanut capital of Africa”.

Groundnut production in Malawi is supported by 100,000 smallholder farmers who account for as much as 93 percent of total output (350,000 tons) while the remainder is produced by estates. Despite its significant potential, growth in Malawi’s groundnut production has been constrained by poor yields emanating from poor agronomic practices, poor soils, and over-reliance on rainfed systems amidst frequent and recurring droughts, all of which have kept yields below 1 ton/ha. As a major peanut producer on the continent, Malawi faces a renewed need to improve yields through improved and contextually relevant agronomic practices and new seed varieties as part of a commercialization drive. This would expand share marketed output among the smallholder dominated sector beyond 40 percent.

Major industrial players in peanut butter processing in Malawi comprise NASFAM, Mulli Brothers, Tambala Food Produces, and Rab Processors, among others. A recent major US\$30 million investment by Pyxus International in new seed varieties, research and extension, aflatoxin management, and contract arrangements for 10,000 smallholder farmers and a 50,000-ton capacity groundnut processing plant in Kanengo triggered rapid expansion in groundnut production and exports. To increase the adoption and use of new technologies, Pyxus partnered with the USAID-funded Peanut Innovation Lab, which has 147 lead farmers running demonstration trials. With more private sector investments came a quantum growth in

Malawi’s groundnut exports, which nearly doubled in a span of one year from 38,610 tons in 2021 to 75,820 tons in 2022 with export revenue also nearly doubling from US\$43.8 million to US\$84.5 million in the period. Malawi exported groundnuts to key regional markets mainly Kenya, Tanzania, and South Africa.

In Kenya, macadamia nuts production has increased rapidly from around 11,000 tons in 2009 (Quiroz et al., 2019) to 41,500 tons of “nuts in shell” (NIS) production in 2022.¹⁹ Macadamia nuts are grown by some 200,000 smallholder farmers under low/minimal/no input systems, with each farmer having between six and 12 trees typically planted as windbreakers for coffee bushes. Due to attractive prices, farmers have progressively shifted to macadamia nuts opting to plant more trees to capture higher margins as Kenya became an increasingly important player in global markets. More than 95 percent of macadamia nuts produced are exported with a significant share going to the Far East (i.e., China, Japan, and Vietnam, etc.). Growth in production over the past decade has led to Kenya becoming the third largest exporter of macadamia nuts globally, after South Africa and Australia.

Between 2009 and 2023, the number of registered macadamia processors in Kenya increased from three (Jungle Nuts, Kenya Nuts, and Equatorial Nuts) to over 30 new entrants to meet increasing global demand. A ban on NIS exports since 2009 has seen an expansion of local installed processing capacity, which stood at 97,650 tons per annum with utilized capacity at 46,406 tons per year (Quiroz et al, 2019). Competition among processors benefitted farmers with better prices as processors sought to procure nuts to fill growing overseas demand. With ageing trees and the need for higher quality nuts, some agribusiness firms such as Privamnuts EPZ established nurseries and supplied certified seedlings to support the expansion and commercialization of macadamia nuts among smallholder farmers. Smallholder farmers were purchasing as many as 25,000 seedlings in a year, which was still well below demand.

However, the macadamia nuts industry has suffered a few setbacks. Lack of regulation has seen a rise in the increase of unregistered brokers who procure, handle, and store large stocks of nuts under poor conditions. These unregistered brokers would inflate prices of relatively poor-quality nuts. Other unregulated brokers were unscrupulously offering farmers cash

17 Causes of Malawi’s decline in tobacco output include declining quality (rejected product of up to 60%), decrease in yields, and high and increasing transport and marketing costs, all of which have reduced farm incomes (Chinsinga and Matita, 2021).

18 There are fierce lobbies mounting a challenge in support of the World Health Organization’s (WHO’s) Framework Convention on Tobacco Control.

19 Key informants

advance prices that were below market prices and harvesting the nuts prematurely, while still others were reportedly smuggling nuts to China in breach of a government ban on NIS. A collapse in prices has reportedly led to some smallholder farmers exiting the industry altogether with some processing plants temporarily shutting down due to the lifting of the NIS ban, which brought intense competition from aggregators/traders.

(iii) Increased demand for productive inputs activating the digital technology innovations that facilitate timely access to market information, inputs, and credit by smallholder farmers.

Digital technologies are playing a meaningful role in providing seamless integration of agricultural value chains mainly through digital tools or e-commerce platforms that connect farmers directly with service providers, input suppliers, aggregators, agro-dealers, and retailers (Ordu et al., 2021; Ambali et al., 2023). Agricultural technology solutions are thus driving new and innovative business models that are shortening supply chains and increasing the profitability of smallholder farming.

The ag-tech space has seen an emergence of non-traditional players in value chains—mainly multinational mobile operators such as Safaricom and Vodacom—that are providing platforms such as M-Kulima (Tanzania) and M-Pesa (Kenya), which enable smallholder farmers to purchase inputs and services using mobile phones. These platforms have been used to implement electronic vouchers (e-vouchers), which enable the tracking and monitoring of inputs while ensuring that they reach resource-poor smallholder farmers timeously thus enhancing the efficiency and transparency of input distribution. In Zambia, the adoption of e-vouchers has seen the Government's Farmer Input Support Programme (FISP) reach over 1.2 million smallholder farmers and contribute to a between 10 percent and 15 percent increase in agricultural output (Ambali et al., 2023).

The digital solutions that multinational mobile operators offer go beyond e-voucher platforms. For example, Mezzanine (a subsidiary of the Vodafone Group) provides B2B and B2C platforms to private sector enterprises and smallholder farmers to facilitate access to buyers, inputs, credit, and information.

Their Connected Farmer Platform, now called eVuna, has more than 100,000 smallholder farmers in East Africa (eVuna, 2024).²⁰ More than US\$1 million of credit finance has been generated through the platform and smallholder farmers have experienced an 80 percent productivity growth and average growths in incomes of \$600 per farmer (eVuna, 2024).

Despite the promise of inclusive agricultural transformation owing to a technology leapfrog from the digital revolution in Africa, the potential for impact is limited by several constraints. For instance, Africa has one of the lowest usage rates for mobile internet globally (24%) despite over 80 percent of the population living in areas where services are available (Begazo et al., 2023). This is partly because smallholder farmers in Africa experience comparatively higher data costs compared to other parts of the world, a situation worsened by the fact that 40 percent of the continent is under the "extreme poverty line" (ibid). Lagging internet infrastructure and poor-quality digital services in some parts of the continent further reduce the potential for digital services to be fully exploited equitably across Africa.

Investment strategies

The illustrations and cases of medium and large-scale agribusiness investments discussed in this chapter provide several lessons and principles for private sector-led growth in African food systems to be effective. The chapter elaborates how market responses from medium- and large-scale agribusiness firms typically come in the wake of triggers that present clear opportunities for profitable investments followed by drivers that sustain the momentum of market opportunities. In many cases, policy certainty is a necessary condition for medium- to large-scale agribusiness firms to take risks and develop response strategies that can take advantage of these growth opportunities. Policy incentives such as tax exemptions and tariffs on competing products act as levers that effectively de-risk investments and provide a window of opportunity through which medium- to large-scale agribusiness firms can make investments and build competitive value chains.

Based on the discussions in this chapter, investments by medium- and large-scale agribusinesses fall into three broad categories, which are outlined in Table 1 below. Overall, investments are either (a) targeting

²⁰ <https://www.evuna.africa>

Box 3: Case example of technology drivers presenting digital technology agribusiness firms to developing platforms and business models that increase access, adoption, and use in tractors among smallholder farmers.

In 2024, Africa's agricultural tractor market size is estimated at US\$3.5 billion (ITC, 2024) with projections to grow by another US\$400 million by 2029, (Mondor Intelligence, 2024). The continent accounts for 4 to 5 percent of the global market (ITC, 2024). The third CAADP BR (2023) reported that about 65 percent of farm power is human, 25 percent is draught, and only 10 percent is engine power. Access to tractor and machinery has therefore primarily been restricted to large-scale commercial farmers who operate at scale thus making advanced mechanization more profitable. Given that agriculture in Africa is predominantly small scale, the use of sustainable agricultural mechanization in agriculture in Africa remains relatively low compared to other continents.

However, more recently, small scale farmer access to machinery has been advanced through the rise of Digital Tractor Leasing Platforms otherwise called "Uber-for-tractors" such as TROTRO (Ghana, Togo, Zimbabwe, Nigeria), ETC Agro (Tanzania and Rwanda) and, Hello Tractor (Kenya, Nigeria, Tanzania, Mozambique, South Africa, Ghana, and Senegal), which are connecting smallholder farmers to agricultural machinery and making it affordable to adopt technology (AGRA, 2021). The business models across different platforms are slightly different. For instance, Hello Tractor partners mainly with equipment sellers whereas TROTRO works directly with smallholder farmers.

The leasing service model is not particularly new. For example, in Zimbabwe, the District Development Fund (DDF) was a state-driven initiative that leased tractors and equipment to smallholder farmers back in the 1990's. However, what is unique about the new leasing service model is that it is private sector driven and utilizes digital technologies to reach farming communities. For instance, a partnership between John Deere and Hello Tractor in Nigeria shows how private capital investment has become a key driver of farm machinery leasing services.

Digital leasing platforms are estimated to be a third of the amount paid to manual labor, and up to 40 times more efficient (Kalejaiye, 2023). TROTRO is estimated to have benefitted 16,539 farmers, with 14,784 ha ploughed and ETC Agro has enabled 21,453 farmers to access tractors with 52,156 ha ploughed. On its part, Hello Tractor has benefitted 41,000 farmers with over 140,000 ha ploughed (AGRA, 2021). Tong (2020) argued that a 10,000 fleet of tractors hired over a five-year period would produce 37 million ha of food. However, this impact can only be achieved if farmers can directly access the leasing service rather than booking agents or phone calls. Daum et al (2021) found that efficiency gains and cost savings are possible if farmers are digitally literate and have the smartphone app. In the Nigerian case, both digital literacy and network coverage were a limiting factor that prevented farmers from fully realizing the benefit of the digital tractor leasing platforms

onshoring of primary production and localization of value-added services targeting local markets, (b) pursuing export-led growth strategies to capitalize on regional and international market opportunities, or (c) digital technologies that are shortening supply chains, improving efficiencies, and ensuring access to credit, information, and markets.

Latter sections of the chapter discussed several strategies that are being implemented by medium- and large-scale agribusiness firms in capturing growth opportunities across various value chains. Overall, these strategies fundamentally aim to enhance the domestic and international competitiveness of supply chains as a means of sustaining the growth of the agribusiness sector (Adenle et al., 2017).

a. Vertical integration growth strategies

It can be deduced that there are variations of vertical integration strategies with some firms being more "inward looking" and consolidating their own value chain infrastructure while others are more "outward looking" in sourcing raw material, and preferring to invest appreciable levels of capital in supporting smallholder farmers with input credit facilities (i.e., higher yielding seed varieties and better quality fertilizers) to get consistent high quality raw material supplies for their processing plants. Inward-looking approaches are where medium- to large-scale agribusinesses acquired farmland as part of their vertical integration strategy or engaged in farm partnerships. Nucleus farm outgrower schemes have continued to be one of the key drivers for rice value chain integration strategies.

Table 1: Taxonomy of investments by medium- and large-scale agribusiness in Africa

Investment types	Levers of de-risking investments (i.e., policies and regulations, tax incentives, tariffs, etc.)	Targeted growth markets (i.e., local market, regional market, international markets, etc.)	Product and/or service (i.e., high-value, grains and oilseeds, livestock, aquaculture, etc.)
Value chain upgrade investments, often leading to vertical integration targeting the localization of value-added activities and processes and onshoring of primary production.	Agro-industrialization flagships, higher import (and export) tariff on competing/dumped product, tariff rate quotas/exemptions for lower input cost, etc. Institutional investors, grant support from governments and/or development partners are key sources of capital investment in some of the value chain upgrade investments. ²¹	Targeting local markets through import replacement and growing market share of local agribusinesses	Inputs (i.e., seed and fertilizers), staples (rice and wheat), grains and oilseeds (soybean, sunflower, groundnuts) aquaculture, and poultry.
Investments targeting growth in export of raw commodities and primary processed products.	Little to no government policy support and firms mitigate risk by investing in private standards and contract-based quality controls. Agribusiness firms rely on private (both local and foreign) capital for expansion and growth.	International markets through export-led strategy that meets global quality, volumes, and reliability of supplies at price premiums.	High-value commodities e.g., macadamia nuts, groundnuts, avocados, cashew nuts, sesame, etc.
Digital ag-tech investments providing electronic platforms to facilitate buyer-seller linkages, access to input credit, and market information.	Little to no government policy or regulation. Some of the platforms are receiving investments from patient capital from institutional investors. ²²	Targeting local and regional markets through B2B and B2C in closed user groups,	Digital Payment Services (i.e., M-Pesa and M-Kulima), Connected Farmer (eVuna), Tractor-as-service platforms (i.e., Hello Tractor, ETC Agro, and TROTRO)

²¹ The US\$44.6 million Pyxus International investment in a groundnuts processing plant was complemented by a US\$14.6 million partnership grant from USAID Malawi ([USAID, 2023](#); [Pyxus, 2023](#)). Victor Farms got an initial US\$500,000 investment from Conservation International Ventures and went on to raise US\$4 million from AgDevCo ([AgDevCo, 2024](#)). Another round of funding raised US\$5 million from institutional investors (Kene-Okafor, 2024), and an additional US\$35 million from Creadev, the Acumen Resilient Agriculture Fund (ARAF), DOB Equity, Endeavor Catalyst Fund, and Hesabu Capital ([Oladunmade, 2023](#)). RussellStone Group (RSG) invested ZAR150 million (US\$10.9 million) in a new soybean processing facility with assistance from a grant fund from Government under the Manufacturing Investment Programme (MIP) ([dtic, 2016](#)).

²² Hello Tractor received US\$4.5 million in zero interest loans and philanthropic capital (Cheney, 2023)

b. Value chain diversification/horizontal integration growth strategies

The previous discussions on diversification have focused more on how government policies serve to create opportunities for diversification of production and exports. However, there are instances where private sector-led diversification plays out as part of an agribusiness strategy, particularly in instances where firms anticipate weak or negative future growth. Alliance One Tobacco Malawi Limited is an example in which Pyxus Agriculture Malawi, the diversification entity of Pyxus International Inc. began to invest in groundnuts processing as a way of pivoting away from tobacco and diversifying to other high potential investments. This was following international lobbies against smoking that are expected to weaken future global demand, as well as unfavorable exchange rate reforms, poor yields, and diminishing quality that constrain the sector.

c. Streamlined and expanded distribution strategies

Oftentimes, medium- and large-scale agribusiness are dealing with fragmented supply chains. This is particularly prevalent in fertilizer distribution systems. The Kenya example of poorly structured subsidy delivery models presented a scenario of how supply chains can disintegrate as last-mile agrodealers are taken out of business. This creates the need for fertilizer agribusinesses—both blenders and manufacturers—to take greater control in the distribution chain and hold more working capital by maintaining ownership of stocks and inventory at various aggregation points. Goedde et al., (2019) argue that in countries such as Tanzania, direct investments in the distribution of agrodealer clusters could reduce costs by between 10 and 15 percent through working capital savings and fewer middlemen along the supply chain. These cost savings can be achieved through partnerships between input agribusinesses engaged in cost-sharing arrangements around warehousing and distribution in a bid to reduce the burden on agro-dealers (ibid). An example of this arrangement is the Last Mile Alliance in Tanzania, which brings together Bayer, NMB Bank, SeedCo, Syngenta, and Yara to broaden the network of agrodealers in harder-to-reach areas (Goedde et al., 2019).

d. Risk adaptation strategies

Medium and large-scale agribusinesses are exposed to policy and operational risks where shifting market landscapes are threatening the viability and

profitability of value chain investments. For example:

- Policy risks, which arise under two scenarios. (a) A policy reversal that removes incentives that established and created opportunities for investments. This could emerge as a result of price shocks from droughts, pandemics, and local or international conflicts, which create urgent policy interventions that reduce food prices and promote food security. (b) Poor enforcement of policies and regulations, which weakens incentives and reduces profitability of investments. In Zambia and Tanzania, there were periods when palm oil was illegally imported (i.e., refined palm oil declared as crude oil, or petroleum) to gain a tariff advantage that lands imported edible oil at below the cost at which it medium- and large-scale agribusiness firms produce it locally.
- Operational risks, the main one being side selling in which smallholder farmers renege on contracts and opt to sell to other off-takers offering higher prices than those specified in the agreements with investors.

Such scenarios often render agribusiness investments unprofitable and unviable. At times, this has led to closure of processing plants²³. However, in other cases, agribusinesses have implemented short- to medium-term adaptation strategies such as:

- Margin reduction strategies in which agribusinesses absorb the pressure of high raw material costs while maintaining trading, warehousing, and processing operations in the short to medium term. In this case, firms opt for margin reductions (i.e., reducing profits to meet competitive pricing of other imported products) rather than passing on the cost to consumers,
- Least cost formulation strategies in which agribusinesses use a range of cheaper/low-cost raw material substitutes or ingredients to achieve comparable quality product.

In both cases, agribusinesses are seeking creative ways of managing costs with the purpose of breaking even in the short to medium term, to remain competitive against imports and substitute products.

e. Leveraging digital technologies to unlock efficiencies

A digital revolution in the agricultural sector is creating opportunities for agribusinesses to unlock value chain efficiencies. For instance, medium- to large-scale

²³ An example is when Cargill, after acquiring Zamanita Limited in 2015, ended up shutting down operations in 2018, owing to illegal importation of palm oil.

agribusiness are exploring and establishing new innovative platforms that ensure wider access to credit, market information, and markets. Reducing search and transaction costs through digital technology and using digital platforms to provide farmers and intermediaries with access to information, extension, and credit represents one of the most feasible ways for agribusiness firms to make value chains more efficient and globally competitive. Partnerships with mobile network providers will be essential to deliver effective platforms that can facilitate such services to farmers and other value chain actors.

