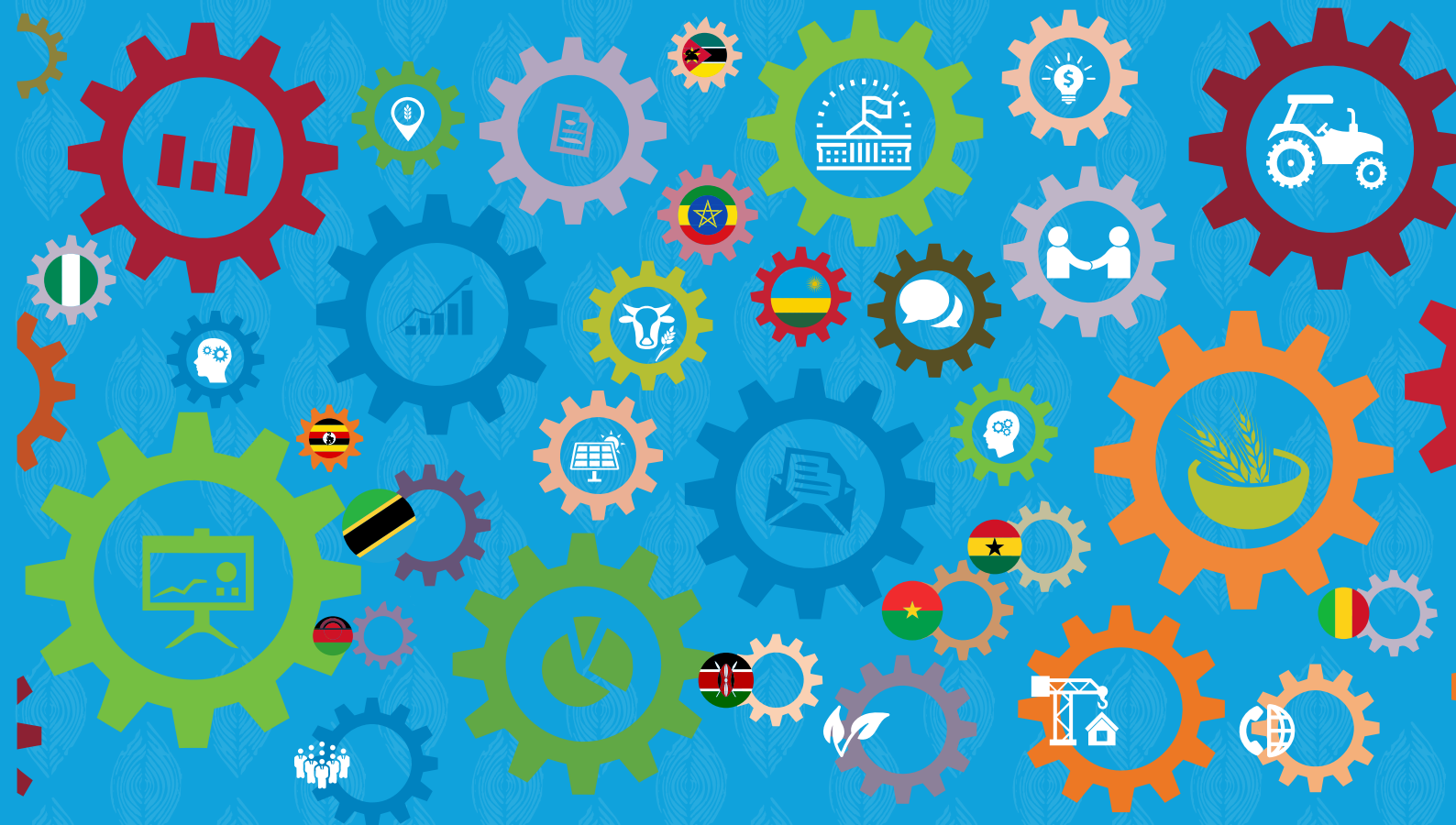




AFRICA AGRICULTURE STATUS REPORT 2018

Catalyzing Government Capacity
to Drive Agricultural Transformation





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Foreword

Agriculture is key to Africa's future. The continent has most of the world's arable land, over half of the African population is employed in the sector, and it is the largest contributor to total gross domestic product (GDP). Yet, Africa is still producing too little food and value-added products. Productivity has been broadly stagnant since the 1980s. Despite recent efforts to increase investment, it is still too slow. These facts are not lost on most African leaders, but as with most development issues, it is not a question of what needs to be done, it is how. Too little attention is paid to capacity and how governments can implement reforms. This is what this report sets out to do—and it is an important contribution to the debate.

Throughout history, agriculture has been the foundation for economic transformation. Revolutions in agriculture have kick-started those in industry and driven development in Europe, North America, South America and Asia. Different factors have driven each of these, including technological progress, increased technical skills, changes to regulation and even changing consumption patterns. But in each instance one factor has always been evident: strong government leadership.

Africa is heading in the right direction. Countries such as Botswana and Morocco are leading the way, as are many of the nations where my Institute works, including Côte d'Ivoire, Ethiopia, Ghana, Kenya, Rwanda and Senegal. Their governments are putting in place the reforms necessary to unlock agriculture's potential. These include access to land, new technologies, extension services, market access, access to finance, and private sector investment facilitation. To deliver these policies, these nations are also investing in building state capacity. But as the continent's population is projected to double in the coming decades, it is crucial now that Africa's agricultural transformation shifts into gear.

To do this, leaders need the right kind of support. It must be government-led and must be more than a well-written strategy put down on paper. It must also focus on the hard work of turning the vision into tangible results. Development assistance will always fall short unless it also strengthens a nation's capacity to govern. Because what countries need is not really the hard part; how they get there is. This is what I work on in Africa today, because all leaders will tell me: they understand the concept of inclusive growth, but the difficulty is on delivering it.

This report raises the tough questions that accompany the challenge of delivery. It looks at how to translate visions into reality; how political leaders can build buy-in to what they are trying achieve, often in limited timeframes; how to plan and align resources; and how to manage the various obstacles, distractions and challenges that will always arise and often derail even the best laid plans. It also looks at how you create the right conditions and set out a clear and coherent policy framework which enables the private sector, supports smallholder farmers, and builds a coalition with civil society and development partners.

All of these are tough challenges, but this report goes a long way to answer

many of them. It serves as a handbook for governments and their supporting partners to help them transform agriculture, and economic transformation more broadly, in Africa. Many people contributed, under the leadership of AGRA and the African Union, to this important research. Particular praise should also go to President Paul Kagame for his leadership on this issue and for hosting the conference in Kigali, Rwanda. By taking on many of the recommendations, countries in Africa can build on the reforms already being undertaken, create jobs, improve livelihoods, ensure food security and modernize agriculture thereby delivering Africa's overdue agriculture revolution.

A handwritten signature in blue ink that reads "Tony Blair". The signature is written in a cursive style and is positioned above a solid blue horizontal line.

The Rt. Hon. Tony Blair

Executive Chairman of the Institute for Global Change
Former Prime Minister of Great Britain and Northern Ireland


Preface

The role of the state in driving agricultural transformation is widely acknowledged across the world. In Africa, this was best illustrated when leaders and governments committed themselves in 2003 in Maputo to drive agricultural transformation through the Comprehensive Africa Agriculture Development Programme (CAADP). This commitment was renewed in 2014 in Malabo, Equatorial Guinea. Countries have gone a step closer and domesticated this continental framework through national agriculture plans and strategies. These frameworks have clarified what needs to be done across the continent and in countries to ensure agricultural transformation. However, except for a handful of countries, progress has generally been slow mainly because many countries, despite the willingness to do what is right, grapple with capacity challenges that hinder their ability to design and implement a transformative agenda.

Over the past few years, the Alliance for a Green Revolution in Africa (AGRA) has been working within the CAADP framework in partnerships with countries, the African Union (AU) and other players in the

sector to trigger an inclusive agricultural transformation at continental scale.

Our experience and lessons have shown that impact can be achieved faster by supporting countries to deliver on their own transformation, driving scale through a well-planned and coordinated approach to resources in the public domain. This body of work in AGRA acknowledges the centrality of governments in driving transformation. It recognizes that delivery of programs is anchored in a country's capacity to plan, set priorities, coordinate the stakeholders, including development partners and the private sector, and the ability to support development of an effective enabling policy and regulatory environment for the private sector. To this end, AGRA now works with governments to strengthen the agriculture sector through support to improve critical processes in the areas of planning, coordination and implementation. AGRA also supports development of effective accountability systems; mobilization of resources in countries for implementation of national strategies; and strengthening the enactment of enabling policy environment to grow the role of the private sector.



The experiences and lessons from this work have motivated the publication of this report to provide a set of recommendations of approaches that are working. One of the key findings of the report is that African countries understand what should be done to trigger transformation, but are faced with capacity constraints that limit their ability to implement transformation. Moreover, limited published information exists to guide countries and their partners on how to strengthen their capacity for implementation. This report aims to shed light on what governments could do and to highlight that strengthening government capacity is critical to implementing an agricultural transformation.

The report clarifies that implementing an agricultural transformation would occur in many places, not only across different ministries and government agencies, but also at many points within the private sector. Through eight chapters written by experts in their respective fields, the report addresses how to strengthen government capacity to implement agricultural projects at each of these points.

The report emphasizes mutual accountability, recognizing that holding all stakeholders including governments accountable to the progress of implementation and delivery is central to agriculture sector performance.

This publication is a product of profound scholarly and scientific work that I hope will stimulate intense discussions, agreements, criticisms, and productive synthesis of ideas that will lead us forward. I hope the report will be of interest to policy makers, private sector, civil society, media, academic institutions, and other stakeholders that are particularly interested in implementation and supporting government capacity strengthening for agricultural transformation in Africa. The timing is right and I believe that the findings of the report will contribute to the growth of Africa's agriculture sector as the surest path to inclusive economic growth and jobs creation.



Dr. Agnes Kalibata
President, AGRA

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Daudi Sumba

Head, Monitoring & Evaluation/Knowledge Management

Acronyms

AASR	Africa Agriculture Status Report	ECOWAS	Economic Community of West African States
AATS	Africa Agricultural Transformation Scorecard	EDPRS	Economic Development and Poverty Reduction Strategy
ADLI	Agricultural Development Led Industrialization	EU	European Union
AfDB	African Development Bank	FAO	Food and Agriculture Organization of the United Nations
AGRA	Alliance for a Green Revolution in Africa	FBO	Farmer-Based Organization
ALMA	African Leaders Malaria Alliance	GAFSF	Global Agriculture and Food Security Program
AOI	Agriculture Orientation Index	GDP	Gross Domestic Product
APRM	African Peer Review Mechanism	ICT	Information and Communication Technology
ASCU	Agricultural Sector Coordination Unit	IFAD	International Fund for Agricultural Development
ASDS	Agricultural Sector Development Strategy	IFPRI	International Food Policy Research Institute
ASGTS	Agricultural Sector Growth and Transformation Strategy	IMF	International Monetary Fund
ASTI	Agricultural Science and Technology Indicators	IS&R	Implementation Strategy and Roadmap
ASWG	Agriculture Sector Working Group	JSR	Joint Sector Review
ATA	Agricultural Transformation Agency (Ethiopia)	JSRC	Joint Sector Review Committee
AU	African Union	M&E	Monitoring and Evaluation
AUC	African Union Commission	MA	Mutual Accountability
BR	Biennial Review	MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
BSWG	Budget sector working groups	MAF	Mutual Accountability Framework
CAADP	Comprehensive Africa Agriculture Development Programme	MAFAP	Monitoring and Analyzing Food and Agricultural Policies (FAO)
CSO	Civil Society Organization	MFPED	Ministry of Finance, Planning and Economic Development
DANIDA	Danish International Development Agency	MINAGRI	Ministry of Agriculture and Animal Resources (Rwanda)
DFID	Department for International Department (UK)	MINALOC	Ministry of Local Government (Rwanda)
DSIP	Development Strategy and Investment Plan	MINECOFIN	Ministry of Finance and Economic Planning (Rwanda)
EBA	Enabling the Business of Agriculture (The World Bank)		



MIRA	Micro Policy and Regulatory Reforms for African Agribusiness	PER	Public Expenditure Review
MTEF	Medium Term Expenditure Framework	PFA	Prosperity for All (Uganda)
NAADS	National Agricultural Advisory Service (Uganda)	PforR	Program-for-Results
NAIP	National Agricultural Investment Plan	PMA	Plan for Modernization of Agriculture (Uganda)
NARO	National Agricultural Research Organisation (Uganda)	PPP	Public-Private Partnership
NARS	National Agricultural Research System	PSTA	Strategic Plan for Agriculture Transformation
NEPAD	New Partnership for Africa's Development	R&D	Research and Development
New Alliance	New Alliance for Food Security and Nutrition	REC	Regional Economic Community
NGO	Non-governmental Organization	ReSAKSS	Regional Strategic Analysis and Knowledge Support System
NHA	National Health Accounts	SIDA	Swedish International Development Cooperation Agency
NPCA	NEPAD Planning and Coordinating Agency	SPIU	Single Project Implementation Unit
NRA	Nominal Rate of Assistance	SRA	Strategy to Revitalise Agriculture (Kenya)
NRP	Nominal Rate of Protection	STC	Specialized Technical Committee (AUC)
NUC	National Dialogue (Umushyikirano) Council	SWAp	Sector-Wide Approach (Kenya)
ODA	Overseas Development Assistance	SWOT	Strengths, Weaknesses, Opportunities, Threats
OECD	Organisation for Economic Co-operation and Development	TFP	Total Factor Productivity
PC	Performance Category	TWG	Thematic Working Group (Kenya)
PEAP	Poverty Eradication Action Plan	USAID	United States Agency for International Development
PEFA	Public Expenditure and Financial Accountability	WHO	World Health Organization



1 Introduction

John W. Mellor¹

The broad outlines of what governments throughout Africa need to do to achieve an agricultural transformation are known (see Box 1.1). With implementation, the countries of the continent will receive the major contributions to increased farmer's income, large-scale reduction in rural poverty, overall economic growth, and economic transformation from a largely rural to a largely urban economy. What remains is to strengthen government capacities to implement the stated requirements. That is the purpose of this monograph.

Agriculture is a predominantly private sector activity, including farming, input supply and marketing businesses. However, the success of these private sector institutions, and hence of the agricultural transformation, is determined by national government institutions, investments, and policies. Favorable developments in these areas bring rapid agricultural growth and all its benefits. Poor government performance brings the reverse. The past norm in African countries has been poor governance with respect to the agricultural transformation.

Poor government performance has been in part associated with past foreign aid efforts at reducing the size and scope of government. Those policies fell harshly on the agriculture sector, which depends heavily on government actions, and thereby inhibited the growth of the small-scale commercial private sector that dominates the sector. Fortunately, more recently

these foreign aid policies appear to have been reversed. However, the quality of governance continues to be poor in many African countries and its improvement is a central theme of this report.

The consequence of the poor agricultural performance has been stagnating real incomes of farmers, stagnating and often increasing rural poverty, and urbanization concentrating in one or two largest cities rather than being regionally dispersed over many urban centers. For a few countries, this situation has turned around. African success stories exist such as Ethiopia and, to a lesser extent (in terms of length of period of rapid growth), Rwanda and Ghana. Now many African national leaders have expressed intentions of achieving accelerated agricultural growth with all its benefits.

Central to accelerating agricultural growth is improving the productivity of the small-scale commercial farmer—above subsistence level, but not urban-oriented like the large-scale farms, and producing approximately 85% of agricultural output. They make their living from farming, want to increase their incomes, are commercial, are not poor, and can bear some risk and put up some capital for growth. They are also the drivers of rural poverty reduction. What actions are needed to put the small-scale commercial farmer on the path to sustained, rapid growth in income and production? How will they be implemented?

¹ Professor Emeritus, Cornell University, and President of John Mellor Associates

Box 1.1: Economic and agricultural transformations

Economic transformation refers to the transformation of a low income economy which is dominantly agricultural (40% to 70% of the gross domestic product (GDP) from agriculture) to one that is dominantly manufacturing and services, with agriculture receding to less than 10% and eventually to only 2%. Concurrently the population shifts from predominantly small towns and rural to dominantly cities and urban.

Rapid growth in agriculture, because of the associated consumption patterns, speeds economic transformation and channels relatively more of the urbanization to growing small towns, and eventually a dispersed pattern of urbanization. Growth in foreign trade may also accelerate the economic transformation.

Agricultural transformation is the shift of agriculture from largely subsistence, and often underutilization of land and labor on the larger farms, to commercial agriculture with the dominant small-scale commercial farms producing a large and growing proportion of their crops for sale. Two forces drive agricultural transformation. First, rising labor productivity increases production beyond subsistence. Second, improved infrastructure, especially roads, increase the availability and decreases the cost of a wide range of attractive manufactured consumer goods as well as increasing profitability of new technology.

Increasing agricultural labor productivity, normally associated with increased land productivity, arises from accelerated technological change driven by investment in modern science, in substantial part from public sector institutions. The public sector is largely responsible for infrastructure investment.

In the context of change to rapid agricultural growth, Ministries of agriculture have a major role to play, but they are by no means the only institutions involved. Other government departments also have essential roles, and government action on institutional development, investment, and policy is critical. Numerous national and international agencies provide not only financing but also technical assistance to implementation. Coordinating these efforts is difficult but essential if they are to contribute effectively to accelerated agricultural growth. This report is dedicated to strengthening and coordinating government capacity to implement agricultural transformation in these several areas.

Sustained rapid agricultural growth requires many actions spread broadly through the

government, international agencies and private sector actors. This report analyzes the requirements for implementation across this broad set of activities and institutions. However, a few priorities stand out that can bring early results. This report pays special attention to these since they are central to the long-run effort as well.

The short-run priorities include the research extension system focusing on a few profitable innovations that are farm ready; ensuring a supply push of fertilizer at a high growth rate; and likewise on improved seed varieties. Following closely behind these is providing specialized finance attuned to the special needs of the small-scale commercial farmer.

The African Union's blueprint for rapid agricultural growth

The African Union (AU) sponsors a large, highly professional, continuing development of an Africa-wide blueprint for accelerated agricultural growth—the Comprehensive African Agricultural Development Programme (CAADP). The Heads of State of all African countries have signed off on it and it has formed the basis for agricultural growth strategies in those countries. CAADP quantified national targets of 6% agricultural growth rate; 10% of national budgets to agriculture; and 1% of agricultural GDP to agricultural research. Yet few African countries have come even close to

meeting these targets. They are expected to be the national targets as more and more African countries commit to accelerated agricultural growth. They are the targets in this report.

Box 1.2 and Appendices A, B, and C provide detail on three very different cases of agricultural growth. Ethiopia, a major success in agricultural growth with 25 years of exceeding the CAADP target of a 6% growth rate, with consequent halving of rural poverty, carefully patterned its strategy and plan on the CAADP model (Box 1.2 and Appendix 1A). Ghana emphasized its large tropical export potentials (Appendix 1B). Rwanda (Appendix 1C) has also followed CAADP precisely.

Box 1.2: Ethiopia as a success story in agricultural growth

Ethiopia, for the past 25 years, has consistently exceeded the CAADP target of 6% growth in the agriculture sector. The government consistently made CAADP the core of its agricultural plan. The country is a test of CAADP and a success story for replication to other African countries.

Several observers think the Ethiopia record is “too good to be true.” This requires a thoughtful response.

The CAADP target of 6% was chosen as reasonable for sub-Saharan Africa after lengthy and careful analysis of potentials.

Ethiopia has a highly professional national statistical service headed throughout most of this period by a well-trained, highly regarded professional known to insist on accurate statistics. No one would question her professionalism. She and other government officials have been explicit that she is left alone to generate accurate growth statistics and other statistics essential to monitoring and evaluation. This professionalism and adequate budget allocation create good data. The basic data are from scientific sampling and crop cutting.

The World Bank conducted a massive analysis with data independent of the agricultural production data on change in poverty levels and documented that poverty dropped in half during this 25-year period. This is consistent with the 6% growth rate in the agriculture sector, the driver of rural poverty reduction, and so confirmed the key role of 6% agricultural growth in that process.

The growth path of each individual commodity component was consistent with the respective years growing conditions.

(For detailed analysis of the growth rate, see Mellor (2014); for a case study on agricultural transformation in Ethiopia, see Appendix 1A).

The small-scale commercial farmer as central to rapid agricultural growth and poverty reduction

Small-scale commercial farmers are defined as those, at a minimum, with landholdings large enough to exceed a subsistence level of living but not large enough to be urban oriented in their consumption patterns. They are not poor, are commercial, and are focused on improving their welfare from farming, can take risks, and can provide some capital for growth. They produce approximately 85% of Africa's agricultural output, with rural non-farm households, including subsistence farmers (enough land or less to provide a subsistence level of living,) and large-scale farms splitting the remaining 15%. Agricultural growth and transformation center on increasing the efficiency and productivity of the small-scale commercial farmer.

This definition differs from that defined in the AGRA Africa Agriculture Status Report (AASR) 2017 (see Box 1.3) in setting the lower size limit as above subsistence. That roughly implies selling approximately 30% of their agricultural production rather than the 50% indicated in the AASR 2017 definition (AGRA, 2017a). This significantly increases the share of

output in the small-scale commercial farmer context. A major contribution of AASR 2017 was the multiplicity of subclasses defined that facilitates a wide range of objectives. The focus of this report is on agricultural growth, the agricultural transformation, and their role in poverty reduction and hence requires a single, but broader definition.

Rural non-farm households live largely below the poverty line; those below the poverty line are largely in the rural non-farm sector. They produce a wide variety of labor-intensive goods and services, including improved housing, local furniture and a wide range of services. The products of the rural non-farm sector are non-tradable, meaning that they are sold only within the rural community. Rural poverty must be reduced within this sector. Subsistence farmers obtain about half their income from non-farm sources so they and the rural landless are all counted as rural non-farm.

In a traditional context, with poor physical infrastructure and education, many of the small-scale commercial farmers operate at low levels of labor input and consequent low monetary income, preferring more leisure in the face of low labor productivity in farming and poor incentive to earn income

Box 1.3: AASR definition of commercial small farms

The AASR (2017) defined commercial small farms as those selling 50% or more of their production. They are further sub-divided into specialized commercial farms if their non-farm income share is less than 33% and diversified commercial farms otherwise. It also outlines the type of assistance:

- Better technologies and natural resources management (NRM) practices
- Organizing farmers for marketing purposes
- Incentivizing large agribusiness to link with small farms
- Accessing seeds, fertilizer, finance and insurance on commercial terms
- Securing land rights and development of efficient land markets
- Encouraging entrepreneurship
- Building resilient farming systems

Source: AGRA (2017a)

for purchasing the sparse set of available consumer goods. With improved infrastructure and education, they want to increase their incomes through increased agricultural production and to spend it on a wide variety of goods and services. The dispersion in labor utilization decreases, as does that for crop yields (Mellor 2017.)

The AASR 2017 outlined types of largely income transfer assistance for the subsistence farmers (AGRA, 2017a). These included: social protection, safety nets and transfers; better and low-cost technologies and various practices; securing land rights; building resilient farming systems; empowering women and other vulnerable groups; and support to non-farm diversification. However, the core source of growth-based continuous increase in prosperity for these households lies with increased agricultural production and hence income of the small-scale commercial farmers and their large expenditure on the rural non-farm sector. This relation is dominant in several cross-national macro studies (for full citation see Mellor, 2017).

Small-scale commercial farmers spend half their incremental income on the local, rural non-farm sector. These purchases are the principal source of income for the rural non-farm sector and hence of the rural poor (Mellor, 2017).

The expenditure by small-scale commercial farmers increases employment and incomes in the rural non-farm sector and hence of the poor. Increased agricultural production reduces poverty by the increased spending of the small-scale commercial farmers. This is the dominant means of rural poverty reduction and explains the numerous macro data, cross-country studies that show agricultural growth reduces poverty.

At the time of the Green Revolution in Asia, there was misplaced criticism that production on small-scale commercial farms did not reduce rural poverty. That was because of the

lag between production increase and reduction of poverty. However, the initial observation of little poverty impact of agricultural growth brought a shift in foreign aid, to emphasizing the lowest income, largely subsistence farmers with a consequent poor growth record and only small impact on poverty reduction. The impact of that shift in foreign aid fell heavily on African countries that were later in their development than most Asian countries. The emphasis for both growth and poverty reduction needs to shift back towards the somewhat that different needs of the small-scale commercial farmer. Of course, subsistence farmers should not be excluded from these efforts.

The impact of rapid agricultural growth

When agriculture grows at the CAADP mandated rate of 6% per year, rather than the norm without government interventions of 3%, net farm incomes grow at nearly 6%. This stimulates rapid growth in employment and incomes in the rural non-farm sector. These activities gradually migrate to the market towns with a consequent dispersion of urbanization (Mellor, 2017.)

Government institutions, investments and policies as the basic sources of rapid agricultural growth

Rapid agricultural growth occurs when the bulk of small-scale commercial farmers make decisions to apply a steady stream of science-based innovations, make investments that increase their net incomes, and increase their labor input. The farmers then become financially prosperous. Profitable science-based innovations are largely generated in public agricultural research institutions and their public sector extension programs connect farmers with the research results and, just as important, researchers with farmer's problems.

While small-scale commercial farmers can finance some of the required capital, full adoption requires credit. In most of the world, the credit is designed to meet the special needs of small-scale commercial farmers through quasi-governmental institutions, often called agricultural development banks. They have been largely absent in Africa, and African small-scale commercial farmers are largely unserved by institutional credit. The needs of large-scale farmers are met by commercial banks, and those of subsistence farmers by micro-credit. Currently, in African countries neither of these is closely oriented to the needs of small-scale commercial farmers. In most of the world, specialized agricultural development banks meet a substantial proportion of those needs. Over time, commercial banks and micro-credit institutions provide desirable competition for the agricultural development banks.

Innovations are made profitable by public investment in education and physical infrastructure of roads and electrification. These investments also increase the incentives for farmers to increase income by enlarging consumption choices. These investments are a large part of the required public investment in the agricultural transformation.

An increasing number of institutions exist in the area of strengthening institutional and policy capacity for national governments. AGRA is one of the key actors and its current operations in this space are summarized in Box 1.4.

Complexity of implementing the agricultural transformation

While the objectives of the agricultural transformation are simple to describe the requirements and processes of implementation are exceedingly complex. Thus, the approach to this report was to commission six major scholarly papers from experts in the six fields essential to effective implementation.

These authors, fully familiar with the large literature and research effort in their fields, reviewed the literature in detail and synthesized from their own knowledge and the references an integrated statement and a clear set of recommendations for improved implementation. The papers were intensively reviewed by panels of experts and practitioners and then revised. This work comprises Chapters 2 through 7 of this report.

Overview of the report

As stated, this monograph is centered on how to describe, facilitate, amend, and speed the **implementation** of measures to accelerate the agricultural growth rate in Africa. While the final stage of implementation is by private sector farm households and agribusinesses, the key enabling institutions are largely public sector. The next six chapters provide detailed analyses of key elements of implementation. The requirements of implementation vary according to what is to be implemented so the chapters also provide a brief treatment of what is to be implemented.

Political will (that the politicians want to) is the prerequisite to implementation to achieve national objectives. Description of a “lack of political will” has been prominent in the analyses of poor agricultural performance in African countries. Chapter 2, *Fostering Political Will to Drive the Agricultural Transformation*, not only describes the problem but also delineates the conditions for positive political will and the means of its enhancement.

Given political will to achieve rapid agricultural growth and transformation the first step in implementation is to have a national vision leading to strategy and then to priorities. This is required because of the size and complexity of the constituencies required for an effective multi-sectorial push for agricultural transformation and growth.

Box 1.4: AGRA's Theory of Change to government support

AGRA was founded in 2006 to trigger a uniquely African Green Revolution, one that would learn from and build on previous revolutions elsewhere. At the time, the outlook for African agriculture was bleak: food security, livelihoods and farm productivity were deteriorating; international and domestic investment in agriculture were low; few actors in regional and national systems had the capacity to deliver; and there was no strong advocacy voice for change. During the first decade of its existence, AGRA's vision and strategy was to: (i) design technologies and delivery systems that were appropriate to the complex agro-ecologies of the continent; (ii) put smallholder farmers first on the agenda, while promoting sustainability and advancing equity; (iii) build capacities of institutions around the farming environment to deliver on improved agriculture; and (iv) strengthen the technical capabilities of research and development (R&D) institutions. For instance, AGRA supported over 400 projects in areas of seed systems development and supply of quality seeds, soil health and fertility management, development of storage infrastructure, modernization of market information systems, capacity strengthening for farmer organizations, access to finance by value chain players, and improvement of policy and regulatory frameworks in favor of African smallholder farmers. In addition, AGRA contributed to building professional capacity available to both the public and private sectors. Today there is a newfound belief in African agriculture. In recent years, the private sector has joined the effort, marking the beginnings of a private sector-led, government-enabled African green revolution. The continent has seen crop yields rise significantly in many food insecure parts of the continent, though gaps still exist for most staple food crops. AGRA has contributed significantly to the recent progress and positive outlook of the continent over the last 12 years of its existence.

Despite the positive outlook, there remains significant need for improvement to achieve an inclusive agricultural transformation: (i) agricultural growth is still too slow and yield increase too marginal; (ii) food security is not yet sustainable in most places; (iii) new challenges such as climate change, pests and diseases threaten progress, etc. Addressing the unfulfilled potential of agriculture is therefore an imperative for Africa. An evaluation carried out on AGRA's past investments in the African agriculture sector over the first 10 years concluded that agricultural transformation requires an integrated delivery approach across an ecosystem of partnerships at national, systems and farmer levels (AGRA, 2017b). Another lesson learned was that resources are not always the constraint in most countries; it is often more important how existing resources work together. In fact, multiple initiatives exist in country agriculture sectors, but there is a lack of integration and coordination of investments by governments, development partners, private sector, and implementing partners against a shared country plan. These lessons and many more have informed AGRA's current strategy, one that places government support at the heart of its business model. AGRA believes that impact can be achieved faster by supporting countries to drive and deliver on their own transformation.

AGRA's current government support work builds on the following six major lines of support (AGRA, 2017c):

- (i) **Stimulating a strong political will.** Under this line of support, AGRA endeavors to influence building political will at all levels so that agricultural transformation becomes a demonstrably high priority in the national development agenda.
- (ii) **Enhancing country visions, sector strategies and/or plans and flagship programs.** This line of support requires AGRA to work with governments and partners to ensure a country has a sector strategy aligned to its vision that has a prioritized and costed investment plan, and flagship programs to drive the sector growth.
- (iii) **Creating an enabling policy environment.** This entails AGRA supporting governments to articulate alternative policy options through analyzing cost and benefits of reform, thus making them better placed to assess and approve policy changes based on reliable and relevant evidence.
- (iv) **Strengthening government capacity for program implementation and delivery.** Under this area, AGRA works with governments to strengthen their capacity and capability to increase service delivery and execute on commitments made in national sector strategies and investment plans.
- (v) **Supporting stronger sector coordination.** AGRA works with development partners and other sector stakeholders to strengthen intra- and inter-ministerial coordination, as well as strengthening key coordination platforms such as the donor working groups and the agriculture sector working groups.
- (vi) **Enhancing accountability mechanisms.** Under this component AGRA, in collaboration with other in-country partners, works to support governments as they put in place mechanisms and systems to recognize and appreciate performance of their agricultural sector against key commitments agreed upon, especially the Malabo Declaration.

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Source: Adapted from AGRA (2017c)

This in return requires the explicit backing of the Head of State. Thus, Chapter 3 is *Enhancing Country Vision, Strategy, and Prioritized Plans*. The chapter not only highlights the importance of vision and strategy but also details how they may be developed and how they lead to the basis for essential priorities and sequences for implementation.

The supporting businesses for providing inputs and marketing output require support from government. Chapter 4, *Agribusiness Enabling Environment for Agricultural*

Transformation, is largely based on a broad ranging questionnaire administered to a large sample of agribusiness personnel. They gave first emphasis to the full range of government support required by the small-scale commercial farmer. This determines the volume on which their business operates. In a favorable context for growth by the small-scale commercial farmer, agribusiness can then effectively utilize direct support from the government the details of which are covered in this chapter.

Chapter 5 indicates that a wide range of institutional structures is required for achieving the vision and pursuing the strategy. Thus the chapter *Strengthening Implementation Capacity and Delivery Mechanisms* details the public sector institutions essential to success. The chapter enlightens the reader as to why those institutions are now so deficient in Africa and what needs to be done to bring them up to speed. Part of the problem was a period, now ended, of substantial downsizing of essential institutions for the agricultural transformation by foreign aid focused on growth of the private sector and not recognizing the complementarity between government institutions and rapid growth of the private sector supporting agricultural transformation.

The preceding chapters analyze the multiplicity of institutions and agencies required for achieving an agricultural transformation. At least initially, this requires formal coordination mechanisms to ensure that each of the functions is provided in an integrated manner. Eventually much of coordination among small sets of institutions becomes institutionalized and the overall coordinating body may wither away. Chapter 6, *Enhancing Coordination in the Agricultural Sector*, treats these issues.

Finally, the question arises about how the effort is proceeding as a basis for corrective actions. CAADP has been the basis for planning and has set up a complex set of procedures for accountability. Hence, Chapter 7: *Mutual Accountability Mechanisms* focuses on the design of these procedures and their institutional structure for implementation. Along the way, it provides a view of the current state of actions for agricultural transformation in African countries.

Chapter content

Chapter 2: *Fostering Political Will to Drive Agricultural Transformation* defines political will as “the extent of committed support among key decision-makers for a particular policy solution to a particular problem.” Political will is separated into seven components, each of which is analyzed in terms of its impact on the agricultural transformation. Several measures of the strength of political will are presented. The most common is percentage of agricultural expenditures in total government expenditure. The inadequacies of the most common measures are stated. As an alternative, attention is given to the level of investment in agricultural R&D. This makes sense given the centrality of research and extension to the progress of agricultural transformation and the growth rate. At various points in the analysis, the question of the role of democratization is discussed. Consistent with other chapters, its role is seen as substantial and is analyzed in some detail. This analysis gives special attention to the major role democratization has played in explaining the shift, now common in African countries, from taxing to subsidizing agriculture.

The chapter closes with a major section on strategies for strengthening political will in support of agricultural transformation. One set of strategies targets the government institutions involved in agricultural policy making and implementation. The second set of strategies aims to strengthen the ability of citizens, particularly farmers and their organizations, to demand better policies and services and to hold politicians and service providers accountable.

Chapter 3: *Securing a Strong Country Vision, Strategy, Prioritized Plans and Flagships* begins with the point that vision comes from the mindset of the nation's elites. Elites come from

many walks of life, including government, private sector businesses, non-governmental organizations (NGOs; both national and international), and farmers. Of course, the vision must eventually be sold to all citizens, but the vision itself comes from the elites and their context.

Strategy is the path to fulfilling the vision and arises from the elites, with the public institutions normally providing the mechanism for converting vision to strategy. The exposition is clear that limited resources require priorities within the strategy and again public institutions are central to setting these priorities in that context. The chapter emphasizes that agricultural growth and transformation is a multi-sectorial task, and therefore the analyses and implementation requires coordination across many ministries.


The authors stress the importance to success in the agricultural transformation of the growth of strong government and strong institutions. Ethiopia is used as a striking example of leading from both. This leads to discussion of how to proceed and what can be accomplished in the face of weak government and institutions, the norm in Africa. Finally, the chapter emphasizes the need for institutional structures to collect and curate high quality data to ensure modification that may be required as impact occurs and circumstances change.

Chapter 4: *Agribusiness Enabling Environment for Agricultural Transformation*. Many private sector firms provide the purchased inputs and market the production from the small-scale commercial farmer. The agricultural transformation involves rapid growth in use of purchased inputs and in marketed output. The private firms must increase greatly in number and in size of business to meet these burgeoning needs. Chapter 4

presents the results from large-scale survey of agribusinesses in sub-Saharan Africa. It is striking to see the emphasis these business place on large-scale assistance by the government to many aspects of support for the small-scale commercial farmer. They are clear that all elements of the agricultural value chain need government encouragement and support. They cover all of the elements set forth in the six core chapters of this report. This seems natural given that the key determinant of growth for supporting agribusiness is the volume of agricultural output. However, the survey also sets forth substantial areas in which government assistance directly to agribusiness is important to the overall growth. The authors emphasize the need for sound macroeconomic policy as well as a wide range of institutional rules and arrangements in a wide range of areas.

The World Bank, AGRA, and others foreign assistance agencies have mounted many programs to assist private sector firms to support agriculture and have conducted intensive analysis and diagnostic efforts. The World Bank's Enabling the Business of Agriculture (EBA), Micro Policy and Regulatory Reforms for African Agribusiness (MIRA), and Monitoring and Analyzing Food and Agricultural Policies (MAFAP) are outstanding and discussed at length in this chapter.

Chapter 5: *Implementation and Delivery Capacity for Agricultural Transformation* deals with the public sector institutional requirements for the agricultural transformation. The context for understanding what is required is set by describing the foreign aid emphasis (stated above) on reduction of government agricultural programs in the context of a focus on private sector taking over of such activities. Most important was the reduction of the public sector extension system so essential to linking farmers with the public sector technological



change institutions, representing the core of the agricultural transformation effort. The chapter argues that these actions set back agricultural transformation in Africa by about three decades.