Policy Implications

Having characterized key features of investments strategies in areas where we are seeing private sector-led growth by medium to large scale agribusinesses, there are four key policy considerations for African governments in order to build on and sustain future growth in value chains.

First, import replacement strategies often come with a stack of policy interventions that are meant to ensure parity between imported and locally produced products. Such policy measures provide the requisite enabling environment that shapes incentives for rapid growth and expansion. The role of government in providing incentives for building value chains that are competitive in the long run will have to start this way as the current global environment is currently distorted through producer support programs, entitlements, and various government incentives that support overseas suppliers of the same products that land in Africa at below the cost of local production.

Second, while the role of government in providing a conducive policy environment cannot be overemphasized, it is important to acknowledge the risks of deviating too far from a sustainable market-led approach. Incentives and government policies and regulations will must be strategic, targeted, time-bound, and effective in ensuring that nascent sectors graduate to become globally competitive. A careful balance is therefore necessary to ensure that medium-to large-scale agribusinesses achieve set goals and targets within the necessary timelines. A cursory look at the trends in specific sectors that are demonstrating growth shows much promise in agribusiness firms reaching maturing in the near-to-medium term.

The evolution of policy incentives ranging from tariffs levied on competing foreign products to tax exemptions

on inputs, among others, will therefore need to be continuously restructured to reflect market growth while carefully taking into account the present and future effects of shocks/triggers and recoveries. In this sense, the government's role in facilitating private sector-led growth should be seen in the context of a marginal but catalytic role, which is transient in nature. Yet, governments ought to maintain these policy stacks with levels of consistency, coherence, and predictability that can at least partially offset the risks of investments by medium- to large-scale agribusiness firms. Policy reforms implemented on a piecemeal basis or scaled back in the event of food price triggers will prolong, if not altogether negate, the impact of agribusiness investments. It is a balancing act of careful considerations if governments are to ensure that the benefits and gains of these reforms are fully realized.

Third, lack of robust policy and regulation in many export value chains such as macadamia and avocados has created a vacuum for unfair and even illegal trading practices by unscrupulous traders who exploit the opaque operating environment at the expense of farmers, particularly small-scale farmers. Governments will need to be intentional and deliberate in partnering with producer organizations, as well as key medium- and large-scale agribusiness firms to craft regulations that provide formal structures to guide practices. This is important in regularizing key production processes and functions in the handling and storage of commodities and products to ensure high food safety standards, fair pricing, and high-quality products.

Lastly, new and pipeline investments from medium- and large-scale investments will continue to increase the role and importance of these firms in driving inclusion and transformation in Africa's agro-food system. This contribution varies according across value chains and between countries. For example, some recent value chain work in the sunflower seed value chain shows that medium- and large-scale processors account for 37 percent of Tanzania's utilized processing capacity up from 30 percent some five years ago. Similarly, Kenya's macadamia nuts in value chain, which was dominated by three large-scale agribusiness firms just 15 years ago, has grown to 90-95 percent of the country's 46,406 tons of utilized capacity being held among 34 medium and large agribusiness firms. While the market share of these processing companies varies in the midstream parts of the value chain, they are still entirely reliant on smallholder farmers and SMEs engaged in aggregation, brokerage, and trading for supply commodities to the mill door.

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4 Agro-Industrial Parks as an Industrial Policy Tool for Agro-Industrialization

Chema Triki¹

KEY MESSAGES

- 1 This chapter examines Agro-Industrial Parks (AIPs) as critical tools for economic transformation by analyzing their role in job creation, export growth and import substitution, and technological advancement while also exploring their integration with local economies.
- 2 Despite the potential of AIPs, the African experience has been largely marked by challenges and failures with many parks failing to meet development objectives due to issues such as poor location choices, lack of alignment with market needs, and inadequate integration with national strategies.
- 3 The chapter highlights key success factors from successful AIP implementations emphasizing the importance of market-driven design, effective services, and strong coordination mechanisms to overcome systemic weaknesses.
- 4 The findings of this chapter advocate for a comprehensive and coordinated approach to enhance the effectiveness of AIPs in Africa stressing the need for alignment with national development policies, strategic planning and inter-government coordination, and effective problem-solving with the private sector to achieve sustainable economic transformation.

Introduction

Industrial Parks (IPs) and Agro-Industrial Parks (AIPs) are important government policy tools that have been applied in most countries embarking on an economic transformation agenda. These tools have historically played an important role in the emergence of export-oriented firms in a number of countries (for example, Taiwan, South Korea, Malaysia, China, and Vietnam). When discussing economic zones related to agriculture, it is important to distinguish between Agro-Industrial Parks (AIPs), Special Agro-Processing Zones (SAPZs) and Agro-Poles, as they each serve different purposes. For instance, while AIPs and SAPZs focus on industrial and agro-processing activities within a contiguous area, agro-poles encompass a wider geographic area that integrates both high-productivity farming and processing centres benefiting from public infrastructure and services. Examples include the Bagre Growth Pole in Bagre region in Burkina Faso and the Senegal River Valley near Rosso, which are characterized by irrigated and high-productivity agriculture linked to processing hubs. Unlike AIPs and SAPZs, agro-poles bring together both agricultural production and processing, often across non-contiguous areas, thereby supporting a

broader economic ecosystem. In this chapter, we will focus on IPs, AIPs and SAPZs.

IPs, AIPs and SAPZs are typically clusters of interconnected firms and supporting institutions dedicated to production, processing, and related industries. They are typically at the **intersection of horizontal and vertical industrial policies** and generally provide an extensive list of industrial policy tools and instruments in confined geographic clusters.

The development objectives of AIPs and IPs include:

- **Job creation:** generating employment opportunities within the parks and through linkages with the broader economy.
- **Export growth and import substitution:** enhancing countries' foreign exchange earnings by focusing on export-oriented industries and reducing dependency on imports by promoting local production of goods.
- **Economic diversification:** reducing dependency on a narrow range of commodities by developing high-productivity industrial sectors.

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- **Technological upgrade:** improving industrial capabilities and productivity through the adoption of advanced technologies.
- **Integration with the domestic economy:** strengthening linkages between agro-industrial firms and local suppliers, including farmers, to boost domestic value chains.

IPs, AIPs and SAPZs typically operate under distinct economic regulations, often as Special Economic Zones (SEZs), which offer fiscal incentives and streamlined regulations primarily benefiting export-oriented industries. In developing countries, particularly in Africa, SEZs, IPs and AIPs serve two main purposes:

- **Providing competitive enclaves for priority sectors and firms:** these managed clusters constitute competitive enclaves where priority firms and sectors can operate and develop addressing the challenges of underdeveloped infrastructure and scarce resources. These managed clusters offer **concentrated and targeted services** that typically include:
 - i. Infrastructure with land, factory shells and utilities;
 - ii. Special customs regimes including tariffs and duties exemptions and preferential treatment at customs;
 - iii. Fiscal and non-fiscal incentives such as VAT and CIT exemptions, subsidies of labor cost and training;
 - iv. One-stop-shops including coordinated and streamlined administrative procedures; and
 - v. Storage, transportation and market support services.
 - vi. Some AIPs also include laboratories for research and development and training centers.
- **Benefitting from agglomeration effects:** AIPs and IPs also function as industrial policy tools designed to create positive externalities and harness agglomeration effects. These include knowledge spillovers, better access to markets and suppliers, reduced costs through economies of scale, access to specialized labor, increased competitiveness, and improved coordination among companies, governments, and service providers.

Focus on agro-industrial parks: experiences in Africa

While rigorous evaluations of the development outcomes of these parks remain scattered, a number of studies indicate that the continent's experience in SEZs, IPs, and AIPs has been quite disappointing with these parks often failing to achieve their intended development objectives (Stein, 2008; Farole, 2011; Farole and Moberg, 2017; AfDB, 2021; UNIDO 2022).

This contrasts with several Asian countries particularly China, South Korea, and Taiwan, which managed to use SEZs as a driver of their development plans and structural transformation (Aggarwal, 2019). In China, while SEZs were originally used to create free-trade enclaves within a highly planned and protected economy and to facilitate a phased economic liberalization programme, their role evolved to become the main engine of economic transformation in the country and in the cities in which they were established (Aggarwal, 2019). Alder, Shao, and Zilibotti (2013) estimated that SEZs established in various cities in China generated a 12 percent increase in gross domestic product for each respective city.

However, a few successful exceptions exist on the continent, including in Mauritius, where SEZs and IPs have managed to deliver their development objectives and contribute to a successful structural and economic transformation (Farole, 2011). Another recent exception is Morocco, where a number of SEZs have contributed to the industrial development of the country. For example, the Tanger-Med Industrial Platform played an important role in developing a vibrant automotive industry allowing Morocco to become an African leader in the industry and to export more than 700, 000 finished cars mostly to Europe (UNCTAD, 2021; Vidican-Auktor and Hahn, 2017; Rodríguez-Pose et al., 2022).

Two main points should be highlighted to provide a more nuanced view of this assessment. First, there is a relatively low number of SEZs or IPs that are fully and exclusively dedicated to agro-industry, including agro-processing. Almost 90 percent of SEZs established on the continent are multi-sectoral (Rodríguez-Pose et al., 2022), and agro-processing activities often operate in mixed manufacturing SEZs and tend to be more present in Africa (FAO, 2017; UNIDO, 2022). One of the main reasons for this is lack of focused industrial policy on agro-industrialization and inadequate investment in transforming Africa's raw materials.

However, this picture is evolving as an increasing number of African countries, including the Democratic Republic of Congo (DRC), Ethiopia, Gabon, Gambia, Mali, Mauritania, Nigeria, Senegal, South Africa, Tanzania, and Zambia (AfDB, 2021), are developing dedicated agro-processing parks with funding and technical expertise support from development partners including the African Development Bank (AfDB). These parks are taking several forms such as integrated agro-industrial parks (IAIPs), agro-corridors, staple-crop processing zones (SCPZs) and special agro-industrial processing zones (SAPZs).

Second, this negative picture should not rule out these instruments, considering their success in a number of countries in Asia (including China, South Korea, Taiwan, Vietnam, and Malaysia), where many AIPs and IPs have been highly successful in driving productive investment, integrating into global value chains, and achieving industrial upgrading (Farole, 2011; Kim, 2015; FAO, 2017; Aggarwal, 2019). Rather, it is important to understand why these efforts across the continent have been disappointing by assessing the continent's experience with the success factors that emerged from other countries' experiences.

Success Factors of Agro-Industrial Parks

The successful examples of several countries highlight five main common success factors of AIPs:

1. Integration within a national development policy framework;
2. Market-driven and phased design of the parks;
3. Effective investment attraction approach;
4. Reliable access to raw materials and intermediate inputs;
5. Effective coordination and delivery mechanisms as these parks provide several industrial policy tools (infrastructure, logistics, skills development, access to inputs and backward linkages, technology and innovation, investment and value chain development), concentrated in specialized geographies, thus requiring strong coordination and implementation processes. In the following parts of this section, we will examine the first four key success factors, and the final section will address the mechanisms for implementation.

Integration within a national development policy framework

The success of AIPs will largely hinge on their integration into a comprehensive national development strategy and industrial policy. Rather than being the end goal, AIPs should function as tools that advance a broader agro-industrialisation agenda (Farole, 2011; FAO, 2017; AfDB, 2021). This is critical to ensuring that AIPs will benefit from a broader policy effort including improving agricultural production reliability and productivity and ensuring access to markets and connectivity to these markets, among others. In several countries such as Kenya, Ghana, and Tanzania, while on paper, SEZs and AIPs were embedded in a broader national development plan, failure to maintain a consistent link between SEZ and AIP programmes and a wider industrial policy strategy (Farole, 2011) led to disappointing results. Successful examples include Mauritius's SEZs and Malaysia's Penang Free Industrial Zone, which were closely aligned with national development and industrialization objectives (Farole, 2011; Farole and Moberg, 2014).

A market-driven and phased design of the parks

A market-driven design phase is crucial to determining the success or failure of AIPs. This includes having a strong business case for an optimal location and involving prospective investors in the park design process.

First, AIPs should be established based on a solid business case that clearly outlines the demand for serviced industrial land and the advantages that the project will offer. This business case must be prepared through pre-feasibility studies before making any decision to proceed with the project. It should thoroughly assess both the potential opportunities and risks associated with the project and provide a compelling justification for its implementation.

Second, the choice of location is crucial for the success of AIPs; specifically, two points need to be balanced: First, what type of inputs do agro-processing firms need and is there an existing cluster of production of these inputs? This is particularly relevant for perishable goods such as dairy and horticulture products. It is also crucial to build on pre-existing advantages such as transport, logistics, access to labour pool, and local and international connectivity, particularly for export-oriented AIPs (Farole, 2011; World Bank, 2017). The success of SEZs in Taiwan and South Korea was notably

due to the location of these zones near existing business centres, thereby building on the comparative advantages of these countries (Aggarwal, 2012).

In contrast, political-driven design may result in parks being developed without a strong business case and being placed in locations that benefit government officials or their supporters, even if these locations are not ideal for market access. In addition, parks might be oversized or have unnecessary facilities due to political influence, such as construction contracts awarded to political leaders' close networks.

A particular challenge that most African countries have faced in developing AIPs is balancing a market-driven approach with political considerations. The experience of some African countries shows a tendency towards choosing locations for political reasons rather than following a strong market rationale resulting in some cases developing AIPs and IPs more broadly in every region (Farole and Moberg, 2017; AfDB, 2021).

The first SEZ set-up in Nigeria aptly illustrates the impact of a poor location choice. The Calabar Free Trade Zone, which was fully completed in 1999 and started operations in November 2001, has failed to attract significant investment and fulfil its job creation potential with only 1,000 jobs created against a potential of 25,000 to 30,000 jobs (Norman, 2014). This is notably due to a poor choice of location as Calabar is neither situated along major shipping routes nor connected to key national infrastructure (Norman, 2014). Similarly, in Tanzania, the Tanzania Development Vision (TDV) 2025, adopted in 1999, included the establishment of six SEZs in six different regions,² with their locations being mostly politically driven. More than 20 years later, few of these SEZs were operational as limited government resources were thinly spread across all these SEZs (Kweka, 2018).

Currently, Nigeria is developing eight special agro-industrial processing zones (SAPZs) across seven states.³ Similarly, in Ethiopia, the authorities developed one IAIP per region in four of the country's main regions (Amhara, Oromia, Tigray, and Southern Nations, Nationalities and Peoples (SNNP)) contrary to development partners' site recommendations based on value chain analyses of competitive potential (Farole and Moberg, 2017; Dube et al., 2020).⁴

A poor location leads to wasted public resources and dilutes the effectiveness and sustainability of these initiatives, particularly by failing to attract investments (Farole, 2011; Farole and Moberg, 2017). Furthermore, some African governments proceed to the design of AIPs without engaging with prospective investors, leading to a gap between what investors really need and what these parks offer. The design of AIPs should strategically incorporate potential investors' needs to ensure the suitability, success, and sustainability of these initiatives (UNIDO, 2019).

For instance, this was the case for Ethiopia's Hawassa Industrial Park, which was designed in strong collaboration with PVH—a global leading brand with a network of more than 800 suppliers globally. This allowed for a number of features of the Park to be aligned with industry needs, particularly a Zero-Liquid-Discharge Common Effluent Treatment Plant for water recycling, and compliance of the buildings and the Park with a number of industry standards (including the fire and building standards and the Customs-Trade Partnership Against Terrorism (C-TPAT)) (Mihratu and Llobet, 2017). Similarly, the success of Gabon's Nkok SEZ's is often attributed to its strong engagement with the private sector at an early stage (AfDB, 2021).

The design and development of AIPs should follow a phased and iterative approach allowing for flexibility to respond to investors' needs and solve problems that would emerge during the implementation phase. The example of the KINFRA Food Processing Park in Kerala, India, highlights this. KINFRA—the agency responsible for developing industrial parks in Kerala—applied a multi-stakeholder approach in designing the park by adopting a dynamic masterplan. This allowed for better allocation of land and the design of common facilities that responded to tenants' needs and emerging opportunities including the re-scoping and redesign of the agri-food business incubation centre (FAO, 2017).

Effective investment promotion approach

A clear strategy for investment promotion should be developed based on a thorough understanding of global value chain dynamics, the identification of key players in the private sector—including leading firms and international actors—and the strategic selection of anchor investors.

Anchor investors serve as catalysts by signalling market confidence and attracting other companies interested in establishing robust supplier, buyer,

2 Bagamoyo SEZ, Mtwara SEZ, Kigoma SEZ, Ruvuma SEZ, Kurasini Trade and Logistics Centre and Dodoma Trade and Logistics Centre
3 Cross River, Imo, Kaduna, Kano, Kwara, Ogun, and Oyo and the Federal Capital Territory (FCT)
4 Author's compilation from AfDB websites

or service provider relationships with them (FAO, 2017). The impact of these anchor firms is significant as demonstrated in the Hawassa Industrial Park in Ethiopia. In this case, the presence of suppliers of leading brands like PVH and H&M (both in the top 10 biggest global clothing brands) and an unconventional direct investment from PVH drew additional industry players. This fostered the growth of an entirely new industry in the country (Mihretu and Llobet, 2017).

Considering the state of development of most countries on the continent, most of the anchor firms will be foreign direct investors bringing in technological capabilities and know-how. To avoid AIPs being enclaves of competitiveness without any spillovers into the local economy, it is important to focus on building domestic linkages with local firms and including this aspect in negotiations on FDIs. In Tunisia, for example, IPs and SEZs remained disconnected from the local economy and did not yield to the intended development objectives (Farole and Moberg, 2017).

Many SEZs include a foreign ownership requirement for their tenants, which can be counterproductive and could hinder the dynamism of SEZs (World Bank, 2017). For instance, a study from the World Bank provided a regression analysis of SEZs and concluded a negative correlation between the foreign ownership requirement and SEZ performance (World Bank, 2017). It is crucial to include local firms in investment promotion and balance local and foreign presence in AIPs. This can be challenging for countries starting new sectors from scratch; in this case, encouraging joint ventures between local and foreign firms can serve as a valuable industrial policy tool.

The shift from foreign to domestic firms can be gradual, as experienced in Asian countries like Malaysia, Taiwan, Korea, and China (Farole, 2011), although this is not yet widespread in Africa. In Taiwan, authorities implemented intensive programmes to improve the competitiveness of local small and medium enterprises (SMEs) notably through the use of targeted credit, subsidies, and incentive packages (Wade, 1990). This allowed for reduced transaction costs between foreign direct investors and local firms allowing local SMEs to integrate in the global value chains (GVCs) and embark on a path of technological upgrade (Aggarwal, 2019).

An interesting example on the continent is the Coega Industrial Development Zone (Coega IDZ) in South

Africa. Established in 2001 near Port Elizabeth, Coega IDZ was successful in fostering significant linkages with local SMEs. This was notably done through the provision of tailored training and development programs and providing technical mentoring to help local firms secure higher-value tenders (AfDB, 2021).

Another set of firms that should be targeted for investment promotion in AIPs are firms that provide professional and technology-related services, machinery spare parts and repair, and marketing and agronomy services (FAO, 2017). However, it is crucial to acknowledge that this case falls under a classic “chicken and egg” problem. Ancillary services typically emerge in markets with substantial demand, which relies on having a sufficient number of successful agro-processors and core value-chain investors. Furthermore, some of these ancillary services also require a certain economy of scale to be profitable. If agro-processors within an agro-industrial park (AIP) are limited or underperforming, it becomes difficult to attract the necessary ancillary services.

Strong access to raw materials and intermediate inputs

The promise of AIPs is to process locally produced agricultural products, creating more markets for them while developing a manufacturing base and adding value. Therefore, for AIPs to realise their full potential, they must integrate closely with agricultural production zones to ensure a reliable and consistent supply of raw materials, including from local farmers. This integration not only provides farmers with market access and higher incomes but also ensures that the processing facilities have a steady flow of high-quality inputs thereby maximizing productivity and profitability.

This is typically the rationale for the establishment of rural agricultural transformation centers and consolidation centres under the “hub-and-spokes” model of AIPs as critical nodes in the value chain thus ensuring an effective link between rural production areas and agro-processing hubs. In this model, AIPs—clusters for agro-processors and packaging firms—are connected to a network of rural transformation centres (RTCs). The RTCs work as aggregation centers for produce from different farmers thus reducing the cost of access to inputs by AIPs, especially in African countries where most production is done by geographically dispersed smallholder farmers. These centers also typically provide additional services such as sorting, grading, packaging and storage, as well as,

in some cases, extension services to farmers, in this way contributing to the development of a local supply chain.

This model is adopted in the IAIP developed in Ethiopia. While IAIPs and RTCs in the country remain at an early stage, RTCs are facing several challenges including the exclusion of farmer cooperatives from design, ownership, and management processes in the rural catchment zones studied (CASA, 2021). In India, this model was implemented with a certain level of success. The Indian Farmers Fertiliser Cooperative Limited (IFFCO) Kisan agro-park included a network of RTCs in agricultural production areas thus acting as a service provision hub (e.g. agriculture extension services, warehousing, and banking) and collection point for raw materials supplied by farmers (FAO, 2017).

However, this model has a number of trade-offs and challenges. First, due to structural challenges in agricultural production in many African countries (i.e., low productivity and production by mostly by smallholder farmers), these backward linkages can be difficult to establish. This is further compounded by low and/or inconsistent quality and quantity and significant post-harvest loss (UNIDO, 2022). Agro-processors may also face a trade-off, at least in the initial stages, between sourcing from local farmers and being competitive in the market. For instance, in Ethiopia, the Hawassa Industrial Park was initially designed to create a vertically integrated textiles and apparel industry by using locally produced cotton. However, due to the low quality of local cotton production, many textile mills in the park have had to rely on imported cotton rather than sourcing from Ethiopian farms (Whitfield and Staritz, 2021). Similarly, in Tanzania, some major export-oriented textile mills are importing their cotton-rich fabric from Asia rather than transforming the available locally produced cotton also due to poor quality of local production.

This trade-off is a typical challenge faced by countries trying to invest in agro-industrialization. While the objective of most developing countries, particularly in Africa, is to add value to their abundant natural resources, this might come at a significant cost for firms leading to low competitiveness. Historic examples such as in Japan, South Korea, China, Taiwan, Hong Kong, and others, illustrate how early industrialization involved importing raw materials, such as cotton for the textile industry, while developing robust local agro-industrial clusters. These countries initially capitalized on GVCs and, in parallel, focused on developing domestic supply chains that are reliable and competitive from

a price and quality perspective. This dual approach should be considered for Africa while maximizing the chances of developing robust local supply chains, notably by prioritizing AIPs in regions with somewhat existing supply chains while solving structural issues in agriculture production to mature these local supply chains and maximize their linkages with AIPs.

This underscores the necessity of coordinated efforts between production and processing and highlights the need for policymakers to view AIPs not as a standalone solution or panacea but rather as pivotal elements within a broader, integrated agricultural and economic transformation strategy.

Effective services and performance requirements

In addition to standard tax incentives, AIPs offer a range of services including generic services typically provided by industrial parks and targeted services tailored to the specific needs of agro-processors. Generic services include top-tier infrastructure—utilities, dedicated power transformers, water sewage disposal systems, warehouses, and cold storage units. They also include streamlined bureaucratic processes to support business operations notably through one-stop shops and a number of ancillary business services tailored to meet the specific needs of their tenants. One-stop shop services typically include customs, taxation, finance, commodity inspection, visas, police, and judiciary at the AIP site.

For AIPs to be attractive, they must offer additional services tailored to agro-processors' specific needs such as quality control and testing laboratories, research and development centres, and training programs. This was the case, for instance, in Prima Halal Food Park in Malaysia, which offered common cold storage rooms and a warehouse managed according to halal protocols (FAO, 2017). Ensuring the effectiveness of these services requires ongoing coordination and problem-solving with investors and private entities within the park. This involves maintaining a continuous feedback loop with tenants to address emerging issues and evolving needs as well as informing future investments and programs (FAO, 2017). A prominent example highlighting this is the Salmon Cluster in Chile, which has been instrumental in elevating the country to a prominent position on the global stage rivalling Norway in the industry. A key factor behind this achievement is the strong collaboration between the Chilean government and private sector stakeholders, notably the salmon

farming association, SalmonChile, which unites leading producers and suppliers within the cluster (FAO, 2010).

However, many SEZs on the continent fail to provide effective services, including functioning one-stop shops, and, in some cases, functioning basic infrastructure. For instance, in Nigeria and Ghana, investors in SEZs had longer waiting times to get basic services such as electricity and water than investors outside SEZs (Farole, 2011). Moreover, AIPs and, more broadly, SEZs in Africa often lack certain business services such as machinery repair services, testing laboratories, and shared training centres for low-skilled labor (AfDB, 2021; CASA, 2021; Rodríguez, Pose et al., 2022).

However, the recently developed “Plateforme Industrielle d’Adétikopé” (PIA) industrial park in Togo includes several services tailored to the needs of both current and prospective tenants particularly those working in textiles and apparel—a focus sector for PIA. These services include a pooled training centre for apparel workers and a warehouse centre dedicated to cotton, considering the ambition of the park to develop a vertically integrated industry and transform locally produced cotton into fabric. The Park also features a dry port to streamline trade procedures.

To maximize the success of AIPs, it is crucial to complement the high-quality services and the typically generous tax incentives offered to investors with performance requirements, in essence adopting a “carrot and stick” approach. This will help ensure the efficient allocation of public resources and foster the development of a competitive ecosystem.

The carrot-and-stick approach has been widely implemented in Southeast Asia, South Korea, and Taiwan, among others, in their support of export-oriented firms (Studwell, 2013). For example, in South Korea, companies were required to report their export performance to the Government monthly, and these reports influenced their access to bank credit (KDI, 2011; Studwell, 2013). However, few African countries have managed to implement this feature in an effective manner, particularly within SEZs and AIPs. An example worth discussing is South Africa’s Dube TradePort SEZ—established in 2014 with a focus on agro-processing and in which zone licences are issued based on approved business plans with a continuous process of joint target-setting between the firm and the zone operator during operations (CASA, 2021). The “stick” feature is required to ensure the continuous competitiveness of businesses benefiting from AIPs and avoid a rent-seeking approach from businesses and a capture of benefits by vested interests.

Getting to the how: required coordination and implementation mechanisms

The success of agro-industrialization, with AIPs as its masterpiece, and ultimately the emergence of competitive export-oriented medium and large firms depends on the capacity of countries to implement effective delivery mechanisms and ensure coordination among various stakeholders including across various layers of government. As indicated previously, challenges in African AIPs often arise from unfulfilled promises of world-class infrastructure and a quality investment environment and often face issues such as ineffective management, inadequate infrastructure, poor service delivery, and bureaucratic obstacles (Farole, 2011; Farole and Moberg, 2014; AfDB, 2021).

These issues frequently stem from difficulties coordinating the various government bodies needed to provide the comprehensive infrastructure, regulations, and services needed for AIPs. At least two levels of coordination typically fail when implementing agro-industrialization policies and AIPs: horizontal coordination between different line ministries and agencies and vertical coordination across all layers of government.

- **Horizontal coordination:** Interministerial and interagency coordination is typically a challenge in many African SEZs and AIPs as demonstrated by a number of ineffective “one-stop shops.” The one-stop shops at AIPs require not only effective coordination between different agencies and line ministries but are also hinged on the capacity of these agencies to make decisions quickly. In many cases, one-stop shops fail to deliver on their objectives and become an additional bottleneck for companies and tenants in AIPs. This was initially the case in Lesotho with the introduction of a one-stop shop for investors in 2007. In its early phase, the one-stop shop did not solve the coordination challenges but merely concealed them behind a façade as one-stop-shop officers still reported to individual ministries (Farole, 2011). This highlights the need for a one-stop-shop with delegated decision power—effectively reducing the cost of coordination with line ministries or a single-window approach. This type of arrangement would require the identification of facilitators charged with coordinating across different line ministries and agencies (Farole et al., 2013).

- **Vertical coordination:** Vertical coordination challenges in agro-industrialization and AIPs might include unclear mandates between national and local governments and misaligned priorities regarding budget and resource allocation across different government levels, among other issues. The complexity of vertical coordination varies from one country to another; however, despite its geographic size, China has managed to put in place a significant level of effective coordination across different layers of Government when developing the National Modern Agricultural Industrial Parks (NMAIPs). Local-federal collaboration is a key aspect that Chinese authorities have managed effectively thus illustrating the approach of a federal policy relying on local and contextual problem-solving and finding a balance between top-down directives and bottom-up innovation (Ling et al., 2023). Similarly, in Malaysia, the development of Prima Halal Food Parks (21 in total, starting from 2005) was carried out in close and effective coordination with and collaboration between municipal and provincial authorities and the central state, notably due to clear mandates and defined roles for each entity (FAO, 2017). In South Africa, in the Dube TradePort SEZ, strong collaboration between the national state and the municipality of Durban allowed for quick actions thereby contributing to the success of the zone (Casa, 2021).

While countries' experiences in effective delivery mechanisms, particularly for AIPs, are different, successful ones have generally relied on one of these institutional arrangements:

1. Direct coordination from the President or Prime Minister's office, notably through delivery units dedicated to agro-industrialization and AIPs. Delivery units generally have stronger technical capabilities than the rest of the government as well as higher political empowerment. They generally initially rely on external expertise while building skills and capabilities before transitioning to full local expertise. These units focus on problem-solving rather than just monitoring the activities of and coordination between all agencies involved and ensuring coherence and synergies

between their activities. They also typically benefit from direct access to the President/Prime Ministers, which has unmistakable significance in ensuring quick actions and decisions in case of escalation and necessary arbitrage. This is the case for the PIA in Togo where the development of the Park was a key project directly monitored by the Delivery Unit established under the President's Office with direct supervision from the President himself to ensure that all operations were going smoothly.

2. Delivery or project implementation units established (PIUs) under line ministries such as Ministries of Agriculture or Ministries of Industry with higher capacity than the civil service and some level of political empowerment by ministers and decision-makers. PIUs function similarly to delivery units with a focus on coordination and problem-solving. This is the case in Senegal for the development of Agro-Pole, which was established under the Ministry of Industry to monitor the project's implementation (AfDB, 2019).

However, the success of these units will depend heavily on the commitment of political and bureaucratic elites to these projects. Typically, the involvement of a dedicated, high-level political figure who champions agro-industrialization and AIPs is critical (Farole, 2011).

In Ethiopia, Dr. Arkebe Oqubay, Senior Minister and Special Adviser to the Prime Minister of Ethiopia, played a central and crucial role in the industrialization agenda and in delivering the flagship project of Hawassa Industrial Park in record time (about 2 years). In the case of Mauritius, Gaëtan Duval, a foreign minister in a coalition government, became the symbol of the SEZ programme and played a central role in its successful implementation (Farole, 2011). Such high-level figures play an important role in leadership both in mobilizing resources across layers and agencies of government and in building trust with investors and private sector actors. Overall, the effectiveness of agro-industrialization depends on the quality of political leadership, its dedication to economic transformation, and the presence of "pockets of effectiveness" and mission-driven bureaucrats within government structures. (Whitfield, 2015; Dercon, 2022).

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5 Catalyzing Financing for Agricultural SMEs

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KEY MESSAGES

- 1** Agricultural SMEs in Africa continue to struggle to access formal financing, which firms consistently identify as their most important constraint; progress has been slow, and the sector continues to get less than its fair share of financing.
- 2** Risk-adjusted returns of agriculture SMEs are the key deterrent for lenders and investors; agricultural SMEs may be difficult to evaluate and costly to serve; thus, relative to other sectors, the returns may be lower and the risks higher.
- 3** Blended finance has demonstrated its potential to catalyze financing for agricultural SMEs through investors of private capital as well as through the banks and microfinance institutions that are best positioned to meet the needs of agricultural SMEs at scale.
- 4** Governments should focus on providing or ensuring an enabling environment for competitive businesses and also can, with the right program design, be effective in applying a blended finance approach and lending through public development banks.
- 5** Blended finance is a bridge not the destination and simply one of the critical facilitators for private sector acceleration for food systems transformation in Africa. Looking ahead, a transparent learning agenda is key to ensuring the right coordination, types, and levels of concessionality, as well as evaluating near- and long-term impact

Agricultural small and medium enterprises in Africa still struggle to access formal financing

Stronger, more resilient food systems in Africa will require better access to financing for agricultural small and medium enterprises (SMEs). Potential sources include commercial banks, non-banking financial institutions (NBFIs), and social lenders that provide various forms of debt, as well as other private capital investors that offer debt, equity, or quasi-equity investments. However, agricultural businesses on the continent continue to struggle to access formal financing and progress has been slow. Firms identify access to finance as their most important constraint to growth. While common across the sector, this challenge is disproportionately borne by smaller firms,

businesses in less formal value chains, and those led and owned by women. The constraint exacts a cost on the overall food system raising the cost of doing business, delaying investments in capacity and climate resilience, and hindering the emergence of more efficient, innovative, and competitive business models.

Businesses need financing for their ongoing operations (working capital) and for investments in growth and/or long-lived assets (investment capital). Retained earnings—the profits that remain in the business—may be a source for both. For many African agricultural SMEs, it is often the primary or only source. A firm may achieve a profitable steady state in which this suffices but for many businesses, reliance on this becomes a binding constraint. Agricultural SME needs for working capital—the funding required to pay suppliers, hold inventory, and run operations while waiting to collect from customers—may be high. This is particularly true for firms dealing with seasonal effects, which means

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supplier payments are concentrated during a short window while the sales and collection cycle may be long; these concentrated working capital needs can exceed internally-generated cash flows. The same challenge applies to investment capital. Relying on retained earnings means that the growth trajectory and any potential investments in technology or equipment are capped at the firm's capacity to generate profits.

In more mature economies, businesses with investment needs and meaningful growth ambitions can turn to external financing and there are usually multiple sources to choose from. The state of financing in Africa, as experienced on the demand side, is quite different. In AGRA's survey of agricultural SMEs across 18 African countries, access to finance was cited most frequently as the biggest constraint to growth. Indeed, when evaluating over 60 possible areas as potential priorities, five of the top ten selected by the agricultural SMEs related to access to finance (AGRA and KPMG, 2023).

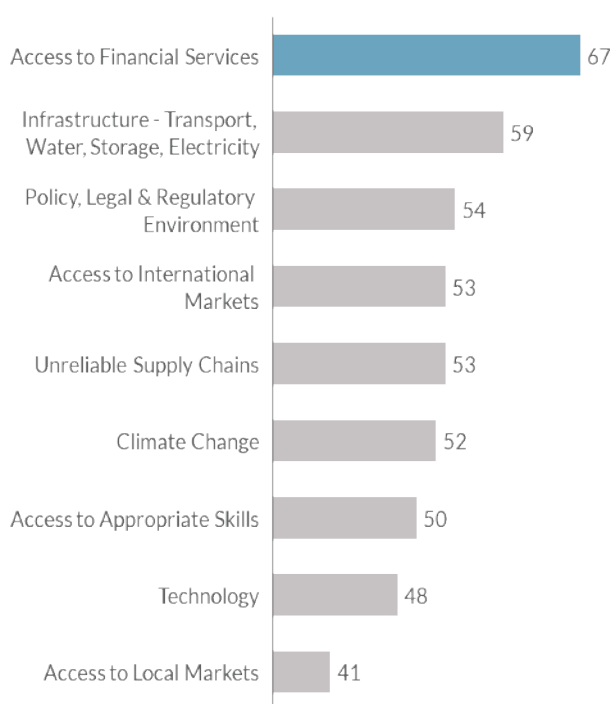
This is consistent with findings in World Bank enterprise surveys. In 14 African countries surveyed over the past decade, food, agricultural inputs and equipment, and wholesale respondents reported that access to finance was their biggest constraint to growth⁶—ahead of challenges with electricity, informal industry practices, political instability, taxes, and corruption (World Bank, 2023).