As governments rebuilt capacity, they did so in the context of weak governments and weak government institutions and a multiplicity of agencies, mostly non-governmental, spawned by the foreign aid institutions and the non-governmental agencies, often foreign, through which they worked. In that context, local government agencies took over many of the functions normally provided by central governments. Turning loose the private sector where it was institutionally strong proved productive, but that was not the case generally in Africa. Farmers were not organized, which limited their capacity to pick up critical functions. Donors were of course powerful in that context of weak government but they were uncoordinated in their efforts. The result was a plethora of agencies and actions with considerable overlap and other inefficiencies.

The NGOs in which donors placed much reliance were not only uncoordinated but also covered only small areas of a country compared with the national impact when governments were strong.

The chapter concludes with discussions of solutions to these problems and cites Rwanda as a case that did well despite problems, and Liberia as an example of the worst effect in the context of weak ministries.

Chapter 6: *Strengthening Coordination across Ministries and Agencies* is seen as requiring, at least initially, complex coordination across not only ministries within government but across a wide range of NGOs and institutions. Such broad coordination requires the active support of the highest levels of government. Lack of such overt support is a particularly common source of failure.

Because of the complexity of the issues, a major portion of the chapter is devoted to three diverse case studies—Uganda, Kenya, and Rwanda. These surveys emphasized the need for increased prioritization of agriculture by government and intensification of interaction between the government and agribusiness leaders to ensure that policy responds to the needs of farmers and the agribusiness complements. The respondents noted that African countries lag behind those of other regions with respect to rules and regulations that positively impact the business environment for agriculture.

Chapter 7: *Mutual Accountability in CAADP and Agricultural Transformation* focuses on the up and running CAADP based accountability system. Although the initial intent of the chapter was to broadly cover a wide range of external (to national governments) accountability systems, the focus turned to CAADP as the now dominant and most effective system. CAADP, as is clear in Chapter 3, provides the basic blueprint for individual countries to adapt to their specific circumstances and needs.

CAADP then provided accountability systems to be implemented through joint sector reviews—intensive reviews carried out by teams comprised partly of nationals of the country being reviewed and partly outside representatives to bring additional rigor and international experience. The reviews are broad in coverage and evidence backed. The conclusions are summarized pointedly in a quantitative and qualitative scorecard. To facilitate this work, the AU holds regular training workshops. This large regional approach has immense value in raising the quality and decreasing the dispersion of country experiences. It is a huge plus for African development and a prime example of national and international cooperation.

Summary

The agricultural transformation and accelerated growth with all its benefits is highly complex requiring input not only from a wide range of government ministries in addition to the ministries of agriculture but also from institutions throughout the economy. Such complexity requires vision, plan, and strategy and, equally important, a coordinating body, most likely reporting directly to the Head of State. Such a body also helps obtain and sustain broad national support for the effort. As the effort progresses, coordination among small sets of participants gradually becomes institutionalized and the national coordinating body may no longer be necessary.

The AU, through CAADP and its follow-up analyses has provided a valuable service, forwarding the agricultural transformation throughout the continent. Having said that, more than half the countries in Africa are not on track to meet the Malabo targets to which they all subscribed. In addition, this number is much higher than the countries making rapid progress towards meeting the percent targets set by CAADP. However, to be fair to the AU efforts, lack of success is a function of the nature of government over much of Africa. As this changes, the success of the AU efforts in this area will rise rapidly. This report should facilitate that change.

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Appendix 1A: Agricultural transformation in Ethiopia: What do we know?

Ethiopia has registered remarkable economic growth in the last decade, largely attributable to growth in its agriculture sector (Bachewe et al., 2017; Hill & Tsehaye, 2014). Measured in constant market prices, Ethiopia has seen significantly faster and more stable GDP growth rate since 2004. The country's growth has been spearheaded by sustained public investment in agriculture and associated infrastructure spearheaded by a “developmental” model of government with the highest commitment of the top leadership to achieve it.

A recent study by Bachewe et al. (2017) indicates three major drivers explain Ethiopia's rapid growth: first, a rapid physical capital accumulation led by substantial expansion of public investment. Second, sustained growth in agricultural productivity and modernization supported by continued investment in a large public extension structure that extends from the federal to regions to kebeles—the smallest administrative structures in the rural areas. Third, a substantial surge in the service sector motivated by urbanization and an emerging urban middle class that in turn fueled growing demand for agricultural produce that further boosted productivity, although the service sector's contribution to GDP exceeded that of the agriculture sector in the same period. A relatively stable political and macroeconomic environment in the same decade enabled the country to exploit the benefits from these drivers.

An important aspect of the changes that occurred in Ethiopia in the last decade has been the prime focus given to agriculture. The Government of Ethiopia placed agriculture at the center of its development policy agenda ever since the EPRDF government assumed power in 1991. This brought an important element of

political commitment at the highest echelons of government to the sector. The Agriculture Development Led Industrialization (ADLI) strategy was developed in the mid-1990s to serve as a roadmap to transform smallholder agriculture. Rural education, health, infrastructure, agricultural research, and agricultural extension services were among its top priorities (Berhane et al., 2018). Ethiopia is one of the only four African countries to have implemented the CAADP agreement of a 10% target of annual government expenditures earmarked for agriculture over the 2003–2013 period (Benin, 2014). In fact, Ethiopia had started implementing the agenda in CAADP way before CAADP was initiated. More recently, the country's transformation agenda elaborates its ambitious five-year Growth and Transformation Plan (GTP), emphasizing the agriculture sector, in general, and the agricultural extension system, in particular. Investments made in the early years were continued, or even strengthened as public funding remains critical to keep the extension system in place in the face of international funding cuts to the sector.

Extension services and farmer training centers

One of the critical investments made by the government to transform agriculture has been on its publicly funded extension system. This system is hailed as one of the largest and most extensive public extension systems in Africa, at least, in terms of extension agent–farmer ratio. In 2010, the extension agent–farmer ratio was estimated at 1 agent per 476 farmers—equivalent to 21 extension agents per 10,000 farmers (Davis et al., 2010). Comparable figures for Tanzania stood at 2,500 farmers per agent—in other words, 4 agents per 10,000 farmers, and 16 agents per 10,000 farmers in

China (see Appendix Figure 1.1). By 2016/2017, the Ethiopia estimate went up to 46 agents per 10,000 farmers. In sum, by 2017 around 72,000 extension agents were deployed around the country. This means, there were 3–4 extension agents per kebele specializing in crop production, livestock, natural resource management, irrigation agriculture, and veterinary services. Moreover, the country has instituted about 15,000 farmer training centers throughout the rural areas, one in each kebele, although, according to some studies, about 30% of these centers are fully functional (Davis et al., 2010). Ethiopia has also spent significant resources on agricultural research (Beintema et al., 2016). Research has helped generate improved local varieties, including on crop seeds like Teff that are unique to Ethiopia and receive limited international funding resources (Minten et al., 2013; Minten et al., 2018).

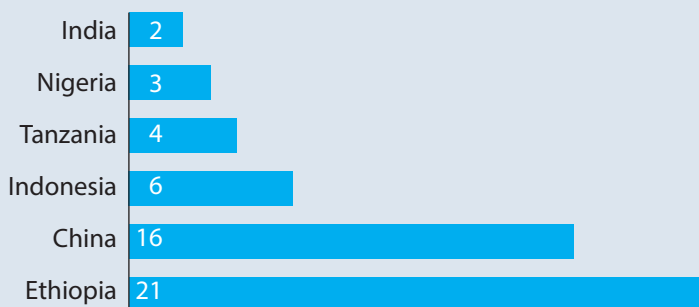
A recent study found that access to an extension system has significantly increased adoption of modern inputs such as chemical fertilizers and improved seeds (Berhane et al., 2018). However, the impact on productivity has

not been as high as expected mainly because the extension system has largely focused on facilitating distribution of modern inputs and is yet to become knowledge-based (Berhane et al., 2018).

Chemical fertilizers

Ethiopia's soils are among the most nutrient depleted in Africa and fertilizer application has been one of the lowest, despite the introduction of chemical fertilizers as early as the 1960s. However, this picture has changed dramatically in the last decade. Fertilizer imports and their use have dramatically increased, nearly doubling from 2.7 million hectares in 2004/2005 to 5.2 million hectares in 2013/2014. Fertilizer use on other crops has also shown significant increases over the same period (Bachewe et al., 2017). The proportion of cereal-growing smallholders using fertilizers has dramatically increased from 46% in 2004/2005 to 76% in 2013/2014; and the proportion of cereal area where fertilizer has been applied has increased from 36% in 2004/2005 to 53% in 2013/2014 (Appendix Figure 1.2).

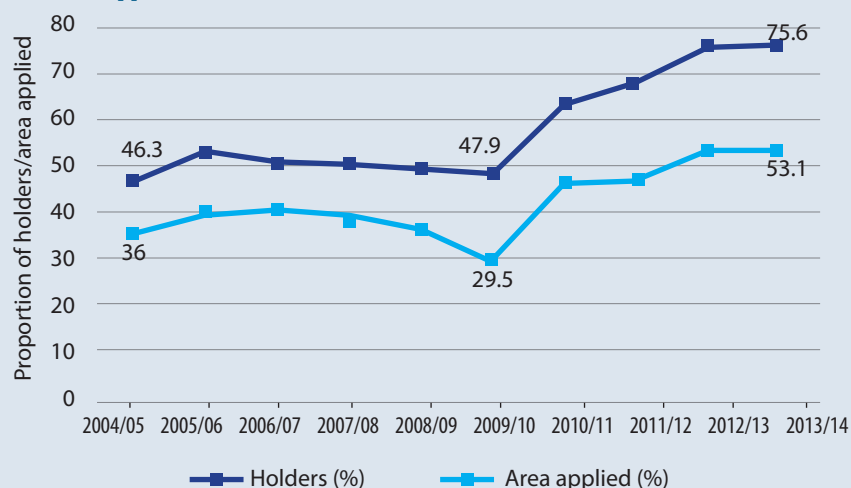
Appendix Figure 1.1: Number of development agents per 10,000 farmers in selected countries



For Ethiopia, figures in 2016/2017 show a higher ratio, 43 development agent-to-farmer ratio (Berhane et al., 2018).

Source: Davis et al. (2010)

Appendix Figure 1.2: Proportion of cereal-growing smallholders using fertilizer and cereal area of fertilizer applied



Source: Bachewe et al. (2017)

Improved seed, irrigation and pesticides

Access to improved seed varieties remains a key challenge of agricultural transformation in Africa, largely due to the complexities involved to develop the sector. Despite the challenges, Ethiopia has shown some progress in this sector as well. Over the decade discussed here, the number of improved seed varieties released to farmers has increased rapidly, mostly with local capabilities of research and seed multiplication structures. However, this increase has been from a rather low base and needs to be taken cautiously. Bachewe et al. (2017) indicate that improved seed release rate has been particularly dynamic for wheat and lower for other crops. An estimated 54 of the 87 improved wheat varieties available in Ethiopia were developed and released in the period 2001–2011. While adoption rates of improved seed varieties by farmers are low overall, the proportion of farmers using improved seed, however, has seen significant improvements, more than doubling over the last decade, from 10% of cereal producers using improved seed in 2004/2005 to 21% in 2013/2014. Large increases in the proportion of farmers adopting improved seed are noted for maize producers, in particular.

Studies suggest an important synergistic complementarity exists between improved seed varieties, use of chemical fertilizers and irrigation (Abay et al., 2018). However, access to irrigation is low in Ethiopia and has not changed significantly in the last decade for any crop categories during the major *meher* season (Bachewe et al., 2017). Perhaps future increases in the use of irrigation are likely to increase use of chemical fertilizers and improved seeds. Pesticide use is also emerging in Ethiopia. Specifically, pesticides use has increased from 13% of the crop area in 2004/2005 to 21% in 2013/2014.

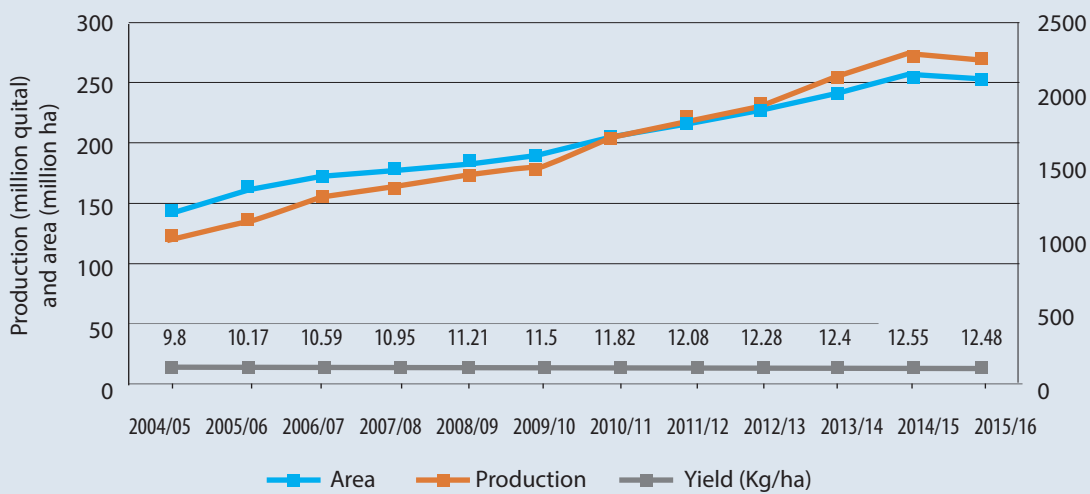
Crop productivity

In the early years of the decade, the government focused on crop production and productivity as the priority was to mitigate the pressing food insecurity situation. Thus, all agricultural investments and intervention efforts were geared towards improving the productivity of the main cereal crops in the country. As a result, productivity gains were much higher in this sector than in others, for example, the cash crops or horticulture sub-sectors. Ensuing to the massive efforts, crop production has doubled from 119 million quintals in 2004/2005 to 266 million quintals in 2015/2016 (Appendix Figure 1.3).

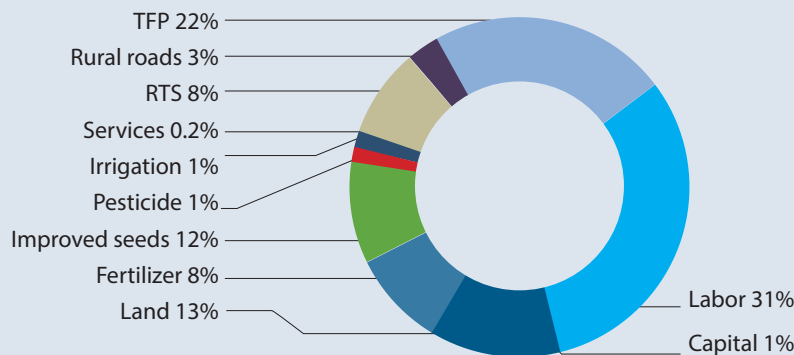
These figures are similar to those of Bachewe et al. (2017) updated for an additional year (2015/2016) for which data are available. The doubling of production is explained by, among others, increases in yield, cultivated area expansion, and increases in total factor productivity (TFP)—productivity gains achieved over and above the productivity contributions of each input applied. In the period considered, cultivated area has expanded by 28% while yield has increased by 76%. Note that cultivated area expansion has declined in recent years as available land dwindles in the highlands of Ethiopia.

Bachewe et al. (2017) decompose the sources of agriculture output growth in 2004–2014. Appendix Figure 1.4 presents the results from the decomposition (see Bachewe et al. (2017) for details of the decomposition model). They find that agricultural labor (31%) contributes the largest to agricultural growth in the decade followed by TFP (22%), land (13%), and improved seeds (12%). Use of chemical fertilizers and investments in rural roads connecting villages with feeder roads also contribute significantly (8% each).

Appendix Figure 1.3: Trends of crop production, cultivated area, and yield in Ethiopia, 2004/2005–2015/2016



Appendix Figure 1.4: The contributions of factors to crop output growth in Ethiopia, 2004/05–2013/2014, by percent of contribution to overall growth



Consistent with these findings, Benin et al. (2011) document that Ethiopia has the largest share of total agricultural value-added percentage (2003–2010) among countries in the East Africa region followed by Sudan and Tanzania. In sum, these findings depict Ethiopia's favorable progress in agricultural growth in the last decade, following its concerted and coordinated development efforts that involved critical commitments from higher national policy making circles and its development partners.

Concluding remarks

Ethiopia has achieved substantial progress in triggering and generating sustained agricultural growth for more than a decade. At the center of these favorable changes is an important political commitment that early on recognized the need to put agriculture at the center of its development agenda. This fundamentally shaped Ethiopia's approach to addressing its age-old problems of structural bottlenecks for development. As such, the government envisioned overall development around an agriculture-first and then industrialize approach with a series of strategies put in place to execute this grand vision. As a result, Ethiopia and its development partners have invested heavily in putting in place not only development programs and projects but also the critical institutional and governance structures to implement them. This required instituting government structures, at times at the cost being too bureaucratic, and building new government and semi-government organizations tasked to achieve agricultural transformation.

The result has been remarkable. Agricultural productivity increase has been sustained for over a decade, owing to increased use of chemical fertilizer, improved seeds, and pesticides over the period 2004/2005 to 2013/2014. Adoption

of these practices has doubled over the decade considered, suggesting that at least the first steps of modernization and intensification of agriculture in Ethiopia has started to take off (although from a low base). Uptake of these improved agricultural technologies occurred especially in the second half of the last decade, that is, between 2009/2010 and 2013/2014, with the observed agricultural growth being linked more with greater use of modern inputs in this period. In contrast, land expansion and TFP growth were the major contributing factors to agricultural growth in the period between 2004/2005 and 2009/2010.

Many have hailed Ethiopia's public sector investment driven growth given that the country is a non-oil exporting country and its mineral resources are limited. The challenge is, however, whether Ethiopia would be able to sustain this progress in the coming decade and be able to fully transform its agriculture sector in the face of dwindling sources of growth that used to be low-hanging such as additional land for expansion. Additional productivity gains are likely to come with changes in approach including linking extension with research and making agricultural production increasingly knowledge driven, and focusing on the now relatively more important horticultural and livestock sectors.

Another important question is whether other African countries can replicate Ethiopia's model of agriculture development. As noted elsewhere in the development literature, replication is unlikely to occur as country specificities limit such an exercise. However, lessons can be taken from the Ethiopian experience, one of which is the critical role governments can play in achieving progress in agriculture growth, and thus overall development.

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Appendix 1B: Strategies for agricultural transformation in Ghana

Over the years, successive governments have initiated several policies, interventions, and strategies to develop, transform and modernize the agriculture sector in Ghana. In the sector, the Food and Agriculture Sector Development Policy (FASDEP 1 and 2) and the Medium Term Agriculture Sector Investment Plan (METASIP 1 and 2) have informed several government interventions. The country has endeavored to align its national programs and activities with the CAADP pillars, specifically the Maputo and the Malabo declarations.

However, critics and some stakeholders in the agriculture sector argue that government's commitment to the sector is low. Over the past decade (2008–2017), the average growth rate of the sector has been 4.8%. The agriculture share of national expenditure from 2003–2011 was about 9.6% based on 2001 constant prices—close to the 10% target stated by CAADP.

To further buttress the point on the poor performance of the agriculture sector, according to a recent CAADP biennial review report, Ghana is not on track in terms of implementing the Malabo Declaration on agricultural transformation (AUC, 2018). The country had a score of 3.9 out of 10. Areas where the country is performing well include the completion of the CAADP process; investment in evidence-based policies, supportive institutions and corresponding human resources; inclusive institutionalized mechanisms for mutual accountability; and peer review.

Currently, the government is implementing its flagship program, “Planting for food and jobs”. The aim of this program is to encourage farmers to adopt certified seed and fertilizer in their farming activities while government provides extension services to enhance the knowledge of farmers in improved agronomic practices, provision of markets for the anticipated increase in production, and e-agriculture services. The goal is to attract the youth to take up agriculture, thus providing them with jobs and growing the economy. The government expects the project to cost about US\$723.5 million over a 4-year period (2017–2020). Public–private partnerships (PPP), private investors, and government's own financial commitments to the initiative will raise funds for the project (MoFA, 2017). Challenges encountered in the first year included: late delivery of certified seed; questionable certified seed; inefficient distribution of inputs; and poor repayment of inputs received by farmers on credit. However, after the evaluation of the first year, the government initiated several remedial measures. These include seed breeders being in charge of distributing and marketing their seeds to farmers, and farmers paying upfront for the subsidized inputs. The strategies and goals stated in the national development agenda are gradually being implemented, although not in a well-coordinated and comprehensive manner.

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Appendix 1C: Rwanda's agricultural transformation

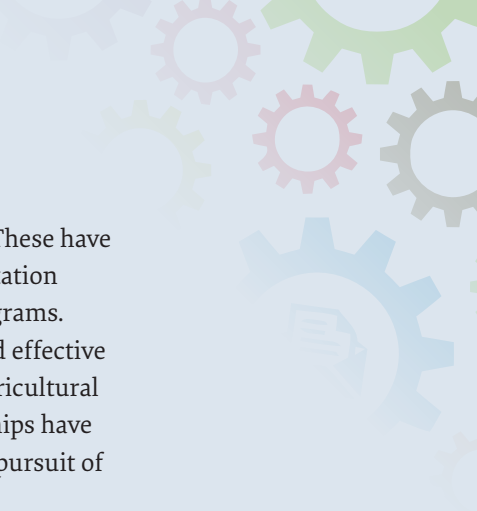
Rwanda's economy has observed remarkable growth, registering an average GDP growth rate of 7.8% per year, over the last two decades. Similarly, agriculture grew at 6% per year, on average. Agriculture comes second to services in the share of GDP. However, agriculture's share of the total workforce is 68%. As such, the sector is crucial for job creation, increased rural incomes, and poverty reduction.

Rwanda is aligned with CAADP principles and was the first country to sign its CAADP compact in 2007. The country is committed to fostering mutual accountability, as demonstrated by the home-grown performance contracts, *imihigo*, for service delivery. In this regard, Rwanda has prioritized the CAADP Biennial Review of the country's implementation of the Malabo Declaration commitments. To this end, Rwanda emerged the best performer in the recent first Biennial Review of the state of agriculture in Africa, scoring 6.11 out of 10 (AU 2018).

The country still faces challenges to its agricultural transformation trajectory. However, opportunities for growth in the agriculture sector exist. For example, East Africa is one of the fastest growing regions in the world and the Africa Continental Free Trade Agreement has opened trade opportunities. Rwanda is positioning itself to produce high value agricultural products for the region, the continent and beyond. Moreover, a growing middle class is creating an increasing domestic demand for horticulture and animal products. The country has a young population, currently being skilled to embrace technology and agribusiness.

The Government of Rwanda, has updated its National Agriculture Policy (NAIP, July 2018), implemented through the Strategic Transformation of Agriculture (PSTA 4)

and the third NAIP (2018–2024). It aims to transform agriculture from subsistence to a productive, knowledge based, market oriented and green sector, which will contribute to inclusive economic growth, and food and nutrition security. The strategy has prioritized transformative interventions. First, farm sizes in Rwanda are small (0.6 ha, on average), therefore the strategy promotes technologies that increase yields, reduce post-harvest losses and improve quality. High value crops and animals that provide high returns to investments are promoted as appropriate for smallholder farmers. Climate smart and nutrition sensitive agriculture approaches have been integrated in all agriculture programs. Owing to the role of the private sector in agricultural investment, the government is incentivizing the sector by providing catalytic investments such as in infrastructure and providing public goods. The private sector is being attracted to investment in diversified agricultural products such as horticulture, floriculture, dairy, beef, poultry, pork, and fish production to meet market demand. Government is investing in innovation and technology transfer, and creating an enabling environment for the private sector to invest and build thriving input, output as well as providing appropriate solutions for a changing agricultural landscape. In addition, the government is organizing farmers to form cooperatives to support access to markets. Moreover, youth and women are being provided with skills in agribusiness and entrepreneurship to improve their participation in agriculture. The government has created an enabling environment for the private sector to invest in agriculture value chains where Rwanda has a comparative advantage. Rwanda now ranks second in Africa in the overall business environment.



While the Ministry of Agriculture and Animal Resources leads implementation of agricultural programs, synergies and complementarities exist with other related sectors. Therefore, coordination mechanisms have been set up involving agriculture related sectors. In addition, collaborative programs have joint planning and budgeting while joint performance contracts are used to

guide monitoring and evaluation. These have resulted in the effective implementation and impact of government led programs. These initiatives have strengthened effective implementation and delivery of agricultural programs. Finally, strong partnerships have been adopted as a key approach in pursuit of agricultural transformation.

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2

Fostering Political Will to Drive Agricultural Transformation

Regina Birner¹, Anwar Naseem², Carl Pray³ and Jock R. Anderson⁴

Key Messages

- 1** Political will is critical to achieving agricultural transformation, because government needs to create a conducive environment and meet inherent governance challenges.
- 2** Political will can be measured using indicators such as the percentage of agricultural expenditure in total government expenditure, the Agricultural Orientation Index and the Enabling the Business of Agriculture indicators.
- 3** These indicators show that the political will to drive agricultural transformation has remained limited in sub-Saharan Africa, but considerable differences exist across countries.
- 4** Recent history has revealed the decisive role that high-level political leaders can play in driving agricultural transformation.
- 5** A wide range of strategies can be used to foster political will. They can be supported by development partners, but domestic actors, especially farmer organizations, are critical.

Introduction

As discussed throughout this report, strengthening government implementation capacity is essential to drive agricultural transformation. Government capacity is required to plan and implement evidence-based policies to support agricultural transformation and to implement these policies effectively.

Supporting agriculture and strengthening government capacity are, however, dependent on political will. What is required is not only the political will to support the agriculture sector by providing sufficient public resources, but also the political will to reform public sector institutions in the agriculture sector so as to effectively address market failures

and to create an enabling environment for the private sector. There is hardly any disagreement about the crucial role of political will for driving the agricultural transformation. In fact, slow progress in terms of agricultural transformation has often been attributed to a lack of political will. An early example of this argument, dating back to the 1970s, is Lipton's observation of an "urban bias" in world development (Lipton, 1977). In the 1980s and 1990s taxation of the agriculture sector, most famously identified in the study by Krueger, Schiff and Valdés (1991), constituted evidence for the lack of political will to support agriculture. In the meantime, taxation of the agriculture sector in developing countries has been reduced (Anderson, 2009),

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but concerns about the lack of political will to support agriculture have remained. A frequently quoted indication is the fact that few African countries have met the goal of allocating 10% of their annual budgetary resources to the agriculture sector, as further discussed. The Alliance for a Green Revolution in Africa (AGRA), for example, considers the annual budgetary allocation to agriculture as an indicator of political will. Accordingly, governments that allocate more than 10% of their annual budgetary resources to agriculture, for example, Ethiopia, are considered to have a stronger political will to support agriculture (see Table 3.2). Lack of success in achieving agricultural policy outcomes, such as increases in yields of staple crops or higher growth rates of the agriculture sector, has been attributed to a lack of political will to support agriculture.

The concept of political will has also been used to explain the remarkable differences among African countries with regard to their efforts to support agricultural transformation. For example, various successes in African agriculture, such as the “hybrid maize revolution” among smallholders in Eastern and Southern Africa in the 1980s (Smale & Jayne, 2010) have been attributed to the political will of the respective governments to promote this technology. This is just one example of several success stories in African agriculture that have been well documented (Haggblade & Hazell, 2010). Outcome indicators, such as agricultural growth rates, have also been linked to political will. For example, the Regional Strategic Analysis and Knowledge Support System (ReSAKSS) indicators⁵ show that Ethiopia was the only country that consistently achieved more than 6% growth in agricultural value added for the past 10 years, thus exceeding the target that African countries set for themselves in the Comprehensive Africa Agriculture Development Programme (CAADP) (AU, 2003). This success

has also been interpreted as an indication of the political will of the Ethiopian government to support agriculture.

While the term “political will” is, thus, widely used in policy debates of the development community, political scientists have long recognized that political will is a challenging concept. Hammergren (quoted in Post, Raile, & Raile, 2010, p. 654) characterized it as “the slipperiest concept in the policy lexicon,” calling it “the sine qua non of policy success which is never defined except by its absence.” There have been various efforts to define political will since then. This chapter adopts the approach of Brinkerhoff (2000, p. 242), who defined political will as “the commitment of actors to undertake actions to achieve a set of objectives [...] and to sustain the costs of those actions over time.” In our case, the set of objectives refers to agricultural transformation, and the actions refer to the activities required to achieve this goal, including the different strategies proposed in the other chapters of this report. The strategies proposed in last year’s report may be considered as well (AGRA, 2017). The concept of political will, as defined here, explicitly covers the competency and capacity of governments to effectively implement those strategies. The central question of this chapter is how to measure, explain and strengthen the political will needed to drive agricultural transformation. For this purpose, the analytical framework to assess political will developed by Brinkerhoff (2000) will be applied.

This chapter is structured as follows: Section 2 discusses why sustained political will is essential for driving structural transformation. Section 3 introduces the conceptual framework for assessing political will and presents available evidence on indicators of political will to support agricultural transformation in Africa. Section 4 discusses strategies that different actors can apply to strengthen this political will.

⁵ See interactive database at <http://www.resakss.org/>, which includes data on the “agriculture value added growth rate”.

Why does agricultural transformation depend on sustained political will?


As shown in the other chapters of this report, government has an important role to play in promoting agricultural transformation, even though agriculture is a private sector activity. The rationale for government involvement in agriculture stems from various market failures, which are well documented in the agricultural economics literature and have been summarized in the World Development Report on Agriculture for Development, as follows: “Market failures are pervasive because of monopoly power, externalities

in natural resources management, scale economies in supply chains, non-excludability in research and development (R&D), and asymmetries of information in market transactions. Adding to the failures are heterogeneity, isolation, spatial dispersion, the lack of assets to serve as collateral, and vulnerability to climatic shocks that lead to high transaction costs and risks” (World Bank, 2007, p. 247). As a consequence, government must fulfill a diverse set of functions, which are summarized in Table 2.1.

Table 2.1: Governance challenges involved in promoting agricultural transformation

Government function	Examples	Governance challenges
Policy making		
Formulation of agricultural policies and strategies	Identifying priorities and formulating strategies for agricultural technology development	Building capacity for innovation policy analysis and priority setting ensuring participation and using evidence
Policy implementation		
Protecting property rights	Land rights, intellectual property rights, farmers rights	Expanding access to secure property rights; reducing corruption in land administration
Providing core public goods	Agricultural research and extension (for non-excludable technologies); agricultural education; roads; electrification	Effective and equitable provision of appropriate amount of public goods; avoiding corruption in infrastructure
Regulation/addressing externalities	Regulation for biosafety, food safety, pesticides, veterinary drugs, seed certification, fertilizer quality control	Finding a balance between “overregulation” and “under-regulation”; reducing regulatory costs; avoiding the bribery of inspectors
Overcoming economies of scale problems and market coordination problems	Irrigation infrastructure; measures to kick-start input, financial and output markets	Avoiding rent-seeking, corruption and political interference in public procurement; identifying “market-smart” interventions
Reducing vulnerability and improving equity	Safety nets; targeted investments and subsidies; redistributive land reform	Avoiding elite capture and ensuring targeting efficiency; avoiding leakages

Source: Authors



Political will is obviously necessary for governments to engage in these functions. Political will is also required to overcome the governance challenges that are involved in the implementation of the different policy instruments that can be used to promote agricultural transformation. Addressing the implementation challenges is important because the execution of policy decisions in agriculture line ministries and agencies often falters due to governance problems associated with poor civil service salaries, vacant postings, and limited funding for operational expenses. While such implementation challenges are not specific to the agriculture sector, Table 2.1 specifies the governance challenges that arise in specific implementation areas of agricultural policies.

Since governance challenges are also discussed in more detail in other chapters of this report, only some examples are highlighted here. One is agricultural regulation. An effective regulatory system is essential to ensure that inputs provided by the private sector, such as seeds, fertilizers, agrochemicals and veterinary drugs, meet appropriate quality and safety standards. Government involvement, for example, in the form of seed inspection and certification, is required because, due to information asymmetry, the farmer is unable to judge the quality of the input at the time of purchase. However, approval processes for such inputs are often slowed by unnecessary bureaucratic procedures, inadequate skills and infrastructure and often involve requests for bribes. Moreover, inspectors are often too few and testing laboratories are poorly equipped to ensure effective quality control. Several recent reviews of seed and pesticide regulatory systems across Africa provide evidence of such problems. Poku, Birner and Gupta (2018) show that, despite seed market liberalization, Ghanaian farmers still have limited access to improved varieties due to such governance

problems. Likewise, in the face of rapid market growth in pesticide sales (driven mostly by herbicides), regulatory capacity has not kept pace. As a result, regulatory monitoring of product quality, human health and environmental impact remains episodic at best—and at worst, non-existent (Diarra & Haggblade, 2017; Haggblade, Minten, Pray, Reardon, & Zilberman, 2017; Sheahan, Barrett, Goldvale, & John, 2016; Tamru, Minten, Alemu, & Bachewe, 2017).

Another example of a governance challenge is the capture of benefits from agricultural programs by better-off farmers, also referred to as elite capture, clientelism and rent-seeking. This problem is particularly prevalent in input subsidy programs (see, e.g., Banful, 2010; Mason, Jayne, & Van De Walle, 2017). Large-scale infrastructure investments, for example, in irrigation schemes or roads, involve their own governance challenges, such as political interference in public procurement and corruption (Rose-Ackerman, 1999). Such problems are less prevalent in agricultural extension services if the extension agents do not distribute inputs. However, extension services often suffer from absenteeism of staff, a problem linked to the difficulty in effectively supervising large numbers of staff members who are dispersed throughout the country (Birner & Anderson, 2007). There are numerous examples of governance reform strategies to overcome these challenges, but all require political will to be implemented effectively (cf. World Bank, 2007, p. 252ff).

To achieve a successful agricultural transformation, it is not only essential to develop sufficient political will to address the market failures and the governance challenges outlined, it is also important to sustain this political will over time. Meeting the governance challenges outlined in Table 2.1 requires investment in the development of institutions, such as regulatory institutions or

agricultural research and extension systems. Such institution building is, by its nature, a long-term process. Lack of sustained political will may well be a reason why past successes in African agriculture, such as the hybrid maize

revolution, or the “cassava transformation” in Western and Southern Africa, were often not maintained over time (cf. Haggblade & Hazell, 2010).

The political will to support agricultural transformation

This section further explores the concept of political will, defined in the introduction.

Components of political will

Brinkerhoff (2000, 2010) developed an analytical framework to assess political will, according to which political will can be separated into seven components. These are described in Box 2.1, together with two additional components that have been added for the purpose of this chapter. Brinkerhoff focused on the political will to combat corruption. His concept of political will is here adapted to the political will to drive the transformation of agriculture.

Measuring political will

An indicator that specifically measures the political will to support agricultural transformation has yet to be developed, but one can derive from the components listed in Box 2.1 a range of indicators that measure related aspects. One possible indicator, as already mentioned in the introduction, is the budget share that a government dedicates to the agriculture sector. This indicator is especially related to the fifth component of political will mentioned in Box 3.1 (public commitment and allocation of resources). In 2003, as stated in the Maputo Declaration on Agriculture and Food Security in Africa, the Member States of the African Union (AU) had committed themselves to spend at least 10% of their national budget on agriculture. In 2014 they reconfirmed this

goal in the Malabo Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods (AU, 2014). The Inaugural Biennial Review Report on the Implementation of the Malabo Declaration tracked the progress of this indicator (AU, 2014). As already mentioned, AGRA also monitors the agricultural expenditure share as an indicator of political will. ReSAKSS provides data to monitor compliance with this commitment.⁶ As shown in Figure 2.1, the 10% goal was not achieved in any of the regions of Africa.

Average budgetary resources spent on agriculture slightly increased in Central and Western Africa since 2000, but Northern and Eastern Africa registered declining trends. In all regions, average budgetary figures were below 5% in 2015 (the last year for which ReSAKSS data are available), that is less than half of the goal that African countries had set for themselves. Needless to say, this concentration on the 10% goal leaves unaddressed the important issues of how effectively and efficiently the actual expenditures are directed. The average figures presented in Figure 2.1 mask, however, some considerable differences across countries. As shown in Figure 2.2, the budget shares (calculated as average values for the time period from 2005 to 2015) ranged from more than 15% in Malawi to less than 2% in the Democratic Republic of Congo and South Sudan.

⁶ There are other sources of agricultural expenditure data. For a comparative review, see Mogues and Anson (2018).