It is important to note heterogeneity across firms with regard to financing. Smaller, informal businesses are overwhelmingly self-funded, and many remain so. Nearly 80 percent of informal businesses in sub-Saharan Africa (SSA) are started with the owner's funds

⁶ Note the World Bank's sampling does not focus on the agricultural sector, i.e., commercial farms, but does include businesses in the food system including food manufacturing and wholesale of agricultural inputs. This analysis focused on 22 surveys conducted in 14 countries in sub-Saharan Africa (excluding South Africa) from 2013 to 2023 for which findings were reported for the specific sub-groups: food, wholesale, and wholesale of agricultural inputs and equipment. The prioritization of access to finance as the single biggest constraint for these sub-groups was consistent with the overall results for enterprises in SSA (excluding South Africa) in 48 surveys over the same period.

Exhibit 1 (AGRA and KPMG, 2023)

Barriers to Investment for Agricultural SMEs Agribusiness Outlook Survey, 18 countries, 2021 Identified as "Major Concern" (% of Respondents)

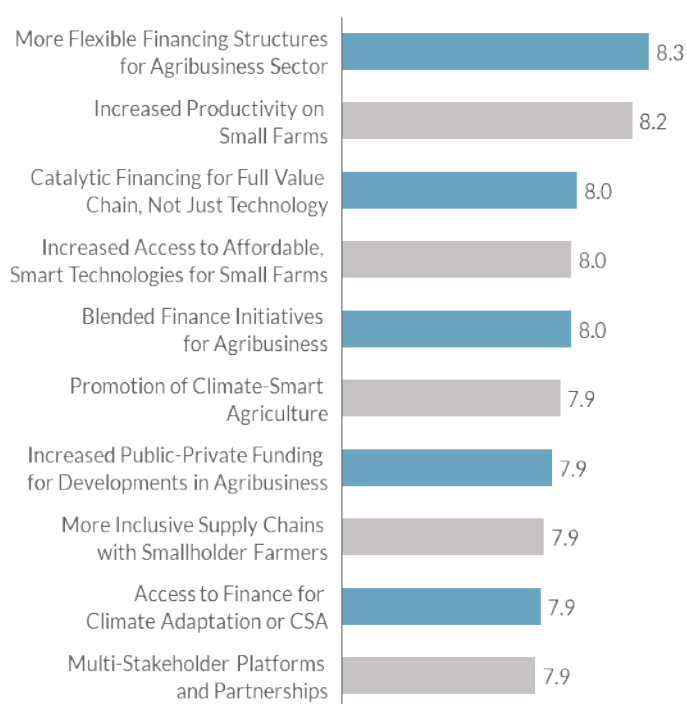


■ Related to Access to Finance Challenges

Top Priorities, Selected from 66 Areas

Agribusiness Outlook Survey, 18 countries, 2021

Average Score (10 = Urgent, Immediate Action Needed, 1 = Not a Priority)



with the balance from informal sources; only 2 percent use formal financing⁷ (World Bank, 2020). This pattern remains consistent once the firms are established: compared to the 11 percent with formal credit, three times as many continue to turn to family, friends, and money lenders. This is not necessarily by choice: 38 percent of informal firms report needing formal credit, yet not even applying.⁸ Tellingly, 33 percent of firms must sell on credit, whereas just 20 percent are able to buy on credit, underscoring the types of constraints facing firms up and down their respective value chains. For more formalized firms, a few patterns are common; most also rely on retained earnings to fund operations and this is a significant brake on growth—more than half (55%) of SSA SMEs are partially or fully constrained by financing (IFC and SME Finance Forum, 2018). Firms that operate in less formal value chains struggle more to access financing than those in more mature and structured value chains. In addition, smaller firms struggle more than bigger ones on every dimension. They report greater need for loans but are far less likely to use banks for working capital or investment capital and are more than three times as likely to be rejected when they apply for these facilities. For small firms that do get financing, on a relative basis they have less of their financing needs met (World Bank, 2023). Finally, women who own firms are, not surprisingly, more likely to report financing constraints, less likely to have access to collateral, and less likely to have bank loans.

The lived experience and clear pain points of Africa's agricultural SMEs provide a demand-side perspective. What of supply? What is available, how has this changed, and is the challenge any worse on the continent than in other regions? Comparable global data on credit for the agriculture sector encompasses formal lending to both farmers and agricultural businesses. Globally, this roughly correlates to sectoral productivity as proxied by the value added per worker; the higher the value addition, the greater the flows of credit. Exhibit 2 shows the situation for Africa painting a stark picture of low overall productivity, as is well known, and low available credit. Controlling for agriculture's share of GDP clearly shows that the sector receives much less than a proportionate "fair share" of formal credit. Moreover, analysis over time shows that progress is inconsistent at best. The East

and southern Africa and West Africa regions showed gains in productivity between 2005 and 2020. However, changes in the share of credit were uneven with both gains and periods of decline. This would suggest, at least indicatively, that despite some improvements, supply of credit to the overall sector and to agricultural SMEs specifically remains far short of potential demand.⁹

At present, the financing gap for agricultural SMEs is an estimated \$55 to \$80 billion per annum.¹⁰ There are a few important contextual nuances to bear in mind on this estimated gap. First, the food systems in which agricultural SMEs operate are functioning, however imperfectly—food is produced, aggregated, processed, and distributed. To be clear, food insecurity remains pervasive, value addition is growing slowly, and import bills for food from outside Africa are high. Nevertheless, agricultural firms do run, drawing on retained earnings as well as supplier credit and informal sources that are longstanding ways to access funding (Modiba, 2022). Second, access to financing is not a silver bullet. It is a necessary but not sufficient condition for SMEs to thrive and grow; for example, it cannot solve weak market demand, inadequate infrastructure, or poor management. Finally, the estimated gap does not consider absorption capacity at either industry or firm level. In a hypothetical situation in which every SME in a value chain could increase its working capital, there might not be sufficient production or demand for the financing to be fully deployed in the near term. Similarly, even as a majority of agricultural SMEs point to access to finance as their biggest constraint, not every firm has the competitive positioning or the operational capacity to absorb the capital they seek. Indeed, as Africa's food systems evolve, there will be both winners and losers as the processes of competition, creative destruction, and industry consolidation play out.

However, what is clear from the data is that while agricultural businesses may, one way or another, access funding to operate and survive, for many,

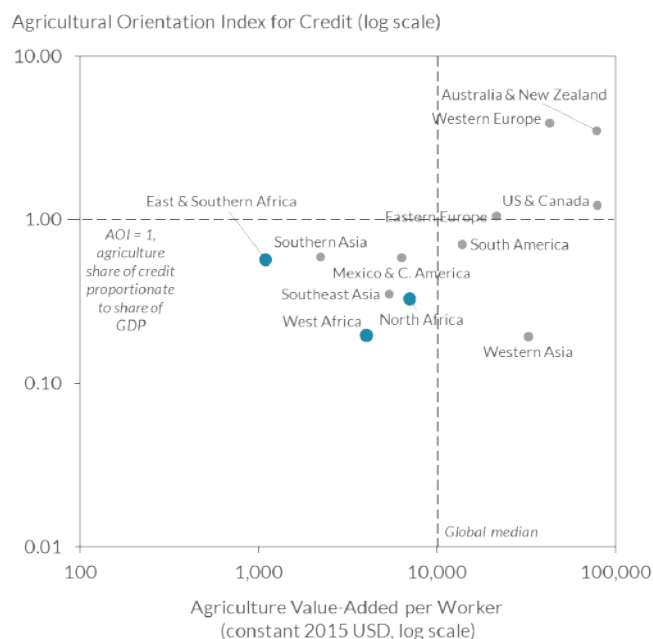
7 World Bank. (n.d.). Informal Sector Enterprise Surveys. Country coverage is more limited than the Enterprise Surveys, and include Ghana, Mozambique, Zambia, Zimbabwe, Central African Republic, Sudan, and Somalia.

8 The perception that formal financing is inaccessible or unaffordable leads many business owners to avoid applying for it in the first place.

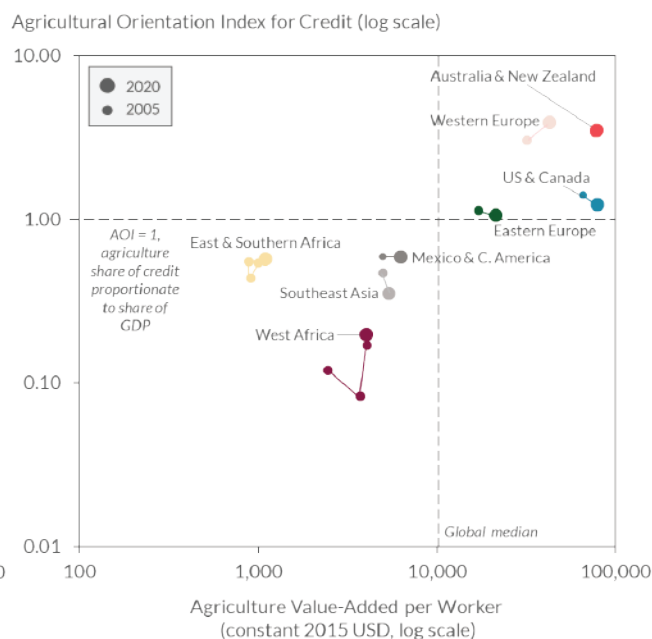
9 Note that formal credit flows to agriculture in absolute terms and in constant USD are increasing overall during this period for East and southern Africa and West Africa. However, these gains are normalized both for overall growth and for the share of agriculture relative to GDP so the relative gains, particularly in East and Southern Africa, are still modest.

10 High-level, directional estimates are based on analysis of demand from agricultural SMEs across working capital, long-term debt, and other equity and quasi-equity forms of financing, as well as a projected share of agricultural SMEs of the total SSA SME financing gap estimated by the IFC; ISF Advisors' estimated gap for agricultural SMEs in 2022 was \$75 billion based on similar methodology. See ISF Advisors, The State of the agri-SME sector – Bridging the finance gap. Commercial Agriculture for Smallholders and Agriculture (CASA), March 2022.

Agriculture Sector, Value-Added per Worker and Credit
By Region, 2020
Value-Added (2015 USD) and Agricultural Orientation Index – Credit



Change in Agriculture Sector, Value-Added per Worker and Credit
By Region, 2005 – 2020 (with five-year increments for Africa)
Value-Added (2015 USD) and Agricultural Orientation Index – Credit



it is not enough to thrive. This exacts a cost on the continent's food systems. There are firm-level costs of using expensive sources of capital as well as the opportunity cost of foregone investments or expansion. Businesses must absorb the hidden cost of spending disproportionate energy and focus on the classic entrepreneur's problem of "keeping the lights on", rather than performance improvement, growth, or innovation. Unmet financial needs may result in other costs throughout the value chain, negatively affecting growth plans, types of contracting, and pricing between customers and suppliers that incorporates risk and the time value of money (Ambler & de Brauw, 2023). There are also systemic costs. Informal sources of financing are more likely to be localized and reliant on social networks, which means capital may not be allocated to the most promising, highest-return opportunities. There is a cost to customers to the extent that this props up subscale, inefficient businesses. In other words, lack of financing can hamper progress towards more competitive industries, that is, agricultural firms offering better product, pricing, or both to their domestic, regional, and global markets. Delayed investments may also translate to growing vulnerability for the overall system, particularly with respect to expenditures for climate adaptation and resilience.

The risk-adjusted returns of agriculture small and medium enterprises are the key deterrent

What explains the gap for agricultural SMEs? The answer lies in the fundamental trade-off of risk versus return that any lender or investor must consider when allocating capital. Put simply, higher risk investments should be rewarded with higher returns and safer investments ought to generate more modest returns. This applies to financial instruments: working capital loans that are (usually) smaller ticket sizes and shorter in tenure are less risky than long-term debt. In both cases, lenders expect to receive their principal back, alongside the interest payments which generate, and also cap, their investment returns. In contrast is an equity investor in an agricultural SME taking much greater risk in return for much greater potential reward. Were the company to fail, the investor could lose their entire investment, but a successful business could mean much higher returns. This risk-return consideration also applies to choices on geography, sector, type, and maturity of the business, and more. Government bonds are usually considered lower-risk,

lower-return investments than, say, corporate bonds, which need to offer higher yields to attract capital. Public equities in listed companies are higher-risk and higher-return than debt investments but these are exceeded on both dimensions by early-stage venture capital. In the agriculture sector, financing cash crops in formalized value chains with proven off-take is a lower-risk proposition than financing a commodity that is sold through informal markets. An investor or lender with a broad mandate may face many opportunities and choices across these dimensions.

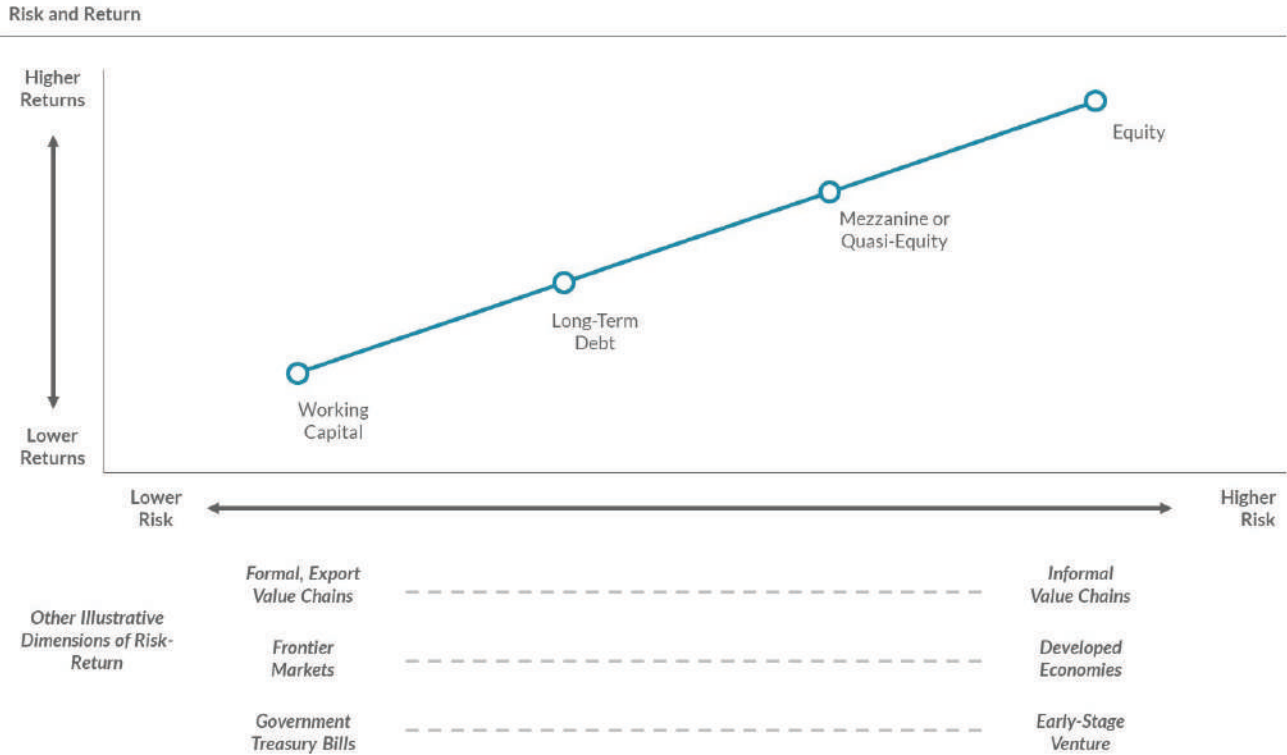
This is where financing for agricultural SMEs becomes difficult. Much of the discourse on the access to finance challenge implies that financial institutions and funds are missing an opportunity or somehow failing to fulfil their function in the economy. In reality, their behaviors and investment decisions are quite rational. The market views agriculture as higher risk but lower return than other opportunities and available evidence shows that they are right to do so. In a study of over 20,000 loans from 35 lenders in East Africa totaling \$1.2 billion in value, Aceli Africa and Dalberg found that returns on agriculture SME loans are usually lower than alternative uses of the capital. Smaller loans, which is where much of the agricultural SME demand

exists, are particularly challenging (Aceli Africa and Dalberg, 2024). Thus, on a risk-adjusted basis, it is quite rational for a lender to see a government treasury bill or bond as more attractive than building a loan portfolio of similar size comprised entirely of agriculture SME loans. For investors, the same is true, SMEs in emerging markets and developing economies are a difficult segment. Indeed, Dalberg has found that many fund managers struggle to achieve even positive returns, never mind commercial rates of return.¹¹ Thus, an investor considering two businesses of comparable scale and maturity may rightly hesitate about the one that has greater exposure to the vicissitudes of agricultural supply and demand.

The reasons become easier to understand by unpacking the underlying drivers of return and risk as illustrated in Exhibit 4. The investment case for agricultural SMEs can be weakened by challenges across most of these factors. The costs to deploy and manage funds for a loan or investment can be high. Both lenders and investors struggle to find strong, bankable projects in the agriculture sector. Conducting

¹¹ Dalberg's experience with private capital providers includes commercial and impact investors as well as "fund of funds" investors that invest as limited partners across multiple fund managers.