Box 2.1: Components of political will as defined by Brinkerhoff (2010)

1. **Government initiative:** This component deals with the source of the impetus for policies that support agricultural transformation. Political will is suspect when the push for such policies comes totally from external actors. Some degree of initiative from country decision-makers must exist in order to talk meaningfully of political will.
2. **Development and implementation of a national plan:** In this component agriculture has a central role, at least initially. Does such a plan exist? Does it specify why support to agriculture is necessary and who should do what? Does the plan have the explicit backing of the Chief of State? Is it approved by the legislators?
3. **Choice of policies and programs:** This is based on technically sound, balanced consideration and analysis of options, cost/benefit and available evidence on the appropriateness and effectiveness of these policies and programs. When country actors choose agricultural policies and actions based on their own assessments of alternative options, taking evidence into account, then one can credibly speak of independently derived preferences and willingness to act.
4. **Mobilization of stakeholders:** This component concerns the extent to which government actors consult with, engage, and mobilize stakeholders. Do decision makers reach out to members of civil society and the private sector to advocate for the changes envisioned? Are legislators involved? Are there ongoing efforts to build constituencies in favor of agricultural policies and programs?
5. **Public commitment and allocation of resources:** To the extent that country decision-makers reveal their policy preferences publicly and assign resources to achieve those announced policy and program goals, these actions contribute to a positive assessment of political will.
6. **Investments and reforms to strengthen implementation capacity:** Political will is not only reflected in the allocation of resources, but also in investments and reforms that strengthen a country's capacity to implement agricultural policies, such as establishing well-functioning procurement systems, investing in the management skills of staff, and creating professional incentives by promoting merit-based recruitment and career development options.
7. **Application of credible sanctions:** Governance problems are widespread in agricultural programs, and without effective sanctions, they cannot be effectively implemented. Well-crafted and enforced sanctions, both negative and positive, signal serious intent to implement agricultural programs effectively. Symbolic and/or selective enforcement points to half-hearted political will.
8. **Continuity of effort:** Supporting agricultural transformation requires resources and effort over the long term. One-shot or episodic efforts signal weak and/or wavering political will.
9. **Learning and adaptation:** Political will is demonstrated when country actors establish a process for tracking progress of agricultural policies and programs, and actively manage reform implementation by adapting to emerging circumstances. Learning can also apply to country policy makers observing policies, practices, and programs from other countries and selectively adopting them for their own use.

Source: Adapted from Brinkerhoff (2010, p. 2–3).

Note: The text in the box is almost a verbatim quote from this source. References to anti-corruption programs have been changed to agricultural programs. Points 2 and 6 have been added and Point 3 has been reformulated to include the role of evidence.

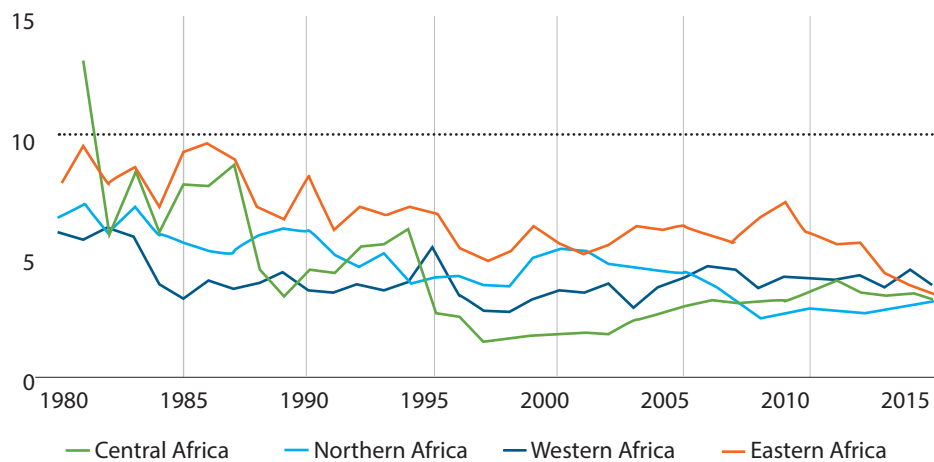


Figure 2.1: Percentage of agricultural expenditures in total government expenditure (1980–2015)

Source: ReSAKSS website (<http://www.resakss.org/node/11>, accessed May 5, 2018)

In addition to the allocation of resources to the agriculture sector, one may also consider budget execution, or the share of agricultural expenditure disbursed as an indicator of political will, because there are often considerable gaps between the planned/allocated budget and actual expenditures or disbursements. Several reasons may account for low budget execution. One is lack of administrative capacity, which indicates lack of political will to build this capacity in the agriculture sector. Another reason is that governments may decide to cut the agriculture budget, rather than the budget of other sectors, in case of budget shortages. This would clearly be an indicator of lacking political will (cf. Boettiger, Denis, & Sanghvi, 2017a). While these problems have been reported for individual countries, for example, the countries covered by the Food and Agriculture Organization of the United Nations (FAO) program on Monitoring and Analyzing Food and Agricultural Policies (MAFAP), there is no comprehensive data base that monitors budget execution across a large set of countries over time.

A related indicator is the Agriculture Orientation Index (AOI) for government expenditures.

This indicator, which is also related to the fifth component of political will (Box 2.1), is published by FAO. It is calculated as the ratio of agriculture's share of government expenditures to agriculture's contribution to GDP. Unlike the CAADP 10% goal, this indicator takes the size of the agriculture sector into account. As shown in Figure 2.3, the AOI for sub-Saharan Africa has shown some variations since 2001, but there has been no overall increase.

The agricultural budget share is only a limited measure, since the composition and effectiveness of public spending on agriculture matter as well. One concern with the use of a budget share figure as an indicator of political will is the problem that many African countries spend a considerable share of their agricultural budget on subsidies, rather than on investments in agricultural research and development (R&D) and other public goods, which may well yield higher returns (Jayne & Rashid, 2013). Therefore, one may also consider investment in agricultural research and extension as a useful indicator of political will, as further discussed in the following sections.

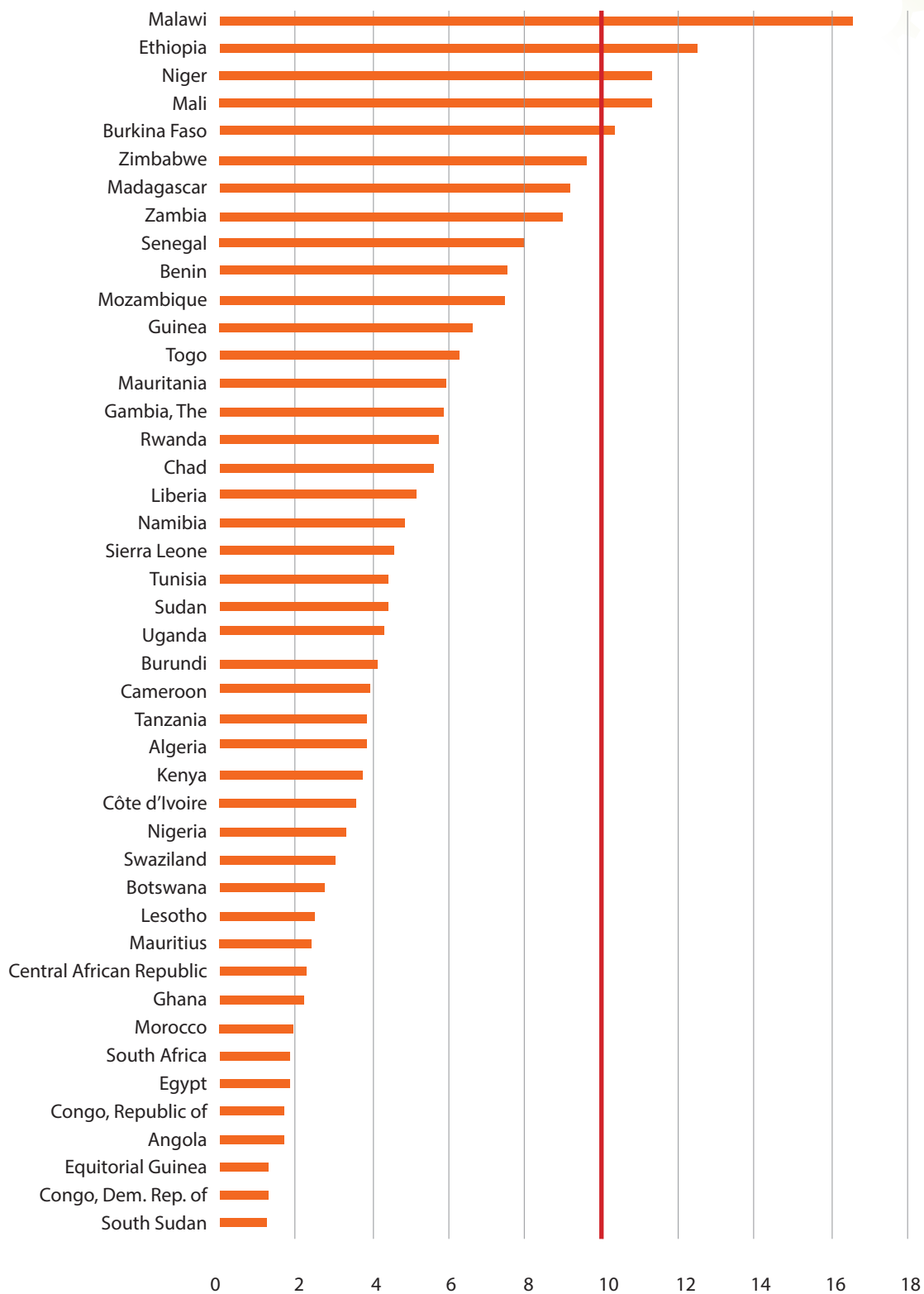


Figure 2.2: Government expenditure on agriculture as percent of total expenditure (average value 2005–2015)

Note: The red line marks the CAADP target of 10%.

Source: Calculated based on data from ReSAKSS (<http://www.resakss.org/node/11>, accessed July 12, 2018)

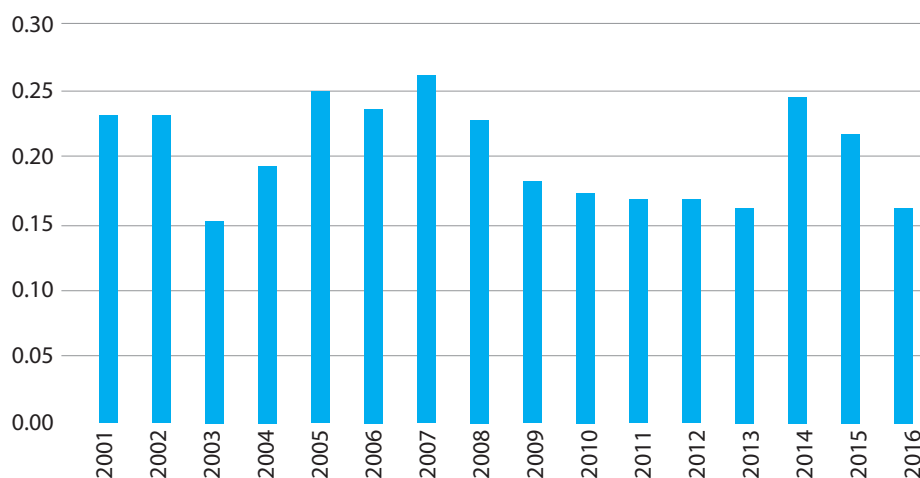


Figure 2.3: Agricultural Orientation Index (AOI) for sub-Saharan Africa (2001–2016)

Source: Compiled from data displayed at <http://www.fao.org/sustainable-development-goals/indicators/2a1/en/> (accessed May 1, 2018)

It is often argued that governments prefer subsidies to investment for political economy reasons. For example, Mason et al. (2017) found that in Zambia, governments formed by the Movement for Multi-Party Democracy (the party in power from 1991 to 2001) targeted more subsidized fertilizer to households in areas where it had strong support in the previous presidential election. Likewise, Banful (2010) found evidence of political targeting of fertilizer vouchers in Ghana. However, fertilizer subsidies are not just about buying votes, they can also help feed people today while investments in R&D feed people tomorrow (and only then with lags of 10-15 years). Governments can fall when food prices spike, therefore they need to find an appropriate balance between spending on fertilizer subsidies and investing in R&D. Next to such political goals, policy beliefs may also play a role for the inclination of governments to spend public resources on input subsidies rather than other policy instruments. The role of policy beliefs in explaining policy choices and facilitating political action is widely acknowledged and well documented in the political science literature, but has

been rather neglected in studies on the political economy of agricultural policies (see Mockshell & Birner, 2015, p. 2, and the literature quoted there). Policy beliefs refer to value priorities, perceptions regarding the causes and the magnitude of a problem, as well as perceptions of the efficacy of different policy instruments (cf. Sabatier, 1988, p. 132). Mockshell and Birner (2015) identified a strong policy belief among domestic policy makers that input subsidies are an essential and effective policy instrument to boost agricultural productivity. Most donors, in contrast, did not share this policy belief (see Box 2.2).

The historical record also casts some doubts on the view that a large budget share for subsidies should be interpreted as a lack of political will to support the agricultural transformation. Much of the spending on Asia's Green Revolution took the form of input subsidies, which were perceived as necessary at the time because input markets were poorly developed. A study by Fan, Gulati and Sukhadeo (2008) found initial positive returns to input subsidies in India, both in terms of

agricultural growth and poverty reduction. Input subsidies were also an important element of government commitment to the hybrid maize revolution in Eastern and Southern Africa in the 1980s (Smale & Jayne, 2010).

Investments in agricultural R&D appear to be a less contested indicator of political will than overall agricultural expenditure or spending on input subsidies. Available data indicate that such investments are typically “too little and too late”, especially in the low-performing countries that need those investments most (see review by Alston & Pardey, 2014, and the literature quoted there). A recent report on agricultural research investments in sub-Saharan Africa showed that the investment intensity, that is the investment in agricultural R&D expressed as share of agricultural GDP, has slightly declined since 2014, as shown in Figure 2.4. There is some variation across countries, but only 6 out of 36 countries included in the IFPRI Agricultural Science and Technology Indicators (ASTI) report had invested more than 1% of

agricultural GDP in R&D in 2014 (Beintema & Stads, 2017, p. 11).⁷

The budget share of an activity that is funded by donors could conceivably be considered as an indicator of political will that is linked to the first and the fifth components indicated in Box 2.1. According to data published by OECD in 2006 through its Creditor Reporting System on Official Development Assistance, official development assistance (ODA) for 24 sub-Saharan countries averaged 28% of total agricultural spending. This figure is comparatively high, because the average agricultural share in ODA spending (across all receiving countries) has never been above 10% since 1995.⁸ Again, large variations exist between African countries. Moreover, there are problems with indicators based on ODA, deriving in part from data deficiencies and lack of comparability that stem from diverse procedures among donors as to how sectoral destinations are defined and data are reported (see e.g., Lowder & Carisma, 2011). Further confounding issues relate to the varying development effectiveness of different types of

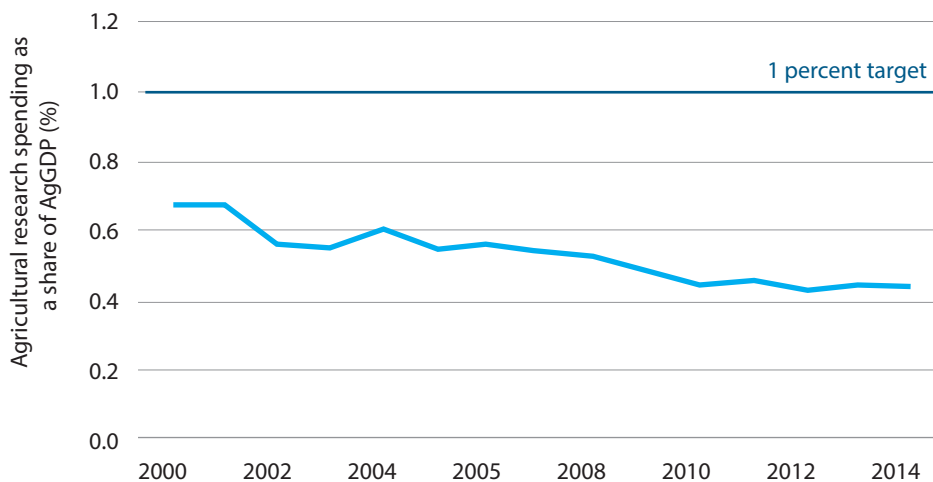


Figure 2.4: Agricultural research spending as a share of agricultural GDP for sub-Saharan Africa, 2000–2014

Source: Beintema and Stads (2017, p. 11)

⁷ In declining order of their budget shares, these countries were Mauritius, Namibia, South Africa, Botswana, Zimbabwe, Senegal and Burkina Faso (Beintema & Stads, 2017, p. 11).

⁸ See <http://www.fao.org/economic/ess/investment/flows/en/>.

delivered ODA (see, e.g., Collins & Elliott, 2013). In sum, given the potential ambiguities involved, it seems that measures of ODA intensities in the agriculture sector are less than ideal indicators of political will.

The World Bank's Enabling the Business of Agriculture (EBA) indicators can be interpreted as another set of indicators of political will (World Bank Group, 2016). EBA applies a scoring methodology to assess good regulatory practices in the fields of seeds, fertilizer, agricultural machinery, finance, and markets as well as transport. Having good regulatory practices in place in these areas can be seen as an indicator of a government's commitment to support agricultural development. These indicators are related to the sixth component of political will displayed in Box 2.1. As shown in Figure 2.5, sub-Saharan Africa scores below the world average in all areas covered by EBA, but there are some indicators where sub-Saharan Africa has higher scores than other regions. As in case of the other

indicators, the average values hide considerable differences across countries.⁹

Another indicator related to the political will to support agricultural transformation is the protection or taxation of the agriculture sector. This indicator reflects the effect of all policies on the sector. The data set on distortions to agricultural incentives compiled by Anderson (2009) shows that in recent decades, developing countries have, on the average, abolished the taxation of the agriculture sector and, instead, started to subsidize it. However, this trend has been less pronounced in Africa than in other continents. From 2000 to 2005, the Nominal Rate of Assistance (NRA) for import-competing agricultural commodities was 1.6% in Africa as compared to 26.5% in South Asia (Anderson, 2009).

As in case of the previous indicators, one has to take into account the considerable differences between countries. The FAO Monitoring and Analyzing Food and Agricultural Policies



Source EBA database.

Note: The EBA sample covers countries in East Asia and the Pacific (5), Europe and Central Asia (7), Latin America and the Caribbean (4), Middle East and North Africa (2), OECD high Income (5), South Asia (3) and the Sub-Saharan Africa (14). OECD high-income countries are not measured under the finance topic.

Figure 2.5. Enabling the Business of Agriculture (EBA) scores on topics, by region

Source: World Bank Group (2016, p. 4)

⁹ Data on the ranking of each African country included in EBA can be accessed for each EBA indicator at the interactive website of the EBA project. See <http://eba.worldbank.org/data/exploretopics/all-topics> (accessed July 14, 2018)

(MAFAP) program provides insights on a set of 14 countries. As shown in Figure 2.6, NRA figures from 2005 to 2016 ranged from -26% in Ethiopia and Nigeria to 36% in Senegal. A negative NRA indicates that a country is taxing the agriculture sector or, phrased differently, that farmers receive lower prices as would be the case without any policy intervention. This means a positive NRA indicates that the sector is subsidized. Surprisingly, Ethiopia, which had a growth rate in agricultural value added over 6% during the past 10 years (see Section 1), has been taxing the agriculture sector. This indicates that other measures to support agriculture than subsidies played a role in stimulating agricultural growth in this country.

A related measure calculated by MAFAP is the market development gap. This indicator is calculated as the average cost to producers from distorted sectoral policies (e.g., illicit taxes), high market access cost (poor infrastructure), and inefficiencies in domestic value chains. As shown in Figure 2.7, there has been no overall improvement in this measure since 2008. However, large differences also exist among countries, reflecting a pattern that is similar to that shown in Figure 2.6 (see Pernechele, Balié, & Ghins, 2018, p. 15)

While the indicators discussed refer to the agriculture sector in general, one could also think about indicators of political will that focus on specific policy instruments. For

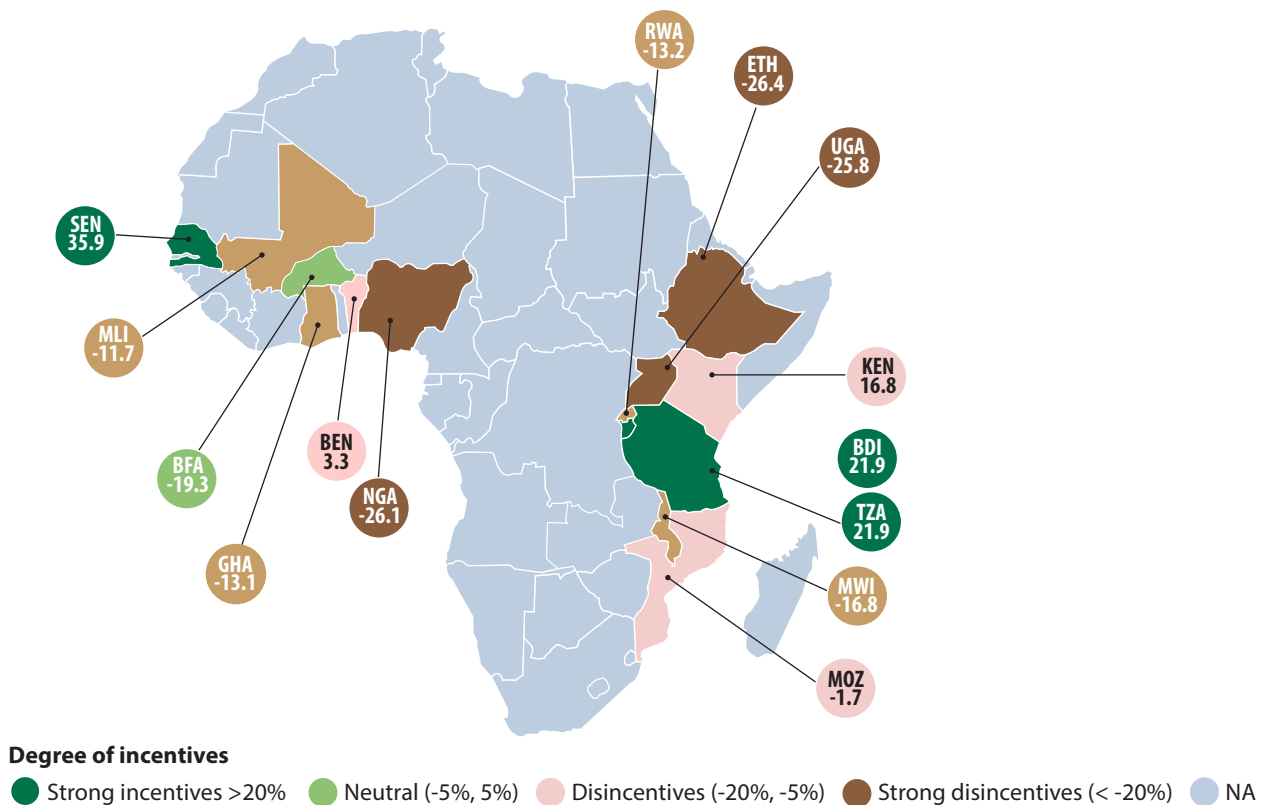


Figure 2.6: Nominal rate of protection at farm gate, country averages, 2005–2016

Source: Pernechele, Balié, and Ghins (2018, p. 13)

example, the ratio of farmers to extension workers could be seen as an indicator of the political will to use agricultural extension in support of agricultural transformation. Such data, however, are difficult to obtain for many countries and over several years. One may also ask whether outcome indicators, such as increase in yields, or area share under improved varieties, should also be considered as indicators of political will. Those measures involve methodological problems. If the respective outcome indicator is influenced by factors that are outside the control of national policy makers (e.g., annual increase or decline in crop yields), the indicator is of limited value as an indication of the government's political will.

In summary, existing indicators are only partial measures of the political will of African countries to support agricultural transformation. Still, existing evidence suggests that the political will to drive agricultural transformation has not substantially increased during the past decade, even though important variations exist between countries. Overall, existing data suggest that the political will to support agricultural transformation is likely lower in Africa than in other regions of the developing

world. These findings beg the question as to how limitations in the political will to support agricultural transformation can be explained. This question is addressed in the next section.

Explaining the political will to transform agriculture

One branch of literature that is relevant for explaining the political will to support agricultural transformation is the literature on the political economy of agricultural policies. Following the publication of new data on the NRA to agriculture by Anderson (2009) mentioned above, a substantial body of political economy literature emerged that uses these data to explain differences in distortions to agricultural incentives (see Anderson, Rausser, & Swinnen, 2013, for a review).

One study that included NRA data from all regions indicates that democratization has played a major role in explaining the shift from taxing to subsidizing agriculture (Olper & Raimondi, 2010), which reduced the “urban bias” problem that dominated agricultural policies in developing countries earlier (e.g., Lipton, 1977). A study using the data for African countries in the same data set arrived at similar conclusions: competition among political

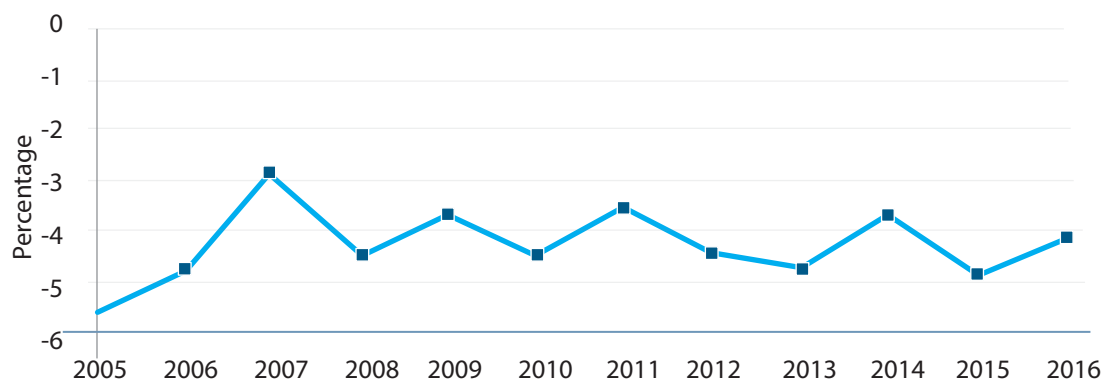
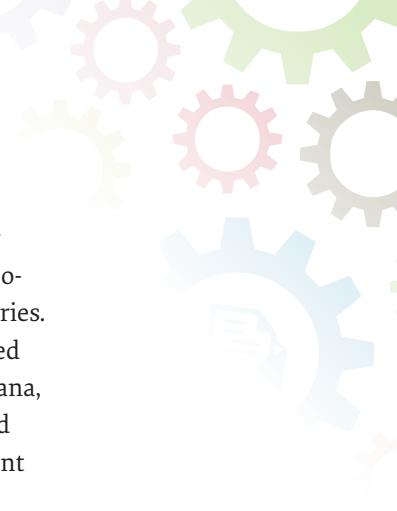


Figure 2.7: Market development gap (percentage of farm gate price), average for 14 sub-Saharan Africa countries

Source: Pernechele, Balié and Ghins (2018, p. 14)



parties turned the lobbying disadvantage of the rural majority into a political advantage (Bates & Block, 2013). Block (2014) showed that the macroeconomic reforms that reduced the taxation of the agriculture sector resulted in an increase in total factor productivity (TFP), which is an important element of agricultural transformation. Government spending on agriculture also seems to be related to democratization. A study examining the factors that explain the government budget share dedicated to agriculture found that larger rural population shares are associated with higher spending on agriculture in democracies but not in authoritarian regimes (Birner & Palaniswamy, 2006). This finding suggests that in democracies, the rural population may have more possibilities to exercise their voice leading to a higher budget share for agriculture. Since democratization has also been found to be associated with higher levels of NRA (Olper & Raimondi, 2010), it is likely that democratic pressure leads to an increased budget share by increasing the level of subsidies to the sector.

Such quantitative political economy models have gone a long way in explaining agricultural policy choices, but they have generally neglected factors on which limited data are available, such as the role played by emerging farmer organizations, the role of the private sector, and the influence of international development agencies on agricultural policies. Likewise, as already mentioned, the role of ideas and ideologies in explaining agricultural policy choices has been largely neglected (Binswanger & Deininger, 1997; Birner & Resnick, 2010). Only a few quantitative studies have included the left-right orientation of rulers as an independent variable. As pointed out in the review by Anderson et al. (2013, p. 453), the findings of such studies suggest that right wing governments tend to be more protectionist of agriculture than left wing

governments, but these studies relied only on data from Organisation for Economic Co-operation and Development (OECD) countries. As already mentioned and further explained in Box 2.2, a recent study conducted in Ghana, Uganda and Senegal found that donors and domestic policy makers held rather different policy beliefs on what it actually takes to promote productivity growth in agriculture (Mockshell & Birner, 2015).

A review by Poulton (2014) that draws on qualitative case study evidence as well as findings from the literature throws light on the question of why the political will to support agricultural transformation in sub-Saharan Africa has remained limited despite democratization. Poulton's review identifies several reasons that may account for this outcome. One is the credibility challenge that politicians face in new democracies, a problem that has also been well documented in the political science literature (see, e.g., Keefer & Khemani, 2005). In view of information asymmetries, voters have limited possibilities to assess the performance of politicians. Therefore, they often opt for a candidate from the same ethnic group (a strategy known as "identity-based voting") or they rely on intermediaries, such as local patrons or chiefs. In rural areas, problems of accessing information about the performance of politicians may be particularly problematic, especially if literacy levels are low. Another reason that can lead to limited support for agriculture is the fact that presidential candidates often try to win elections by forming alliances of regional voting blocs rather than by focusing on national issues. These factors lead to policies that focus on the provision of benefits to particular regions or localities rather than on the provision of public goods at the national level. Moreover, Poulton's (2014) analysis finds that political will to invest in smallholder agriculture and

Box 2.2: Donors and domestic policy makers: Two worlds in agricultural policy making?

Do domestic policy makers, such as parliamentarians and ministry staff, have different policy beliefs regarding agriculture than representatives of donor agencies and international financial institutions? This was the topic of a recent study conducted in Ghana, Uganda and Senegal (Mockshell & Birner, 2015). A discourse analysis was carried out to examine the policy beliefs of different stakeholders regarding the question: What does it actually take to develop smallholder agriculture? The analysis showed that most respondents shared the view that low productivity is the major problem facing the agriculture sector. Yet, based on a cluster analysis, the authors could distinguish two groups of stakeholders that had rather different views of the policy instruments that they considered appropriate to address this problem. They are referred to as “discourse coalitions” since their members shared a similar discourse. One discourse coalition consisted mostly of domestic policy makers and stakeholders (e.g., parliamentarians, staff of the Ministry of Agriculture, representatives of farmer organizations), the other mostly of donors and representatives of international financial institutions. Academics were found in each of the two coalitions.

Members of the domestic discourse coalition expressed the policy belief that it is essential to ensure that farmers have access to agricultural inputs, and that input subsidies are an appropriate instrument to reach this goal. Members of this discourse coalition also thought that agricultural mechanization is key to overcome the “hoe and cutlass” agriculture that is unattractive to the youth. Moreover, members of this coalition often mentioned that price guarantees would be important to encourage farmers to adopt new technologies and realize higher yields. Members of the donor discourse coalition were rather critical of all these policy instruments. They saw the main role of the government as creating an enabling policy framework for private agribusiness enterprises. The interviews also revealed that the two discourse coalitions were critical of each other’s positions. Members of the domestic discourse coalition criticized donors for imposing policy instruments that were not well suited to local conditions, whereas members of the donor coalition criticized that domestic policy makers favored subsidies out of political interests. The results were strikingly similar in all three study countries. The authors concluded that efforts are necessary to promote a fruitful dialogue across the two coalitions with the aim to bridge the gap between the policy beliefs of the “domestic world” and the “donor world.”

Source: Mockshell (2016); Mockshell & Birner (2015)

achieve broad-based rural growth is higher in countries that depend on agriculture rather than other resources (a finding that is consistent with the literature on the “resource curse”, see Ross (2015)). In addition, a perceived threat to the continuation of the regime may foster the political will to support agriculture and achieve food security (Poulton, 2014).

This finding is supported by studies on the political economy of the Green Revolution in Asia, which show that the governments in charge at the time, for example, in India, Indonesia and the Philippines, needed to deliver outcomes, most notably national food security, to remain in power (Birner & Resnick, 2010; Djurfeldt, Holmen, Jirstrom, & Larsson, 2005). As Poulton (2014, p. S119) notes, “this is an uncomfortable

finding for those seeking to improve agricultural policy making in Africa, because the factors that create strong state incentives to perform are ‘exogenous’.”¹⁰

This interpretation of the political economy of agricultural policy neglects one important factor in the creation of political will: the role that the vision and leadership of highly committed political leaders can play (see also Boettiger, Denis, & Sanghvi, 2017b). High-level political leaders who believe in the role of agriculture can make a difference, as illustrated in Box 2.3. Since agricultural transformation

depends not only on investment in agriculture but also on investments in other sectors (e.g., road development in rural areas), high-level commitment by the minister of agriculture alone is typically insufficient. It requires support from the head of state, as the cases in Box 2.3 show.

The above considerations throw light on the factors that may explain the emergence (or absence) of the political will to support agricultural transformation. It is equally important to understand how political will can be sustained over time (see Section 2). The fact that past successes in African agriculture could

Box 2.3: The role of committed high-level political leaders

Vision and leadership can play an important role in creating political will for agricultural transformation. In the case of the Indian Green Revolution, for example, it was the vision and leadership of the Minister of Agriculture at the time, C. Subramaniam, which played a key role in implementing the policies that made the Green Revolution possible. As is evident from his autobiography (Subramaniam, 1995), he had to promote those policies against the stiff political resistance of opponents who did not believe in the role of agriculture, and he would not have been successful without backing from the Prime Minister.

Ethiopia is a similarly interesting case in this respect. As already pointed out, Ethiopia is the only country in Africa that has achieved high rates of agricultural growth over an extended period of time. Evidence exists that the political will of former Prime Minister, Meles Zenawi, played a key role in this regard. He implemented the concept of Agricultural Development Led Industrialization (ADLI), which is based on John Mellor’s book *Agriculture on the Road to Industrialization* (Mellor, 1995). There is an anecdote, according to which Prime Minister Meles carried a large set of books, including this one, on an associated horse as he led the guerilla forces (a point publicly made by the Minister of Finance). As a leader of the guerilla forces, the Prime Minister also had the opportunity to get to know rural areas and farmers very well, an experience that sets him apart from urban-based politicians, who often have limited understanding of smallholder agriculture. Most likely, it was the rare combination of a good understanding of rural areas and knowledge of the relevant scientific literature that contributed to the political will of the former Ethiopian Prime Minister to implement effective agricultural policies.

Sources: Subramaniam (1995); John W. Mellor (Professor Emeritus, Cornell University, personal communication, 2018).

¹⁰ In view of this finding, one may ask why the food price crisis of 2008 did not strengthen the political will to support agriculture. One may ask whether it is part of the problem that African policy makers know that donors are likely to help out in a food crisis, and that it is easier to import food than to grow it?

not be maintained calls for better understanding the reasons why political support may falter even after initial successes. Donor funding may play a role in this respect. For example, the political will of domestic policy makers may be affected if donor-funded programs suddenly stop in policy areas that require high levels of budgetary resources. This problem has been well documented for the case of agricultural extension services (Anderson & Feder, 2004). One may also hypothesize that the stark decline of donor support to agriculture in the 1980s and 1990s (see World Bank, 2007) has had a negative impact on the political will of African governments to support the sector. It is also important to understand the long-term effects of past failures to support agricultural transformation. For example, governments may develop doubts about the effectiveness of smallholder-oriented strategies to support agriculture in view of a mixed past record, which may reduce their political will to try again. To avoid this problem, a “first mover” strategy can be helpful, as further explained in the following.

Another factor that may influence political will at the national level is regional commitment to support agriculture. In this respect, it is an interesting question as to what role CAADP, the Maputo Declaration (AU, 2003) and the Malabo Declaration (AU, 2014) have played in strengthening the political will of African governments to support agricultural transformation. The fact that few countries met the CAADP target of spending 10% of their budgetary resources on agriculture is often interpreted as an indication that these continent-wide efforts had a limited effect on national political will. Yet, the question arises as to what would have happened in the absence of these regional efforts, which create mutual accountability. Spending on agriculture might have been even lower. From a methodological point of view, this question is difficult to answer as we cannot observe the counterfactual.

Linking political will to agricultural transformation outcomes

It is an important future research agenda to link different indicators of political will to outcome indicators of agricultural transformation. For example, one can ask the question as to how indicators of political will relate to growth rates in agricultural value added and in TFP. This line of research is methodologically challenging for several reasons. One is the challenge to establish causality in view of data limitations. Another challenge is to appropriately deal with time lags, considering that the measures taken by a government with strong political will to support agriculture will show results only after a time lag, which depends on the type of policy instrument. Investments in agricultural R&D often have long time lags. One also has to consider that the role of political will in achieving transformation outcomes may change over time. For example, one can hypothesize that in land-abundant countries less political will may be needed for achieving good agricultural growth rates since farmers can bring new land into production using already available technologies. If this argument holds, political will would gain in importance for achieving TFP growth once land becomes scarce. The type of agricultural development strategy may also be related to the level of political will that is required to achieve a certain outcome. For example, an agricultural transformation led by large private farms and large agribusinesses may require less political will than a smallholder-led transformation. While methodologically challenging, more research on such issues would be helpful to further refine the indicators of political will and to better understand the role that it can play in achieving agricultural transformation. However, the need for further research should not be seen as an excuse not to act. As pointed out in the next section, several strategies to strengthen political will are already available.

Strategies for strengthening political will in support of agricultural transformation

Overview of strategies

One can distinguish between two basic types of strategies that can be used to strengthen the political will needed to promote agricultural transformation and to address the associated governance challenges (Figure 2.8). One set of strategies targets the government institutions involved in agricultural policy making and implementation. These strategies may be labelled “top-down” or “supply-side” strategies as they target the political and administrative institutions responsible for the formulation and implementation of agricultural policies

and programs. These institutions include parliamentary committees in charge of agriculture, agricultural ministries and their departments as well as agencies and organizations in charge of agricultural research, extension, regulation and agricultural infrastructure provision. The second set of strategies aims to strengthen the ability of citizens, particularly farmers and their organizations, to demand better policies and services and to hold politicians and service providers accountable. These strategies can be labelled “bottom-up” or “demand-side”

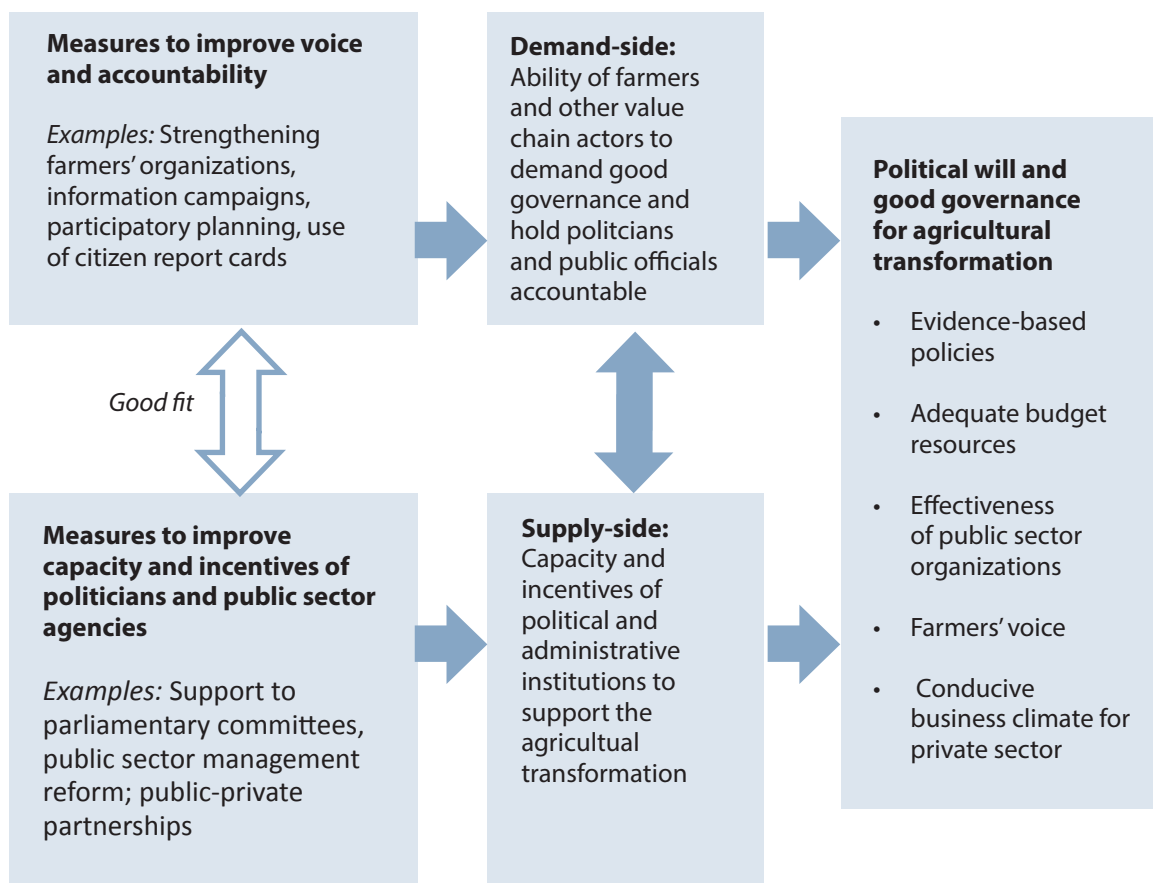


Figure 2.8: Supply- and demand-side strategies to strengthen political will and improve governance

Source: Authors, adapted from World Bank (2007, p. 252)

strategies. Due to the rise of democracy, and the experience that supply-side strategies have had limited effect, demand-side strategies have gained increasing importance in the past few decades (World Bank, 2007).

Different actors can be involved in applying these strategies. At the national level, farmer organizations and non-governmental organizations (NGOs) can play a key role in using demand-side strategies. Change agents within ministries of agriculture and parliamentarians who are committed to driving agricultural transformation can push for supply-side strategies. Since many countries engaged in decentralization in recent years (Birner & von Braun, 2015), local governments can also play an increasing role. They should be considered both as part of supply-side strategies (e.g., by strengthening the role of decentralized agricultural offices)

and as part of demand-side strategies (e.g., by building the capacity of elected local council members).

International organizations, such as AGRA, can support both types of strategies, as can development partners. The Advocacy Coalition Framework, a conceptual model developed in the political sciences (Sabatier, 1993) indicates that it may be important to form coalitions of different actors, who develop a joint discourse and joint action in support of agricultural transformation. Strategies to strengthen the political will to support agricultural transformation can target each of the nine components of political will listed in Box 2.1. Table 2.2 displays supply- and demand-side strategies that can be applied to strengthen these different components (cf. Brinkerhoff, 2000).

Table 2.2: Strategies to strengthen political will

Component	Supply-side strategies	Demand-side strategies
1. Strengthening government initiative	<ul style="list-style-type: none"> • Support to politicians and public officials who are committed to promote the agricultural transformation • Support to parliamentary committees in charge of agriculture • Avoiding of provision of funds to programs for which the government's own funding share is low 	<ul style="list-style-type: none"> • Lobbying of governments to support agriculture • Support of farmers' and other civil society organizations who promote the agricultural transformation • Support to journalists who report on agricultural issues
2. Development and implementation of a national plan	<ul style="list-style-type: none"> • Building analytical capacity in agricultural ministries for strategic planning as well as monitoring and evaluation 	<ul style="list-style-type: none"> • Establish stakeholder platforms that are involved in the development and monitoring of a national strategic plan • Strengthen parliamentary committees to be involved in strategic planning
3. Promoting evidence-based policy making	<ul style="list-style-type: none"> • Strengthening the capacity of planning units and research organizations to assess and select agricultural policies/programs based on evidence • Institute impact assessment studies for key flagship programs 	<ul style="list-style-type: none"> • Strengthen the demand for information about the performance of agricultural programs to create transparency and promote performance-based voting

Component	Supply-side strategies	Demand-side strategies
4. Mobilization of stakeholders	<ul style="list-style-type: none"> Promoting the establishment of multi-stakeholder platforms for agricultural policy making and sector coordination (e.g., agriculture sector working groups, joint sector reviews, etc.) Strengthening parliaments' capacity to conduct public hearings 	<ul style="list-style-type: none"> Strengthening of farmers' and other civil society's organizations Building their capacity to participate in multi-stakeholder policy processes Establish public-private dialogue platforms
5. Public commitment and allocation of resources	<ul style="list-style-type: none"> Collecting data on public expenditures for agriculture and performing agricultural budget analyses and making findings publicly available Strengthening capacity for timely execution of allocated budget Strengthening parliaments' capacity for budget analysis and hearings 	<ul style="list-style-type: none"> Engaging farmers' and civil society organizations in public expenditure tracking and participatory budgeting
6. Investments and reforms to strengthen implementation capacity	<ul style="list-style-type: none"> Civil service reform (recruitment, hiring practices, pay scales, promotion, professional incentives) Technical training (long-term and in-service) 	<ul style="list-style-type: none"> Development of formal stakeholder feedback mechanisms (radio roundtables, corruption hotlines, etc.) Journalist training and support for agricultural policy reporting
7. Application of credible sanctions	<ul style="list-style-type: none"> Support to reforms that establish sanctions for mismanagement of agricultural programs Institutionalize performance audit of key government programs Provision of technical assistance and training in this field 	<ul style="list-style-type: none"> Offering of training for watchdog organizations and journalists Assisting in the establishment of complaint mechanisms for farmers
8. Continuity of effort	<ul style="list-style-type: none"> Development of multi-year agricultural programs, strategies and investment plans Provision of multi-year funding to support agricultural policies/ programs; Investment in long-term agricultural institution-building 	<ul style="list-style-type: none"> Development of long-term strategies by farmers' and other civil society organizations Provision of multi-year support to farmers' and other civil society organizations
9. Learning and adaptation	<ul style="list-style-type: none"> Support of monitoring, learning and evaluation of agricultural policies and programs, including the use of advanced methods such as experimental design Building of capacity in these areas, including by institutional twinning 	<ul style="list-style-type: none"> Engagement of farmers in program evaluation, e.g., by using citizen report cards Creation of options for North-South and South-South exchange among farmers' and other civil society organizations

Source: Authors, following the framework developed by Brinkerhoff (2010)

Examples

This section discusses four examples of supply- and demand-side strategies to strengthen political will. As discussed international organizations, such as AGRA, as well as development partners can support those strategies.

Strengthening farmer organizations

As shown in Table 2.2, an important demand-side strategy to create political will is the strengthening of farmer organizations. The literature on the political economy of agricultural policy suggests that smallholder farmers in developing countries face particularly high transaction costs and collective action problems in organizing themselves as effective interest groups, due to their large numbers, dispersed locations, limited resources and high time discount rates. However, evidence exists that the ability of smallholders to organize themselves has been underestimated in this literature (e.g., Bingen, 1996; World Bank, 2007). For example, farmer organizations and peasant movements played an important role in the Green Revolution in Asia (Birner & Resnick, 2010). The past few decades have seen the rise of farmer organizations in several African countries. Cotton farmers in Mali are an example (Bingen, 1996). Importantly, farmer organizations have increasingly been able to join forces at national and regional level and to participate in agricultural policy processes. An example is ROPPA (*Réseau des Organisations Paysannes et de Producteurs Agricoles de l'Afrique de l'Ouest* (ROPPA), which consists of 10 national farmer organizations in West Africa (Resnick & Birner, 2010). Democratization, regional integration and improvements in rural infrastructure and education may have contributed to this development.

Development partners can support the development of farmer organizations. The International Fund for Agricultural Development (IFAD), for example, has provided grants to regional and national farmer organizations in Africa. An evaluation found that such grants are more effective in strengthening farmer organizations when they were used for the institutional development of the organizations rather than for supporting micro-projects that the organizations implemented (IFAD IOE, 2014). Donors who want to engage in this field need to identify and support those organizations in which farmers themselves have taken the lead, considering that there are also farmer organizations which are largely government-initiated top-down administrative structures for managing farmers or distributing subsidized inputs. The key for donors is to ensure that their support does not undermine the autonomy of farmer organizations, but rather strengthens their ability to build a strong grassroots base. One promising approach is “twinning” emerging farmer organizations in Africa with national farmer organizations in industrialized countries so that they can learn from their experience in representing farmers’ interests. For example, the German development cooperation agency is currently pursuing this approach by involving the German Farmers’ Union in the implementation of its program One World without Hunger.¹¹

Promoting participatory and evidence-based policy processes

Farmer organizations can influence policy processes in different ways, such as lobbying, mobilizing rural voters, and participation in multi-stakeholder policy processes. During the past few decades, development organizations have pushed for stakeholder participation in agricultural policy processes (see e.g., Resnick & Birner, 2010). CAADP is a prominent

¹¹ See <http://www.bauernverband.de/eine-welt-ohne-hunger>.



example: it has involved “round tables” to create fora for multi-stakeholder participation. Such participatory policy processes can play an important role in developing buy-in and consensus about agricultural policy choices. However, they have to be organized carefully to avoid bias and unrealistic expectations by the participants. Building the capacity of farmer organizations and rural women’s organizations can help to make such participatory policy processes more inclusive. Support to multi-stakeholder policy dialogues at the national and regional levels can also be useful. As pointed out by Resnick and Birner (2010), it is also important to involve at the outset the major political bodies responsible for decision making, such as parliaments. For example, participatory processes to develop agricultural strategies could be steered by parliamentary committees with responsibilities for agriculture. Moreover, there is a need to strengthen the analytical capacity of parliaments. For the case of Ghana, Resnick and Mather (2016) found that the parliamentary agricultural committee has only one researcher with a PhD to help members of parliaments to scrutinize budget plans for the agriculture sector and to identify misallocated resources. The authors concluded that strengthening the parliamentary research service would benefit legislative oversight over agriculture. Moreover, ensuring political buy-in might also be conducive to overcoming the governance challenges of policy implementation already discussed.

Recent research results underline that participatory policy processes are more effective if they are informed by evidence on the appropriateness and effectiveness of different agricultural policy choices. A review of empirical studies that applied the Kaleidoscope Model, a framework for the analysis of policy reform, found that evidence was among the key factors that facilitated reforms in agricultural policies, next to advocacy and financial support

(Resnick, Haggblade, Babu, Hendrik,s & Mather, 2017). Evidence-based policy making requires the development of capacity in planning units of agricultural ministries to use appropriate data, tools and analyses. They need to be able to identify the agricultural policy instruments that are most relevant, depending on the phase of the rural and structural transformation process. A tool that has been developed to facilitate evidence-based agricultural policy making is ReSAKSS (see <http://www.resakss.org>. See Section 3.2). Since this tool is available in the form of an interactive website, it contributes to transparency and can be used by diverse stakeholders.

Evidence may also be useful to address one particular constraint to political will: a widespread perception among the political elite in several African countries that promoting agriculture, especially smallholder agriculture, is not a promising strategy to promote economic development (Djurfeldt et al., 2005). More research and stories of successful supply chains may convince African elites that agriculture can be a major contributor to economic development and provide good jobs. Publications such as *Successes in African Agriculture* (Gebre-Madhin & Haggblade, 2004; Haggblade & Hazell, 2010) could play a role in this respect. John Mellor’s recent book, *Agricultural Development and Economic Transformation: Promoting Growth with Poverty Reduction* (Mellor, 2017), is written specifically to inform policy makers and has already been well received by organizations such as AGRA and the African Development Bank. In addition, it would also be important to find out how research-based knowledge could best be communicated to political elites. Young (2005) suggests that think tanks and regional networks could be used to communicate research-based knowledge to policy makers in developing countries. Social media and new formats such as TED Talks will likely also play a useful role in this respect.

Promoting performance-based voting

As already discussed, rural voters often have limited incentives to vote on the basis of a party's or a candidate's political performance because they have limited ability to assess it. This leads to identity-based rather than performance-based voting, which has been identified as one of the factors that may reduce political will (Section 3.3). Information campaigns are an important demand-side strategy that can be used to address this problem by creating transparency about political performance and, thus, promote performance-based voting. This, in turn, could strengthen the political will of politicians to select and effectively implement agricultural programs that benefit smallholder farmers and promote agricultural transformation (cf. Bratton, Bhavnani, & Chen, 2012). This strategy requires not only a systematic evaluation of the performance of agricultural policies and programs, but also effective communication of such results to the general public. Support to journalists who report on the performance of agricultural programs, for example on the radio, may play a role in this respect. The emergence of private sector media in many African countries creates opportunities for this approach (see, e.g., Andriantsoa et al., 2005, for the case of Madagascar).

Changing the conditions of providing development aid

Changing the way in which donor agencies provide funding can also contribute to the strengthening of political will. One strategy is to avoid funding activities for which the government's own contribution is low since such activities lack explicit government commitment. This strategy is, however, not without problems since the government's own budget shares for agriculture are rather low in some countries. Moreover, activities that have high returns in terms of productivity growth and poverty

reduction, such as investments in agricultural R&D, are politically less attractive than, for example, subsidies. Such investments may then remain even more underfunded if donors withdraw their support.

Another option that has already been used by most donors is to move away from aid conditionality, which was often not enforced anyway (Jayne, Govereh, Mwanauomo, Nyoro & Chapoto, 2002; Van de Walle, 2001), and instead support countries that have already put in place policies supporting agricultural transformation. Such approaches are known as "Results Based Aid" or "Results Based Financing" and were first tried in health and education. The World Bank has started to experiment with this approach in agriculture (see, e.g., IEG, 2011). In 2014, the World Bank piloted the Program-for-Results (PforR) Financing Instrument in Rwanda's agriculture sector. The program's features include using the country's own institutions and processes, and linking disbursement of funds directly to the achievement of specific program results. The program was included in an early-stage assessment of the PforR instrument by the World Bank's Independent Evaluation Group (IEG, 2016). Rwanda was cited as one of the few examples where the government was able to secure co-funding by other donors and to involve the private sector. The assessment report also indicated that the Rwandan and Ethiopian governments were "positively disposed toward the PforR instrument, because they welcome what they see as the predictability and general nature of disbursements under PforRs, without policy conditionalities as prior actions" (IEG, 2016, p. 57).

Using initial successes to create political will

The choice and timing of support measures for agriculture may also play an important role for the creation of political will. In this regard, it may be useful to apply a "first mover" strategy, which

is recommended in the 2017 Africa Agriculture Status Report (AGRA, 2017, p. 122).

The idea is to concentrate resources and effort on selected value chains and drive these hard for growth and employment creation. There can also be a regional dimension to first movers, for example, starting in high potential areas that

have the best infrastructure, market access and agricultural growth potential. A first mover approach can lead to quick wins in terms of income and employment, and their visibility can also be good for developing political momentum and support for agriculture: government ministers and donors love successes.

Conclusions

The challenges to strengthening political will to support agricultural transformation are large and can hardly be fully tackled by a single chapter. Still, several conclusions can be derived from the considerations presented here. First, African governments need to take the lead in promoting agricultural transformation, both to create an enabling environment for the private sector and to address widespread market failures. Political will is essential, not only to engage in these tasks, but also to overcome the governance challenges that are inherently

associated with government interventions in agriculture. Even though it is difficult to measure, available evidence suggests that the political will to support agricultural transformation has remained limited in most African countries. Therefore, there is an urgent need to strengthen the political will to drive agricultural transformation. A wide range of strategies can be used to reach this goal; they can be supported by development partners. However, domestic actors, especially farmer organizations, must play a key role in this process.

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3 Securing a Strong Country Vision, Strategy, Prioritized Plans and Flagships

Jonathan Said¹ and Mandivamba Rukuni²

Key Messages

- 1** To be successful, a vision for agricultural transformation must be a central part of a country's national development vision and fully owned by the head of state, because it requires the coordination of multiple sectors.
- 2** Vision and strategy are not merely documents, they are what is in the mind of a country's leadership.
- 3** Agricultural transformation needs to be led by politicians, so understanding the political context and political economy in which they operate is fundamental.
- 4** The emergence of strategic and flexible support to political champions and leadership is essential because transformation is not automatic. Proponents of agricultural transformation must build an ecosystem of support to leaders of the local system.
- 5** The key to a robust prioritized strategy and to successful flagship projects lies in focusing on the development of value chains that have the greatest transformation potential, relative to the political, managerial, institutional and financial resources available in the government and in value chain actors.
- 6** Data and analysis are ultimately only valuable to champions and leaders of agricultural transformation if based on their needs, if available in a timely fashion and if presented in a way that can be absorbed.

Introduction—Redefining Vision and Strategy

This chapter provides a fresh view on what it will take to secure genuine leadership by governments in Africa to drive a successful agricultural transformation agenda, through a clear vision, strategy, prioritized plans and flagship projects.

The targets³ set out in the Comprehensive Africa Agriculture Development Program (CAADP) (AU,

2003) and the Malabo Declaration require the agricultural transformation of African countries. This means that long-term agricultural growth rises to such a level that it improves the well-being of most of the population, pulls them out of poverty, delivers nationwide permanent food and nutrition security, creates jobs and sets the country on a clear path to broader economic development and industrialization. Those

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³ The CAADP and Malabo Declaration targets are for each African country to achieve 10% of public expenditure allocated to agriculture, ending hunger by 2025 and halving poverty by 2025 through, in part, 6% annual average agriculture gross value add growth.

who want to see continent-wide agricultural transformation in Africa are turning their hopes to governments to be visionary and to set a cohesive national strategy to fix the obstacles and problems that hold Africa back from meeting its agriculture and value addition potential. It is widely recognized that for African countries to achieve such agricultural transformation, governments need to have a strong vision and a prioritized strategy with clear and successful flagship programs—as seen in countries like Ethiopia in the 2000s through its Agriculture Development Led Industrialization (Shiferaw, 2017) and Morocco since 2008 through its Green Morocco Plan (Akesbi, 2012).

However, so far many countries in Africa have struggled to secure such vision and prioritized strategy and there remains insufficient understanding of how to do it across the continent. Many countries continue to struggle.

To make headway in addressing this, we first need to be clear about what government vision and strategy mean and be clear on what they are not. They are not “documents”: they are not 20 or 30-year visioning documents like a Vision 2030 document, they are not five-year development plans like “country X’s National Development Strategy 2018–2023” and they are not national agriculture investment plans.

Rather, vision is the extent to which the *mindset* of a country’s *elite* is one that: (i) fully appreciates the potential of a country’s agriculture sector; (ii) recognizes that the elite have the capability and responsibility to guide the country towards that potential; (iii) is centered on a long-term outlook necessary to achieve that potential; and (iv) sets this, and sticks to it, as one’s own personal agenda. Given the *context* of the country’s political economy and institutional capacity, strategy is then about setting an appropriate *path*—a prioritized, feasible, adaptive and ever-evolving plan—to

help the country navigate the biggest obstacles and problems it faces to achieve its agricultural potential.


These are two big statements. As such, we break them down into four central elements.

First, we talk about mindset, not about documents, and we add to the definition of vision: “set and stick to one’s own personal agenda”. What ultimately matters for agricultural transformation is the behavior of elites as a whole, within which are included the government, the legislature, business leaders and non-governmental public-sector leaders. It is their mindset—in other words the way they think and the way they choose to act—within the context that they live in day-to-day that determines:

1. What they set as their personal agenda.
2. What their behavior is during their time in office.
3. What they chose to champion and what they chose not to champion.
4. If they have a strategy for agricultural transformation and if so what it is.
5. What programs and reforms they pursue and see through.

Given the prevailing context of a country, it is these factors—derived from the mindset of the elites—that will determine what the behavior of their organizations, including the government, is with regard to agriculture transformation. It is not what is written in a Vision 2030 document or a CAADP-based national agriculture investment plan.

Second, we use the word “elite” and not “government”. The leadership of the present-day government is a big part of the elite—and among the most important. But the elite also includes groups of people that, either now or in a close future, can influence policy makers and the agriculture sector itself: this includes



technocrats and bureaucrats in the civil service, members of parliament, businessmen with a vested interest, academia and civil society organizations. Moreover, the interaction of these players determines government actions, programs, projects and reforms relative to the agriculture sector. The government's vision and its behavior toward agriculture is primarily shaped by the pressures, demands, challenges and support it faces or gets from such elites. After all, leadership is about leading, not about heading off in the right direction while leaving the people behind. Factors like the government's capacity to deliver and overall market conditions (which determine farmer and private sector behavior in the agriculture sector) also matter, but transforming the sector as a whole ultimately depends on elite pressures, actions and wishes.

Third, we talk about the context of the political economy and of the prevailing institutional capacity within which a vision and strategy needs to take hold. This is because vision and strategy need to be based on the execution capacity of the country. Beyond the degree of development of agriculture value chains, the scale of the task of agricultural transformation depends on two crucial factors. First is the political economy with its entrenched patronage networks and the demands and incentives it places on politicians. Second is the institutional capacity of the government, which often has a weak level of skills, systems and structures—the three elements needed for coordination and policy implementation. These two factors determine how big the actual capacity of government is to implement the required actions. In turn these determine how realistic the vision is and what the right strategy should be to deliver agricultural transformation. Crucially, it is this capacity that determines how leaders in government and the wider elite evolve their vision, rethink and adapt their strategy on a daily, weekly,

monthly and yearly basis, or give up on it, as unfortunately seen in many countries in Africa.

Fourth, we define strategy as being the path needed to navigate the biggest obstacles and problems to agricultural transformation, as they arise. With obstacles and problems arising on a daily or monthly basis, the strategy—and its underlying tactics—needs to evolve, be adapted and change on a regular basis. As new information emerges about what is going well and what is not, as more is learned about the nature of the problems that need to be fixed, as economic conditions change, and as political imperatives and pressures evolve, the strategy will need to evolve with them. The strategy has to be dynamic and adaptive. The ability to do so will determine the robustness of a country's agricultural transformation strategy. It will also determine whether any of the priorities set are the best ones. Strategies need to be robust to be impactful in both an economic and a political sense. Getting these two elements right, simultaneously, is key to delivering agricultural transformation.

Once we define vision and strategy in this way, with these four key elements, we can really understand how to help governments really take the lead in driving a clear vision for agricultural transformation backed by an implementation strategy that turns it into reality.

Meles Zenawi did this in Ethiopia, starting in 1993 when the country embarked on its long-term mission to transform its agriculture sector (Plaut, 2012). The approach was called the Agricultural Development Led Industrialisation (Shiferaw, 2017). Meles and his inner circle set—in their mindset, not merely in government strategy documents—agricultural transformation as a top priority, starting initially with an investment in sesame and cut flowers for export. The Ethiopian elite and the government started collaborating closely with the private sector to bring this

investment to fruition, and largely stuck to this vision and approach. Similarly, Morocco's leadership shifted its focus in 2007 from merely supporting staple foods to a full-on agricultural transformation agenda. It is this focus and mindset of the leadership that vision and strategy depend on.⁴

Given this definition of vision and strategy, this chapter tackles seven key elements necessary for governments to drive an agricultural transformation agenda. These are:

1. How governments can set a clear vision
2. How providers of support can be context-led
3. How to secure government championing and leadership
4. How to set a strong dynamic strategy that is well prioritized and sequenced
5. How to target and remain focused
6. How to set the right policies
7. How to use analysis and data

How Governments Can Set a Clear Vision for Agricultural Transformation

Before discussing how governments can set a clear vision, as per the definition set above, we first need to acknowledge that agricultural transformation is not a sectoral issue. It is not just about agriculture and it is not just about agricultural production. While recognizing the great breakthrough that CAADP has delivered for agriculture in Africa (AU, 2018), it is also important to recognize that its impact has not been strong enough and it now needs to be repositioned to not only target the agriculture “sector” but to target economy-wide structural transformation.

Agricultural transformation is multi-sectoral in nature because it requires the development of entire value chains and market systems that can provide strong livelihoods to, often, most of a country's population. The IFAD (2016) Rural Development Report identified that agricultural and rural transformation does not happen in isolation, but as part of a broader process of structural transformation shaped by the inter-linkages between agriculture, the rural non-farm economy, manufacturing and services. Building sustainable agricultural market systems and local value addition

requires numerous enablers like energy, roads, water, labor, research, inputs, markets, investment, tax, regulation and finance. Without these, the actors in the value chain—whether farmers, input providers, processors or marketers—cannot thrive and grow at scale. Yet these enablers are not merely the mandate of the ministry of agriculture. Rather, they are either provided by the private sector or enabled by other government ministries and agencies such that if the ministry of energy and the energy utility do not collaborate with an agricultural transformation plan because their leadership has different priorities, the transformation will not happen. The same is true for the ministries of infrastructure, finance, trade and industry, water resources and so on. The lack of coordination and coherence between these agencies is the primary reason many countries have failed to transform their agriculture sectors.

The only way such agencies can be coordinated is through visionary leadership at the center of government, that is, the head of state, his or her inner circle and the ministry of finance and economic planning. If governments are

⁴ <https://www.mckinsey.com/industries/public-sector/our-insights/four-lessons-for-transforming-african-agriculture>

going to take the lead to drive agricultural transformation through a clear vision and a prioritized and robust strategy, then this transformation needs to be part of the mindset and country-wide developmental vision of the center of government (Akileswaran, Huss, Hymowitz, & Said, 2016). It must be an integral part of the nationwide economic development and structural transformation plan. In addition, it must extend to other influential elites, including in the private sector and the legislature. The elite and the government would need to promote a vision and multi-sectoral strategy that positions agricultural transformation as the central driving mechanism for the entire economy's transformation and it would need to be seen as central to a country's ability to drive its social transformation. This is what Morocco, Ethiopia and countries in Asia—such as Vietnam, India, China, Cambodia, Thailand and others—did. This is essential to achieving the Malabo targets.

This is another big statement which has significant implications for proponents of agriculture transformation. These proponents include progressives working in a government, such as in the ministries of agriculture, finance or trade and industry, those working as farmers or businesses and non-government organizations and those working on continental level, such as the CAADP and Malabo agreement community. Such visionary stakeholders should start from a position that recognizes that:

- a) **Agricultural transformation is a political agenda, not merely a technical one.** Agricultural transformation cannot continue to be viewed as a technical process. It is fundamentally political in nature.
- b) **Agricultural transformation is only possible if the elite of a country and the head of state genuinely view it as central to their political agenda.** It would need to be among the top three largest priorities on which the head of state or a strong alternative at the center of government (like a vice-president or minister of finance) will spend their time. This is key to determining whether they will go the extra mile when they need to in order to overcome the political obstacles that lie in the way of solutions to agricultural transformation bottlenecks.
- c) **A country's broader elite needs to see it as fundamental to the wider development view that they have for their country.** In other words, it needs to be intrinsic in the mindset of the country's leadership and elite—with other big priorities such as health care, education, generic business reforms, other sectoral development (e.g., tourism, extractives or manufacturing), youth empowerment, generic infrastructure and security. What do the leadership view as the interlinkages and the contributions of each of these to:
i) their political survival; ii) the security of their nation; iii) economic transformation; and iv) social transformation? Politically and technically, what is their view for how these big issues should be sequenced for relative emphasis? What is most important in the next five years? What is second most important in the next five years? Where does agricultural transformation really fit among the priorities of the head of state? While recognizing that these are not complete trade-offs, in the scheme of the limited time that heads of state have to spend on strategic programs, such a consideration is essential.

d) Agricultural transformation needs to be factored into the political cycle of the heads of state, with it potentially picking up speed when there is a longer political horizon. Windows of opportunity to drive an agricultural transformation agenda will open and close, allowing the process to accelerate, decelerate, start or end. An acceleration, a start or an end may happen just after an election, or just after a new president or prime minister has taken office. A deceleration or an end may happen just before such events. However, it may also happen based on other political factors.

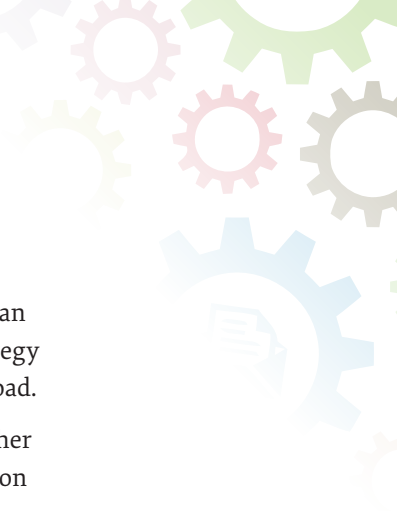
It is only through agricultural transformation being viewed in this way that there can emerge a strong enough commitment to the CAADP targets and Maputo Declaration, and that a country's leadership will devote sufficient time and attention to drive the agricultural transformation of their countries.

If agriculture transformation is not a priority, then proponents need to accept that the timing in that country may not be right and expectations need to be adjusted. If there is an inclusive economic transformation vision, but it is based on other sectors like tourism and manufacturing—as was the case in Mauritius, for example, in the 1970s and 1980s (Vandemoortele & Bird, 2011)—then this should be recognized. Agricultural transformation efforts should then be adjusted to be a supporting platform for these other inclusive economic transformation sectors, for example, focusing on the many links agriculture has to manufacturing and tourism. It is essential to reinforce and back the government's economic transformation vision, even if it is not based on agriculture—and progress towards achieving the CAADP and Malabo goals should be adjusted accordingly.

If the center of government is not prioritizing either agriculture or another inclusive economic sector (like manufacturing or tourism), then this does not mean abandoning efforts to help government secure agricultural transformation. Rather, it means broadening the scope and playing the long game by extending the time horizon for a real elite vision to take hold. This would require a very different approach to that adopted under the current CAADP framework in many countries in Africa.

The current application of the CAADP framework implicitly assumes that elite commitment for agriculture transformation is a given and so is the vision of the center of government vision for agricultural transformation. It is important to assess these and in countries where this is unclear, it is important to adjust the approach in several ways:

1. First, recognize that while the leadership of government may have a vision, they might be unable to translate it into reality because of limited delivery and coordination capacity in their agencies, such as in the presidency or ministry of finance. Lack of managerial and communication skills deployed in the right places may be preventing the vision from taking hold. In such a case, there may be the need to help the center of government with such capacity.
2. Second, if the vision is actually missing, it may be important to recognize that it may take, for example, 10 or 20 years instead of 2 or 4 years for there to be the basis for the leadership to assume inclusive economic transformation as a priority—and this may or may not be centered on agriculture as the prime sector. China, India and Ethiopia all required more than a decade of



foundational work for a strong economic transformation to take hold. While Meles Zenawi shifted policy toward agricultural transformation in 1993, it was only in 2004 that Ethiopia's firmly got on a path to transformation⁵ (Moller, 2015; Shiferaw, 2017). In India, Indira Gandhi's attitudinal shift toward the private sector in the 1980s "left little paper trail in actual policies but had an important impact on investor's psychology" such that India's economic transformation started in the 1990s (Rodrik and Subramanian, 2004, p. 3).⁶

3. Third, we should be prepared to work with a broader group of stakeholders and elites and to understand their mindset, incentives and situations. It is crucial to target the factors influencing heads of state, ministers of finance, ministers of trade and industry and other senior cabinet officials, and the legislature, rather than solely targeting ministries of agriculture. Proponents of agricultural transformation need to think like presidents and prime ministers, not like technocrat, to understand their world view, their perspectives, their experiences, their constraints, their broader political context, their incentives, political pressures, the political economy and patronage networks that they have to manage, the execution challenges they face, their security concerns and their economic and political pressures. It is only in this way that we can help presidents and prime ministers to act more like economists and technocrats in their policy making.

4. Fourth, with this approximate 10-year timeframe in mind, focus on strategic foundational work to set the basis for an elite transformational vision and strategy to properly take hold later down the road.

The most critical factor determining whether an inclusive economic transformation vision can take hold at the center of government is the political economy of the country. This determines the political space any leadership of the government will have—whether that leadership is a fan of agricultural transformation or not. Politicians need funding and support to run political campaigns to win elections, or to climb the ranks of their party. This support will always come with strings attached. The nature of these strings will play a big role in determining what the leadership prioritizes, where the leadership goes the extra mile to fix bottlenecks, and where it does not, irrespective of who the leadership is.

For example, if the political economy depends on extractive industries such as oil, mining and the export of raw agricultural commodities, while in addition there is a strong importer lobby, it becomes very hard for anyone in government to drive an agricultural transformation agenda. This is because these will tend to dictate how political capital is used and what the incentives for politicians as a whole are. This is essentially the case in many countries in Africa such as Nigeria, Angola, Guinea, Zimbabwe, Sierra Leone, Ghana, Tanzania, Malawi, Zambia and Liberia.

Likewise, if the patronage networks are based on an approach to agriculture that favors unsustainable subsidies of imported

5 Nin-Pratt (2015) reports that agricultural output per worker grew by 2% during 2001–2012. This compares to 0.6% growth during the 1990s and no growth in the 1970s and 1980s.

6 We recognize that the broader economic transformation in India benefited from the Green Revolution which started with Agriculture Minister C. Subramaniam's crucial decision in 1965 to defy large and powerful opposition by importing significant amounts of Mexipak high-yield wheat for use, initially, in selected lead districts. This, plus significant changes in fertilizer and irrigation policy, and together with the release of IR-8 and later IR-20 rice, transformed Indian agricultural productivity in the 1960s and 1970s, and served as a precursor to broader economic transformation in the 1990s referenced here.

fertilizers—where done outside of a coherent agricultural transformation strategy—over market system building and transformation, then this will also make it hard for governments to transform agriculture. In such contexts, the appropriate strategy would be to assume a 5- to 10-year strategic approach to build a strong enough political constituency for agricultural transformation. This is possible, for example, through strategic, long-term engagements⁷ such as:

- **Strengthening local systems and structures for intra-government coordination, for value chain coordination and for government–private sector and government–donor coordination.** There are different ways this can be done. For example, Liberia trialed a Presidential Taskforce on Agriculture for a year (Akileswaran, Huss, Hymowitz, & Said, 2016), and this improved government alignment and elite focus on agriculture both before and after the 2017 Presidential election. Cambodia and Malawi opted for a Trade Sector Wide Approach (Bird, Diamant, Grant, & Higgins, 2009), as did Malawi, centered on its agriculture-based National Export Strategy⁸ to run a series of public–private dialogue working groups. Tanzania opted to focus on agricultural corridors, starting with the Southern Agricultural Corridor of Tanzania, led by a Central Office that has a multi-stakeholder board of directors and a full-time staff headed by a CEO.⁹ Burkina Faso’s Bagre Corridor¹⁰ and Senegal’s Senegal River Valley Corridor¹¹, which focus on irrigation and coordinated

services, are other good examples of efforts centered on value chain coordination.