Exhibit 3



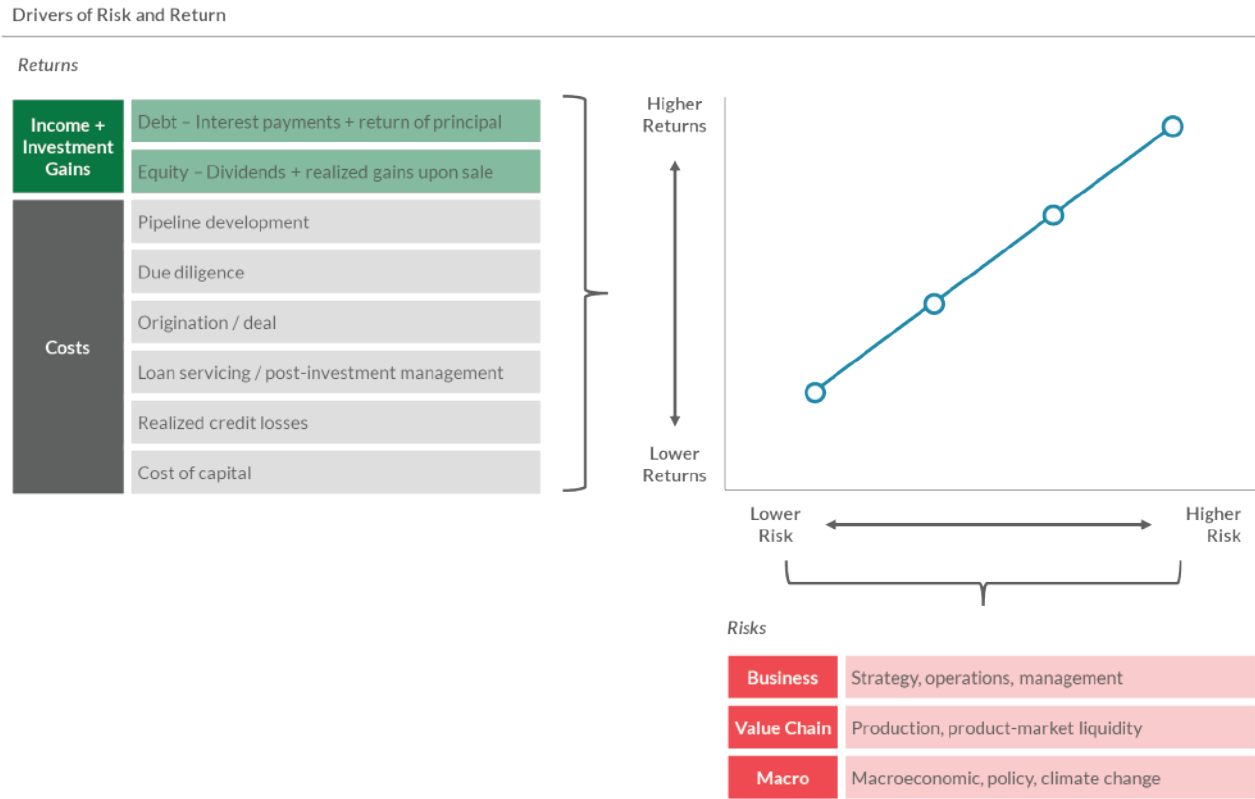
proper due diligence is expensive. If a transaction is indeed completed, it must then be managed: lenders incur the cost of collections while investors may need to supervise the portfolio company or deploy post-investment technical assistance. In either case, the financiers must consider potential credit losses or the depreciation and eventual write-down of the investment asset's value. Throughout the period of the loan or investment, the deployed funds also have an associated cost of capital. "Patient" capital can be particularly beneficial in food systems, especially where high upfront costs to acquire land, establish production, or set up agro-processing facilities are necessary. However, this may be outside the time horizons of most investors; when the prospects and timing of an exit are uncertain, the problem of the time value of money begins to loom large. In summary, there are considerable downward pressures for agricultural SMEs on the "return" axis.

With respect to risk, agricultural SMEs face business and operational unknowns just like any other firm in any other industry. However, these are exacerbated in the sector due to the inherent uncertainty in the quantity and quality of agricultural production and the high levels of informality and fragmentation in many

value chains. This means a broad set of variables that could go wrong. An improved inputs supplier may not find ready demand among smallholder farmers, a trader may fail to establish a reliable supply chain and route to market, or an agro-food processor may struggle to compete and win share against imported goods. There are also systematic risks, which the lender or investor cannot easily diversify away. Agriculture is vulnerable to macroeconomic and policy conditions that may affect input costs, commodity prices, or access to markets across an entire value chain, country or region.¹² Climate change has introduced new systemic risks including extreme weather events to which Africa's agricultural sector—largely rain-fed and with lower usage of improved seeds, fertilizer, and crop protection than the rest of the world—is particularly vulnerable. In other words, the agriculture sector faces relatively greater rightward pressures on the "risk" axis.

12 In investment terminology, "specific" risks are those that pertain to an individual business, which may be strategic, operational, or financial in nature. This portion of risk can be diversified by investing in uncorrelated assets such as different industries or asset classes. Conceptually "systematic" risks are those which cannot be diversified away; these are the unknowns such as political or currency risk that may affect an economy as a whole. Climate risk, which could have adverse effects across value chains, business models, and countries, is a systematic risk to which the agriculture sector and agriculture SMEs are particularly exposed.

Exhibit 4



Blended finance effectively addresses the underlying drivers of risk and return

Impactful solutions must therefore address the underlying drivers of return and risk. In an efficient financial market, capital will eventually flow to firms that are fundamentally attractive with respect to their industry, business model, and competitive positioning. However, markets are not efficient and many agricultural SMEs are not attractive and thus need more immediate support. Blended finance is a pragmatic structuring strategy that uses development or philanthropic capital to enhance returns and/or reallocate risk thereby mobilizing commercial capital.

This offers several advantages. First, blended finance does not turn a blind eye to questions about the fundamental viability of a business, rather, the tools directly address one or more of the underlying risk-return drivers and determine who will bear the cost or risk. Second, blended finance must catalyze, or “crowd in”, additional commercial capital. As such, its use imposes discipline on the deployment of philanthropic and development capital. These funds cannot be used based on wishful thinking as the business case must still be strong enough to attract commercial capital. Moreover, practitioners have incentive to provide just enough financing to bridge the gap but no more. In an analysis of their historical deal database, Convergence Blended Finance, a global network for blended finance, found that the leverage ratio of blended finance averaged 4.1 globally meaning that over \$4 of commercially-priced capital had been mobilized for each dollar of development funding with a growing share coming from private sector investors (Convergence, 2023). Finally, blended finance provides a pathway to sustainable outcomes. It is not the goal in and of itself, but rather, a means to achieving longer-term commercial viability. Its use can accomplish one or both of the following in the near term: a demonstration effect to other investors of the potential investment or creditworthiness of agricultural SMEs; and/or the means for the SMEs themselves to invest and grow thereby truly becoming more investable or bankable.

There are several basic types of blended finance to apply, either on a stand-alone basis or in combination:¹³

- Credit enhancements in the form of guarantees or risk insurance on below-market terms by which a guarantor covers part or all of an investment in case of default or loss of value thereby reducing risk
- Return enhancements that defray the transaction costs and/or provide additional income as incentives to commercial actors when they deploy financing that aligns with a particular development objective
- Concessional capital that provides philanthropic or development financing on below-market terms within the capital structure thus lowering the overall cost of capital for a commercial investor
- Technical assistance facilities to support the improvement of commercial viability or development impact; an important form of this is project preparation funding for a proof of concept and to improve feasibility

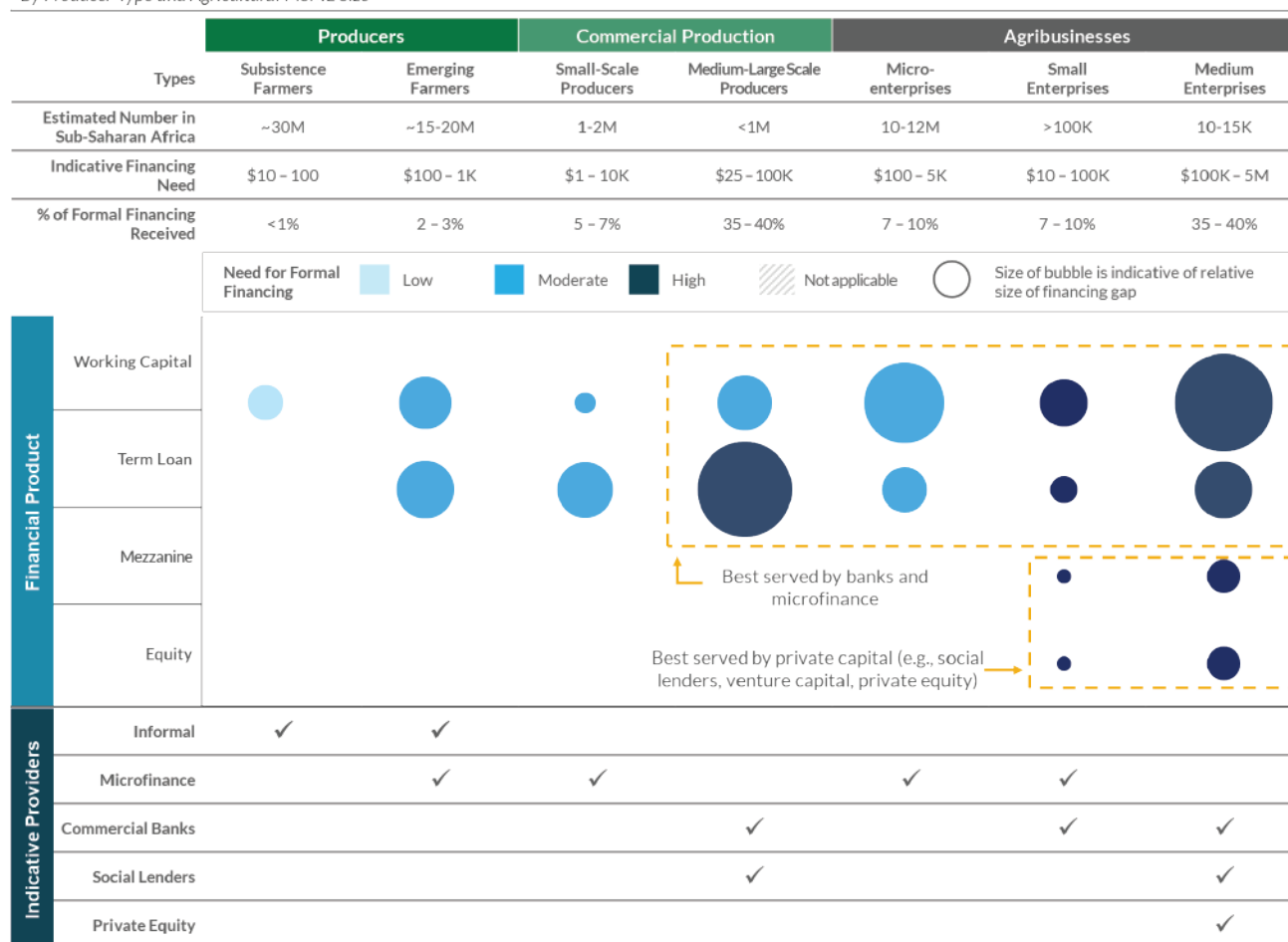
The appropriate form of blended finance to help agricultural SMEs will vary. There is a range of potential financing needs across firms as illustrated in Exhibit 5, which shape the choice of capital provider and thus the type of blended finance structure that is relevant. The remainder of this chapter provides an overview of blended finance as used for private capital investors, commercial banks, and NBFIs, and a perspective on the role of the public sector.

Blended finance can mobilize private capital for select agricultural small and medium enterprises

¹³ Note that the types of blended finance tools shown in this chapter differ slightly from the list of archetypes provided by Convergence Blended Finance, which is commonly referenced by practitioners. Key differences are the inclusion of project preparation as one type of “pre-investment” technical assistance, and the addition of “return enhancements” that provide specific revenue or cost incentives to improve potential returns of a loan, for example.

Exhibit 5

Indicative Financing Needs, Agricultural Sector Segment
By Producer Type and Agricultural MSME Size



In the absence of blended finance, very little private capital—usually deployed via investment funds—would flow to agricultural SMEs. To date, funds have been the most frequent recipients of SME-focused blended finance in SSA accounting for nearly half of total transactions. Concessional capital is used in nearly 80 percent of these deals followed by technical assistance (Convergence, 2024). This mix of blended finance tools aligns closely with the daunting challenges that funds face in SME investing. The driver of performance for commercial funds is the investment team's ability to put capital to productive use. For equity and quasi-equity investments, the investment must also grow in value and have a viable path towards a profitable sale. This means fund managers must identify investable prospects that can achieve the required rate of return, which is no small task. In light of these needs, concessional capital can help calibrate return expectations as the lower returns and/or higher risk tolerance of concessional funding allows

fund managers to raise complementary commercial investment that enjoys a different risk-return profile. Moreover, the lower cost of capital creates greater flexibility in choosing SMEs that may require more time to grow.

Technical assistance is also an effective tool that can be applied at two levels. For firms, it can be deployed both pre- and post-investment to increase investment readiness and value, respectively. Second, for the fund itself, technical assistance can help first-time and emerging fund managers to establish stronger governance and operations.

Blended finance can also help more impact-oriented investors and, indeed, is often implicit in their models. Impact investors and global social lenders such as AgDevCo, Incofin, Shared Interest, Root Capital, and others, usually work with concessional capital provided by development and philanthropic funders.

They may also offer technical assistance, for example, to ensure that investees are bankable and have the capacity to pay back loans. For social lenders in agriculture, this approach enables extending debt with greater risk tolerance and more flexible collateral requirements than commercial lenders. However, even with more modest, below-market expectations, social lenders have not found it easy to serve agricultural SMEs. A Council on Smallholder Agricultural Finance (CSAF) study showed that social lenders working with agricultural SMEs faced significantly higher operating costs and twice the risk of default in Africa as elsewhere. Furthermore, only half the loans studied generated positive returns (Aceli Africa, 2020). Thus, for social lenders to expand their reach to more SMEs or segments, additional tools such as credit or return enhancements may be required.

Private capital providers are an important potential source of financing especially where capital intensity, the uncertainty of innovation, or the unfamiliarity of the business model do not fit bank criteria. However, this asset class is relevant for a relatively smaller set of businesses. Commercial private equity investments tend to go to larger, more mature businesses or venture funding to technology-enabled businesses with the potential for disruption and rapid growth. Even global social lenders tend to make bigger, less-frequent loans to businesses and farmer cooperatives, particularly those in more formal, export-focused value chains. This is because investments are typically larger, require much more rigorous due diligence, and deals may be in hard currency rather than local. For equity investments, a deal involves selling a share of ownership and possibly inviting an external party into the firm's governance. All these factors may make private capital less appropriate for the majority of agricultural SMEs, which may be best served through other channels.

Blended finance for financial institutions can serve agricultural small and medium enterprises at scale

The potential for financial institutions to serve agricultural SMEs at far greater scale than they do currently is due to three factors: the relevance of their offerings, their reach to the relevant geographies and segments, and the risk-return drivers that blended finance can effectively shift. Most agricultural SMEs seek working capital and long-term debt, which together account for an estimated 70 to 80 percent of the financing gap. The amounts needed can range from as low as \$10,000 to well over \$500,000, although the highest volume of demand is at the low end, usually well below \$100,000. The concentration of financing needs at the lower end is important. SMEs ready to borrow at higher amounts are likely to have access to formal financing already. Much of the financing gap thus sits in a “missing middle” for agricultural SMEs seeking loans above where microfinance institutions typically operate and below where most commercial banks prefer to lend. However, these financial institutions are the closest to offering a solution. They usually offer the working capital facilities, term loans, and asset financing loans that would meet the most common financing needs of agricultural firms.¹⁴ They also have the right market and geographic reach. Banks are well-positioned to serve small and medium value chain firms and commercial farms and some have developed extensive branch networks in smaller towns where some agricultural SMEs may operate. Similarly, while microfinance institutions focus mostly on households and microenterprises, they can also serve some small agribusinesses and many have strong footprints in more rural areas.

The way blended finance can most effectively address the risk-return challenges of banks, microfinance institutions, and other NBFIs is best understood from the economics of a loan. The income generated from any loan comes from fees and interest payments capped by the interest rates that the borrower can sustain. The costs, meanwhile, are driven by origination costs and the overhead associated with administering the loan, credit losses, and cost of capital. Dalberg's

¹⁴ While some agricultural SMEs report an interest in more tailored products, e.g., to fit more closely with seasonal demand, the standard offerings of most financial institutions can align needs and they are likely to fit better for most firms than equity or quasi-equity instruments.

analysis with Aceli Africa has found that with fully-loaded costs, the economics of agricultural SME lending are indeed poor for many financial institutions. Origination, involving assessment of the SME's finances, collateral, and risk, is time-consuming and expensive, and loan officers may not understand the agriculture businesses well enough to make informed decisions. Credit losses also tend to be higher in the agriculture sector than in others. The result is that lending to agricultural SMEs may be dilutive to profit margins and returns on assets for financial institutions—and performance generally worsens with smaller loans and less formalized value chains.

In the face of these challenges, return and credit enhancements have shown promise in influencing banks and NBFIs. These address the modest income and high origination costs of lending to agricultural SMEs as well as provide some protection against credit losses. For example, Aceli Africa has demonstrated the effectiveness of return enhancements by issuing origination incentives to financial institutions across East Africa that make qualifying loans to agricultural SMEs. The incentive is designed to encourage lending to agricultural SMEs in general and increases for loans to first-time borrowers and underserved value chains, for example. It is complemented with bonuses for loans to SMEs that meet other thematic impact criteria including gender inclusion (i.e., women-owned SMEs), youth inclusion, food security and nutrition, and climate and environment. Together, these incentives immediately improve the return of lending to agricultural SMEs. On the risk side, Aceli Africa offers a credit enhancement in the form of first-loss cover funding that increases with total lending to agricultural SMEs and which can be applied at the portfolio level to qualifying loans. The results have been encouraging. Through 2023, the incentives helped mobilize over \$150 million in lending, achieving a nearly tenfold (9.9 times) leverage ratio from blended finance to capital mobilized (Aceli Africa and Dalberg, 2024). Concessional capital is also effective, as a trillion-shilling facility (approximately \$430 million) for agricultural lending by the Bank of Tanzania (Tanzania's central bank) has begun to show. The low-cost funds—offered at a special policy rate of 3 percent—have contributed to the rapid growth in loan volume and value to agricultural SMEs from National Microfinance Bank (NMB) and Cooperative and Rural Development Bank (CRDB). Indeed, following the launch of the program, credit to agriculture in Tanzania grew at a faster rate than any other sector (World Bank, 2024).