- **Supporting small and medium enterprises to grow through targeted business development services and tailored financing.** This would strengthen agriculture value chains with strong economic potential that can in the future bring in as much or more revenues than extractives. By supporting entrepreneurs who are investing in agriculture and agroprocessing so that they build their firm capacity and succeed, thus becoming a political force because they would have succeeded. In Malawi the Malawi Innovation Challenge Fund¹² has supported a local firm, Universal Industries, to set up the country’s first cassava starch and liquid glucose industrial scale processing plant. It is now supplying sectors such as food manufacturers, textile industries, and paper and plywood, thereby increasing the economic and political clout of value adding businesses. Similarly, in Liberia the Swedish International Development Cooperation Agency (SIDA)-funded GROW program is working with rubber processors to diversify away from the export of raw rubber to local value addition rubber by building the first such processors in the country, thus creating a new product and a new political voice.
- **Attracting and facilitating foreign or domestic investment where the target value chains are weak but have a strong business case, or where there**

7 Note: the examples used here are examples of where various initiatives have shown some positive results in helping or starting to help governments move to a place where they can drive an agricultural transformation agenda. They do not necessarily indicate that agricultural transformation actually happened there.

8 <http://www.moit.gov.mw/index.php/policies-strategies-regulations/policies-strategies#>

9 <http://sagcot.co.tz/index.php/the-team/>

10 <https://www.afdb.org/en/documents/document/burkina-faso-appraisal-report-bagre-growth-pole-support-project-papcb-05-2015-52632/>

11 <https://www.mcc.gov/where-we-work/program/senegal-compact>

12 <http://imanidevelopment.com/malawi-innovation-challenge-fund-portfolio/>

is scope for innovation. An example of this is attracting a new processor with an alternative way of processing to local players and with a different market. For example, Côte d'Ivoire engaged Olam and Cemoi to open the country's first major chocolate processing factories in 2015,¹³ thus shifting the vested interest of the value chain from raw exports to local value addition. Similarly, in 2013 Liberia attracted its first cocoa exporter, Wienco, which is supported by the Global Agriculture and Food Security Program and the International Finance Corporation,¹⁴ whose business model was centered on supporting farmers through affordable inputs, extension services and offtake, whereas the rest of the sector was content not supporting smallholder farmers and exporting low quality cocoa. This changed the dynamics of the sector.

- **Building the management capacity of economically competitive cooperatives and farms.** A good example is the Phatisa Agriculture Technical Assistance Facility,¹⁵ which has helped set up a smallholder oil palm support chain to feed into Goldtree, a processing firm in Sierra Leone. Another is Agdevco, an agri-investor, which, for example, is helping develop the Northern Zambia Agricultural Hub¹⁶ with a series of economically sustainable nucleus farms and outgrower schemes.
- **Shifting the political economy dynamics of the agricultural sector or of a particular value chain.** This was done in the rice sector in Nigeria with the Nigeria Agriculture Transformation Agenda in 2011.¹⁷ The Agenda was used to shift the

patronage networks that importers of fertilizers enjoyed through farm input subsidies and that caused few fertilizers to actually reach farmers, toward a mechanism that allowed farmers to actually access those fertilizers. This could also include working with importers of agricultural crops or of fertilizers and seed, to help them see a business opportunity for themselves to engage in value addition and to follow the agricultural transformation agenda, as was done by the Department for International Development (DFID)-funded Malawi Oil Seed Transformation Project.¹⁸ It could also include helping political leaders share the spoils between technocrats and progressives on the one hand and rent-seekers on the other—just as Hun Sen, the Prime Minister of Cambodia, has done: he created a balance between technocrats and rent-seekers within Hun Sen's dominant coalition. Technocrats are given just enough latitude to support growth industries like garments, tourism, electronics, and rice, while rent-seekers are given the political backing to generate profits, a proportion of which are funneled to the masses through patronage projects of the ruling party (Kelsall & Heng, 2017).

- **Systematically building the technocratic competence.** Building this competence in agriculture value chain and market systems development of the civil service across multiple ministries is essential to help technocrats and elites better understand how to develop an economically and agriculturally robust strategy that can actually lead to genuine agricultural transformation that benefits most of the population, including smallholder farmers.

¹³ <https://qz.com/981562/ghana-ivory-coast-are-marketing-more-chocolate-to-the-world/>

¹⁴ <http://www.gafspfund.org/content/wienco>

¹⁵ <https://www.phatisa.com/portfolio/aaf-portfolio/>

¹⁶ <https://www.agdevco.com/our-investments/by-investment/NORTHERN-ZAMBIA-AGRICULTURAL-HUB-NZAH>

¹⁷ <http://venturesafrica.com/how-nigerias-agricultural-transformation-agenda-is-changing-the-status-quo/>

¹⁸ Malawi Oil Seed Transformation Project. DFID. <http://www.most.mw/>

Building a strong political, economic and social foundation provides the right support to countries for a strong agricultural vision to gradually emerge and take root. It is ultimately when moneymaking interests align with what needs to happen to allow for agricultural transformation that this can take root. Hence digging deep to understand these dynamics and to help value adding actors succeed and non-engaged businesses to find their entry point can be essential. How to prioritize these will depend on proper analysis of the issues faced by the country, and its typology, as discussed in Section 3.

In countries where the leadership and elite already view agricultural transformation as a top priority but struggle to bring this vision to life because, for example, of the political economy constraints they face, then it is essential to provide them with the right support to succeed politically and economically. This means backing that vision strategically by:

- Strengthening the political and economic momentum for it (approaches such as those mentioned earlier in this section)
- Helping the government address the specific obstacles its approach faces and to solve its priority problems in a sustainable way. For this, improved delivery and adaptive management tools that have been applied in other sectors, such as Smart Management which focuses on the prioritization, planning and performance

management of a few activities (Tony Blair Institute, 2016), Problem Driven Iterative Adaptation (Andrews, Pritchett, & Woolcock, 2012) and Thinking and Working Politically¹⁹ can be applied.



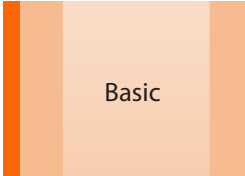
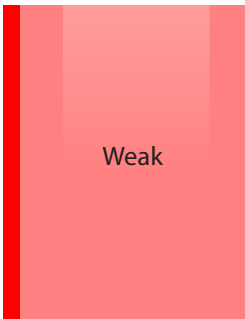
In conclusion, it is important to understand how strong the elite's inclusive economic transformation vision is, and if it is missing, then focusing on what will allow it to take hold and come to life in a tangible way. While recognizing that elite and government are not a homogenous group, the matrix in Table 3.1 serves as a guide to help determine the status of a country's vision and then determine the right approach to engage with it.

The remainder of this chapter addresses the elements necessary for a prioritized strategy to take hold where elites and government have an inclusive economic transformation vision in which agriculture plays a central or critical role.

It is important to recognize that vision is dynamic and ever changing. It does not necessarily "come first". Because it is about the mindset of the elite, it evolves slowly over a time, as the basis for it changes. Hence, each of the factors that follow on from vision (discussed in the rest of this chapter) also play a big role in either reinforcing or undermining the government and elite vision. It is therefore important to view these as intertwined and mutually reinforcing.

¹⁹ <https://www.youtube.com/watch?v=tpzef0u6iHl>

Table 3.1: Guiding framework to establish strength of country vision

Strength of vision	Description	Approach
 <p>Strong</p>	<p>Elite & government consistently set agricultural transformation as top priority & act accordingly</p>	<p>Follow government lead and help it with implementation and delivery.</p>
 <p>Mid-Level</p>	<p>Elite & government speak of agriculture's importance, but don't prioritize it enough (not in top 3).</p>	<p>Help progressive elites & leaders to succeed in their plans by helping them build economic and political momentum.</p>
 <p>Basic</p>	<p>Elite & government have started to recognize importance, but do very little to tackle its obstacles.</p>	<p>Take long approach (1–2 decades) to strengthen inclusive agricultural value chains, by working with engaged local stakeholders to find localized solutions to systemic problems.</p>
 <p>Weak</p>	<p>Elite & government give almost no importance to agriculture, e.g., due to reliance on oil or mining or because they are extensively divided and conflicted.</p>	<p>Take very long approach (possibly 2–3 decades) to slowly start building economically robust value chains, working mostly with small and medium enterprises & catalytic investors to help them succeed. This will be key to build “pressure from below”, by empowering rural people to pressure elites into action.</p>

Source: Authors

How to be Context-Led—Country Typologies

Before analyzing the elements of how governments can drive an agricultural transformation agenda, it is essential for its proponents to recognize that successful efforts to help a country secure a strong vision and prioritized strategy for agricultural transformation are those based on the context of that country. No one-size-fits all solution exists. Each country is different and faces a different set of political, social, cultural,

economic, human and institutional capacity factors. Furthermore, each country has a different history with its own legacies, ways of working, systems and structures. The vision, strategy, prioritization and flagship projects need to depend on the capacity of a country as a whole and in turn, this capacity is dependent on the various factors, some of which we now discuss.

One major factor is the political economy, which is the relationship between the political and economic systems of a country. Properly understanding this is important because politicians lead governments. The source of rents that politicians need to accumulate political power, win elections and stay in power is a crucial determinant of whether heads of state have the political capital to make the tough decisions that will need to be made to fix problems holding back agricultural transformation.

In this report, recognizing that understanding context is complex, we propose to account for

three factors that are the most important in setting a country's context:

1. Type of political settlement and patronage networks
2. Current economic structure and scale of value adding private sector
3. Level of institutional and human capacity

Political settlement

The Matrix of Horizontal and Vertical Distributions of Power (Khan, 2011), as per Table 3.2, categorizes countries based on whether the head of state has strong or few

Table 3.2: Political settlement matrix

		HORIZONTAL DISTRIBUTION OF POWER EXCLUDED FACTIONS	
		WEAK (INTERESTS OF RULING COALITION STROGLY ALIGNED WITH GROWTH)	STRONG (INTERESTS OF RULING COALITION WEAKLY ALIGNED WITH GROWTH)
VERTICAL DISTRIBUTION OF POWER LOWER LEVEL FACTIONS	WEAK (RULING COALITION HAS STRON IMPLEMENTATION CAPABILITIES)	POTENTIAL DEVELOPMENT COALITION Low opposition from excluded factions gives ruling coalition stability and long time horizon. limited power of low level faction supporters ensures high enforcement capability. Construction of developmental state possible. South Korea 1960s	(VULNERABLE) AUTHORITARIAN COALITION Initial enforcement capabilities likely to be strong but excluded factions mean force or legal restrictions have to be used making coalition vulnerable to violent overthrow. military governance in Pakistan 1960s. Bangladesh 1980s and 1990s
	STRONG (RULING COALITION HAS WEAK IMPLEMENTATION CAPABILITIES)	(WEAK) DOMINANT PARTY Enforcement capabilities become weaker as lower-level fractions fet stronger or more fragmented. Excluded factions also become stronger if dissatisfied supporters start leaving. India under Congress 1950s and 1960s. Thailand under Thaksin 2000s, Tanzania under CCM 1992-, West Bengal under CPM 1977-	COMPETITIVE CLIENTISM Characterised by competition between multiplestrong factions. Stability can be achieved only with credible mechanisms for cycling of factions in power. low enforcement capabilities in most cases and short time horizons. India and Bangladesh after 1980s. Thailand in the 1980s and 1990s

Source: Khan, 2011

powers based on four factors. These are whether he or she has to manage a diverse set of conflicted elite; whether the country is rules-based or deals-based, whether the ruling coalition has interests that align with transformation or not; and whether the country has a democratic or non-democratic system. Before presenting the matrix, two definitions are needed:

- a) **Dominant party vs. competitive settlements:** The dominant party relates to where the ruling party dominates the political scene (e.g., a party stays in power for decades at a stretch), while in a competitive scenario there is strong competition between different parties.
- b) **Horizontal power vs. vertical political power:** Horizontal power refers to the extent to which power is concentrated in the ruling party or coalition relative to elites excluded from the government. If coalitions of elites that are excluded from government are weak, then the interests of the ruling coalition are more likely to be aligned to a long-term horizon, which is needed for agricultural or any economic transformation. Vertical power relates to how power is distributed across higher and lower level factions within the ruling party or coalition, such that if lower level factions are weak, then the inner circle and center of government has more relative power strong and hence may have stronger implementation capacity.

These elements combine to create four scenarios as summarized in Table 2.2. One scenario is development coalition. South Korea in the 1960s is an example of this because elite factions that were excluded from government and lower level factions within the government were both weak. This allowed

the authoritarian government (South Korea only became a multi-party democracy in 1988) to set a strong industrial policy at the time.

Another scenario is weak dominant party, like Tanzania since 1992. The country is classified as a weak dominant party because the ruling party faces a weak opposition outside the party but has to contend with strong lower level factions within the party. Hence, the center of government and the inner circle are relatively weak, despite the party's dominant position. This was critical in undermining Tanzania's agricultural transformation vision and implementation capacity (Khan, 2011). Crucially, this provides a different perspective on efforts such as decentralization and rapid democratization, raising the question as to whether the push to decentralize power in some countries may undermine their ability to build their capacity to drive their agricultural transformation agenda.

Then there is the vulnerable authoritarian states scenario where power is centralized within government but excludes many strong political factions. This can lead to strong implementation capacities in the short term but the long-term stability of the agenda is at risk as the ruling coalition is typically not inclusive. Bangladesh in the 1980s and 1990s is an example, though in Bangladesh's case this set the basis for manufacturing transformation in the 2000s as the interests of political and business elites aligned in the textile sector.

Finally, there is competitive clientelism—and many modern multi-party democratic African states, such as Ghana, Nigeria, Kenya, Liberia, Malawi and Zambia—fall into this category. Economic, and hence agricultural, transformation can be undermined by stiff competition between multiple strong factions excluded from the government and limited enforcement capabilities within government

due to strong factions within government itself (Khan, 2011).

Recognizing this state of affairs is essential in helping a strong country vision and strategy emerge because it determines the political capital of a country’s leadership and hence the extent to which a leadership can turn its ideas into reality. Strong visions and strategies can emerge in each context, but this would require very different approaches and very different time horizons and expectations.

Economic Structure

The Market Matrix (Pritchett & Werker, 2012) in Figure 3.1 is a recommended tool that breaks down the economic structure of a country into four categories. Categorizing the economy and the private sector in this way is helpful because businesses in each grouping are likely to have a typical set of demands they make to politicians, some of which would be in return for lending those politicians their support, for example, to win elections. For example, rentiers—who are defined as businesses that largely sell to export markets but who maintain high rents typically through the extraction of a resource such as oil, minerals or timber—would typically “ask” politicians for preferential licenses and tax

breaks. Such items do not require the political elite to invest in institutional capacity and an improved enabling environment for market systems development. These are essential for any form of inclusive growth economic transformation, including agricultural transformation.

Similarly, powerbrokers, who largely target domestic markets but also make high rents and profits (this typically includes banks and importers in many African countries), also tend to ask for things like preferential licenses (to protect their monopolistic or oligopolistic position) or tax breaks. This also creates relatively poor incentives for politicians, should powerbrokers have funded or supported their political campaign. However, magicians—those who export but face strong competition—typically tend to ask politicians for growth-enhancing institutions like better funding standards bureaus, or more reliable electricity, or improved customs procedures for export or improved sanitary and phytosanitary standards (Pritchett & Werker, 2012). This is because these are critical for magicians to compete effectively. Political power typically lies in these three categories, and less so among the workhorses, who include most people

	High Rents	Market competition
Export oriented	Rentiers	Magicians
Domestic market	Powerbrokers	Workhorses

Figure 3.1: Market matrix

Source: Pritchett and Werker (2012)

in African countries, but who typically have limited influence and reach with political elite. Hence, if magicians are weak while rentiers and powerbrokers are strong—like in Ghana (Darko Osei, Ackah, Domfe, & Danquah, 2017; see Figure 3.2)—then politicians tend to have little political capital to drive agricultural transformation. This is especially so in competitive clientelistic political settlements where politicians face very stiff competition to become head of state.

This is also true in countries like Malawi, Nigeria, Sierra Leone, Liberia, Kenya, Zambia, Guinea and Botswana. These countries have also historically relied on extractives (who classify as rentiers in Figure 3.1) such as oil, iron ore, copper, diamonds, timber or raw agricultural exports (such as tobacco, tea, coffee and rubber) as a key source of

government revenue and elite rents. This has caused the political economy to place little pressure on politicians to build the capacity needed for agricultural or broader economic transformation. This puts them in the same category as dominant party countries that also relied on resource extraction, such as Mozambique, Niger, Tanzania, Zimbabwe and Angola. None of these countries have achieved agricultural transformation over the past 10 years, suggesting that reliance on extractives is a potential key factor in holding back Africa’s economic transformation.

It is also essential to account for the scale and depth of magicians, that is, the value adding and job-creating private sector that is operating in the agricultural sector and related value chains. For example, Rwanda has a very limited indigenous value adding private sector

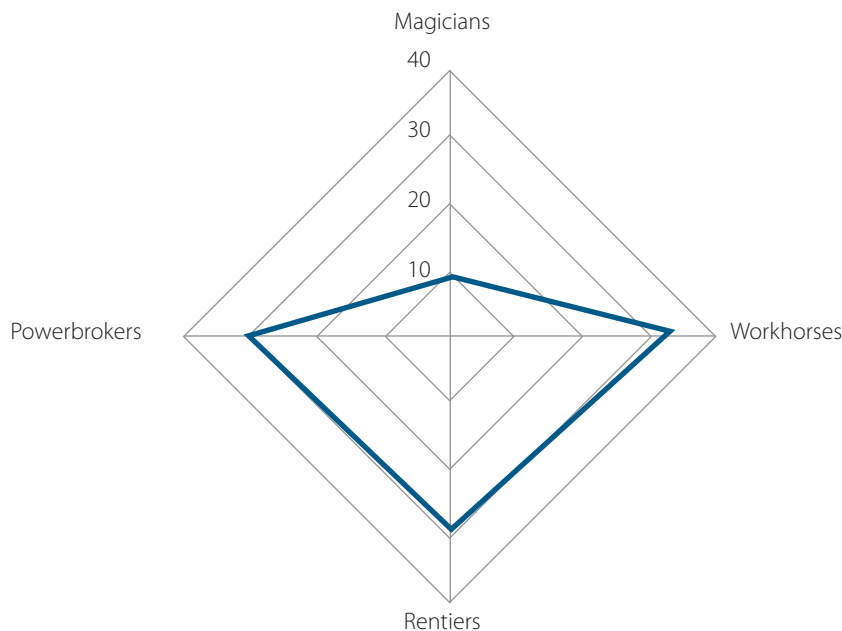


Figure 3.2. Market matrix of Ghana, percent of GDP accounted for by each type of private sector in 2014

Source: Darko Osei et al. (2017)

when compared with countries like Kenya and this influences the scope of the vision for agricultural transformation because the government has fewer private sector players it can collaborate with to drive the agenda. Such a private sector, which typically has incentives aligned to the needs of agricultural transformation, also boosts the ability of government leaders to gain economic and political traction when they embark on an agricultural transformation agenda because they have a stronger value adding private sector (with aligned incentives) to work with. This all does not mean Rwanda will struggle more to transform its agriculture relative to Kenya. Rather, it just means Rwanda should seek to adopt a different approach to that of Kenya, one that accounts for the size of the existing private sector. For example, in Rwanda it may be valuable to treat value-adding micro and small businesses as “catalytic players” that receive significant support, despite their limited size, because they can form the basis for enhancing agriculture value chains. In Kenya, there may be less of a need to focus strategy at this level, instead helping medium to large businesses innovate and grow (while still encouraging small businesses to grow).

Institutional and human capacity

With regard to institutional capacity, the key is to recognize that this a function of the evolution of the political is settlement and economic structure over time as these form the basis of the political economy, which in turn drives the degree of investment in institutional capacity. Institutional capacity building is ultimately the responsibility of politicians.

Ethiopia has relatively strong institutional capacity because of its dominant party system and its favorable economic structure, with elite alignment and commitment to agricultural and broader economic transformation. Countries

like Kenya, Ghana and Senegal also have strong institutional capacity and human capacity, mostly because of their history of strong civil service and education. Countries like Ghana and Côte d’Ivoire, that historically relied on the export of cocoa have relatively strong agricultural institutions in the form of research centers, agricultural extension, the Cocobod in Ghana and the Conseil Café Cacao in Côte d’Ivoire. Furthermore, countries that have strong capacity in the center of government to organize, coordinate and build political cohesion within the government, such as in Cote d’Ivoire, Senegal and Kenya, will find it easier to drive an agricultural transformation agenda.

Finally, countries like Zimbabwe, Ghana and Senegal have relatively strong human capital on the back of their relatively strong education sector when compared with countries like Malawi, Tanzania, Angola and Liberia. Zimbabwe spends 30% of its budget on education, while Senegal and Ghana spend 24% and 21% respectively. This compares with 17% in Malawi and Tanzania and 8% in Liberia and Angola. Numerous studies have found a positive correlation between education and agricultural productivity (Das & Sahoo, 2012, Oduro-Ofori, Aboagye, & Acquaye, 2014; Okpachu, Okpachu, & Obijesi, 2014).

In concluding this section, the key message is the importance of proponents of agricultural transformation to appreciate different country typologies to account for the political, economic, institutional and human circumstances of a country. In turn this can allow us to appropriately understand the ability of a government’s leadership to adopt a strong vision and strategy for agricultural transformation, and hence to devise an appropriate approach to helping these countries.

Framework for securing champions, leadership, prioritized strategy and focus

Having set out suggestions for how governments can secure a vision for agricultural transformation and having set out a typology for different country contexts, this section provides a framework to translate that vision into reality. It focuses on four key ingredients that were all present in successful countries, like Cambodia, Vietnam, Morocco and Ethiopia:

1. How to secure championing and leadership
2. How to set a strong dynamic strategy that is well prioritized and sequenced
3. How to target and remain focused
4. How to set the right policies

The first part of the framework is about how to secure champions and leaders in government. Government champions and leaders of agricultural transformation can emerge from all levels of government from head of state, to the legislature, to ministerial positions or agency heads, down to permanent secretaries, directors and technical officers. Being a champion and leader means being passionate about agricultural transformation and setting a coherent vision for what one and one's colleagues can achieve in helping one's agency or group of agencies, for which he or she is responsible, to play a consistently better role in developing sustainable agricultural market systems and value chains. Leadership is understanding one's role and responsibility and going the extra mile to deliver. It is about affecting positive change through one's statutory responsibility.

Hence, champions and leaders of agricultural transformation can emerge from all parts of the ministry of agriculture, and from key agencies such as the presidency and the ministries of trade and industry, of finance and economic

planning and of infrastructure. They can also emerge in agriculture-oriented agencies that play a key role in building agricultural market systems and value chains, such as sanitary and phytosanitary agencies, customs agencies, investment promotion agencies and seed agencies. That said, the higher the level in government, the greater the responsibility and the greater the ability to affect positive change to the agricultural system.

Yet the key message is that government champions and leaders need to emerge out of people in positions that are part of the government system. Thus, they need to emerge out of the prevailing context of the governments' often tough working and political environment. They need to succeed against the odds, most often faced with unfavorable political and patronage dynamics, demotivated colleagues, poor salaries, unrecognized merit and limited skilled people they can rely on. In addition, leaders in senior positions in governments, particularly heads of state, ministers, deputy ministers, permanent secretaries, directors and heads of agencies struggle to spend their time on the things that matter, thus limiting their ability to become champions of agricultural transformation. In many countries, particularly those classified as competitive clientelist, the nature of the political system makes it difficult for them to focus on the key elements of their vision for agricultural transformation. This is because they have to manage the often-conflicting interests of people inside and outside of government, and this takes time and numerous alternative plans. Government leaders also have to spend much of their time responding to the individual requests of tens if not hundreds of people because if they did not they would struggle politically. Furthermore, they often have to compete with

relatively stronger vested interests when economic power is concentrated with a handful of powerbrokers and rentiers.

Champions and potential champions of agricultural transformation also face serious capacity challenges. In part, this often has political roots too. For example, many leaders often find that, despite their best intentions, they cannot give the most important jobs to the most capable people because if they did they would lose too much political capital. However, it goes far beyond that. Leaders come into office and find they have few people they can rely on to fix problems, take good decisions and see them through to completion. They find that a weak bureaucracy means they rarely get the sort of reliable timely information or policy options or expert advice they need to take good decisions with confidence.

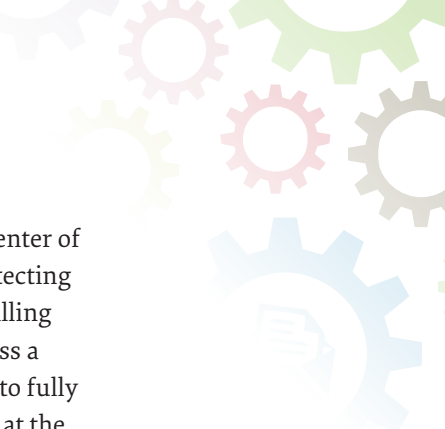
Moreover, the leaders often do not have management systems in place in the center of government, let alone in the various ministries and agencies, to implement decisions once taken. The reality is often that their few best people—even they themselves—get stuck doing fairly basic administrative work which needs to get done but certainly should not to be taking up their time at the higher echelons. They end up constantly putting out fires to keep the ship afloat, forever juggling issues without the people and systems in place to deal with the issues as they arise.

The scale of the needs in the agriculture sector in absolute terms is often daunting enough, even before one sets these needs against the financial and human resources that champions and potential champions of agricultural transformation have available to tackle them. Such champions often have to deal with limited funds to spend per citizen per year, while their counterparts in the West avail themselves of a hundred times that amount.

In addition to this are a further set of challenges that come with being dependent on external financial support, which make both the political and the capacity challenges even harder to address. Ministers and overwhelmed officials throughout the bureaucracy are busy dealing throughout the year with multiple development partners and their multiple processes and points of interaction. A vast array of international commitments, targets and tied-aid rules further diminishes governments' ability to make trade-offs and prioritize resources: management time, money, political capital and administrative capacity. The mass of targets and rules creates a dynamic where everything "should" be a priority, which means nothing can be. This limits the ability of champions and potential champions of agricultural transformation to mobilize the resources they need to drive their strategy into place.

Where does this leave us? Our recommendation is straightforward: champions and potential champions of agricultural transformation are present across the government system, from senior to junior positions. Many do not get the support they need to address the challenges raised earlier in this section, often preventing them to translate their passion for agricultural transformation into real championing and leadership.

It is therefore essential to put in place flexible and responsive support programs that can help leaders to emerge and to grow into leadership. This requires sound advice, mentoring, and constructive challenging that is timely, quick and suitable. Such support needs to be responsive, needs to work to their goals and agenda, and needs to help them fix their priority problems while accounting for their hectic workdays and the political and institutional challenges they have to manage on a daily basis. This can be done, for example, by providing politically smart embedded management and technical support that can build a relationship



based on genuine trust so that it can be responsive to their needs and support them with their blind spots. It can also be done by designing projects and programs that genuinely respond to their strategy and their priorities, even those that are essential to build the political capital of champions and potential champions, not merely those deemed essential on technical grounds.

It is also essential to ensure that the programs and interventions of external players do not inadvertently clip the wings of potential champions in government, because of their planning rigidity or because they have not properly bought into or understood the government's strategy and approach. This may often happen, for example, when interventions are designed based on what implementing partners think a country needs, rather than on what the government leadership thinks a country needs, to secure agricultural transformation.

For this reason, the CAADP process, such as through national agriculture investment plans, should reflect the real priorities of the leadership, rather than a catch all list of activities without clear prioritization. This is because development partners inadvertently made it more difficult for champions in government to set clear priorities in such documents, for example, by lobbying for certain activities they deemed should be included.

The second part of the framework is about how to secure a well-prioritized strategy.

An implementable and impactful strategy is one that gets the politics and economics right, simultaneously (Akileswaran, Huss, Hymowitz, & Said, 2017). Such a strategy is devised based on a proper understanding of the political economy, of existing patronage networks, and hence of who the potential winners and losers are of the strategy. It is one that accounts for power dynamics of how this can play out,

particularly in terms of whether the center of government—which is ultimately protecting its own survival and re-election—is willing to use its limited political capital to pass a key reform. The strategy hence needs to fully understand patronage networks, both at the center of government, and also at the lower-level government official level, and how these interact with actors in the value chains.

The most successful strategies are those that, with the politics, also get the economics right. If a strong business case exists for investment by actors in the value chain, including smallholder farmers and processors, this builds political momentum, while also convincing other development partners to back the strategy. This means prioritizing support for catalytic investment (whether at input, farmer, aggregator, transporter, processor or marketer level) in key value chains that have the strongest potential to deliver inclusive growth.

The strategy needs to be feasible, not merely in financial terms, but also in terms of the institutional capacity of the implementing agencies it requires. Developing a strategy whose success requires a successful large-scale extension service for smallholder farmers when the ministry of agriculture has not invested in its extension services for years, is not recommended.

The strategy should also be owned by the implementing agencies it requires. For example, a strategy that requires reliable energy to be provided to a hub of agro-processing activity, such as an agro-pole, and for rural roads to be built there, when the ministry of energy and the ministry of rural infrastructure are prioritizing energy access and rural roads in other parts of the country, is not a well-prioritized and robust strategy. Securing the alignment and buy in of the various agencies is essential, and hence points to the importance of supporting

leaders and champions to ensure their capacity to set a smart strategy and to sell it to the implementing agencies and ministries required to implement it. This again, brings us back to the importance of setting agricultural transformation visions and strategies at the center of government level.

To meet the criteria for a well-prioritized and robust strategy, the recommended approach is one that prioritizes a few value chains. Table 3.3 presents these criteria. The best value chains to focus on are those that have a strong business case; can deliver inclusive growth, including to smallholder farmers; have great scope for domestic value addition and downstream product innovation; and have a relatively low opportunity cost or, in other words, are able to deliver political and economic returns with relatively little public sector investment.

The benefit of setting a transformation agenda centered on specific value chains is that it allows the coordination of various enablers: inputs, land, research, extension, access to new technology, access to finance, access to

markets, skills, standards, regulations, taxes, investment and markets (Akileswaran, Huss, Hymowitz, & Said, 2017). Disparate ministries, agencies, and development partners drive these enablers; each institution has its own priorities, agenda and mandate. For example, the focus on rice and cassava development enabled Nigeria to set up the Nigeria Incentive-Based Risk-Sharing for Agriculture Lending scheme²⁰ and an electronic voucher system for farm inputs (Abdoulaye, Alene, Shiferaw, & Wossen, 2017), focused on these value chains. Likewise Senegal has focused the help of their US\$540 million Millennium Challenge Corporation compact on rice development in two regions of the country (Senegal River Valley and Casamance), using it to also align various enablers such as roads, finance, irrigation and inputs.²¹

Clearly prioritized value chains therefore serve as a basis for champions of agricultural transformation to drive the coordination of these agencies and of development partners. This is essential for the level of policy

Table 3.3: Criteria for prioritizing value chains for agricultural transformation

#	Criterion	Priority value chains should...
1	Business case	...be a strong value proposition to private operators, with the ability to compete in globalized markets
2	Inclusive growth	...provide scope for significant improvement in smallholder incomes, livelihoods, for national food security and for domestic small and medium enterprises in the value chain or linked to it to grow
3	Value addition	...have greatest scope for value addition and connections to manufacturing and high value service sectors, such as tourism
4	Opportunity cost	...require the least effort and investment by governments and their partners to deliver returns at scale

Source: Authors

²⁰ <https://www.nirsal.com/>

²¹ <https://www.mcc.gov/where-we-work/program/senegal-compact>

coherence that agricultural transformation needs. In effect, this is what Côte d'Ivoire is doing with cocoa and cashew, such that by setting a clear message that its goal is cocoa and cashew processing, it has a basis to put in place the enabling environment needed to attract the investors it needs to secure domestic processes and reduce the export of raw product. Likewise, this is what the Ethiopia Agriculture Transformation Agency has focused on.²²

It is essential that these prioritized value chains, which ideally should not be more than four (the fewer the better), are agreed to and accepted by all government ministries and agencies. If they are not, it becomes very difficult for ministers of agriculture to secure the genuine buy-in of other ministers and heads of agencies. The head of state is critical here.

Once a few specific value chains are prioritized, the next step is to identify binding constraints to those value chains and then develop a politically smart approach (strategy) that incorporates the private sector, civil society and development partners to address those binding constraints in a sequential order. The use of Problem Driven Iterative Adaptation (Andrews, Pritchett, & Woolcock, 2012) to find workable solutions and then applying clear planning, prioritizing and performance management techniques (Tony Blair Institute, 2016), can help drive a clear and successful strategy for agricultural transformation.

A final part of setting a well-prioritized strategy is being aware of what innovations and new technologies are available to champions and proponents of agricultural transformation to address binding constraints and other constraints, particularly those that cannot be realistically addressed due to the political system and/or institutional capacity

weaknesses. There are many cases in history—most notably Asia's Green Revolution—when dramatic technological gains have been key to overcoming institutional and political bottlenecks, both by stimulating weak input, processing and marketing delivery and by making it pay farmers to overcome strong barriers to collective or private action to raise output.

The third element of the framework is about how to set the right policies. The key recommendation is to anchor all policies clearly to the vision and strategy. If the strategy is centered on developing a few prioritized value chains, then the key is to view all policies within the realm of their impact on those value chains and agriculture market systems. Will the policy help or hinder the effort to meet the goal set for that value chain? With this proposed approach, policies on land, finance, tax, agriculture, quality standards, extension, research, transport, innovation, energy, Technical and Vocational Education and Training, and so on would all be set with the aim of putting in place the right enabling environment for the target value chains to meet their economic potential. In turn, the priorities set in each of these policy areas should be based on how they can play their role in facilitating the growth of the value chains that have the potential to drive agricultural transformation.

Adopting this approach may assist in strengthening the link between fiscal policy and agriculture expenditure, including in key areas such as agricultural research and development (R&D). Because of the criticality in aligning fiscal and agricultural policy, we next provide recommendations to government champions and leaders on how to allocate public expenditure budgets:

²² <http://www.ata.gov.et/>

a) Rewarding proportionate budget to rural areas and rural populations.

Beyond looking at agriculture's share in total expenditures two other dimensions can be used to assess, plan and allocate budget towards improving expenditure on agriculture and rural development. These are: (i) the relative size of the agriculture sector, measured as the amount of agriculture public expenditure as a share of the sector's value added; and (ii) public spending in relation to the rural population, measured as agricultural and rural public expenditure on a per capita basis of the rural population (Mink, 2016).

b) Participatory public budget processes.

Increased public participation in the process of public decision making led to increased collection of local tax revenues, channeled larger fractions of public budgets to services stated as top priorities by citizens, and increased satisfaction levels with public services (Beuermann & Amelina, 2014). However, these effects were found only when the model was implemented in already mature administratively and politically decentralized local governments. The findings highlight the importance of initial conditions with respect to the decentralization context for the success of participatory governance. Provision of technical assistance in the form of specialized experts who provided on-the-ground guidance improved impact of participatory budgeting.

c) Budget sector working groups. Budget sector working groups (BSWGs) have been an effective African innovation, as an integration and transparency mechanism between stakeholders in strategic budgeting (Fölscher, 2006). Ordinarily setting priorities and committing to financing those priorities is a huge


challenge for governments given limited resources in the face of competing demands and undeveloped management systems. Several countries in Africa have made marked progress in establishing effective systems of economic governance and public financial management such as BSWGs. Applying such groups to prioritized agriculture value chains can be tremendously helpful.

d) Committing to medium term expenditure frameworks.

Medium term expenditure frameworks (MTEFs) offer a reliable planning instrument to manage uncertainty in the future and provide a forward planning horizon, usually 3 years, and a budgeting framework (Fölscher, 2006). MTEFs enable shifts in expenditure to new priorities in the face of short-term expenditure rigidities; make trade-offs explicit between expenditure and tax instruments, between different spending objectives and over time; provide greater predictability of policy and of funding; and are essential to ensure that budgets are affordable. The MTEF approach to budgeting is a powerful way to achieve gradual shifts towards rural priorities.

e) Developing effective links between policy and budgeting.

African governments should adopt legislative and institutional systems that hold government accountable to financing commitments on agreed policy positions. Considerable evidence exists that African governments generally prepare policy documents and statements which they find difficult to implement, usually citing budgetary limitations (Rukuni, Matondi, & Kambanje, 2012). As such, budgets, more often than not, do not reflect agreed priorities on the ground. Budgeting failure occurs when there are weak



linkages between budgeting and policy making, such as when they are conducted in separate institutions, or separate structures in the same institution, or are not linked in time.