More important than near-term mobilization is the evidence for longer-term change to which these blended finance incentives have contributed. Many bank executives readily acknowledge the barriers to change; after all, given limited resources, the rational decision may be to invest in low-risk government bonds rather than expanding the agriculture department, training loan officers, and building out the remedial team.¹⁵ However, at financial institutions working with Aceli Africa, overall agriculture SME lending, most of which is not part of the incentive program, has increased as a share of the loan portfolios. Moreover, banks and NBFIs have reported that program incentives have increased their willingness to lend to first-time borrowers, new value chains, and women-owned businesses, as well as to extend small loans including, for some, more attractive interest rates (Aceli Africa and Dalberg, 2024). These changes, spurred in part by significant training to translate institutional strategy down to branch- and loan officer-level behaviors, are critical evidence of the deeper and longer-term impact that blended finance is intended to have. They are also consistent with evidence from other blended finance programs that aimed to shape financial institution behavior, such as the IFC and Goldman Sachs program targeting women-owned businesses that saw loan volume for women SMEs grow twice as fast at participating banks (IFC and Goldman Sachs, 2019).

Currently, the use of blended finance through financial institutions to increase SME lending in general, and into the agriculture sector specifically, is modest. Globally, less than 13 percent of blended finance deals have been designed around one of these objectives (Convergence, 2024). Significantly, more blended finance has flowed to large projects or to back fund managers, rather than the channels or vehicles that may be best suited for serving agricultural businesses at scale. Indeed, an analysis focused on food systems notes that financial institutions may be “under-targeted” by blended finance deals (Convergence, 2022). This may be a missed opportunity, not only because of the relevance and reach of banks and NBFIs vis à vis agricultural SMEs but also because it provides the scale advantages of a repeatable model (i.e., the same program applied across banks and NBFIs) and can encourage competition and innovation among financial institutions to serve this market segment.

¹⁵ These broad themes are drawn from Dalberg's extensive consultations with bank and NBFI management teams across the continent.

Governments should focus on financial system infrastructure complemented by careful and transparent use of blended finance

At risk of stating the obvious, the most meaningful, important actions for government are to remove barriers to the growth of competitive businesses. Underinvestment in infrastructure, trade barriers, political instability, and corruption are all fundamental to the drivers of risk and return in agriculture as well as the broader economy. Material improvements on these dimensions will have more profound, enduring benefits than short-term interventions directed at agricultural SMEs. However, setting aside these “macro” factors and focusing on SME access to finance, the government can indeed play a helpful role but only if it is carefully circumscribed and implemented. After all, the track record is mixed—public funds for the agricultural sector are often not spent well. Inefficient funding vehicles, poor coordination, and political economy challenges are common. Thus, as a first step, high-quality financial data is essential for identifying gaps and shaping smart, impactful budget allocations. To this end, the Financial Flows to Food Systems (3FS) tool developed by IFAD and the World Bank can be a valuable tool providing decision-makers with a harmonized methodology for tracking trends and usage of resources (IFAD, 2023).

Beyond better tracking and transparency, there are a few broad areas that policymakers should consider. First, governments can focus on building the basic infrastructure needed for a vibrant financial services sector. For example, a trusted, well-functioning credit reporting system or reference bureau reduces information asymmetries for lenders and cuts the time and costs of due diligence thereby improving access to finance (International Committee on Credit Reporting, 2014). Similarly, a functioning collateral registry and the means for financial institutions to make claims reduces their downside risk. Evidence shows that this also improves SME access to finance with particularly pronounced effects for smaller firms (Inessa L.; Peria M., Soledad M., & Sandeep S., 2013). Other building blocks with potential benefits for SME financing include clear, practical regulations on warehouse receipts and the central depository

(Balikisu O., 2017). Policymakers can also help establish rules within which the private sector can test innovations in financial services. Digital financial services have the potential to improve financial inclusion by expanding reach at a lower marginal cost but most markets do not have a regulator with clear jurisdiction. Some markets, such as Kenya and Ghana, have been proactive in establishing regulatory sandboxes to test innovations. However, uncertainty and complexity in other countries including Tanzania, Uganda, Côte d'Ivoire, and Senegal are deterrents for digital financial service providers. This inhibits the testing of tools such as with alternative credit scoring that could otherwise improve access to finance. As a result, partnerships between technology-driven firms and financial institutions in Africa are not particularly well-developed and are very much dependent on the enabling environment (ISF Advisors and IFC, 2024).

Finally, governments can themselves take a more direct, active role in expanding access to finance. Of course, there are numerous ways this can be implemented badly and, as such, a guiding principle should be to foster healthy competition and avoid distorting the market. For this reason, interest rate caps that force more attractive terms for borrowers may win political points but are usually ineffective. Evidence suggests that this leads to a “flight to safety” as banks focus on their corporate clients, claw back income by increasing transaction fees, or raise collateral requirements leading to a net decline in SME finance due to their inability to price appropriately for risk (Safavian, 2018).

Instead, governments are demonstrating that a blended finance approach can be effective, addressing risk-return challenges while signaling a commitment to market actors. Credit enhancements to financial institutions can de-risk SME lending, as Kenya has tested with its Credit Guarantee Scheme (CGS). While the deployment of financing through the CGS was slower than planned, nearly three-quarters of beneficiaries have been new borrowers. Based on progress of the first three years, the CGS is converting into the Kenya Credit Guarantee Company with an aim to improve operational efficiency. Similarly, both the Nigeria Incentive-Based Risk Sharing System for Agricultural Lending (NIRSAL) (Szebini A., 2021) and Ghana Incentive-Based Risk Sharing System for Agricultural Lending (GIRSAL) aim to de-risk lending by supporting financial institutions with guarantees and technical assistance (B&FT Online, 2022). The aforementioned example of the Bank of Tanzania's

concessional capital for financial institutions also showed positive results contributing to a rapid increase in credit to agriculture. However, one concern with the Tanzania program, is the limited number of banks that participated; expansion to more institutions would likely promote the type of healthy competition that would carry longer-term benefits for SME access to finance.¹⁶ For any government effort to deploy blended finance, it is critical to demonstrate credibility in its implementation. Uptake of an otherwise promising blended finance program can be low when financial institutions do not trust that it will be properly implemented such as guarantee funds that involve long, bureaucratic processes or worse, never materialize.¹⁷

Beyond blended finance to catalyze other institutions, governments also use more direct channels to agricultural businesses, such as investment funds and public development banks (PDBs). An example of the former is the Malawi Agricultural and Industrial Investment Corporation (MAIIC), which offers a wide range of tailored products for agricultural SMEs including equity, quasi-equity, and debt investments (MAIIC, 2024). Similarly, the Fund for Agricultural Finance in Nigeria (FAFIN) provides investment capital and technical assistance to agribusinesses using a range of instruments (NSIA, n.d.). One common element for both is a structure intended to separate political interests and influence from investment decisions. MAIIC thus caps Government shareholding at 20 percent, FAFIN is administered by Sahel Capital, a third-party fund manager, and both include global development financial institutions among their investors. A number of countries also use their public development banks to address the agribusiness financing challenge. Historically, lack of transparency and tendency to use political appointments to leadership made PDBs a sub-optimal way to boost lending (Attridge S., 2021). However, PDBs have potential impact both as direct and indirect providers of finance. The Tanzania Agricultural Development Bank (TADB) and the Development Bank of Nigeria lend directly to SMEs at scale and also offer technical assistance to small businesses. Using their scale and

reach, PDBs can also serve as platforms to host other initiatives for agricultural businesses. For example, the Botswana National Development Bank has long hosted the Agricultural Credit Guarantee Scheme (ACGS), which offers protection to commercial and smallholder farmers in the event of extreme weather (NDB, 2024). Similarly, the Bank of Industry (BOI) in Nigeria has launched agricultural funds such as the BOI/Aliko Dangote Foundation Fund, which provides financing and technical assistance (Bank of Industry, 2024).

Given the historical challenges of public sector involvement in agricultural finance, the results of these government efforts should be monitored carefully and tested against global learning. Compliance with the Association of African Development Finance Institutions (AADFI) Prudential Standards, Guidelines, and Rating System will enhance the effectiveness, credibility, and accountability of PDBs (AADFI, 2022). Another useful resource is the Agricultural Public Development Banks Platform for Green and Inclusive Food Systems, formally launched in 2021. The Platform facilitates technical assistance including operational governance and human resource development as well as knowledge exchange among PDBs globally (Fusillier C, 2023).

Looking ahead: lessons to be learned

Blended finance is a bridge, not the final destination and offers promising, high-leverage ways to catalyze private sector financing for agricultural SMEs. This is only one factor among many that must be addressed to build stronger, more resilient food systems in Africa. There are also more effective and less effective ways to deploy blended finance. Its use is designed to catalyze and must avoid distortion of markets and the underlying profit motive. As such, it should use the minimum level of concessionality needed to crowd in capital, bearing in mind the long-term objective of sustainable commercial markets. For example, partial or first-loss covers that are just enough to shift the risk-return profile sufficiently but not to give a full guarantee, align incentives between blended and commercial capital providers and avoid moral hazard (Garbacz W., 2021). To this end, blended finance should also be time bound and ideally foster competition among multiple capital providers, creating more choice for SMEs (IFC, 2021).

Better coordination among development actors providing blended finance is also important to ensure

¹⁶ It is worth noting in the Tanzanian example that the Government did mandate an interest rate cap on financing drawn from the fund. The volume of lending was not adversely affected due to the low-cost capital on offer, which enabled participating banks to protect their net interest margins. This initiative will benefit from deeper analysis of the relevant loans, including performance and credit losses, as well as the behaviors of banks that did not perform.

¹⁷ Based on Dalberg's confidential interviews with financial institutions discussing their lack of participation in government blended finance initiatives.

it is deployed effectively and efficiently. More than 70 percent of blended finance commitments are directed to lower-income countries, and SSA alone accounts for 41 percent of blended finance deals and 33 percent of total value (Convergence, 2024). Particularly in the case of financial institutions that can attract blended finance from multiple sources, there is a risk of redundancy, inefficient use of resources, or misaligned strategies. Conversely, there is also opportunity for cooperation that amplifies collective impact.

Finally, practitioners must operate with transparency in support of a learning agenda. Blended finance has achieved its objective if it has created a demonstration effect, not only catalyzing private capital in a given context, but showing what is possible and thus shifting

the confidence, commitment, and choices of the broader market of businesses and capital providers. If blended finance is a bridge, then it should create a pathway that others can follow, and from which others can build. If we extend the analogy, simply building the same exact bridge over and over at the same exact crossing point should not be the goal. For financial institutions that have received catalytic funding to serve agricultural SMEs, for example, it is important to study whether changes in lending behavior persist and whether risk premiums to sector change. To this end, more transparent sharing of data—both the risk-return gap bridged by blended finance and its ex-post outcomes—will help advance a shared, more refined understanding on how blended finance can best shape Africa's food systems.

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6 Coordinating governments around the needs of private sector-led growth opportunities

Jonathan Said¹

KEY MESSAGES

- 1 Economic evidence across multiple countries has shown that mechanisms for dialogue and collaboration between private actors—ideally organized by value chain—and government are essential. Such mechanisms allow for problems to be identified and resolved over time as they evolve.
- 2 Intra-governmental coordination and follow-up mechanisms that allow for government to respond to the pressing needs of a growth-oriented private sector are also important.
- 3 The form of such mechanisms does not matter and will vary by country, context and even value chain. Value chain development is a problem solving and opportunity-grabbing exercise; what matters is thus the ability of public and private actors to effectively collaborate for growth.

Introduction

This Africa Agriculture Status Report (AASR) has documented cases of agricultural growth in Africa driven by the private sector spanning the gamut from micro and small firms to medium and large firms. Chapters 2 and 3 also suggested what African policymakers and development partners—including in local private sector associations and civil society—should do to accelerate private sector-led agriculture and agro-processing transformation in Africa. This includes investing in rural market structures and other key rural infrastructure such as digital connectivity, bridges and roads; improving access to capital for micro, small, and medium firms; ensuring a fit-for-purpose and consistent policy environment that stimulates private investment; and promoting and facilitating agro-processing. Chapters 4 and 5 delved into two increasingly popular public tools to address a couple of these needs: blended finance and agro-industrial clusters.

A key question that follows is one of how: how can governments lead the effort to provide such solutions? How can they effectively respond to the needs of the private sector to catalyze and unlock more clusters of economic growth? While it is one thing to identify a number of generic policy solutions, actually addressing the binding constraints of the private sector such

that it can rapidly accelerate African agricultural transformation, agro-processing and food system transformation requires recognizing that private sector needs will vary across countries, sub-geographies within countries, value chains, and time. It is rarely a case of one size fits all and is rarely, if ever, static over the years.

On their part, governments inevitably have constrained capacity to respond: they do not have infinite budgets, political space, coordination capacity, management capacity, or institutional capacity.

Therefore, for governments to effectively respond to the needs of the private sector, it is essential that there is a healthy working relationship between private and public actors in each country and at the sub-national level. It is also critical that there is a mechanism to coordinate the tens, if not hundreds, of organizations that make up the government – these are the various ministries, agencies, and sub-national government bodies – and the actions of other public actors such as civil society, research institutions, and foreign governments around the needs of the private sector.

This brief chapter interrogates how different ministries and agencies of governments can coordinate themselves to engage the private sector in such a way and to respond accordingly.

¹ Vice President for Technical Expertise, AGRA

Globally, public-private and intra-governmental coordination mechanisms have been key for private sector-led agricultural growth

Literature on countries that have secured agricultural and wider economic transformation suggests that in various cases, a positive and constructive working relationship between private and public actors, led by the government, has been instrumental in steering public resources. This approach has been meaningful in addressing the biggest constraints faced by growth-oriented private actors that private investment could not address.

In Asia, Cambodia uses a 'Trade Sector Wide Approach' to give the Prime Minister a coordination mechanism to synchronize the priorities of different ministries, agencies, and development partners toward the needs of private actors in key sectors particularly in agriculture and food. Rice, mango, cassava, and silk were the first priority sectors (EIF, 2018). In China, Deng Xiaoping used local government structures to facilitate healthy dialogue between Government and farmers towards the development of flexible and responsive agricultural policies tailored to local conditions and needs as well as a market-led (and hence private sector-driven) approach. While decision-making was decentralized, the central Government coordinated the effort taking into consideration what China needed to transform. It provided overall guidance and financial support and set broad policies and goals to which local government mechanisms had to adhere (Zhang, 2023). This approach, which was consistently applied over a forty-year period, unlocked key enablers that were behind China's agricultural transformation success such as access to land, rural roads and, crucially, rural wholesale markets and also drove growth in state capability (Studwell, 2014).

After the 1950s, Japan also used a central coordination mechanism, albeit for wider economic transformation beyond agriculture. The Government elevated the Ministry of International Trade and Industry (MITI) to a super ministry to ensure that key agencies such as the Ministry of Agriculture, Bank of Japan, Ministry of Commerce, and the National Planning Agency were coordinated around the needs of the private sector particularly in sectors with high potential for domestic and global competitiveness (Song, 2022). Malaysia, Indonesia and others followed a similar approach.

This phenomenon is not constrained to Asia. In South America, countries like Colombia, Peru and Chile used similar centrally planned coordination mechanisms to ensure the public capacity necessary to respond to private sector needs in key industries. In Chile, for example, from the 1970s, the Government used the Production Development Corporation of Chile (CORFO, from Spanish) as the main mechanism to drive the development of key sectors such as fruits, fish (salmon), forestry, and wine in a way that responded to the needs of private sector growth actors (Lebdioui, 2019). It developed a system of cross-cutting reforms that applied across all value chains (horizontal industrial policies) and a system of value chain-specific reforms and programs to each priority sector (vertical industrial policies). Crucially, it then built in support from key public or semi-public agencies (e.g., Fundacion Chile as the main agency mandated to support the capacity growth of SMEs) and value chain-specific agencies (e.g. the Agricultural and Livestock Service) to respond to specific needs of the key value chains. In this, it embedded flagship projects that helped develop those value chains such as the Japan-Chile Salmon Project (1969 to 1989). This approach made it one of the world's largest global producers for each of these value chains. Figure 1 below provides a pictorial image of this structure.

In Peru, the Minister of Production developed a coordination approach called Mesas Ejecutivas (MEs — Executive Working Groups) to focus public sector action around the needs of key industries including avocado, blueberries, potatoes, cocoa, and asparagus (Ghezzi, 2017).

Similar examples exist in other geographies. In Central America, Costa Rica gave strong powers to the Ministry of Economic Planning and Policy (MIDEPLAN) to coordinate growth in various sectors including agricultural ones such as pineapple, banana, and agro-tourism in line with its environmentally sustainable growth agenda led by the Ministry of Environment and Energy (IICA, 2014). This included public-private dialogue with key private actors in these value chains.

In Mexico, the Secretariat of Agriculture and Rural Development (SAGARPA) took a lead role in fostering collaboration between the local private sector (national farmers and retailers associations) and other ministries (such as the Small Business Administration Unit of the Ministry of Economy) with foreign buyers of Mexican agricultural produce and local research organisations (such as Monterrey Technical University).

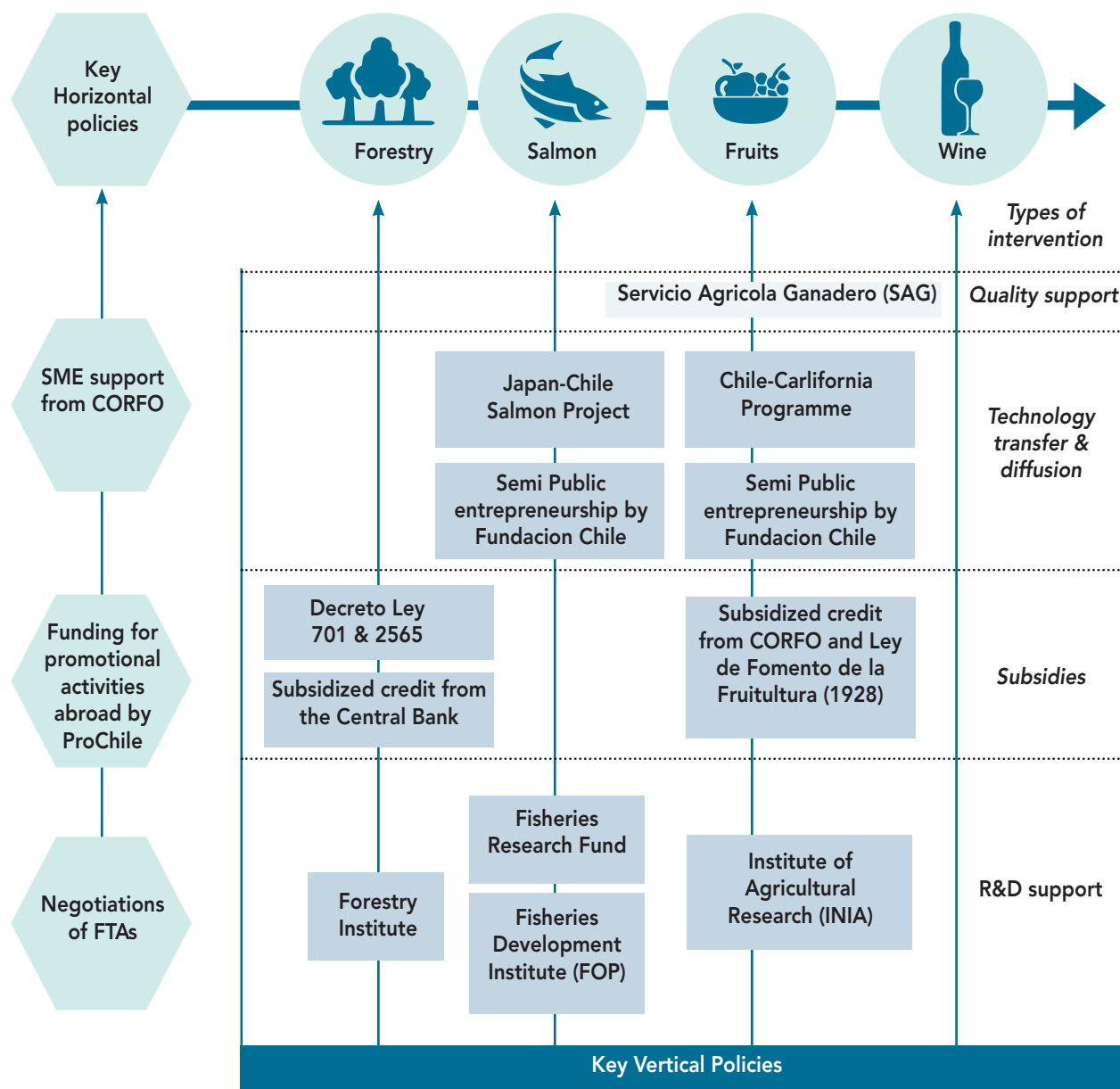


Figure 1: Structure of Chile's agro-industrial strategy in 1970s and 1980s.

Source: Lebdioui (2019).

This enabled actors to strike supermarket local purchasing and export deals for sub-sectors such as horticulture ensuring suitable varieties for market needs (Reardon and Flores, 2006). SAGARPA also proactively engaged the financial sector, particularly rural banks and the National Agricultural Council (a public-private body), to develop tailored financial solutions for smallholder farmers (Reardon and Flores, 2006).

In Israel, the Ministry of Agriculture itself served as the basis for public-private coordination around building market-competitive industries (Said, J. et al, 2019). Inspired by the British board modal (which included the kiwi board in New Zealand and the cocoa board in Ghana, among others), this initially began in citrus produce in Israel but evolved beyond exports of raw commodities, as originally designed under the British colonial system, to value addition and healthy growth

of farming communities. The Ministry of Agriculture spanned the entire value chain from research focused on solving problems at farm level to driving trade policy in coordination with the Prime Minister's Office (to ensure shelf life suitable to reach target markets in Europe) and driving infrastructure needs, e.g., irrigation projects needed by farmers.

Africa also has key examples of good coordination cases

Over the years, South Africa has developed a strong coordination mechanism in agriculture and in manufacturing to ensure the needs of the industry are addressed over time with the Department of Agriculture, Land Reform, and Rural Development serving as the coordination structure. In particular, it linked to the Department of Planning, Monitoring, and Evaluation, and the Presidency to help ensure a suitable enabling environment for private investors. For example, it coordinated efforts with the Agricultural Research Council and the Department of Trade to open up new export markets and also supported shock management such as during the COVID-19 epidemic when it worked with the National Ports Authority to ensure free flow of exports (Meyer et al. 2021). The National Agricultural Marketing Council also supported dialogue with private sector associations such as the Citrus Growers Association (part of Fruit South Africa), AgriSA, and South African Farmers Union to address key issues in sectors like citrus, wheat, soybean, and maize (Government of South Africa, 2024).

Rwanda is following a similar model of boards, inspired predominantly by Singapore's Economic Development Board model, to ensure responsiveness to private sector needs. The National Agriculture Export Board, Rwanda Agriculture Board, and Rwanda Development Board combine to ensure progress in value chain development. Private sector engagement, including with large, medium, and small enterprises as well as farm and off-farm, foreign and local, is a key mandate.

Morocco through its Agricultural Development Agency, Ethiopia through its Ethiopia Agriculture Transformation Agency (now Institute), and Mauritius via its Economic Development Board situated in the Prime Minister's Office, provide similar success factors. There are also a number of less well known cases of collaboration around the needs of specific value chains such as cashew in Cote d'Ivoire, oil seeds in Malawi, and palm oil produced by SMEs in Liberia.

Conclusion: common traits for effective coordination mechanisms

Common traits across these mechanisms for public-private dialogue and collaboration for private-sector led growth include political empowerment from government leadership, dependence on analytics, efforts to align political economy interests among business and political elite, efforts to coordinate different ministries and agencies of government across a singular agenda that empowers the private sector including smallholder farms writ large, and a deliberate effort in both public and private sector capacity development. They also include efforts to ensure that other public actors—such as think tanks, civil society, multi-national bodies, and foreign governments—are coordinated around the needs of a central unified country strategy and that infrastructure, financing, policies (including fiscal, trade, skilling and monetary), partnerships, and support programs are coordinated to respond to specific challenges raised by actors in the value chains. This encompasses both challenges that are specific to a value chain and cross-cutting across several value chains.

These mechanisms also adopted a market-led approach with some opting for export orientation, which entails a degree of domestic market focus while ensuring the ability to compete with imports whether these are foreign products in the local market, in neighbouring country markets, or in further flung countries. Crucially, the mechanisms had an end-to-end focus from research and input provision to value addition, packaging, consumer needs, and logistics.

Figure 2 below summarizes common elements across these successful public-private coordination mechanisms in various countries in Africa and beyond. In general, with variation across these mechanisms, they have been able to support coordination of both value chain- specific regulations, programs, and capacity (which are referred to as vertical agro-industrial policies) and also ensure that economy-wide policies or policies that impact all value chains (horizontal industrial policies) are synchronized around the key needs of the growing and investing private sector.

Successful coordinating mechanisms were always fit for purpose based on the needs of the agriculture and agro-processing sector, the political and economic context of the country, and the functioning modalities of governments and private sector. They were also not disconnected from the main machinery of government,

i.e., they influenced and were influenced by the civil service, the regular policymaking process, and various regular government processes while remaining focused on the set goals. In each case, they ensured alignment of various policies, programs, and capacity around the needs of the private sector spanning micro, small, medium and large firms. Localization to ensure the ability of governments, even at the municipal or district level, was often important too.

It is essential that African governments, in collaboration with local inclusive growth-oriented private sector actors, develop and strengthen coordination mechanisms to ensure that constraints holding back private sector investment across micro, small, medium and strategic large firms are sufficiently addressed to support the scale of growth clusters that Africa needs for agricultural, agro-processing, and food systems transformation.

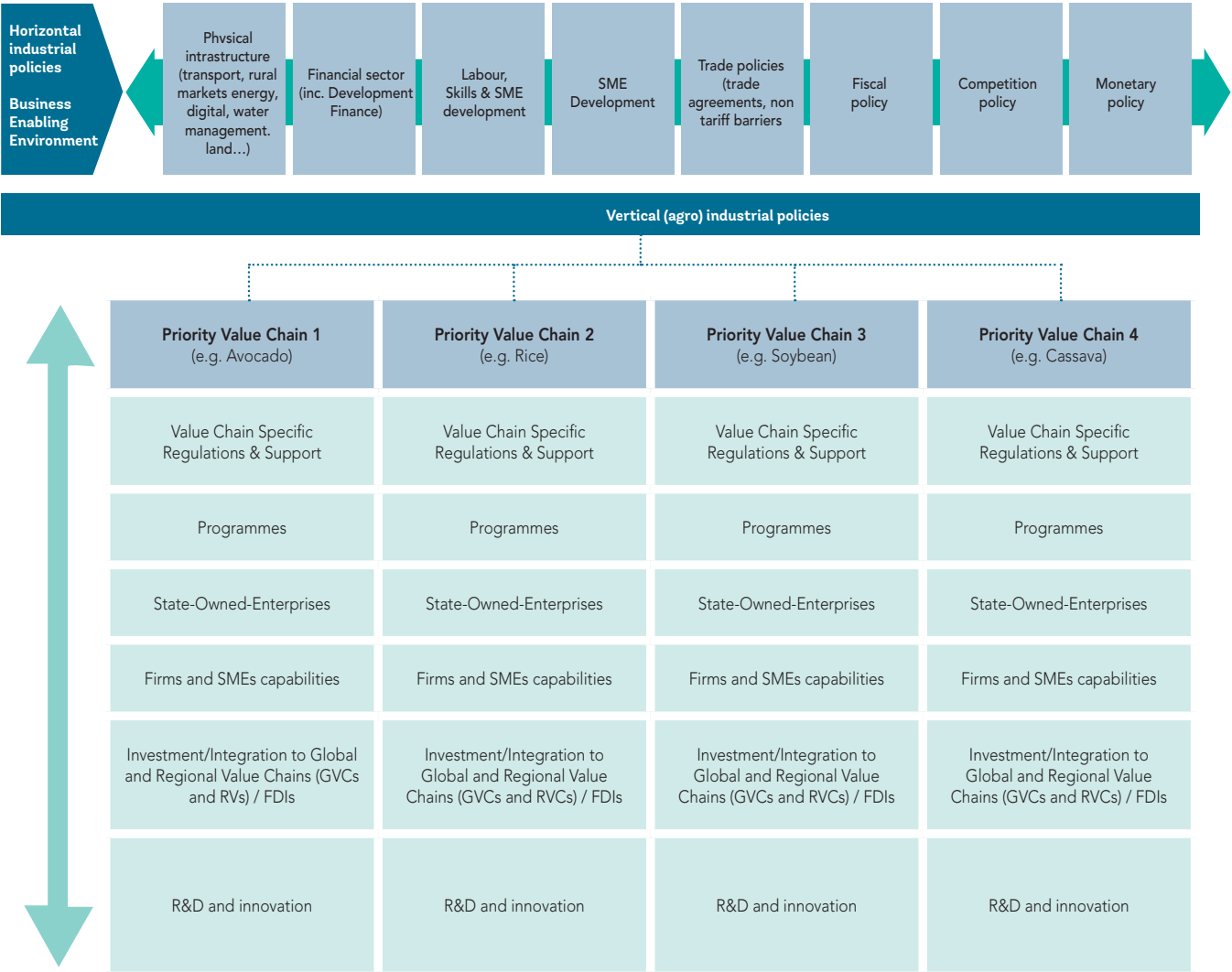


Figure 2: What successful public-private collaboration efforts to drive agricultural and agro-processing transformation have typically coordinated to meet growth-oriented private sector needs

Source: Chema Triki designed for this chapter.

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7 Synthesis of findings and policy implications

Thomas Reardon¹

Introduction

The introductory chapter of the 2024 Africa Agriculture Status Report (AASR24) laid out the context of powerful forces of demand pulling ahead Africa's private sector.

It emphasized that in general, the private sector has responded to that demand and developed into a huge supply chain to farmers and from farmers to African consumers who now purchase 85 percent of the total volume of food that they consume. The introduction then laid out the questions of the volume: (1) how has the private sector in the off-farm segments of African agri-food value chains (AVCs), including the MSME (micro, small, and medium enterprises) sector and the MLE (upper-tier medium, and large enterprise) sector, developed and responded to that demand; (2) what challenges does the private sector still face and what are the key strategies and policies already in place and needed to further support, leverage, and accelerate this private sector food system transformation.

This chapter provides an overview of the findings and messages of the AASR24 in response to those questions. The chapter synthesizes points from Chapter 2 on MSMEs, Chapter 3 on MLEs, Chapter 4 on agro-industrial parks (AIPs), Chapter 5 on finance, and Chapter 6 on coordinated agro-industrial policies to act as integrated strategic frameworks for various specific policies.

This concluding chapter proceeds as follows drawing from the main messages of the Report to discuss: (1) the rapid growth of the private sector both by the great majority of the private sector (micro, small, and medium enterprises—MSMEs) and the emerging segment of the upper tier mid-sized and large enterprises (MLEs), as well as their diversity of strategies and approaches; (2) the policy facilitators of this growth as well as the remaining important challenges for and with these policies; (3) overall principles to underpin future policy formulation including structural and customized competitiveness and coordination and integration in policymaking.

In response to the rise in demand, there has been rapid growth in the private sector especially in wholesale, processing, and logistics, by micro, small, and medium enterprises/mid-sized and large enterprises.

Growth of private sector midstream and lateral services (logistics) in general

The nature of the demand trends encouraged, and were themselves facilitated by, the development of the midstream and logistics. The rapid development of the urban market required longer and longer agri-food value chains from rural areas. This drove the development of the MSME 3PLS sector and the MSME wholesale sector as well as the spread of both government and informal wholesale markets. This development was magnified by the growth (more rapid than in grains) of horticultural and animal product agri-food value chains.

Moreover, the rise of processed food demand was linked to the huge proliferation of processing MSMEs as noted in Chapter 2 as well. This is especially with respect to processing of imported wheat and oilseeds and export products such as coffee and cocoa as MLE (upper tier mid-sized- and large enterprises) as noted in Chapter 3.

Finally, the rise in demand for farm inputs drove the spread of MSME agro-dealers in their thousands as well as the development of MLEs in input manufacture and supply.

Micro, small, and medium enterprises' growth and modes of growth

Growth of micro, small, and medium enterprises

Chapter 2 notes that MSMEs form around 85 percent of the volume of the private sector agri-food value

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chains in Africa. Above we note that around 1.1 billion tons of food is purchased (and thus moves through agri-food value chains) in Africa each year; 85 percent of that—roughly 900 million tons and an enormous volume—is operated by MSMEs. It is commonly considered that there is a “missing middle” of wholesale and logistic services in the African policy debate, and that small firms are stagnant, traditional, and non-dynamic.

However, Chapter 2 of this AASR strongly contradicts that conventional wisdom and notes that it is far from a missing middle but rather a dynamic MSME midstream, albeit largely hidden from the debate, hence referred to here as the “hidden middle.” (Reardon, 2015; Reardon et al. 2021).

MSMEs are focused mainly on domestic urban and rural food markets and sub-regional markets. An example is fish wholesale MSMEs in Kebbi State, Nigeria. These are mainly focused on the Nigerian market but also sell cross-border to neighboring countries.

MSMEs have responded en masse to the demand opportunities noted above with rapid proliferation into: (1) 3PLS, the main way that traders are moving food in agrifood value chains such as in Nigeria where fish, maize, tomato, and green leafy vegetable wholesalers mainly rely on 3PLS MSMEs rather than their own transport (Liverpool-Tasie et al. 2017; 2024a; 2024b); (2) first-stage processing such as of maize in Tanzania (Snyder et al. 2018) and dried and smoked fish in Nigeria (Gona et al. 2018); (3) wholesale trading mainly based on urban and rural town wholesale markets (e.g., for tomatoes in Tanzania, Ijumba et al. 2024).

MSMEs are the main interface of small farms with markets and thus of special interest for AGRA and rural development and employment. Chapter 2 shows that midstream MSMEs are important in agri-food value chains and have been shown to have positive impacts on small farmers’ employment and food security. Their practices also condition food safety and the enterprises serve as a market for farmer inputs and outputs thereby directly affecting farmer incentives to invest in the farm enterprise and adopt good agronomic practices but also contributing to the profitability of farming through improved yields and output commercialization opportunities.

Modes of growth of micro, small, and medium enterprises: “spontaneous clusters”

Chapter 2 emphasizes what has been the crucial role of “spontaneous clusters” of MSMEs and farms in the development of the agri-food private sector in Africa and what policies facilitated them. Here we summarize the key issues related to spontaneous clusters and further discuss the policies that have facilitated them.

Earlier discussions of spontaneous clusters of MSMEs in this AASR contend that they have been crucial in both developing MSMEs and building “spontaneous” linkages to small farmers. They also assert that these linkages well exceed present linkages related to contract farming with large firms in Africa in terms of quantitative significance.

The clusters have emerged “spontaneously”, that is, without external management or establishment by government, development partners, or civil society actors including non-government organizations (NGOs) and even without “anchor firms” in the form of large companies such as large processors. They also tend to be financed by own funds from other non-farm employment, some informal lending, and especially profits generated as they supply profitable urban markets. Typically, formal finance or finance from large value chain actors like processors has not played a role. The clusters tend to span the various segments of agrifood value chains as well as small and medium farms.

These clusters have tended to emerge and then develop rapidly essentially self scaling as in the examples presented below. These can be contrasted with “managed clusters” such as agro industrial parks (AIPs)—discussed extensively in Chapter 4—which have so far played a minor role in Africa in MSME development but are further emerging as a viable policy option for growth of African food systems.

One illustration from Chapter 2 is emblematic of spontaneous clusters and, given the importance of these clusters for the private sector in Africa, the illustration is summarized here to show the nature of the dynamic. The illustration pertains to spontaneous clusters of fish MSMEs and producers in Kebbi State, Nigeria. The clusters feature thousands of urban and rural wholesalers, processors, transporters, and 21,000 fish farmers and fishers in the set of four main fishing/ fish farming clusters in Kebbi with one especially large cluster standing out (Gona et al., 2018).