The final component of the framework is about how to be targeted and focused. It is critical for government leaders of agricultural transformation to spend enough time on fixing the problems that constraint those value chains that have transformational potential. In our experience, this is much harder than it sounds. Particularly in competitive clientelistic political settlements, but also in dominant party systems that depend likewise on patrimonialism, the way that politicians—those who ultimately have to lead an agricultural transformation agenda—secure their political survival is by appeasing their clients and patrons. Doing so inherently makes it hard to stay focused and targeted, because they get drawn into diverse issues that they cannot ignore.

The recommendation to leaders in governments is to invest in building political capital around one's strategy by using compelling arguments and evidence of the business case with those with political power, who we call "power owners". These people have a strong ability to influence policy makers in government. In our experience, to be politically smart, it is essential to prioritize fixing problems that power owners care about, but that can also deliver tangible economic progress on the ground. For example, if the political clout lies with importers of soya products, because, for example, they finance the ruling party, and soya is a sector with real domestic value addition potential, then supporting one or two small local businesses to make a profit while producing domestically made soya products, can convince soya product importers to invest in local processing. This is what it means to get the politics and economics right simultaneously.

A smart strategy allows for a consistent focus in driving through key reforms that have the constant backing of key political power owners, particularly at head of state and center of government level. The compromise between political expediency and a solution that will leave a lasting impact from a technical standpoint is essential.

Hence, if the strategy is based on clear priority value chains that are consistently adhered to by the government, this allows a clear targeting of solutions to the binding constraints in those specific value chains. If designed smartly, these solutions can set the basis for focus to be maintained. It is on this basis that flagship projects and programs should be set. They should meet the criteria set out earlier in this section for a strong agricultural transformation strategy, but have the added criteria of being tangible, feasible and concrete solutions to the main binding constraints holding back the value chains with the greatest transformation potential. All these factors are essential to secure the resources needed to successfully implement the flagship projects, which in turn is key to gain political capital by showing real progress and impact in a way that delivers politically and economically.

Chapters 5 and 6 of this report discuss several tools that can be used to target and maintain focus, such as developing a fit-for-purpose coordination and delivery mechanism—for example, through value chain specific working groups chaired by a senior government champion—to manage the main political stakeholders and key implementing agencies of the agricultural transformation agenda. In this section, we merely provided first principles for how leaders and champions in government can think about this challenge.

Based on this, the recommendation to development partners is to help leaders and champions put in place systems and structures

they need to manage their politics, to secure economic momentum on the ground and to align the various implementing partners and resources to their needs. Genuinely planning their programs and support around what champions and leaders need is essential to help maintain a targeted and focused approach for two reasons. First, this helps quickly set up the support structures and tools leaders need to gain political capital for the agricultural transformation agenda. Second, this helps by not inadvertently making it harder for leaders to mobilize the right resources they need to

gain economic and political momentum and to secure an implementation mechanism that is fit for purpose and that can show results quickly, within the requirements of the political window. Ensuring that the CAADP process is applied in a flexible, adaptive way, rather than in a rigid way is a key part of this. Similarly, so is the development of tools under the CAADP framework to genuinely help champions in government to identify their own set of priorities and sequencing. Otherwise, there is the risk of making it harder for champions to be targeted and focused.

How to Use Data and Analysis

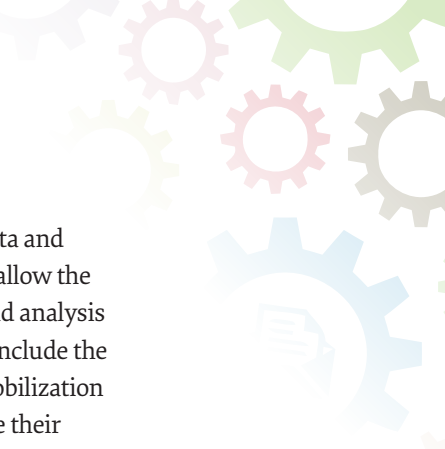
This last section focuses on how to use analysis and data to secure a vision for agricultural transformation in government and to translate it into reality.

Data and analysis are tools, like those one keeps in the garden shed. Garden tools are not useful, in and of themselves. They sit in the garden shed most days, unused. Gardeners only think of them when they need to work on the garden. Then, they only think of the tools that would help them with their tasks for the day. They seek them out in the shed, where they know they are stored, and take them to the garden to help them with their tasks. Garden tools then become tremendously useful, saving the gardener time, before returning to the shed for storage.

The equation that makes the gardener and gardener tool relationship successful comprises four parts. First is the gardener. The gardener knows what tasks need to be completed that day. Second are the garden tools. The tools have been produced by someone and are made available to the gardener. The gardener probably bought the tools in their shed, knowing they might be useful in their gardening work. Third is the tool shop. Gardeners know where to go if they

want to buy a tool they need, or if they want to learn about new gardening tools. Fourth is the garden shed. This serves a critical purpose: it connects, in a timely manner, the gardener to the tools on the days they are needed. It allows the gardener to locate the tools and to remember what tools are available.

Data and analysis are only useful when they help government champions and leaders to solve the problems they face on a particular day, or in a particular month. They are most useful when they help solve political problems: champions and leaders need tailored data, analysis and evidence to build their political capital by convincing politicians in government and in the legislature as well as stakeholders outside of government that their strategy is robust and that tangible progress is being made. In addition, they are needed most to address obstacles to resource mobilization and resource alignment to their strategy and approach because champions and leaders have the challenge, unfortunately, of needing to convince resource owners, who include other parts of government, development partners, businesses and civil society, that resources should be aligned to the agricultural transformation strategy of the government.



Yet one of the biggest challenges that champions and leaders of agricultural transformation in governments face is accessing data and analysis when they need it. For example, one often critical point is when ministers of agriculture or of trade and industry are preparing presentations to cabinet or to the legislature, or submitting annual budget narratives to the ministry of finance. Such presentations are often required at short notice, often with little time to prepare. These are critical moments in building political capital for agricultural transformation and for securing government alignment and coalescing around the agricultural transformation plan. These moments can tend to work out rather differently with or without the right data and analysis presented in the right way. For data and analysis to be useful to leaders and champions of agricultural transformation in governments, it is essential to combine the same four factors that make the garden tools equation work.

We use these factors to suggest a set of criteria for thinking about data and analysis in the context of helping governments drive a vision for agricultural transformation. First, proponents of agricultural transformation need to start from the government champion, leader or potential champion. These people know what problems need to be addressed to implement the next phase of the government's transformation agenda. Data and analysis should be demanded, and based on what champions and leaders actually need to further their cause.

Second, proponents of agricultural transformation need to produce the data and analysis that data users will actually use, in a way they can understand, absorb and apply it. Data and analysis producers include the ecosystem of statistics agencies, statistics departments, universities, agricultural research institutions, businesses and development partners. Irrespective of the quality of their output, which may be of value to them or other audiences, to be useful for government leaders and champions

of agricultural transformation, their data and analysis needs to be fit-for-purpose, to allow the champion and leader to use the data and analysis they need for the tasks at hand. These include the various, often political and resource mobilization tasks they need to complete to translate their vision and strategy into reality. Such tasks can and will vary over time. Therefore producing a range of tools to help fix different types of problems is also essential.

Third, there is a need to think of a place where champions and leaders in government can access or learn about data and analysis they were not previously aware of, bearing in mind that politicians often do not have the time to go "shopping". Fourth, there is a need to think of a place where data and analysis can be stored and updated to ease access for champions and leaders, as need arises. These four criteria are summarized in Table 3.4. Often, most effort in this area appears to target only the second criteria: producing data and analysis. The other criteria are often unmet. To what extent are the data and analysis based on what champions and leaders need, rather than on what data producers themselves want to produce, for example to try to convince governments to do something they think the government should?

The challenge in synchronizing the second criteria (data and analysis production) with the other three factors is a big one. It requires taking a different approach to one that solely looks at data and analysis production.

Consultation with champions and leaders is important to understand what type of data and analysis they need. This can help strengthen the development of robust and relevant statistics, emanating from departments of planning in ministries of agriculture, and of trade and industry, as well as from government statistics agencies and local research institutions. Helping to strengthen these functions is essential.

Table 3.4: Criteria for data and analysis usefulness to agricultural transformation champions

#	Criteria	Description
1	User	What data and analysis do agriculture champions and leaders in government need for political momentum & resource mobilization/alignment?
2	Producer	What data and analysis are being produced and how are they presented?
3	Shop	How do agriculture champions find out about new data and analysis that may be relevant to their needs?
4	Shed	How do agriculture champions access data and analysis they need in a timely way?

Source: Authors

However, this is most likely insufficient. Consultation does not address the shop and the shed criteria—learning and quick and timely access—particularly if the capacity of internal statistics functions is weak. Securing these requires working differently with government champions. In relatively weak institutions, it requires building the capacity of leaders and champions to serve as the shop and the shed. In this way they can to serve as the connecting tissue between what they need and what is available and reliable. It requires being part of the team of leaders and champions, together with their in-house team within their ministry, ministries or agencies, to understand what data and analysis are needed, when and for which tasks (particularly the political and resource mobilization and alignment tasks), and matching this to knowledge of what data and analysis are available, reliable and easily accessible. It also requires being in touch with data and analysis producers to be aware of what new data sets and analysis are available, and to then synthesize and present it to leaders

and champions who are mostly too busy to keep abreast of what is available. Finally, this function is also essential to help data and analysis producers to better understand the demand for data.

One way to provide tool shops and tool sheds to champions and leaders of agricultural transformation is to integrate data learning and data access into the long-term ecosystem of support structures described in Section 4. A practical approach could be providing long-term embedded support and advice with the additional skill set necessary to synthesize all the data and analysis available externally and to translate into something presentable to be shared with champions, leaders and their teams when the timing is right. Such support structures should also work with junior members of the leaders' team in government to build their own awareness of what data is available.

Conclusion

Agricultural transformation is the process of raising long-term agricultural productivity growth to such a level that it improves the well-being of most of the population, pulling them out of poverty, delivering nationwide permanent food security and setting the country on a clear path to broader economic development and industrialization. This does not happen in isolation, but as part of a broader process of structural transformation shaped by the inter-linkages between agriculture, the rural non-farm economy, manufacturing and services.

Agricultural transformation in Africa, and hence the achievement of the CAADP and Malabo targets, can only happen if governments take the lead and drive a transformation agenda that is based on a visionary and cohesive national strategy. Given the multi-agency and multi-sector nature of agricultural transformation, to be successful, such transformation visions and strategies need to be developed as a central part of a country's national development vision that is fully owned by the head of state, because it requires the coordination of multiple sectors.

This chapter provided a framework for proponents of agricultural transformation, be they in government, the private sector, civil society or among external development partners, to think through first principals for how to secure the key elements required. These are:

1. How governments can set a clear vision for agricultural transformation
2. How support can be context-led
3. How governments can secure champions and leaders
4. How to set a strong dynamic strategy that is well prioritized and sequenced
5. How to target and remain focused

6. How to set the right policies

7. How to use analysis and data

One key take away is that vision and strategy are not documents; they are what is in the mind of a country's leadership. Another is that agricultural transformation has to be led by politicians, so understanding the political context and political economy in which they operate is fundamental. We provide a framework to distinguish between countries' political, economic and institutional status.

The emergence of and strategic and flexible support to political champions and leadership is essential because transformation is not automatic. We set out the basis for how such champions and leaders can emerge, as part of the government system. It is essential for proponents of agricultural transformation to build an ecosystem of support to leaders who are part of the local system, particularly those that are a part of government.

The key to a robust prioritized strategy, the right priorities and to successful flagship projects lies in focusing on the development of a few (ideally less than four) value chains that have the greatest transformation potential, relative to the political, managerial, institutional and financial resources available in the government and in value chain actors. We provide a set of criteria for optimal value chain prioritization for agricultural transformation based on the principles of business case, inclusive growth, value addition and opportunity cost. Finally, data and analysis are only valuable to champions and leaders of agricultural transformation if based on their needs, are timely and if the users are able to learn what data and analysis are available that speak to their needs.

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4 Agribusiness Enabling Environment for Agricultural Transformation

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Key Messages

- 1** To reduce the transaction costs of agribusinesses, an enabling environment to accelerate agricultural transformation not only consists of solid macro-economic policies, but also requires institutional rules and arrangements in areas such as infrastructure, finance, research and taxation as well as political stability.
- 2** According to agribusiness leaders, elements of an enabling agribusiness environment span entire agricultural value chains, and state capacity for improving the enabling environment can be strengthened through political will, investments in institutional capabilities and increased public–private dialogue.
- 3** External policy assistance programs, for example, as implemented by AGRA, the World Bank and FAO, have yielded important lessons on how evidence-based policy change for agricultural transformation can be supported.
- 4** Data on agribusiness regulations, as measured by the World Bank’s Enabling the Business of Agriculture (EBA), can be used to compare a country’s regulatory environment with that of others. However, an analysis of the relationship between the strength of regulatory frameworks thus measured and realized agribusiness outcomes in African countries indicate that policy makers should use EBA scores alongside other evidence and considerations for a more thorough analysis. This is because major confounding factors may exist such as informal institutions and political will that affect the implementation and impact of a regulatory framework

Introduction: Background and problem



Sub-Saharan African governments are placing emphasis on expanding private sector investments in local agribusinesses engaged in agricultural input supply and output markets. The focus is especially on value chains of staple foods for smallholder farmers in order to achieve rapid agricultural growth and drive agricultural and rural transformation

and poverty reduction. In 2003 the African Union (AU) Heads of State and Government Summit in Maputo, Mozambique, adopted the Comprehensive Africa Agriculture Development Programme (CAADP), as a policy framework to stimulate and guide attainment of food security and poverty reduction goals in Africa (AU, 2003; AU-NPCA, 2013).

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To sustain the CAADP momentum and translate actions into results, CAADP was revised and adopted in 2014 by the Heads of State and Government as the Malabo Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods (AU, 2014). Under the Malabo Declaration, African leaders committed to: “create and enhance necessary appropriate policy and institutional conditions and support systems for facilitation of private investment in agriculture, agribusiness, and agro-industries, by giving priority to local investors”. To operationalize the Malabo Declaration the African Union Commission (AUC) and the New Partnership for Africa’s Development (NEPAD) Agency developed an implementation strategy and roadmap (IS&R) to guide CAADP and African agriculture from 2015 to 2025. This strategy focuses on seven commitments as frontline dashboard indicators for progress and impact. These seven commitments include a commitment to accountability to ensure necessary action, tracking of results and impact and learning guided by the CAADP Results Framework. The political opening at the moment surrounds the Biennial Review (BR). African leaders are giving regional integration political attention through CAADP regional investment plans organized by African regional economic communities and the recent AU decision to create an African common market.

To meet the CAADP commitments, African countries need to improve their agribusiness enabling environments. However, many of the agricultural policies, laws, regulations and administrative practices that countries still carry in their statute books and implement in practice deter rather than encourage private sector investment, especially in small and medium-sized agribusinesses operating in value chains for staple food grains for smallholder farmers. This includes farmers

who are the largest private sector participants (Mellor, 2017). The focus is on small-scale commercial farmers, mainly growing cereals and those who are net sellers (Jayne et al., 2016). Much research (some of it summarized in World Bank (2008)) shows that many small-scale farmers in Africa are net sellers of staples, so a different strategy is needed for them than one focused more on small and medium-sized commercial farmers. For example, for farmers who are net sellers (and their role in agricultural transformation), the functioning of rural labor markets and rural food markets are critical.

The segments of agribusiness this chapter focuses on are local and international agribusinesses that deliver agricultural inputs and services and buy farm output from smallholder farmers. The World Bank Enabling the Business of Agriculture (EBA) is one tool available for diagnosing issues in this area (World Bank, 2015, 2016, 2017). EBA provides evidence on legal and regulatory issues for eight topic areas related to agricultural production inputs and markets that are relevant for suppliers, producers, traders, processors, and marketers. These indicators measure legal aspects and the efficiency of certain related processes, and score regulations related to seed, fertilizer, machinery, finance, markets, transport, information and communication technology (ICT), and water.

Interestingly, scores in the EBA 2017 report (World Bank, 2017) indicate that there is a correlation between legal and efficiency indicators, meaning that countries with stronger regulations also tend to have more efficient regulatory processes in place (Figure 4.1). However, there are exceptions. For example, in Malawi a good set of laws related to the registrations of varieties and fertilizers can be found in the country’s legal texts. But the process of registering new seed varieties and fertilizer products is the most expensive

among the 62 countries studied in the report. In Sri Lanka, certain regulatory procedures such as tractor registration and trucking licensing are efficient and affordable. However, the country's laws and regulations are not strong in these areas. This is shown by the lack of legislation on agent banking activity or for a warehouse receipt system.

In reviewing results of the EBA 2017 report (World Bank, 2017) for countries in different regions, we find that average scores indicate that sub-Saharan African countries, as a group, lag behind those in East Asia and Latin America, with respect to rules and regulations that positively impact the business environment (Figure 4.2).

African countries need to foster an enabling environment for markets to work well and permit farmers and agribusiness firms to act and transact based on good information (Bromley & Anderson, 2012). This requires an explicit national vision, strategy, planning, priorities, and sequencing of investments to create the political and economic space

for agribusiness, farmers, consumers, and commodity groups to innovate, adapt and adopt best practices in order to exploit the potential for catch up growth (Mellor, 2017). This also requires building a critical set of institutions and institutional arrangements and adapting these to evolving country contexts, and making large investments for agricultural growth.

The overall policy environment is captured through the database of distortions to agricultural incentives (Anderson & Nelgen, 2013; Anderson & Valenzuela, 2008). This provides a database of nominal rates of assistance to producers (NRAs), consumer tax equivalents (CTEs) for farm products and relative rates of assistance to farmers accounting for 95% of global gross domestic product (GDP) and agricultural production in 75 focus countries. The data show that earnings from farming in many developing countries have been depressed by a pro-urban bias in own country policies as well as by governments of richer countries favoring their

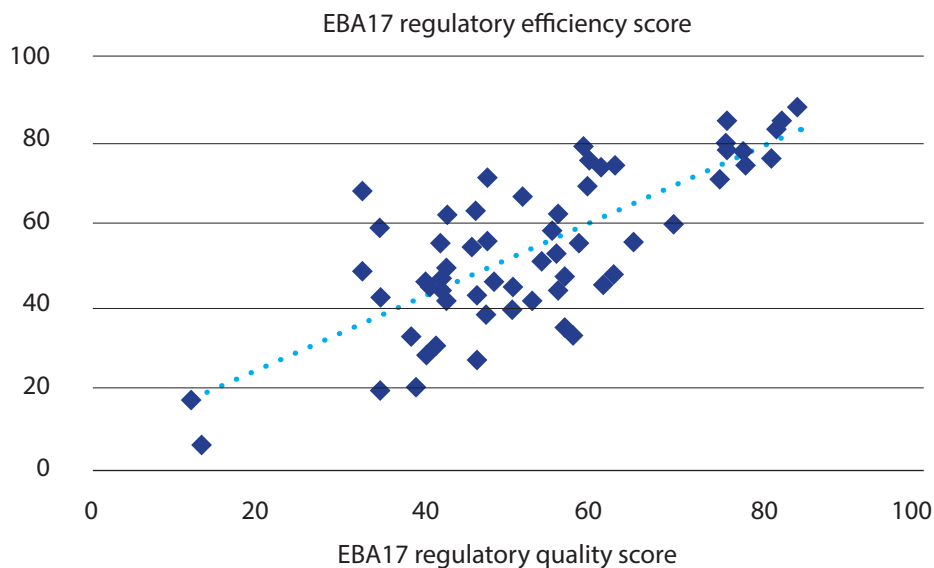


Figure 4.1: Correlation between legal indicator scores, which are reflective of regulatory quality, and efficiency indicator scores

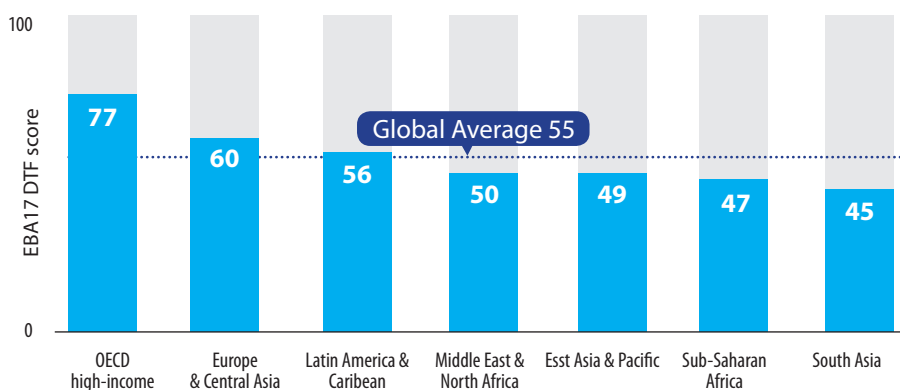


Figure 4.2: EBA 2017 average indicator scores per region

farmers with import barriers and subsidies (Anderson, 2013). The policies reduced global economic welfare and agricultural trade and added to global inequality and poverty. During the past three decades, agricultural protection in high income countries and agricultural distortions in developing countries have been reduced. But price distortions still remain. Governments have a propensity to insulate their domestic food markets from fluctuations in international prices. This amplifies fluctuations in international prices and reduces food security. There are opportunities to improve economic welfare in developing countries through multilateral

trade agreements to remove remaining trade distortions and trade barriers when international food prices fluctuate.

This section has discussed the background and identified the problem. To meet CAADP commitments, countries need to enhance their policy and regulatory enabling agribusiness environments. EBA is one way of diagnosing and prioritizing policy problems and options for governments to act to rectify the constraints. This leads us to the next section which discusses perceptions of an enabling agribusiness environment.

Perspectives of enabling agribusiness environment to accelerate Africa's agricultural transformation

To gather information for this chapter, an email questionnaire survey was carried out to determine the views of agribusiness leaders of what constitutes an enabling business environment. The leaders were asked questions concerning: (a) the main elements of an enabling business environment for agribusiness firms and farmers that they consider need to be put in place for an African country to achieve agricultural

transformation; and (b) their views about how capacity of African governments can be strengthened in order to put in place an enabling business environment to drive agricultural transformation. In total, 180 agribusiness firms engaged in agricultural input supply and output marketing in the 11 countries targeted under AGRA investments were approached. A total of 38 survey questionnaires were completed and returned,

about 21%. As response rate was low, there is likely response bias resulting from the responses of mostly small and medium-scale agribusiness firms.

This section briefly discusses the approaches of structural adjustment programs. The section then focuses on reporting the results of the survey of agribusiness leaders.

Several authors have identified the shortcoming of the structural adjustment reforms, especially the early ones that focused heavily on austerity in government spending, which tended to undermine spending on critical public goods essential for agricultural development (World Bank, 2008). However in the past the notion of an enabling business environment was conceptualized in terms of macroeconomic policies that underpinned the structural adjustment programs supported by the World Bank and the International Monetary Fund (IMF) in 47 African countries in the 1990s and 2000s. The World Bank's 1991 World Development Report (World Bank, 1991) argued that some countries succeeded and others failed depending on how the policies were implemented. National policies failed when governments displaced markets rather than supported them. The report highlighted four principles that underpinned the creation of enabling environments for private sector growth:

1. Sound macroeconomic policies with sustainable fiscal deficits and realistic exchange rates are a prerequisite to progress.
2. A permissive rather than a prohibitive policy environment is essential for the private sector.
3. The government has no business directly managing the production of private goods and services.

4. For a country to develop it needs to have in place adequate investment in basic infrastructure and in people.

A study carried out by the World Bank (1998) concluded that the success of policy reforms is equally dependent upon “a good institutional environment”. Eicher (1999) argued that such an institutional environment includes a transparent legal system, protection of property rights, stable macroeconomic conditions, and political participation of farmers and commodity groups. In addition, once a good institutional environment is established, it requires the political skill to maintain it over time. To bring about such conditions in these countries requires analysis and understanding of the political economy. This is that policy should be evidence-based, led by technocrats who are given long tenure in their roles, adequately funded and with a clear priority to agricultural transformation. Farmers, consumers, commodity groups and agribusiness firms need to participate to determine what policies, laws, regulations and institutional arrangements are important in their country context. Yet all governments are led by politicians, who need for their political survival to respond to various interest groups. The challenge is more difficult than telling governments to “do the right thing” and show “political will”. The challenge is how, over the long term, to build a constituency that makes it in the political leaders’ interest to do these things. Some insights can be learned from the long experience of India in this regard (Mellor, 2017). This cannot be achieved overnight. There are also insights that can be learned from Ethiopia and Rwanda (Berhanu & Poulton, 2014; Booth & Golooba-Mutebi, 2014).

Today, less focus is being placed on macroeconomic factors—government budget deficits, overvalued exchange rates, monopolistic agricultural marketing boards, price controls, large subsidies, tariffs



and quotas on intermediate goods, public enterprises, domestic and foreign debt—because in most countries there are no longer binding constraints (Binswanger, 2006). But many structural adjustment programs failed to achieve sustained and broad-based agricultural growth since they focused on macroeconomic policies and did not implement complementary interventions at the sectoral and sub-sectoral levels in critical areas such as land policy, smallholders' access to inputs and agricultural research and extension. Currently, attention is being devoted to micro-level policy and regulatory factors, democratic institutions and corruption (Lele, 1989; Lele, Agarwal, & Goswami, 2013; Acemoglu, Naidu, Restrepo, & Robinson, 2016). The enabling environment should therefore focus on creating institutional structures, legal architecture, legal foundations and institutional arrangements (Bromley & Anderson, 2012). This will enable a competitive market economy to evolve so that transaction costs remain low. The agricultural input and output market systems will likely develop and work and expand through intra-regional and international trade provided farmers and agribusiness firms have enough knowledge and economic incentives to adopt the new practices.

In contrast, agribusiness leaders whose views shape business responses to these challenges, conceptualize the enabling business environment more holistically from a perspective of strengthening entire agricultural value chains. This value chain orientation is also stressed in the 2008 World Development Report and in most of the agricultural development literature since the 2000s. Several studies have discussed how to create a strong enabling environment for agribusiness and agricultural transformation using an agricultural value chain perspective over the past decade. These include FAO (2015), World Bank (2008), and Yumkella and Kormawa (2011).

Agribusiness leaders identified the main elements of an enabling business environment as follows: (i) political stability; (ii) agricultural research, technology development and delivery; (iii) agricultural extension, training, education and capacity building; (iv) agricultural technology adoption; (v) agricultural input and output markets; (vi) agricultural mechanization; (vii) agricultural finance; (viii) agricultural taxation; (ix) structure, conduct and performance of agricultural industries; (x) agricultural policies, laws and regulations; (xi) land tenure; and (xii) infrastructure.

It is useful to look briefly at respondents' perceived notions of an agribusiness enabling environment. Caution is needed when interpreting the responses about how policy should be improved. This is because private sector informants respond in terms of the costs and benefits they perceive (financial analysis), while the government needs to base its policies (ideally) on the costs and benefits for the country as a whole (economic analysis). This is particularly true with respect to the issues of taxes and subsidies. While some respondents argue for subsidies (on credit and inputs) and for cutting taxes, the government has to take into account the costs of such subsidies and tax cuts on other segments of the economy. In addition, there may be other constraints, not always perceived by industry participants that cause the more proximate issues those participants perceive as constraints. For example, weak statistical systems, both with respect to farming and even more so with respect to the off-farm segments of the agri-food system, frequently result in government policy makers "flying blind", contributing to erratic government policies. This study did not identify such weak systems as an important constraint.

Political stability

Respondents viewed the political environment as a critical element of a conducive business environment for agribusiness and farmers. They indicated that the main constituents of political stability include a stable political environment; peace and security in rural areas that are at the core of farming; and strong security for safe business operations. In addition, they reported other factors, including supportive governments which are willing to facilitate meeting the needs of the agricultural community at the forefront of their thinking; and government commitment to promote the timely provision of quality inputs to every farmer at affordable prices. The respondents stressed that commitment should not remain on paper but should be clearly visible in the actions of any government. Increased transparency and efficiency are needed in government workings and standard operating procedures. This requires training and integrity of the officials working in government ministries, departments, and agencies. Officials should be supported by proper, educated staff to execute decisions faster. There should be in place a separate independent bench to resolve grievances of stakeholders and farmers.

Agribusiness leaders suggested various actions to strengthen the political will of leaders to prioritize agricultural transformation. Since agricultural transformation is a long-term process, ministers and top officials should not be changed overnight because this disrupts planning and implementation teams. This explains why agribusiness leaders interviewed in this study argued that one of the best ways to strengthen the capacity of governments would be to appoint serious and skilled persons to head ministries of agriculture and to give them free hand to efficiently and effectively conduct their duties.

Investing more in the creation of local organizations like the Ethiopian Agricultural

Transformation Agency that can then work closely with the partners for agricultural transformation was recommended. Such local organizations then need to be awarded greater decision-making powers and authority, rather than just acting in an advisory capacity. Such actions should lead to a clearer, long-term vision and agricultural transformation strategy; the allocation of sufficient funds for declared national budgets; support to agricultural resilience; and assistance to policy implementation.

Agricultural research, technology development and delivery

Agribusiness leaders indicated that in their agribusiness operations across countries in Africa, research and technology development and delivery are critical to increasing agricultural productivity and production and business and, consequently, conferring benefits to the sector. They argued research and development needed massive investment, based on true and genuine consultations with farmers to promote innovation as a key element of the enabling business environment. Agricultural research and technology development is particularly needed to induce farmers to adopt improved agricultural practices and produce quality products according to international standards and market preferences.

Respondents believed that governments need to strengthen the capacity of agricultural research institutes to develop and deliver new technologies and research results. In addition, investments to reduce the vulnerability of countries to climate change risks and calamities that compromise their efforts ranked as a high priority issue.

Agricultural research and technology delivery infrastructure is being developed through innovations in agrodealer networks, pluralistic

extension systems, farmer organizations, information delivery through mobile phones, and innovation platforms. This needs strengthening. Seed companies argued that providing access to pre-basic seeds and base for multiplication is needed.

Agricultural extension, education, training and capacity building

Agribusiness leaders reported that strengthening agricultural extension services and agricultural education and training institutes which are currently dysfunctional in many countries is a key element of an enabling business environment. They argued that agriculture is often regarded as an occupation for rural people who have little or no education. Adoption of improved technologies becomes difficult due to lack of knowledge about its benefits and mode of operation. Rural farmers therefore need intensive and constant training, education and capacity building to enhance the adoption of new innovations. The required extension systems must work well in order to introduce farmers to the research achievements of universities and research institutes that generate new findings; demonstrate advantages and disadvantages of traditional and new methods of farming; and disseminate information and knowledge to continuously improve agricultural practices and returns on investment.

Respondents indicated that governments need to be assisted to revive their agricultural extension services to help disseminate new technologies to farmers and to enhance farmers' training and capacity building.

Promotion of cooperatives and farmer associations to drive productivity was recommended. Respondents suggested strengthening governments to enable them to focus on training more young people in agribusiness.

Agricultural technology adoption

Agribusiness leaders perceived adoption of modern technological advancements in agriculture along the value chain as a major element of an enabling business. They argued that farmers should especially adopt improved agricultural practices and produce quality products according to international standards and market preferences. If farmers fail to earn profits on what they produce, then the incentives to spend on inputs is more difficult to justify and productivity and production remains low.

The agribusiness executives suggested that governments need to provide fiscal and monetary policy incentives which are predictable to investors, including farmers, to drive adoption of better farming technologies and practices, and to increase local production for increased productivity. Putting in place and implementing effective incentives for small and medium enterprises was singled out as especially important.

Agricultural input and output markets

Respondents indicated that timely provision of quality agricultural inputs and services to farmers and development of sustainable agricultural value chains for major crops are key elements to drive value chain growth and create an enabling trading environment for private sector firms and farmers. One sub-component is access to modern agricultural technologies (inputs, fertilizers, agricultural machinery and equipment, training and supervision of producers), quality control and availability of agricultural inputs. Another is access to outlets for farmers so they can easily sell off their produce. Respondents identified an important area for government support as assisting farmers to find export markets.

Agribusiness leaders expressed their belief that governments need to be strengthened to favor the creation of more local private industries to transform local production and increase value addition. They recommended encouraging the formation of farmer cooperatives to work together to develop markets and reduce the cost of inputs by buying in bulk. This also includes adjusting existing agricultural subsidy schemes to avoid distorting markets. Agribusiness leaders were divided on agricultural input subsidies. Some argued that governments should stop direct subsidies on inputs to farmers, while others felt that input subsidies introduce farmers who have never used improved inputs on food crops to the benefits of certified seed and fertilizer and provide incentives for development of commercial market channels.

Agricultural mechanization

Many respondents suggested that expanding access of farmers to improved farm machinery such as tractors, harvesters and processors and farm implements to improve operational efficiency and reduce drudgery is a key element of an enabling business environment. They suggested that governments ensure adequate incentives for the private sector to engage fully in the supply of mechanization services, particularly privately owned machinery service centers.

Some respondents argued that governments need support to provide agricultural machinery and equipment of various types at affordable prices to reduce drudgery and wastage of agricultural produce. A few respondents argued for the provision of farm mechanized inputs at a subsidized price to farmers by governments.

Agricultural finance

A large percentage of executives viewed easing accessibility to agricultural finance at affordable interest rates as a critical element of

an enabling business environment. Unfriendly credit facilities, short duration of loans, high rates of interest, heavy collateral, and delays in fund release to fit time-bound agricultural operations were reported as impediments. This explains why respondents argued that governments should provide an enabling environment to foster lending by commercial banks and borrowing by emerging firms.

Executives explained that governments make efforts to create a flourishing environment for micro-lending institutions, which, unlike large banks, target small and emerging firms. Financial aid and loans could be provided to farmers at soft interest rates to enable them to buy farming equipment. Farmers need access to enhanced crop insurance facilities which are reliable and cost-effective in case of drought, floods, fall armyworm, and use of inferior inputs.

However, the perspective for subsidized credit is at odds with perceptions about how subsidized inputs disrupt private sector activities. Furthermore, given the record of crop insurance around the world, it is unclear how in these countries one sets up such systems so they are reliable and cost-effective while still being financially sustainable. While micro-credit institutions are useful to small-scale farmers and non-farm enterprises, the limits on their loan sizes often limit the ability of these small operations to “graduate” to levels of scale that allow significant growth in income and employment opportunities.

Agricultural taxation

Executives felt that agricultural taxation was high because of multiple taxations on almost all services and products purchased for agricultural operations along a typical value chain. For example, management of the taxation regime of seeds and other inputs is needed to make final products affordable by

farmers. A typical seed company in a country may pay: (a) pay as you earn (PAYE) payroll taxes of 20%; (b) value added tax (VAT) of 16%; (c) company profits tax of 30%; (d) training levy plus other levies; (e) cess, as seed move from one district to another region; (f) import duty on equipment; (g) vehicles and transport taxes; and (h) taxes paid by agrodealers on multiple separate licenses that are renewable every year for distribution of seed, fertilizers, agrochemicals and veterinary medicaments.

Executives suggested that governments be made to derive benefit from activities of the private sector through taxes but not at the expense of growing the businesses. This can be pursued through the provision of tax exemptions and credits to businesses involved in agricultural transformation.

They recommended abolishing agricultural cess and reduction of multiple taxation. This would enable agribusiness firms to thrive and positively affect a country's economy.

Structure, conduct and performance of agricultural industries

Some of the respondents believed that optimizing the agricultural industrial structure is a key element of the enabling business environment in order to improve agricultural benefits. They argued that some ecosystems are not fully functional in the sense that for agribusiness to run well there is need to have financiers, input providers, markets and extension service providers working as a system that coheres and fits together so that the whole is more than the sum of the parts.

Agribusiness leaders suggested that governments be supported to improve competition in the industries in several ways. These include through reducing barriers to entry, removing competition with government-owned companies, expanding market size

through regional integration to create a larger market size compared to national economies and dealing with unfair competition.

Agricultural policies, laws and regulations

Many respondents reported that a key element of an agribusiness enabling environment is having in place effective and efficient policies, laws, and regulations along the entire value chain and a business-friendly regulatory environment for doing business rather than unwanted bureaucracy and controls which stifle businesses. This includes consistent, coherent and favorable macroeconomic fiscal, monetary, exchange rate and trade policies that are pro-agriculture. Other sub-components of this element are non-punitive regulations during importation of raw materials and exportation of processed agricultural products to ensure agribusiness firms operate smoothly; improved control against counterfeit and illegal inputs; and combating fraud, counterfeiting and corruption in procurement. In addition, respondents indicated that better policies and regulations are required to sell and buy agricultural output by weight and set up aggregation centers.

Agribusiness leaders argued that stakeholders and governments should have strong consultative dialogue meetings through private–public partnerships for development of policies oriented towards the economic development of agriculture. Respondents suggested that policy and regulatory reforms need to consider the actual concerns of agribusiness firms and farmers. Developing multi-stakeholder platforms for senior government officials and the private sector to hold open exchanges about visions, operational challenges and opportunities is a prerequisite.

Respondents recommended organizing roundtable discussion and training workshops

for key government officials to help them appreciate the need and the possibility of driving agricultural transformation. The training would be provided by technical experts and subject matter specialists. This will involve regular and well-structured training of government officials and guiding them on proper policy and regulation formulation, which plays a key role in shaping the business environments. Additional measures suggested were learning visits to other countries that have made some headway in agricultural production, and experience sharing for governance structures with established experienced countries.

Executives also suggested strengthening focal structures such as the trade associations. They recommended establishing institutions that can provide skills and knowledge to enable trade associations to have sustainable capacitated leadership and entrepreneurs.

Land tenure

Some respondents argued that increasing access of farmers and agribusiness firms to land as a means of production and accelerating land law transformation agenda to support tenure security, collateral liability and land concentration is a critical element of the enabling agribusiness environment.

Respondents raised several issues: amending land use acts to make land accessible to farmers and improve the security of tenure for farms, crops, and farmers, especially women and youth; resolving conflicts between cattle herders and crop farmers: assisting large-scale farmers to access land at a commercial scale; and providing longer term and more secure land leases to farmers which are backed up by government enforcement.

Infrastructure

Agribusiness leaders identified the provision of infrastructure (roads, dams, irrigation channels, transport, storage, supply chains, agricultural marketplaces, power and digital technologies) and logistics, especially for import and export of products, as another critical element of the enabling business environment. They argued that rural communities where most African farmers reside are often devoid of basic amenities. Insufficient road networks hamper adequate access to markets. At the processing level, it is difficult to operate without power, and the rates charged for power continue to be prohibitive and reduce the profit margins available for re-investing back into the agribusiness.

Agribusiness leaders argued that rural road networks should be improved. Provision of power, storage, facilities for value addition, and creation of channels for the international market will assist farming and agribusinesses in these countries. Infrastructure development is needed to promote free movement of goods and hence reduce the cost of moving the goods. They recommended assisting countries in the construction of roads that will link them to other African countries. The infrastructure provided by African governments is often neglected and abandoned after a few years. Respondents felt that including private partnership in provision and maintenance of infrastructure would assist in improving market access for rural farmers.

Policy frameworks for supporting government capacity to provide an enabling environment for agricultural transformation

This section discusses policy frameworks for strengthening the capacity of African governments to provide an enabling business environment to drive agricultural transformation. The frameworks draw on the World Bank's EBA, the Micro Policy and Regulatory Reforms for African Agribusiness (MIRA) implemented by AGRA, and the Monitoring and Analyzing Food and Agricultural Policies (MAFAP) program of FAO.

World Bank enabling business of agriculture approach

EBA is based on an understanding of the importance of a country's legal and regulatory framework for private sector investment in agriculture. While the enabling environment for agribusiness relies on several factors, including a sound macroeconomic environment, adequate technology, the availability of infrastructure and an educated labor force, the legal and regulatory framework is of particular importance to the development of agricultural value chains (Christy, Mabaya, Wilson, Mutambatsere, & Mhlanga, 2009; Cullinan, 1999; Dethier & Effenberg, 2012; Diaz-Bonilla, Orden, & Kwiecinski, 2014; Divanbeigi & Saliola, 2016; FAO, 2007; Hafeez, 2003; UNIDO & GTZ, 2008; World Bank, 2008). Clear and accessible laws and regulations contribute to creating a safe and reliable environment for agricultural market players, investors and consumers. Both domestic and international private sector players, at the farm level, along the value chain and in the market—either small or large in the scope of their operations—seek certain regulatory conditions before they make a decision to invest. An inappropriate legal and regulatory framework can constrain market

efficiency, increasing costs for participants and stunting the development of the sector.

Abundant literature points out the fundamental effect of a legal and regulatory framework on agribusiness activity and investment. Far from listing on this occasion the numerous references and findings on the matter, the salient point is the importance of collecting and using evidence on this aspect to inform sound and effective policy making. To the degree that data are captured on a country's laws and regulations affecting agribusiness value chains, and used to analyze and strengthen its regulatory climate, conditions underpinning the sector enabling environment can more readily be improved.

EBA is an initiative which puts this principle into practice, and demonstrates, perhaps like never before, how evidence on the legal and regulatory framework of countries can be used by governments and policy makers to improve the agribusiness enabling environment of their countries. EBA measures and monitors, within specific topic areas, key elements of countries' regulatory frameworks that impact the enabling environment for agribusiness. By providing indicators that can be used to compare the regulatory environment of different countries, it can inform policy dialogue and reform that aims to promote private sector engagement in the agriculture sector.

While the information EBA gathers is in no measure exhaustive, it focuses on key issues and proxies to assess strengths and/or weaknesses in a country's regulatory environment. When evidence such as that provided by EBA is brought into policy

dialogue, it informs a broader and more structured analysis of the critical components of a country's enabling environment, and is ultimately used to formulate policy actions that can address weaknesses and build on strengths. Therefore the capacity of governments and policy makers to provide a more enabling environment is enhanced.

The collaboration between the World Bank Group's Agriculture Global Practice and AGRA in Africa's Micro Reforms for African Agribusinesses offers a robust experience on how evidence can be used to drive effective reform. For example, in Kenya the EBA report findings for the country (summarized in the Figure 4.3) were presented and used to highlight both strengths and weaknesses in the regulatory framework for agribusiness. This opened discussions and analyses of these issues, and ultimately led to a prioritization of binding restraints in the areas studied by EBA.

One topic of interest and rich dialogue was the policy and regulatory framework for the supply of fertilizers in the country.

EBA findings highlighted the substantial improvements that could be considered in regulations for the registration of fertilizers, both in the legal texts and in the regulatory processes as implemented (see Figure 4.4). This issue was discussed alongside other related considerations, and due priority was given to improving this regulatory area.

Experience shows that EBA can be used as a platform and tool to prompt policy dialogue leading to reform, but which needs to build additional analyses, draw on the vision and expertise of stakeholders, and mobilize a sequence of processes to generate change leading to impact.

The Micro Policy and Regulatory Reforms for African Agribusiness Approach (MIRA)

AGRA has been implementing MIRA since early 2014 to provide technical support to governments through the policy-making units of the ministries of agriculture to help them create the enabling agribusiness environment

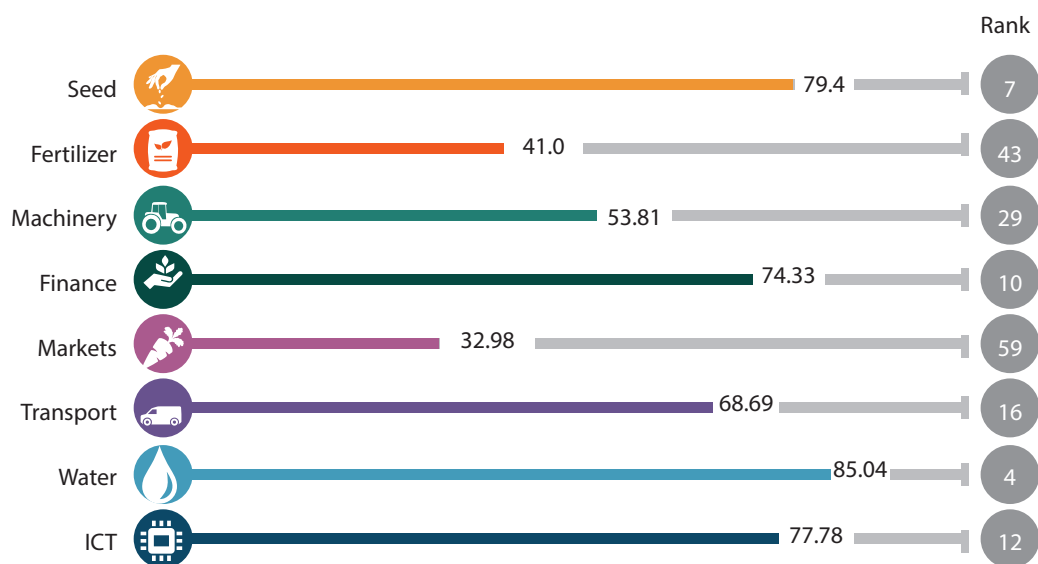


Figure 4.3: Kenya topic scores/rankings EBA 2017

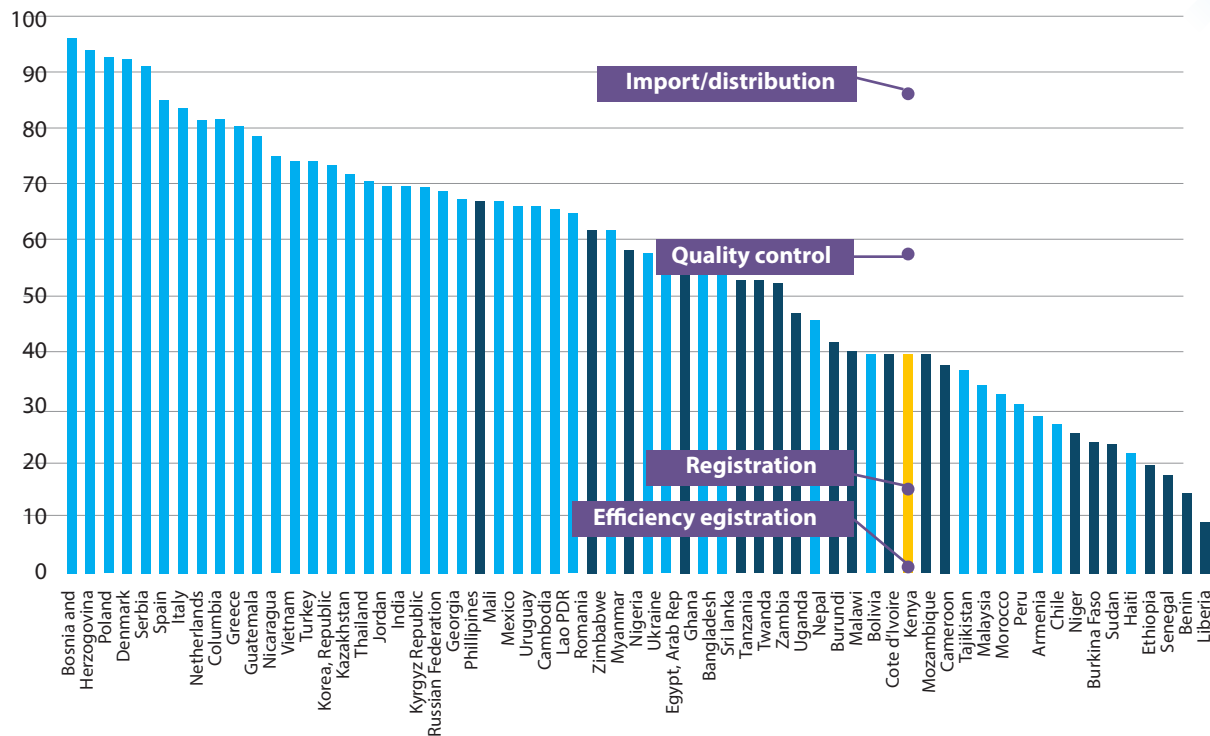


Figure 4.4: Kenya Fertilizer topic scores EBA 2017

through, for example, acting on the EBA indicators. The support includes identifying the policies and regulations that are too old and irrelevant to the current situation; duplicated among ministries, departments and regulatory agencies; missing or ambiguous; economically flawed; too restrictive or excessive for the private sector; and poorly implemented. The support also involves assessing alternative policy and regulatory reform options; articulating public expenditures needed to implement policy and regulatory reforms; selecting appropriate reform solutions; and bringing these through the government decision-making processes to implementation. The support also involves engaging private agribusiness firms in the identification of the needs for policy and regulatory reforms and working out options for reform and desirable reform solutions. In doing so MIRA

builds the capacity of African governments to continuously review and reform policies and regulations that unintentionally limit private sector investments.

MIRA uses a problem-driven iterative adaptation and nudging policy framework combined with a participatory learning-by-doing and learning-by-using approach for designing and implementing quality policy and regulatory reforms in close interaction with policy experts, policy makers and policy decision makers (Andrews, Pritchett, & Woolcock, 2017). The framework is used to enhance impacts and ultimately improve the welfare of smallholder farmers.

MIRA uses a range of tools to support policy practitioners to identify, select and implement appropriate approaches throughout different stages of the policy processes. The stages

include initiation, development, validation, approval, legislation, and implementation.

During the initiation phase, MIRA uses commissioning conversations based on methods such as rapid reconnaissance surveys and in-depth interviews to engage senior government officials at the highest policy-making level, leaders of agribusiness firms and farmer organizations and civil society organizations. This is used to articulate in detail the policy and regulatory challenges that are of concern to the private sector and of importance to government and to obtain buy-in to the need of reforms. Commissioning conversations are followed by exploration using methods such as participatory workshops, focus group discussions, brainstorming, issue analysis, matrix ranking and stakeholder analysis. These tools are applied to iterate and refine parameters of the policy project, develop a shared understanding of parameters and the evidence base needed to advise, inform and influence the reforms. This is used to agree on reform opportunities, formalize policy and regulatory reform projects, generate political support and legitimacy, get a green light from senior government authorities and start the policy reform work.

During the development stage, project planning and management tools such as the Program Evaluation and Review Technique (PERT) and the Critical Path Method (CPM) are used to engage with policy practitioners and stakeholders to map out the flow of processes of the political, administrative and legal procedures and different stages of government decision making, approval and legislation that each reform is required to go through to bring it to implementation. This includes timings when government decision makers are expected to make decisions and when evidence is required to inform and influence the decision making. CPM is

used to assess critical path activities to be shortened to bring activities in alignment with completion dates and how to manage the reforms to complete them on time. The project planning and management tools are applied to articulate work plans for reforming the prioritized problem policies and regulations, write project proposals and jumpstart implementation. The techniques are used to articulate analysis and appraisal of reforms in order to build the case to advise, inform and influence government approval for or against the reforms. Commissioning of policy research institutes is used to carry out and articulate economic impact assessments of reform options (regulatory impact assessment, cost-benefit analysis, and estimation of total costs to government to implement reforms) and present findings to government decision makers. Commissioning of legal experts is used to carry out and articulate legal reviews and drafting of legislation and presenting results to government decision makers.

During validation, public participation is used with a range of techniques such as deliberation, participatory decision making and consultation in workshops and meetings to engage with representatives of stakeholder groups on draft reports, concepts, bills, and regulations. This enables empowering those whose behavior is intended to be influenced by the reforms to review findings of the economic impact and legal studies and draft documents and give feedback on analysis, alternatives and recommendations. This helps improve the quality of the policy and regulatory reforms and impact through better understanding of the problems and risks and solutions more likely to meet the needs of agribusiness firms and farmers. In most countries public participation is now an administrative and legislative requirement. Proceedings of stakeholders' consultation processes often are required to be components of the evidence

base of documents that are submitted to higher levels of government decision makers such as ministers of agriculture and parliamentarians.

The approval phase involves engaging with senior government officials using tools such as informing, consultation, deliberation, collaboration and participatory decision making to shepherd reforms through ministries of agriculture and justice and Parliament (House of Representatives and the Senate). Reforms can get stuck at the stages of decision making such as the Minister of Agriculture, Attorney General's Office, Council of Ministers or the House of Assembly. Therefore continual follow-up and advocacy by stakeholders is needed to drive the reforms through paralysis in decision making.

During legislation engagement with Parliamentary agricultural committees is used through informal and formal interactions using presentations to make the case of the reforms and review and revise documents. One meeting may be organized to introduce the documents to committee members, get their buy-in and input and revise the documents before the Minister of Agriculture lays these before Parliament. A second meeting may be conducted after the Minister presents the regulation at plenary of Parliament. This is because parliamentary procedures require regulations and bills to be referred to subsidiary legislation committees for their study and recommendation to the main house for approval or otherwise. In addition, public participation is used to engage a broad range of stakeholders during the stages of public hearings and consultations of bills.

During implementation, advocacy for implementation tools are applied to influence development of regulations; budgeting and release of funds; building capacity of local implementing agencies; and monitoring processes in order to have an impact during

this phase. This uses a range of tools and approaches to support implementation and evaluation of policy and regulatory reforms.

To date, 25 policy and regulatory reforms have been implemented across 5 countries—Burkina Faso, Ghana, Ethiopia, Nigeria and Tanzania. Tables 4.1 and 4.2 summarize the progress of targeted reforms for changes that have been completed or are at advanced stages and those still in the early stages.

Appendix Tables 4.1–4.3 flesh out in some detail examples of how the MIRA processes contributed to achieving selected policy reform successes in different target countries.

Lessons learned:

- Policy and regulatory reforms are politically sensitive. Embedding them within country-owned institutional structures and the legal architecture is therefore necessary. This is done after obtaining buy-in of the reform agenda by senior government officials at the highest levels of government and private sector business leaders and strengthening the appetite for regulatory reforms.
- It is important to build on ongoing dialogue with relevant stakeholders such as industry trade associations and public regulatory agencies through participatory consultations and discussions to get views of a wide range of stakeholders and ensure consensus on reforms.
- The reform process is based on learning by doing. There are complex administrative and legislative processes and procedures that need to be managed to initiate, develop and validate reform options; select feasible, practical and politically desired solutions; and push these through different stages of government decision making, approval and legislation to implementation.

Table 4.1: MIRA reforms completed or at an advanced stage

Country	Reforms completed or in advanced stage
Burkina Faso	<ul style="list-style-type: none"> • Agricultural marketing regulations for public procurement • Agricultural Sector Investment Code • Strategy for a warehouse receipt system (WRS) for agricultural products
Ethiopia	<ul style="list-style-type: none"> • Taxes on agricultural machinery spare parts, irrigation/drainage equipment • Import duties on agricultural machinery spare parts • Cereals export restrictions • Contract farming • Develop and approve a National Seed Policy
Ghana	<ul style="list-style-type: none"> • Ratification and gazetting of the harmonized Economic Community of West African States (ECOWAS) seed regulation • Ratification and gazetting of the harmonized ECOWAS fertilizer regulation • Passage and gazetting of Ghana Seed Draft Regulations • Development and approval of electronic data base for improving the efficiency of the fertilizer subsidy program
Nigeria	<ul style="list-style-type: none"> • Passage and enactment of the revised Seed Act • Passage and enactment of the Fertilizer Quality Control Bill • Institutional arrangements to reach millions of smallholder farmers with soil and crop specific fertilizer blends • Institutional arrangements to reach millions of smallholder farmers with certified seed of improved varieties and hybrids
Tanzania	<ul style="list-style-type: none"> • Improve access by private seed companies to public protected pre-basic and basic seeds • Remove barriers to registration of new fertilizer products • Improve the delivery of fertilizers • Improve institutional arrangements in the management of issuance of grain export permits • Development of an umbrella contract farming legislation

Table 4.2: MIRA reforms still in the early stages

Country	Reforms still in early stages
Burkina Faso	<ul style="list-style-type: none"> • Passage and enactment of Seed Act and regulations to domesticate ECOWAS harmonized seed laws and regulations • Passage and enactment of Fertilizer Act and regulations to domesticate harmonized ECOWAS fertilizer regulations
Ghana	<ul style="list-style-type: none"> • Development and approval of policy, Act and regulations on High Quality Cassava Flour-based composite flour
Nigeria	<ul style="list-style-type: none"> • Institutional arrangements for commodity market price stabilization

- Policy and regulatory reforms are dynamic and keep on changing even during the reform process. There is a need to provide technical expert analysis (subject matter analysis, cost-benefit analysis, regulatory impact assessment, estimation of public expenditure needs, legal analysis) and writing of official documents and getting formal official approval using a strong evidence base to help government policy makers and decision makers to make better-informed and faster decisions.

- There is a need to focus on granular and specific policy reform issues that are “elephants in the room” and that private agribusiness firms care about and are of importance to the government and pushing these through the decision-making processes and stages of approval by government authorities.
- Focusing on the “low hanging fruit”, helps achieve early policy wins to galvanize support before tackling more complex and longer gestation reforms.
- Building capacity of stakeholders to enable them to articulate and advocate for their preferences and desired changes. The for-profit private sector firms have high-powered incentives to push for reforms through the administrative and legislative decision-making processes because they take profits home.
- The multi-sectorality of agriculture demands coordination within and across line ministries, departments and agencies.
- Engaging champions who personally know key decision makers (such as ministers of agriculture) helps build relationships, which matter because most policy is done informally through personal relationships.
- There is a need to track progress and measure whether the policy and regulatory reforms make a difference, and deliver findings to policy experts, policy makers and decision makers.
- There is a need to develop monitoring, evaluation and impact assessment using indicators relevant to advising, informing, advocating and influencing policy, implementation and re-making of policies and regulations to adapt the preferred solutions to evolving contexts, as goals and incentive are realized in practice.

The Monitoring and Analyzing Food and Agricultural Policies Approach

The Food and Agriculture Organization of the United Nations (FAO) measures the policy environment for agriculture and supports governments to take reform actions to accelerate agricultural transformation through the MAFAP program. Since 2009, it has worked with government institutions, research organizations and other partners in sub-Saharan Africa to establish country-owned systems to monitor, analyze and reform food and agricultural policies based on robust evidence.

The Nominal Rate of Protection (NRP) is the key indicator used by MAFAP to measure whether farmers in different countries and value chains are supported or penalized by the policy environment. These indicators build on the database of distortions to agricultural incentives developed by the World Bank (Anderson & Nelgen, 2013; Anderson & Valenzuela, 2008).

As shown by MAFAP evidence in Figure 4.5, the overall level of the NRP across all agricultural commodities and sub-Saharan countries analyzed, increased significantly between 2005 and 2016, meaning that farm-gate prices are increasingly supported by policy (Pernechele, Balie, & Ghins, 2018). The figures are driven mostly by strong government interventions in staple food markets, for example, for maize and rice. Overall, staple food producers are supported, while cash crops continue to be taxed.

Building on assessments of country and commodity-specific assessments of NRPs and public expenditure studies undertaken jointly with national policy analysts, MAFAP partners with governments across the region to address these policy distortions through the adoption of reforms in several key policy areas.

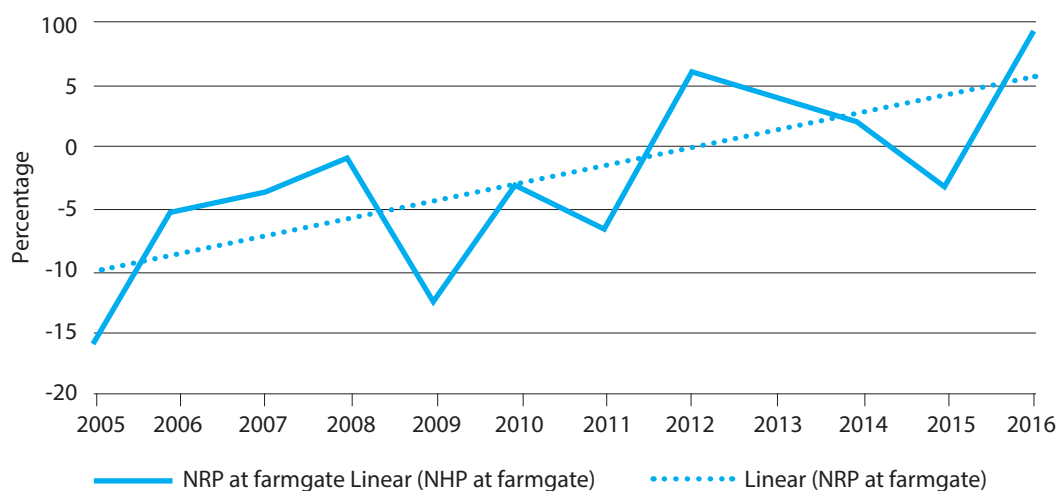


Figure 4.5: Nominal Rate of Protection at farm-gate, average for 14 sub-Saharan African countries

Source: Pernechele, Balie, and Ghins (2018)

It deploys both in-house and external technical capacity on models and methodologies, such as computable general equilibrium models, econometrics and value chain analysis, to assess the effects of policy change options on agricultural prices, household income or food security. In addition, MAFAP acts as a trusted advisor to governments, and provides capacity building to strengthen national policy analysis capabilities. In addition, MAFAP engages the private sector, farmers, civil society, donors and other stakeholders in policy dialogue around key food and agricultural policy problems and

solutions. This has resulted in over 15 policy reforms in a variety of areas (see examples in Table 4.3).

Lessons learned:

- There is clear demand from governments in sub-Saharan Africa for issue-specific, evidence-based, actionable policy advice to achieve broader policy objectives of agricultural growth and transformation. Supporting the generation and supply of rigorous evidence-based information helps meet the demand.

Table 4.3: Examples of support provide to governments by MAFAP

Policy area	Example of support provided
Trade policy	Assessed the impact of the cereals export ban on food security in Ethiopia
Public expenditure/ investment	Supported the formulation of a Medium-Term Expenditure Framework for Food Security and Nutrition in Senegal
Storage & food reserves	Informed policy changes to enhance the efficiency and effectiveness of public food reserves in Mali
Price policy	Supported the reform of cotton price setting mechanisms in Mozambique to increase incomes of smallholder farmers
Inputs policy	Provided options for increased access to fertilizer in Tanzania, and assess the impact of the national bulk procurement system for fertilizer

- Policy analysis is often too academic and recommendations are not sufficiently specific for policy makers to act upon. There is need for policy analysts to use practical instruments such as cost-benefit analysis to provide decision makers with evidence on the trade-offs of policy reform.
- International organizations and domestic think-tanks could support this consolidation and translation of evidence into sets of actionable and prioritized recommendations to accelerate agricultural transformation. There is a need to better understand the policy context and decision-making processes.
- Although ad hoc policy changes can contribute to the enabling environment, there is a need for long-term strategic prioritization to achieve sustainable impact. In most African countries, strategies and investment plans are comprehensive and broad. Given that budget resources are limited, governments must prioritize short- and medium-term policy and investment changes that have the largest impact on agricultural transformation.

This section discussed the EBA, MIRA and MAFAP policy frameworks for how to strengthen capacity of African governments to put in place an enabling business environment to drive agricultural transformation. The approaches are complementary, cover similar issues and build on ongoing policy and regulatory reforms already underway in the countries. Five lessons can be drawn from the experience of implementing the frameworks in different country context and situations. First, there is a need for participatory diagnosis, identification and prioritization of policy and regulatory constraints that are a nuisance to agribusiness and of importance to governments and provide opportunities for reform. Second, there is a need to engage government policy makers and private sector representatives in dialogue about alternative reform options and solutions. Third, there is a need to engage champions to drive the reforms through the government processes. Fourth, rigorous and robust analysis and generation and messaging of evidence is necessary to advise, inform and influence the decision making. The fifth lesson is that governments must focus on implementation of the reforms.

EBA Scores: What Can They Tell Us?

This section discusses the relationship between the strength of regulatory frameworks, as measured by EBA indicators, and realized agricultural business outcomes in sub-Saharan Africa. As described in Section 1, EBA indicators include factors identified through surveys of agribusiness leaders, policymakers, donor agencies and other members of civil society. EBA computes scores for eight primary sectors (seed, fertilizer, markets, machinery, water, transport, ICT, and finance), and are largely based on regulations that have been established and amended over recent decades. These scores range from 0 to 100, with 100 indicating the

frontier of best practice for countries within the global EBA data set of developed and developing countries.

This chapter has outlined the multitude of ways that governments can work to provide an enabling environment for agribusiness. To distill these various pathways into a single score of best practice measurement is a challenging endeavor, especially given contextual factors such as capacity and commitment to implementation.

In studying the full sample of 62 countries the EBA 2017 Report scores, and their patterns of agricultural productivity, a positive correlation

has been found between regulatory scores and levels of agricultural production (Divanbeigi & Saliola, 2017). Agricultural productivity on average is higher where transaction costs imposed by regulations are lower and where countries adhere to a higher number of regulatory good practices.

However, when we consider 20 sub-Saharan countries for which EBA scores are available⁷ and compare them to their average productivity of cereal production to land, a linear relationship between average EBA scores and levels of cereal productivity is not found. Figure 4.6 illustrates three groupings of countries by levels of productivity, roughly translating to low, medium and high, relative to the countries considered.⁸ This stresses the fact that several other contextual and policy factors need to be considered to analyze countries' enabling environment, and to best understand and utilize EBA findings.

Figure 4.6 shows that there is no linear relationship between average EBA score and

levels of cereal productivity. Countries in the lowest productivity category are just as high as high productivity countries: both Zimbabwe and Mozambique (countries known for experiencing recent conflict and unstable agricultural institutions) have higher average scores than Ethiopia and Rwanda (countries known for recent growth).

Comparing EBA Sectors

Looking solely at average EBA scores can be misleading. While factors included for the EBA have been determined through suggestions from policy makers, country-level variation in scores validates conventional understanding that agricultural policy is not set using a holistic approach. As shown in Figure 4.7, considerable gaps exist even for complementary sectors such as seed and fertilizer, where the average score is 48 and 40 respectively.

Where do countries have comparative strengths and weaknesses? Table 4.4 shows that transportation and finance overall have

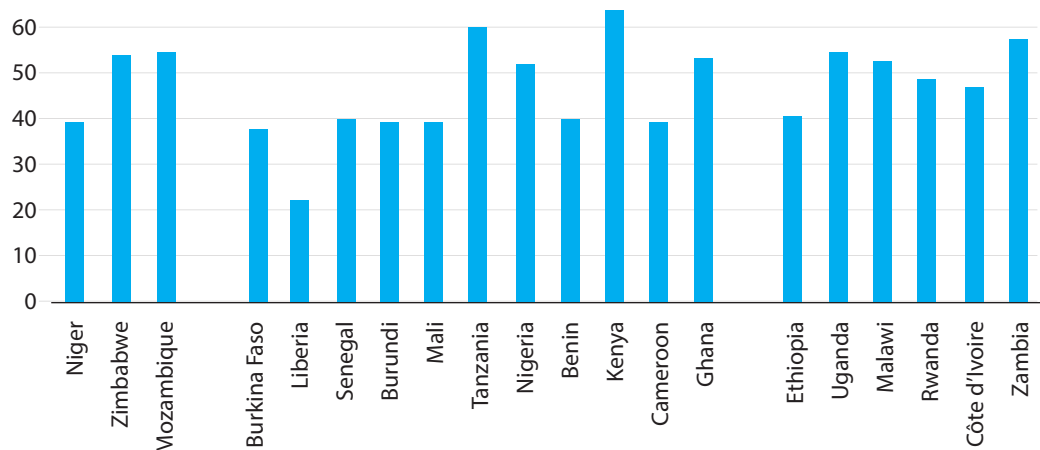


Figure 4.6: Average EBA and Cereal Productivity

Source: World Bank (2017, 2018)

⁷ There are 21 sub-Saharan African countries for which EBA scores are available. Sudan is not included in this analysis.

⁸ Group 1 (Niger–Mozambique) has yields lower than 1,000 kg/ha; Group 2 (Burkina Faso–Ghana) has yields between 1,000 and 1,700 kg/ha; Group 3 (Ethiopia–Zambia) has yields higher than 1,700 kg/ha. Countries are ordered from lowest to highest productivity.

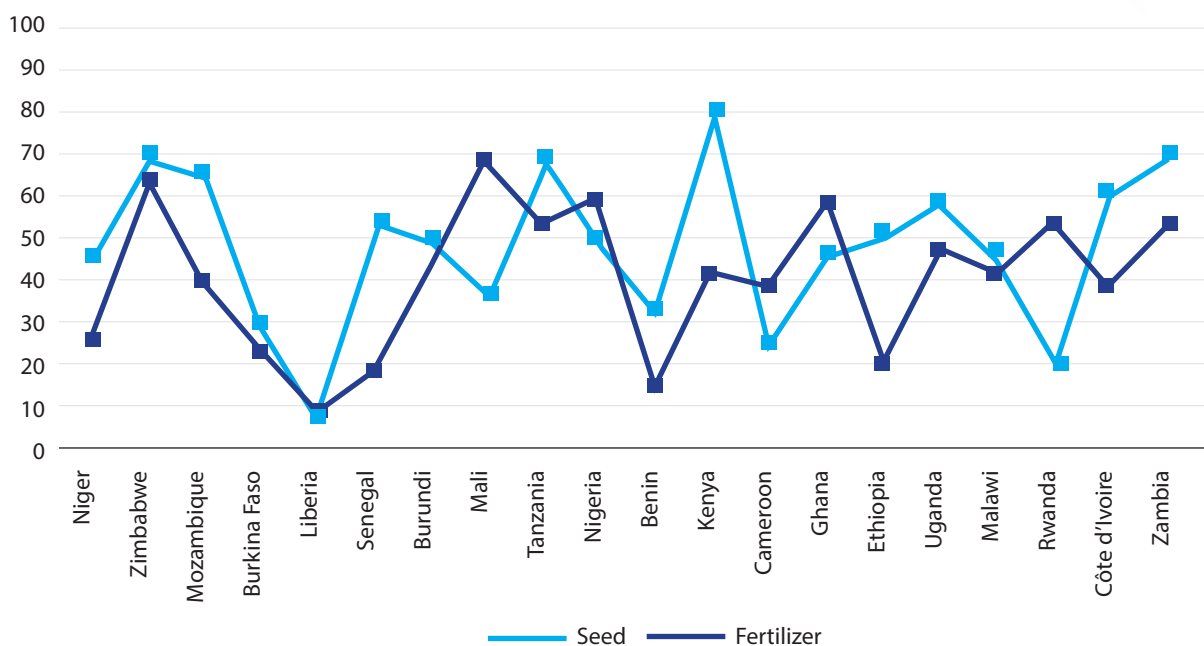


Figure 4.7: Seed and Fertilizer Score Gap

Source: World Bank (2017, 2018)

Table 4.4: Variation in EBA Sectors

	Transport	Water	ICT	Finance	Seed	Fertilizer	Machinery	Markets
Low	62	53	48	46	60	42	38	55
Medium	49	42	51	51	43	38	37	45
High	63	52	46	61	51	42	49	47
Average	55	46	49	53	48	40	41	47

Source: World Bank (2017, 2018)

the highest average scores, with fertilizer and machinery lagging the most behind.

Higher versus lower scores do not necessarily indicate that specific sectors are bigger players in promoting an enabling environment for agribusiness, only that they are closer to meeting the existing frontier of best practices for that sector. To shed greater light on the role of various sectors, econometric analysis can be illustrative by examining the relationship of EBA scores on agribusiness outcomes.

Using data from the World Bank's World Development Indicators from 2000 to 2015 (World Bank, 2018), we studied the relationship between EBA indicators and the total USD value of agricultural exports while controlling for domestic production, land pressure, shocks from violent and climatic events, in addition to calculated levels of total factor productivity. Findings suggest that a positive relationship exists between higher transport, water, ICT, fertilizer, and machinery scores, and exports values, with ICT, fertilizer and machinery

sectors obtaining statistically significant results.

The identification of ICT, fertilizer, and machinery as the most economically relevant sectors is consistent with conventional wisdom regarding modernization and value addition, but a chicken versus egg story remains. Are countries with a historically stronger agribusiness environment more likely to strengthen these specific sectors, or did the strengthening of these sectors in turn promote an enabling environment? Given the political capital and will required to enact regulation, it is likely that the former aids the second.

What can we learn?

While it is attractive to look at countries exhibiting recent growth in the agriculture sector as case studies to see what can be mimicked, it is important to remember that many high growth countries are actually

those rebounding from previously low production levels (Nin-Pratt & Yu, 2012). As such, growth as it appears is catching up to baseline potential after removing certain obstacles such as political instability or overly protective trade policies. EBA is useful in bringing in evidence on a dimension which has been little studied. But this needs to be used alongside data on several other dimensions if effective change that impacts productivity and trade is to be made.⁹ Such low overall scores create complexity in ascertaining a strong relationship given the inherent implication that informal institutions, and therefore confounding or unobservable factors, will be more influential.

In the absence of experiences from high-scoring countries, it is likely best to consider EBA scores as paving the way for necessary conditions, but to date, little can be said about whether they are sufficient in understanding how to further stimulate growth.

Conclusions and Implications

Sub-Saharan African governments are emphasizing the expansion of private sector investments in local agribusinesses engaged in agricultural input supply and output markets. To meet CAADP commitments, African countries need to improve their policy and regulatory enabling agribusiness environments. This requires explicit national vision, strategy, planning, priorities, and sequencing of investments to create the political and economic space for agribusiness, farmers, consumers, and commodity groups to innovate, adapt and adopt best practices to exploit the potential for catch up growth.

The survey of agribusiness leaders showed that policy formulation and implementation needs to use holistic approaches that focus on strengthening entire agricultural value chains. The main elements of an enabling agribusiness environment are political stability; agricultural research, technology development and delivery; agricultural extension, training, education and capacity building; agricultural technology adoption; agricultural input and output markets; agricultural mechanization; agricultural finance; agricultural taxation; structure, conduct and performance of agricultural industries; agricultural policies, laws and regulations; land tenure; and infrastructure.

⁹ Looking at medium productivity countries, however, we can observe several that inspire additional study. Kenya has an average EBA score of 63, overcompensating for its low markets score of 33, with several sectors recording above 70. In addition, Tanzania has an average score of 60, again with a relatively low score for markets of 38. On the other end of the spectrum, Liberia has the lowest score of 22, despite a relatively high ICT score of 56. All low-productivity countries have experienced some element of conflict, but this has not prevented them from implementing regulations, even if they are not effectively followed.