A key point is that actors self-assembled and spontaneously spread where natural and public infrastructure conditions were favorable. (This is a common theme for clusters as discussed in Chapter 2 and those in horticulture and animal products reviewed in Reardon et al. (2024). The clusters are based in areas with good water resources for fish production and are well connected to major cities near and far by government-built highways and well served by wholesale markets and fish collection points developed by government. The clusters all display dynamic transformation in the structure and conduct of the value chains whose actors are part of the clusters. They are dominated by MSMEs, which responded to increasing demand and favorable conditions.

The self-scaling of these fish clusters has been remarkable and counters the view that for private sector MSMEs to spread and grow in Africa it is necessary to “manage” or “anchor” the clusters. There was a 182 percent increase in fishers and a 200 percent increase in fish farmers in the previous decade—as rapid an increase as in Asian aquaculture success stories such as in Bangladesh (Hernández et al., 2018). During this period, aquaculture intensified fueled by rapid growth in fish farm input value chains such as the emergence of long-distance (cross-state) trade in fish seed from clusters of MSME hatcheries in areas with good environmental conditions and transport.

By 2018, nearly 9,000 output supply chain midstream actors (MSME wholesalers, processors, and transport logistics enterprises) were part of the Kebbi clusters and growth in these segments was dynamic. For example, the number of rural and urban MSME wholesalers in the clusters grew by 1.3 times over the decade as fish producers nearly doubled (1.9-fold increase). This implies an increase in trader scale over the decade. Urban fish retailers in the state increased by 2.5 times in number. These midstream intermediaries were in urban and rural retail and wholesale markets, farmgate markets, and trader collection points totaling around 255 over the period.

Medium/mid-sized and large enterprises growth and modes of growth

Growth of medium/mid-sized and large enterprises

Upper-tier MLEs represent some estimated 15 percent of the agri-food value chain volume in Africa. They process for and market to domestic as well as export markets. These firms include: firms with headquarters and/or capitals based outside Africa (e.g., Cargill and China National Cereals, Oils and Foodstuffs—COFCO—China’s largest state-owned food processing holding company); firms based in Africa but with extensive multinational operations at least in part in Africa (e.g., Bakhresa based in Tanzania); firms based in an African country and mainly producing for and selling to that country’s market (although with possible sales to other African countries or exports to outside the region).

Chapter 3 reviews a number of cases relating to all these types of firms. It shows dynamic investment by these firms in response to rising demand in the region, regional and global export market opportunities, and policy incentives.

MLEs invest in response to medium to long-term demand forces in Africa and the global market (in analogy to the earlier observation for MSME clusters). The Chapter provides an example of the latter with examples from South Africa for the soybean, feed, and meat complex. In the 2010s, in response to the growth in demand for meat in South Africa and the region, MLEs invested in soybean crushing facilities to supply feed to the poultry and beef industries in South Africa and elsewhere in Africa. This led to processing capacity growing by 3.5 times over a period of five years with important investments by foreign firms such as COFCO, and by South African-based companies RussellStone Group, Nedan Oils and Proteins, VKB Agriprocessors (via its subsidiary Nedan Oils and Proteins), and Willowton Oil. Some of the firms, like RussellStone Group, were supported by grants from the Government of South Africa.

Beyond the inducement of the medium to long-term rise in domestic demand, there were, as explored in Chapter 3, short-term “triggers” that precipitated the emergence or development of particular private sector responses. Those triggers have been based both on policy (such as tariffs on imports or tax exoneration for local investment) and external circumstances (such as fertilizer price spikes in the world market). Examples of these are given in the policy section below.

Modes of growth of medium and large enterprises

Chapter 3 (for individual MLEs) and Chapter 4 (for MLEs in managed clusters such as AIPs) discuss several key modes or strategies for growth² and/or for management of risk and transaction costs by MLEs. Several modes stand out.

First, some firms such as Agrivision (a South African–UK capital firm registered in Mauritius) have vertically integrated “inward” by acquiring farmland in Zambia to grow soy and maize on their own (acquired) land as well as with outgrowers through small farmer contract farming.

Second, firms such as Olam Nigeria have undertaken “outward” vertical integration or coordination both by acquiring land and establishing processing facilities and contracting with numerous rice farming outgrowers.

Firms have also diversified horizontally (in terms of product) even developing a new product when an opportunity arises or when substitution is necessary. Chapter 3 delves into the example of US tobacco multinational Pyxus, which diversified its Malawi operations toward peanut production. The firm leveraged on contract farming outgrowers to pivot away from tobacco due to waning demand on the international market and other factors while the regional demand for peanut oil and cake for human food and livestock feed is increasing. Pyxus worked with Malawian MLEs to process the peanuts.

In addition, Chapter 3 provided an example of input firms avoiding traditional distributors or creating distribution networks in areas where they felt that their marketing reach was inadequate. The example of the Last Mile Alliance formed in Tanzania by Bayer, NMB Bank, Seedco, Syngenta, and Yara to establish a network of agrodealers illustrates this point well.

Chapter 3 also noted that firms have adopted or formed alliances with suppliers of digital solutions such as informational, transactional, or payment services to reduce their operational risks and transaction costs. An example from Kenya is both MSMEs and MLEs using the services of digital payment app M-Pesa.

Finally, Chapter 3 noted that firms undertaking contract farming have faced problems of “side selling”

² Key modes or strategies for growth relate for example to interventions to address a market opportunity to substitute imports in the domestic market or to expand exports.

in which contracted farmers who had either been paid an advance or supplied with inputs such as improved seeds ultimately reneged on supplying their output to the contracting firm. This appears to be a common challenge. In this case, firms either rely on their own production (sometimes needing to buy or rent land), rely on a partner with adequate own production capacity, or import intermediate inputs (such as milk powder).

Policy lessons and messages: facilitating growth by responding to private sector challenges despite persisting policy gaps and private sector challenges

Public investment in hard and soft infrastructure is the primary shared policy driver—the “blood and bones” of the food system

This AASR illustrates that the primary policy action and condition for growth and competitiveness of the agrifood private sector in Africa, both for MSMEs and MLEs, is a set of what Reardon and Vos (2022) call the “blood and bones” of the food system, basic hard and soft public infrastructure, as follows:

- a) Good roads
- b) Wholesale markets
- c) Energy
- d) Water
- e) Information and telecommunications infrastructure

These basics are necessary for the enterprises to establish and grow. This report has found that where they are present, MSMEs crowd into clusters with farmers and the clusters develop in a dynamic way. The report also found that these basic conditions are necessary for MLEs as well as managed clusters like AIPs to function well. As they condition basic costs of firms, they are associated with “structural competitiveness” (Reardon and Flores, 2006).

While necessary and even crucial, policies related to these issues are not sufficient to meet market-specific requirements such as phytosanitary certification for fruit for European markets. In that case, additional public investments are needed for “customized

competitiveness" (Reardon and Flores, 2006) such as phytosanitary certification services of the government as seen in South Africa (Meyer et al. 2021). The determination of the necessary investments can best be undertaken in public-private partnerships (PPPs) and by coordinating and fitting in an integrated framework of "agro-industrial policy" as discussed in Chapter 6.

In contrast, as noted frequently in all the chapters of this AASR, the development of MSMEs, competitiveness of MLEs, and successful functioning of AIPs and blended finance schemes are severely constrained where the "blood and bones" are missing or inadequate. Chapter 2 notes some key constraints observed in the MSMEs reviewed:

- a) Wholesale markets are congested, have inadequate facilities, or are simply missing altogether
- b) Road costs are too high and road quality is too low
- c) Bribes, banditry, and conflict render roads unsafe for transporters and wholesalers and costly for processors
- d) High cost of electricity and fuel shortages hurt all midstream segments
- e) Constraints in water access/supply strangle farm supply to wholesalers and processors

"Managed clusters" often called agro-industrial parks or Special Economic Zones

Where MLEs find that existing market and infrastructural conditions are inadequate or their suppliers need specific physical assets and training and inputs, MLEs (or governments with MLEs as "anchor firms") set up what can be called "site specific favorable conditions". For instance, where small farmers face constraints accessing improved seeds and credit, MLEs can help mitigate by establishing contract farming schemes that provide their suppliers these inputs, hoping to both facilitate the farmers' efforts and "lock them in" as suppliers. As noted above, sometimes this does not work as farmers may "side-sell" to parties outside the contract arrangement.

Another way that site-specific favorable conditions are created is through "managed clusters". It was earlier noted that "spontaneous clusters" often arise when general or site-specific conditions are present but governments and MLEs sometimes wish to create a cluster that meets the needs of supply for their target

market, especially when it is a demanding market like an export market.

Chapter 4 analyzes experiences with AIPs in other regions such as Asia, as well as countries in Africa such as Morocco and Mauritius and Bagre Growth Pole in Bagre region in Burkina Faso and the Senegal River Valley near Rosso. These are characterized by irrigated and high-productivity agriculture linked to processing hubs.

The Chapter finds that it has been a mixed story of both successes and failures in terms of the profitability, competitiveness, sustainability (survival), and extent to which the parks created local spillovers such as employment and local suppliers outside the parks. The outcomes were often conditioned by the adequacy of the "blood and bones" infrastructure underpinning the cluster and the managerial, implementation system, and skills.

At their best, and this is not common as it is difficult to implement, AIPs can be competitive enclaves for demanding markets, especially export markets. They can also provide economies of agglomeration, which arise from firms and farms of different segments of a value chain being collocated (providing the same benefit as the spontaneous clusters noted above) but with the added benefit that an anchor firm and supporters (such as the government) can upgrade the actors to meet demanding standards such as those of European markets. Often, these parks benefit greatly from government investment in special infrastructure, special customs regimes, fiscal and non-fiscal incentives, and sometimes lab and research facilities.

Those very benefits and favors are valuable for the park but then self-generate the "political economy" challenge. All the states want them, do not want to be left out, or one area is favored for political reasons but not for good business, economic, or "market driven criteria" as aptly described in Chapter 4. Economic criteria would for instance have the park situated closest to highways for accessibility and logistical payoff or adjacent to the best farming areas for proximity to the product or existing wholesale markets that would support aggregation and scaling up. These criteria, and the specific kinds of actions they point to, are crucial policy and design recommendations articulated in Chapter 4. The Chapter further contends, as does Chapter 6, that these initiatives should be fit into a coordinated comprehensive "agro-industrial policy".

Beyond the blood and bones for structural and customized competitiveness: differentiated policy drivers for specific markets and firm types

Chapter 3 noted that governments have put in place policies aimed at helping or incentivizing MLEs to shift products, make incremental jumps in investment to supply a new market, and weather the storms of outside competition. Many of these policies are justified with the “infant industry” argument (List, 1856), the basic idea of which is that one protects (say with tariffs) a domestic “infant industry”, thus subsidizing it, allowing it to “get on its feet” and make investments that will make it eventually competitive and not kill it while still young by making it compete unaided with stronger firms that are exporting to the country in question. In today’s jargon the local firms (or even multinational firms operating locally) are given a window of opportunity.

These policies and the caution about these policies are discussed in Chapter 3 and related to the idea of specific “trigger policies” that incentivize MLEs to invest and thus win market share perhaps to continue as strong firms in those sectors thereafter.

For instance, demand and fiscal policy incentives can play a role in promoting this kind of growth. For example, in 2021, Dangote Fertilizer Limited (part of the Nigeria-based multinational Dangote Group) established a \$2.5 billion urea and ammonia fertilizer plant. It is the largest granulated urea fertilizer complex in Africa and supplies the Nigerian market as well as exporting to regional and extra-African markets. Chapter 3 notes that Dangote’s fertilizer facility’s establishment in the Lekki Free Zone (a special economic zone, SEZ) was induced by growing fertilizer demand in Africa and a series of fertilizer price spurts, and further assisted by exemption from income tax, value added tax (VAT), customs duties on raw material imports, foreign exchange controls, and expatriate quotas.

Sometimes the imposition of a tariff policy can play a role in promoting such private sector participation and sector growth. Chapter 3 notes that the Tanzanian Government instituted a policy to promote domestic sunflower seed oil production by placing tariffs on palm oil and crude sunflower oil in 2017 and creating tax exemptions for sunflower oil processing. Pyxus International, a multinational based in the US with subsidiaries in Malawi and Tanzania, then set up a large sunflower contract farming scheme in Tanzania. The authors note that the scheme was subsequently

dismantled at least partly because of “side selling” by contracted outgrowers.

Sometimes policies allow foreign direct investment (FDI) in land and allow foreign firms such as Olam in Nigeria for rice, COFCO in South Africa for maize, soy, sunflower, and cotton, Chayton Africa (now Agrivision) for maize and wheat in Zambia, and so on, to buy or lease land or partner with those who do. The Chapter notes that the firms had an interest in this approach due to a series of world and regional price spikes since the 2007 food crisis. This FDI allows both a rapid “ramp up” of investment in processing and production (and/or assistance to outgrowers). Chapter 3 notes that these land acquisitions have had mixed success; for example, only 28 percent of the land acquired is under production for various reasons. Investors are backing away from this model since the 2021/22 price hike “trigger.”

These policies and cases do not all pertain to grains and pulses and the “big commodities” linked to the world market and to feed for the burgeoning animal product sector in Africa. Chapter 3 gives the example of macadamia nuts in Kenya in where nut production quadrupled as several hundred thousand small farmers producing the nuts exported to Asia. The number of processors jumped from 3 to 33 in the decade of the 2010s. The nut processing sector was “protected” with a ban on raw nut exports which induced a big jump in local processing capacity. The sector ran into problems because of a lack of regulation of wholesalers who compromised the quality of produce and further began smuggling raw nuts to Asia.

Chapter 3 offers the usual (since List’s time in the 1800s) caution that it is important not to help the domestic infant industry long and not to create an artificial environment for it to flourish, the end of which will lead to its immediate elimination in competition or its market reach being confined to the local market because it did not build the needed muscles to compete internationally. Chapter 3 thus emphasizes that there should also be a “sunset clause” to these protection and subsidy policies to properly define the implementation period and time and modalities for exit.

They also note that the policies themselves can turn into a source of risk and worry for the firms. They give an example from Tanzania where the Government put tariffs and other barriers in place for palm oil to help the local (not necessarily domestic) sunflower oil sector but then did not enforce the limits effectively so instead competition and uncertainty increased.

Finance is a key issue for micro, small, and medium enterprises: blended finance is a promising approach

Chapter 5 focuses on a finance gap for MSMEs. It notes that MSMEs consistently identify credit as one of their main constraints. The Chapter cites AGRA's survey of agricultural SMEs in 18 African countries in which access to finance was cited most frequently as the biggest constraint to growth. Indeed, when evaluating over 60 possible areas as potential priorities, five of the top ten selected by agricultural SMEs related to access to finance (AGRA and KPMG, 2023).

MSMEs often self-finance from retained earnings and other income sources of the household or informal finance from family, friends, and traders. However, these funds can be inadequate (or poorly timed) to finance working capital as well as start-up or upgrading investments in new equipment.

The Chapter notes that the formal credit supply that MSMEs receive is not commensurate with their importance in the agri-food sector. It also notes that MSMEs could grow faster and upgrade technology but many struggle to access formal financing to do so. The latter could potentially include commercial banks, non-banking financial institutions (NBFIs), and social lenders in addition to other private capital investors that offer debt, equity, or quasi-equity investments.

Moreover, the Chapter notes that the risk-adjusted returns to lending to agri-food MSMEs are the key deterrent for lenders and investors outside the MSME sector. The very riskiness of MSMEs deters lenders, at least formal sector lenders.

The Chapter notes that “blended finance” has demonstrated its potential to catalyze funding for MSMEs through investors of private capital, public development banks, and microfinance institutions to lend to MSMEs. With the right program design, governments can be effective in applying a blended finance approach and lending through public development banks.

Chapter 5 further explains that blended finance uses development or philanthropic capital to increase MSME returns and/or reallocate risk, thereby mobilizing or “crowding in” additional commercial capital. The development capital entity has to make a business case to potential commercial investors. The entity

provides funds for the MSME to “bridge the gap” but limits itself to that for MSMEs and outside commercial lenders to move the enterprise toward long-term commercial viability.

Blended funding is a bridge, a hand up, and a demonstration effect to other lenders, all with a “sunset clause” so that it does not become an artificial crutch. A transparent learning agenda is key as is ensuring the right coordination, types, and levels of concessionality and evaluating near- and long-term impact. In turn, blended finance entities become a valuable part of the ecosystem for impact-oriented investors and commercial funds whose investment potential for MSMEs is unlocked by the bridging.

The Chapter emphasizes that these approaches cannot work without the “blood and bones” conditions discussed above that set the stage for MSMEs to effectively use any available credit.

The need for a two-pillar overarching strategy for policy

It was noted earlier that the primary policy recommendations emerging from the report relate to the need for governments to double down on the fundamentals—the so-called blood and bones of the food system relating to the basic hard and soft infrastructure that helps MSMEs and MLEs have structural competitiveness and grow the adapted and differentiated infrastructure. These include phytosanitary regulations and services that help firms enter and effectively compete in export markets and targeted special policies, like those relating to AIPs, that can help with the two types of competitiveness—for exports markets especially and only if well implemented and blended finance where the business case for this approach can successfully be made to investors.

This vision of understanding what the domestic, urban, and export markets require of MSMEs and MLEs in a particular context involves the pole of the dual perspective of structural and customized competitiveness. This is crucial for Africa's private sector to effectively adapt to rapidly evolving domestic and foreign differentiated markets in which there will be increasing competition over firm scales, over zones within a country, among African countries, and between Africa and the East, and Africa and the West.

The second pole is the vision laid out in Chapter 6 highlighting the need to evolve policymaking toward an integrated and coordinated “agro-industrial policy” approach. This does not mean putting major investments in the blood and bones on hold until a grand vision is rolled out. It means introducing a far greater degree of three kinds of coordination as fast as possible in complicated political economy governance settings, namely:

- a) formulation of an “agro-industrial policy” framework for coordination
- b) coordination among ministries,
- c) coordination between governance levels (national, state, municipal), and
- d) coordination between government and private sector AVC associations.

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