EBA, MIRA and MAFAP provide procedures and tools for diagnosing and prioritizing the policy and regulatory problems and options for governments to act to rectify the constraints, and bringing the reform solutions through the political, administrative and legislative processes and stages of government decision making that they are required to go through to implementation. Therefore the policy frameworks can be used to support countries to design and implement quality policy and regulatory reforms in order to enhance impacts and ultimately improve the welfare of smallholder farmers.

Several lessons can be learned about how to support countries to create a strong agribusiness enabling environment. The first lesson is the need for participatory diagnosis, identification and prioritization of policy and regulatory constraints that are a nuisance to agribusiness firms and of importance to governments and opportunities for reform. Second, there is a need to engage government policy makers and private sector

representatives in dialogue about alternative reform options and solutions and management of policy reform processes. Third, engaging champions is necessary to drive the reforms through the government processes and to work with the policy reform processes. Fourth, rigorous and robust analysis and generation and messaging of evidence are needed to advise, inform and influence the decision making. The fifth lesson is that there is a need to focus on implementation of the reforms

Much is still unknown and must be learned about this process. The relationship between the strength of the policy and regulatory frameworks as measured by EBA and realized agribusiness outcomes in African countries indicate that policy makers should use EBA scores alongside other evidence and considerations for a more thorough analysis, given that there may be major confounding factors such as climate and instability as well as political will that will affect the implementation and impact of a regulatory framework.

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Appendix 4A: Examples of how MIRA processes contributed to achieving selected policy reform successes in target countries

Appendix Table 4.1: MIRA contributions to revisit taxes on agricultural machinery spare parts, irrigation/drainage equipment, and animal feed ingredients and compound feeds, and reduce their burden on this sector (including double taxation on animal feed) reform successes in Ethiopia

Ethiopia	Taxes on agricultural machinery spare parts, irrigation/drainage equipment, and animal feed ingredients and compound feeds
Reforms achieved	<ul style="list-style-type: none"> • Removing value added taxes (on sum of cost, insurance, freight, customs duty and excise tax), excise tax and surtax on agricultural machinery, irrigation/drainage equipment, and animal feed that is organized by standard and second schedule tariff rates with different tax incentives and applied in an inconsistent and non-transparent way in practice • Administer the existing tax incentives in a more transparent and consistent manner, e.g., Directives issued by MoFEC to remove VAT on the sale of local processed animal feed for poultry and to remove VAT on the importation and sale of forage seeds not implemented • Certification process with a certificate of competence to be granted by the responsible Ministries (Ministry of Agriculture and Natural Resources (MoANR) and Ministry of Livestock (MoLF) in the case of animal feed) to be included as part the proposed tax reform to ensure that the reforms directly and proportionally benefit smallholder farmers
MIRA roles/ contributions	<ul style="list-style-type: none"> • Based on the MIRA objectives, resource, and project duration, the National MIRA Coordinator engaged the Agricultural Transformation Agency in May 2016 and agreed that the project supports four policy reform areas of eight agribusiness policy and institutional strengthening areas that the Private Sector Development Task Force (PSDTF) Task Force identified and prioritized and that the Government endorsed in the New Alliance. One of the four policy reform areas was taxes on agricultural machinery spare parts, irrigation/drainage equipment, and animal feed ingredients and compound feeds. • The National MIRA Coordinator, AGRA POs and ATA commissioned SEGEL Research and Training Consulting to carry out a cost-benefit analysis on taxation applied to agricultural mechanization, irrigation and drainage equipment, and animal feed ingredients importation and local manufacturing, and to put forward tax reform policy options to the government for consideration.

Ethiopia

Taxes on agricultural machinery spare parts, irrigation/drainage equipment, and animal feed ingredients and compound feeds

MIRA roles/ contributions

- SEGEL started analysis and submitted and presented inception report to the RED&FS Private Sector Development Task Force (PSDTF) meeting chaired by ATA on February 10, 2017. SEGEL presented its initial findings and policy recommendations to the relevant ATA teams in early June 2017 and received critical feedback. The team integrated comments and submitted a revised report on June 12, 2017.
- The MIRA National Coordinator and ATA Chief of Staff and Senior Director – Agribusiness & Markets and Implementation Capacity presented the analysis and policy recommendations on input taxation (agricultural mechanization, irrigation/drainage equipment, and animal feed) to the Minister of Agriculture and Natural Resources and his advisors on October 25, 2017. Following the presentation, the Minister expressed his appreciation of the quality of the cost-benefit analysis and its recommendations and instructed the National MIRA Coordinator to draft a cover letter for him to submit copy of the report to the Prime Minister.
- The National MIRA Coordinator drafted a cover letter to the Minister. The Minister officially submitted the MIRA report to the Prime Minister for consideration of the report's policy recommendations with a cover letter and requesting him to instruct the Ministry of Finance and Economic Cooperation to take appropriate actions to lift taxes on agricultural mechanization and irrigation/drainage equipment.
- Earlier on the Ministry of Livestock and Fisheries had separately submitted the animal feed component of the MIRA analysis and tax reform policy recommendation to the Ministry of Finance and Economic Cooperation for appropriate actions. The National MIRA Coordinator followed up with both Ministries to push for this policy reform. After reviewing MIRA analysis and policy recommendations, the Ministry of Finance and Economic Cooperation requested the Ministry of Livestock and Fisheries to provide additional data in addition to the MIRA cost-benefit analysis for it to be able to make determination on duty and taxes on animal feed.
- The National MIRA Coordinator gathered the additional data from the Ethiopian Customs and Revenue Authority, collated and submitted it the Ministry of Livestock and Fisheries. The Ministry of Livestock and Fisheries submitted the data to the Ministry of Finance and Economic Cooperation.
- The Agricultural Transformation Council chaired by the Prime Minister decided in its meeting on December 6, 2017 to remove taxes on agricultural mechanization, irrigation/drainage equipment, and animal feed, among other decisions.

Appendix Table 4.2: MIRA contributions to ratification and gazetting of the harmonized ECOWAS seed regulation reform successes in Ghana

Ghana	Ratification and gazetting of the harmonized ECOWAS seed regulation
Reforms achieved	<ul style="list-style-type: none"> • Ratification and gazetting of the harmonized ECOWAS seed regulation
MIRA roles/ contributions	<ul style="list-style-type: none"> • The Council of Agricultural Ministers of ECOWAS agreed in 2008 gazette of ECOWAS seed regulation C/REG.4/O5/2008 regulation on harmonization of the rules governing quality control, certification-and marketing of plant seeds and seedlings in region be published in member states and should enter into force upon publication. • But Ghana’s legislative framework requires approval by Parliament. • MIRA National Coordinating team worked with the Attorney General and Directorate of Crop Services to restart the ratification of ECOWAS seed regulation. National MIRA Coordinating team assembled empirical evidence on net benefits from harmonized ECOWAS regulation. • National MIRA Coordinator team organized a workshop for the Parliamentary Select Committee on Agriculture, Food and Cocoa Affairs from June 23–25, 2016 and presented the case for passing the regulation. Committee members understood and endorsed the regulation and then presented these to Parliament. • In July 2016 Parliament ratified ECOWAS harmonized seed regulations. The Attorney General clarified that there was no need to gazette the ECOWAS regulations after ratification. The regulations can be implemented within the framework of approved national seed regulations.

Appendix Table 4.3: MIRA contributions to facilitate updating, passage and enactment of the draft bill on the code of agroforestry–pastoral, fish and wildlife investments (also known as Agricultural Sector Investment Code) policy reform successes in Burkina Faso

Burkina Faso	MIRA contributions to facilitate updating, passage and enactment of the draft bill on the code of agroforestry–pastoral, fish and wildlife investments (also known as Agricultural Sector Investment Code) policy reform successes in Burkina Faso
Reforms achieved	<ul style="list-style-type: none"> • Bill for Code/Act for agricultural, forestry, pastoral, fishing and wildlife investments in Burkina Faso • The official Agricultural Sector Investment Code (ASIC) document was prepared by a consultant with World Bank funding through Ministry of Economy and Finance starting in February 2015. • The document was validated through regional consultative workshops throughout the country's 13 regions during May–June 2015; and through a national stakeholders' workshop on November 5, 2015. However, participants did not approve the document. • The Direction Générale pour la Promotion de l'Economie Rurale (DGPER), Ministère de L'Agriculture Et Des Aménagements Hydrauliques (MAAH) and National MIRA Coordinating (NMC) team led a 7-person technical committee to revise the document from January 25–29, 2016. • MAAH and other relevant ministries reviewed and approved document from February 15–19, 2016. • The National team organized a national stakeholder workshop on October 11, 2016 to review and validate the revised document of the Agricultural Investment Code. • The NMC team coordinated the development of decrees for the application of the Code in December 2016. • The NMC team submitted the document to the General Secretariat of the Government for review and approval by COTEVAL (Technical Committee for the consideration of draft bills) in November 2016. • The document was presented to the Council of Ministers on March 1, 2017. But the Council made substantive comments and the documents moved back to the development stage to incorporate the comments. • Initiatives Conseil International (ICI) was commissioned to carry out legal reviews and analysis of the reform. ICI started analysis on February 22, 2017. BGB Meridien was commissioned to carry out technical economic impact assessment and estimation of public expenditure requirements of the reforms. BGB started analysis on March 1, 2017.

Burkina Faso MIRA contributions to facilitate updating, passage and enactment of the draft bill on the code of agroforestry–pastoral, fish and wildlife investments (also known as Agricultural Sector Investment Code) policy reform successes in Burkina Faso

MIRA roles / contributions

- The NMC team organized a technical committee to update the agricultural investment code and incorporate comments made by the Council of Ministers. The technical committee worked from March 6–26, 2017 and revised the document.
- The NMC team organized a meeting on the Agricultural Investment Code on May 29, 2017. During the meeting the Minister, the General Secretary and all the directors general (DGs) and advisors reviewed and improved the documents proposed by the technical committee.
- The final version of the Agricultural Investment Code was sent on May 30, 2017 to the General Secretary for consideration. Because the Agricultural Investment Code was already advanced in decision making by government officials and DGPER was under pressure to carry out revisions quickly, it used in-house government lawyers for the analysis. ICI produced draft inception report on May 12, 2017. BGB produced a draft inception report on June 9, 2017.
- The Agricultural Sector Investment Code progressed from the stage of General Secretary in the Ministry of Agriculture and was presented to the Cabinet Council of the Prime Minister on September 25, 2017. All ministers participated in the meeting. During the meeting the Minister of Agriculture defended the document. Council members made some comments and the document was revised to incorporate these before it was re-introduced to the Council of Ministers on October 18, 2017. The Council of Ministers discussed and approved it on October 18, 2017. During the meeting the Minister of Agriculture defended the document.
- The General Secretary sent the official documents to Parliament during October 19–20, 2017.
- ICI submitted a draft report on June 30, 2017 and this was approved by DGPER on October 17, 2017. BGB submitted draft report on October 11, 2017. BGB and ICI presented results to key stakeholders at a validation meeting on November 24, 2017.
- The official documents were tabled for debate at the National Assembly during its second annual session (September–December 2017) on December 4, 2017 and voted for enactment into law on December 14, 2017. The Agricultural Sector Investment Code was not debated on December 4, 2017 and voted on December 14, 2017 because the sessions could not be organized as a result of the busy end of year period.
- The Code was scheduled for debate and voting by Parliament during its first session in 2018 (March to May 2018).
- The investment code was adopted by the National Assembly in May 2018.

5 Implementation and Delivery Capacity for Agricultural Transformation

Frederick Golooba-Mutebi¹ and Valérie Vencatachellum²

Key Messages

- 1** The liberalization wave that has blown across Africa since the 1980s in the political and economic arenas has produced fewer dividends than expected. The destruction of existing support systems that previously benefited farmers has hindered the potential growth of the agriculture sector in particular.
- 2** Signs in recent years, however, show that in parts of Africa the agriculture sector is picking up. Nonetheless, the overall pace is slow and uneven, as indicated by the new African Agriculture Transformation Scorecard launched in 2018.
- 3** The multiplicity and fragmentation of actors increase the complexity of implementation within a context of inappropriate regulation and low capacity of government, farmers and the private sector.
- 4** A few countries have innovated and reaped good results by promoting systemic solutions, prioritized plans and setting up purpose-built mechanisms to coordinate stakeholders and ensure alignment of government strategies. Ownership is key.

Introduction

Agriculture remains the main source of livelihood for 65% of the African population, most of whom are poor. Given its centrality, the sector is expected to deliver on goals as varied and complex as food security, import substitution, improved nutrition, poverty reduction, economic growth, job creation, youth and gender empowerment, and industrialization. Few countries, however, have managed to mobilize their agriculture sectors in ways that would allow them to achieve all these goals, or to set them on the path of inclusive growth and structural transformation.

This situation has arisen in spite of governments recognizing two things. One is that agriculture is the backbone of their

economies, which culminated in the adoption of the Comprehensive Africa Agriculture Development Programme (CAADP) in 2003. The other is that agriculture is the main source of livelihood for the majority of their citizens, which led them to embrace efforts to strengthen service delivery in the sector over several decades. In this chapter, we examine the factors that have impaired the development of effective delivery mechanisms. We highlight efforts to improve delivery over the last three decades and why they have fallen short of expectations. We show that there are structural and systemic factors at play in impairing delivery, including historical and political causes. We then suggest ways to improve malfunctioning delivery and implementation mechanisms.

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The problem of Agriculture in Africa

More than half a century since most African countries became independent, agriculture on the continent remains backward. Few countries have been successful at transforming the sector to become the engine of growth it ought to be, as has historically been the case in countries that have achieved structural transformation. This situation is perplexing. In countries where levels of industrialization remain low, agriculture is the main source of livelihood for most citizens. The continent has abundant natural endowments: over half of the world's total area of uncultivated arable land is in Africa. The continent boasts tropical and subtropical climates that permit long and multiple farming seasons. It has a young labor force, which is projected to be the world's largest by 2050, in a population which is projected to grow from 16% of the world population in 2015³ to 40% in 2100⁴ (UN, 2015). Moreover, agriculture has been the mainstay of many countries' economies for several decades.

Amidst all this, the continent has been a net food importer since the 1980s and its food bill is set to rise threefold by 2025 to US\$110 billion. Meanwhile the rates of urbanization and a growing middle class are expanding national and inter- and intra-regional markets for agricultural products. Agriculture and agribusiness are together projected to be a US\$1 trillion industry in Africa by 2030. The sector currently accounts for 61% of employment, 25% of gross domestic product (GDP) and represents 9.16% of total exports and 13.4% of total imports⁵ (Tralac, 2017).

Yet, both land productivity (output per unit of land—yields) and labor productivity (output per agricultural worker) remain low relative to other parts of the world. Although the yields have been

increasing (Figure 5.1), they have not risen as fast as in other parts of the world. Within Africa itself, differences exist between regions, with Northern Africa leading in terms of yields (Figure 5.2).

While it is slowly growing, value addition remains insignificant in many parts of the continent. As an example, while West Africa, from which the plant originates, used to be the center of the oil palm industry, production and processing now lag far behind that of South East Asia (Figure 5.3) where the crop was introduced in the 1870s. Overall, and in particular when compared to other regions of the world, the value of agricultural imports into Africa is significantly higher than that of exports from it (Figure 5.4).

Gunning for agricultural transformation

In January 2018, the African Union (AU) released the first African Agriculture Transformation Scorecard (AATS)⁶ (AUC, 2018) on the status of agricultural transformation in African countries. The scorecard is an innovative tool for evaluating agriculture sector progress towards achieving the commitments of the 2014 Malabo Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods. In compliance with their pledge to mutual accountability, 47 out of the 55 AU member states submitted reports and data. These provided the data used to produce the scorecard, covering the review period between 2015 and 2017. To quantify and track progress, the 7 Malabo commitments were translated into 7 areas of performance,⁷ which were further broken down into 23 performance categories and 43 indicators.

3 World population of 7 billion.

4 World population of 11.2 billion.

5 Between 2001 and 2016.

6 The Africa Agricultural Transformation Scorecard (AATS), the first of its kind in Africa, captures the continent's agricultural progress based on a pan-African data collection exercise led by the African Union Commission's (AUC) Department of Rural Economy and Agriculture (DREA), the New Partnership for Africa's Development (NEPAD) Agency and regional economic communities in collaboration with technical and development partners. Countries were assessed on the 7 commitments in the Malabo declaration, across 43 indicators.

7 These are: (i) Re-committing to the principles and values of the CAADP process; (ii) Enhancing investment finance in agriculture; (iii) Ending hunger in Africa by 2025; (iv) Reducing poverty by half, by 2025, through inclusive agricultural growth and transformation; (v) Boosting intra-African trade in agricultural commodities and services; (vi) Enhancing resilience of livelihoods and production systems to climate variability and other related risks; and (vii) Strengthening mutual accountability to actions and results.

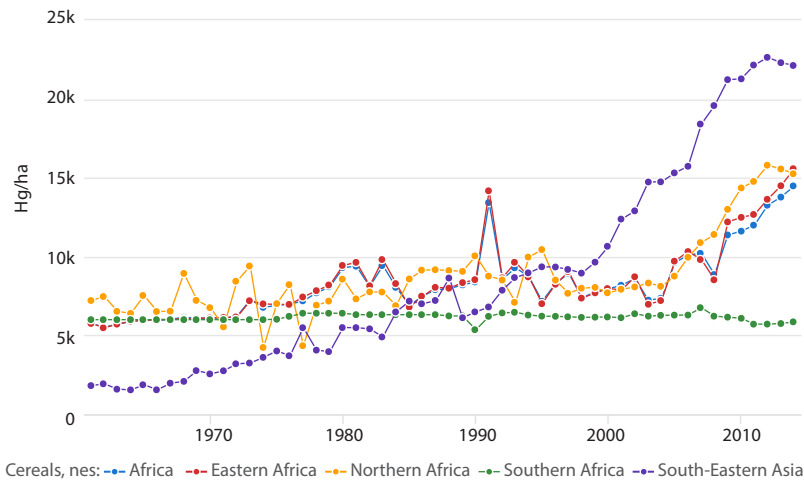


Figure 5.1: Cereal yields, kg/ha (time series 1965–2014)

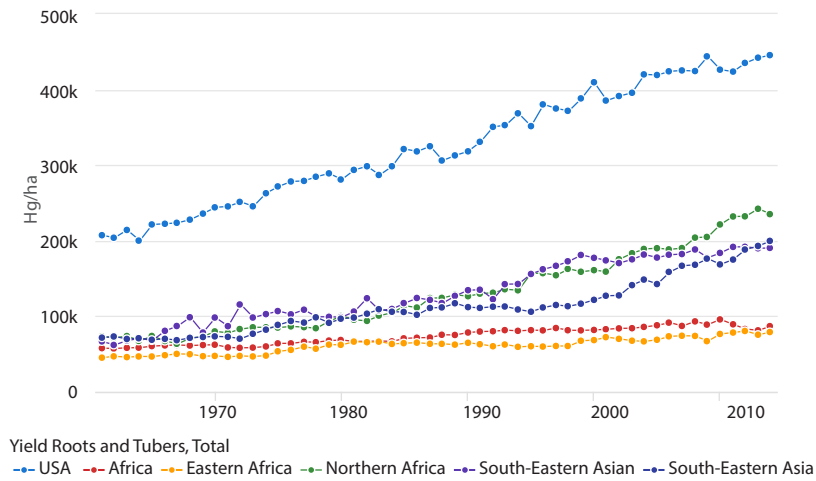


Figure 5.2: Roots and tubers yields, kg/ha (time series 1965–2014)

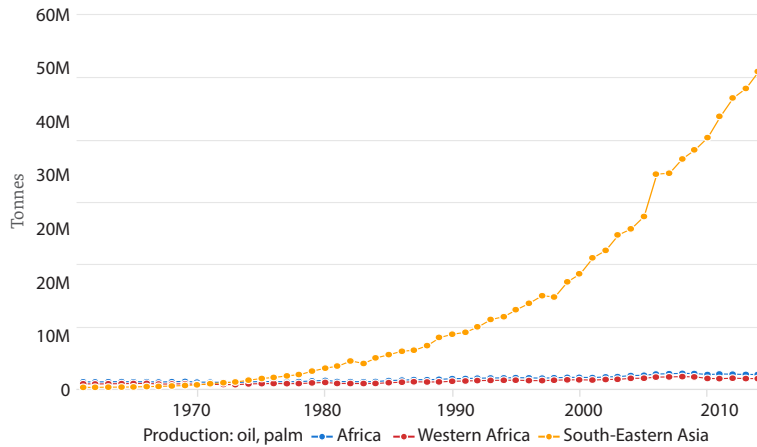


Figure 5.3: Oil palm processing, million tonnes produced (time series 1965–2014)

Source: FAOSTAT (June 18, 2018)

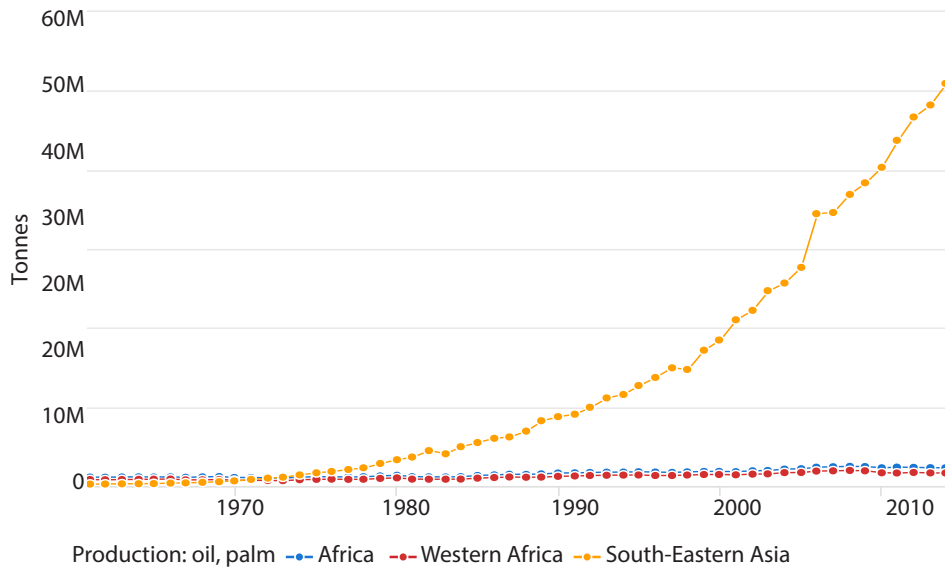


Figure 5.4: Import and export values of food and animals

Source: FAOSTAT (June 18, 2018)

Therefore 15 years after the launch of CAADP which defined agriculture as an “engine for growth in Africa” (AU/NEPAD, 2003), the AATS provides a comprehensive snapshot of its impact. The scorecard shows forerunners and stragglers, helping policy makers identify factors that have contributed to or impeded progress in achieving the targets governments signed up to in Malabo. It showcases efforts at continental policy level to promote use of data, evidence-based planning, monitoring and evaluation, and mutual learning.

The AATS reveals a mixed bag of results: only 20 of the 47 member states are on track towards achieving the commitments set out in the Malabo Declaration. Rwanda leads the top 10 best performers with a score of 6.1, followed by Mali (5.6), Morocco (5.5), Ethiopia (5.3), Mauritius (5.0), Togo (4.9), Malawi (4.9), Kenya (4.8), Mauritania (4.8) and Burundi (4.7). On a regional level, Eastern and Southern Africa lead the way. Liberia (0.9), Democratic Republic of Congo (1.5), Sierra Leone (1.5), Sao Tomé & Príncipe (1.5) and Tunisia (1.7) are at the bottom (AUC, 2018).

Highlights of the report include:

- Public spending in agriculture ranges from 0.6% to 17.6%, with only 10 countries⁸ allocating the minimum of 10% as per Malabo target.
- 13 countries had registered an increase of 10% or more in terms of growth rates of yields of national commodities.
- 12 countries dedicate 1% or more of yearly agricultural GDP to research.
- 18 countries reported an increase of at least 6% in agricultural GDP in 2016.
- 3 countries had increased intra-regional trade in agricultural commodities and services by at least 20%.
- Reliable data on the proportion of new jobs created for youth in agriculture between 2015 and 2016 were unavailable in most countries.

Nonetheless, under the auspices of the AU and the CAADP framework, most countries have developed national agricultural investment

⁸ In comparison, eight nations had reached this goal in 2012.

plans (NAIPs), supported by the African Union Commission (AUC)/New Partnership for Africa's Development (NEPAD), regional economic communities (RECs) and organizations, including the International Food Policy Research Institute (IFPRI) and the Regional Strategic Analysis and Knowledge Support System (ReSAKSS). Still, few have gone on to design evidence-based, prioritized programs (flagships). Where such programs have been drawn up, national governments have not put in place appropriate delivery mechanisms and/or built institutional capacity to achieve the targets set out in the respective NAIPs.

While CAADP and its successor, the Malabo Declaration, represent an encouraging step in terms of collective action and reaffirming the centrality of agriculture for African economies, the mixed results indicate that the continental policy does not represent a panacea for the sector's appropriation and prioritization by countries.

This is not the kind of performance that was anticipated during the 1980s and 1990s when a wave of reforms of the economic and political spheres swept across the continent. Championed by the International Monetary Fund (IMF), the World Bank, and the wider development community, the reforms were driven by optimism about what could be achieved through them. Although they brought about massive changes, leading to significant economic gains and ushering in unprecedented peace and political stability, they also fell short of their objectives in significant ways, making further reform necessary. The following sections review the reforms and their underlying drivers. This is followed by an assessment of their impact on implementation and delivery, before we suggest what other reforms are needed to address the failures of past reform efforts.

Reordering the economic sphere

Together with the economic reforms championed by IMF and the World Bank, the wave of donor-driven reforms in the political and administrative spheres that swept across Africa from the early 1980s to the beginning of this century, have had far-reaching effects on Africa's agriculture sector and on prospects for agricultural transformation within individual countries (Clapp, 1997).

Motivated by ambitions to improve the performance of African economies long weakened by political and economic mismanagement and deteriorating terms of trade for commodity exports, structural adjustment programs dismantled institutions and systems which had hitherto constituted an important support infrastructure for farmers, especially small-scale farmers. The outcome was the setting back of agriculture by at least three decades (Tshibala, 1998). For example, the state was pushed out of both the supply of inputs and the marketing of agricultural products, which were then opened up to free market forces. Until that point, governments had played key roles in both spheres, using marketing boards for marketing—including exporting—agricultural products, and state-owned companies or state-controlled cooperatives to import and market inputs and supplies, for the most part at subsidized prices that poor farmers could afford (Lele, 1990).

By the early 1980s when structural adjustment programs began, state intervention in economic matters had contributed significantly to the economic problems many countries were experiencing at the time. For example, although it was still the domain of state intervention, the supply of agricultural inputs to farmers had reduced significantly. The economies of many countries were struggling under a massive weight of foreign

debt and reduced revenues from commodity exports (Callaghy, 1993). These same challenges made it difficult for farmer cooperatives, which operated under heavy state control, to pay farmers on time for their produce. This in turn led to a decline in the production of the same crops they were hitherto responsible for marketing, such as cotton and coffee (Lele & Christiansen, 1990).

This is why marketing boards were viewed as dis-incentivizing production both because they paid low prices for farmers' produce and even then, not promptly. Also, both the World Bank and IMF portrayed subsidizing the agriculture sector as avoidable hemorrhaging of public financial resources. The underlying assumption was that, once opened up to market forces, the marketing of agricultural products would translate to higher incomes for farmers, not least because production would increase. As a result, farmers would not need subsidies to purchase the necessary inputs and supplies from private suppliers. It was equally expected that non-governmental organizations (NGOs) would fill the gaps left by the private sector, such as providing services to the poor who could not afford services and inputs at free market prices (Osei-Akom, 2001; Raikes, 2000).

Restructuring politics

Alongside efforts to reconfigure African economies, the development community championed reforms in the political sphere. They included the reintroduction of multi-party competition after many years of military and single-party governments, and the decentralization of power and decision making from national governments to elected local governments (Conyers, 2007; Villalon & VonDoepp, 2005). Championing multi-party competition in place of one-party politics and military rule was based on the belief that electoral pressures would compel political


parties and elected leaders to respond to popular expectations (Cheeseman, 2015; Diamond & Plattner, 2010). They would do this by managing economies and public affairs more responsibly, aiming to have a positive impact on the wellbeing and livelihoods of ordinary citizens (Manor, 2004).

Several arguments were used to justify reforms seeking to disperse power and undermine the centralizing tendencies of the political elite running national governments:

- Centralized decision-making had led to the wrong decisions being made on behalf of would-be beneficiaries who were not consulted to establish their aspirations and preferences.
- Decentralization would, de facto, place decision making in the hands of elected local leaders who would be required by law and who would also be motivated to consult to ensure that decisions arrived at concerning matters of public interest would reflect the views, aspirations and preferences of members of the public who could vote them into and out of office.
- Devolving decision making to local authorities where it would be in the hands of elected leaders living and working in proximity with the people who elected them meant that voters would hold them accountable for how they conducted themselves while in office.

Impact of restructuring economies and politics

These reforms had specific implications for implementation and delivery in various service delivery domains, including the agriculture sector. Among other things, they produced new challenges. In the political sphere, the introduction of multi-party competition shook up the political landscape in countries



that had hitherto been single-party states or military dictatorships. At the same time, in many instances, competitive politics provoked violence and caused mass disruption and political instability (Cheeseman, 2015), which contributed to further weakening of state capacity. Weakened state capacity in turn had implications for the government's capacity to drive delivery and implementation. Politics in Africa has become more competitive. However, the modal pattern is for voters to elect leaders on the basis, not for programmatic considerations, but based on ethnic solidarity and, in some cases, bribery, intimidation and often ballot stuffing and other forms of rigging. While it produced additional public accountability, the democratic electoral process also created further entrenched interests (Diamond & Plattner, 2010). The following sections discuss some of these in detail.

Opening up to multiple actors

One of the results of the liberalization of economies has been to encourage or push for participation by multiple actors in the agriculture sector. The dominant paradigm for agricultural transformation is of a market-led value chain development. Service delivery in the sector entails multiple functions—providing inputs and infrastructure; formulating and enforcing regulations; promoting and disseminating technology; and developing skills and standards, encouraging industrialization and the development of agribusinesses—performed by public and private players with different incentives and capacities. Beyond addressing supply-side constraints therefore strategies for agricultural development have emphasized a plurality of actors across the whole value chain, from production to processing and marketing. The objective is to enhance production and develop markets, and in so doing accelerate economic growth and structural transformation (Mellor, 1995; Mellor, 2017).

Stakeholders are as diverse as smallholder and medium-scale farmers, domestic and foreign investors, local authorities, bilateral donors, philanthropic organizations and multilateral financing institutions, commercial banks and microfinance institutions, civil society organizations, non-profit organizations and implementing partners. The entry of multiple actors is good for competition in the market place of goods and services and for ideas, which ensures the diffusion of new ways of thinking and of doing things, ensuring progress. However, in the context of weak state capacity for coordination, control, guidance and enforcement of standards, rules and regulations, this diversity of actors has the potential to translate into failure to formulate a national vision for transformation. Where such a vision exists, it can lead to failure to implement it consistently, as multiple actors set their own priorities and pull in different directions (Hanlon, 1991). This challenge is not restricted to the agriculture sector; it applies to country economies and other sectors (Edwards, 2014; Golooba-Mutebi & Bukenya, 2014).

Role of Government

Another avenue through which governments have pursued agricultural transformation has been the creation of agencies to take up some of the responsibilities that formerly belonged to national ministries. This is the result of ministries failing to execute such responsibilities effectively. Uganda, for example, created numerous agencies, such as the National Agricultural Advisory Service (NAADS); the Cotton Development Authority; the Coffee Development Authority; and the National Agricultural Research Organisation (NARO). The government created these agencies to streamline and ease the workings of the agriculture sector. However, over time they have rendered it more complex because of overlapping mandates and poor coordination,

which have often provoked turf wars and mutual sabotage.⁹

Even after the creation of these entities, sector experts report that within ministries these reforms have not always produced the intended results. Systemic problems continue to impede program delivery, of which the principal one is failure to reform internal organizational structures to fit new sector priorities. The result has been that ministries of agriculture in many countries retain inappropriate multiple institutional structures with overlapping mandates leading to poor implementation clarity, mixed functions between sector ministries and, implementing agencies/departments. For example, in Nigeria the Federal Ministry of Agriculture has over 40 parastatals. In most instances botched institutional reforms are the result of what one expert referred to as “political motivations”.¹⁰

Moreover, poor supervision of technical personnel coupled with poor pay and working conditions exacerbate the situation. These translate into lack of incentives for public servants to perform their tasks as envisaged. The absence of performance management, of which target setting, monitoring and impact evaluation are an integral part, is a common problem in many countries. This has impaired the capacity for implementation, leading to stagnation. Specific criticism includes duplication of roles, procurement being especially contentious because of the volume of resources involved, and associated opportunities for individuals to benefit personally from supply contracts. Inefficient procurement systems are significant contributors to poor budget execution and therefore slow down project and program execution.

Responsibility for enforcing accountability in some cases rests with parliaments which

receive reports from the Auditors General. However, in many countries parliaments have their own internal weaknesses that prevent them from measuring up to expectation (Hedger & Blick, 2008). Furthermore, special purpose program implementation units or third parties such as NGOs manage donor-funded initiatives. This stretches the capacity of public bodies to monitor them effectively.¹¹

Local government

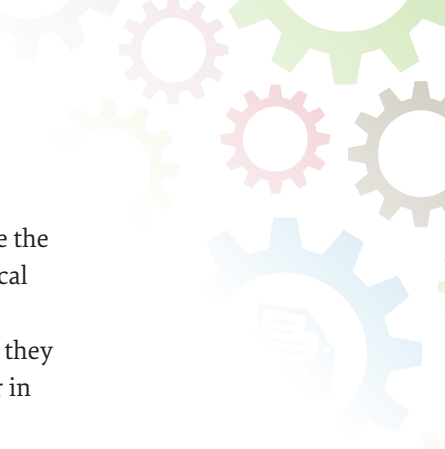
In line with the principles of devolution, reforms in public administration divided functions and responsibilities, reserving some for central governments and passing on others to local authorities. This division of labor led to central governments, through their ministries, departments and agencies, retaining mainly policy making, standards setting and oversight roles. Local authorities took on responsibility for on-the-ground policy implementation. The specific responsibilities of local authorities in agriculture included providing extension services, in some instances distributing seeds and other inputs to farmers, or overseeing and coordinating their distribution. In addition, they were responsible for enforcement of laws and regulations pertaining to safeguarding and promoting good practices in animal and crop husbandry (Conyers, 2007; Manor, 2004).

However, local governments have struggled with the functions and responsibilities they were given, and this cuts across several sectors. Health, education, and water and sanitation are good examples of where their record is at best patchy in many cases (Ayee & Crook, 2003; Booth & Cammack, 2013; Golooba-Mutebi, 2012). Kobbie (2011) quotes Dr Akinwumi Adesina as saying, “Today, the majority of farmers do not have access to functioning extension systems, affordable credit, stable prices or markets”. More than three decades

⁹ Interviews with Ministry of Agriculture officials and researchers at Makerere University, April 2018.

¹⁰ Personal communication (Rwanda-based international consultant with vast experience across Africa), June 11, 2018.

¹¹ Interview with a senior official at the Ministry of Agriculture (Uganda), April 2018.



since decentralization was fronted as the answer to challenges of maladministration (Smith, 1985; Villadsen, 1996), of which poor delivery of services was one, there is ample evidence to show that one of the challenges of devolving power and responsibilities to local authorities has been the incapacity of central governments to oversee, coordinate and guide their activities. These outcomes support the argument that within a context of state weakness at the national level, devolution easily translates into decentralization of challenges as described, from the center to local authorities (Golooba-Mutebi, 2004). In entrusting local governments with far-reaching responsibilities for service delivery therefore governments and influential external actors, disregarded this reality.

The exceptions are countries where central governments exhibit a more than average capacity to provide guidance and to hold local governments to account, especially where the civic competence of ordinary citizens has been developed and nurtured deliberately (Booth & Cammack, 2013; Republic of Rwanda, 2017). Where national governments possess ample capacity for policy guidance, notwithstanding arguments about how this might undermine the autonomy of local authorities (Odigbo, 2013), and where they can therefore ensure alignment between national ambitions and what local authorities do on the ground, delivery tends to be effective (Tafere, 2018). In some cases program implementation functions are devolved to local governments, but resources are not made available to ensure or facilitate implementation (Martinez-Vazquez, 2011; Mascagni, 2016; Smoke, 2003).

However, in instances where central governments are unable to guide, coordinate and hold local authorities to account, service delivery is marked by failure or sub-optimal performance (Kessy, Kayunze, Mayumana, & Kahamba, 2018). The conclusion to be drawn

from these observations is that despite the faith vested in decentralization and local governments as panaceas to problems associated with poor implementation, they are not always effective tools, whether in agriculture or any other domain.

Private sector

That the private sector was motivated by the pursuit of profit and that it would therefore be more effective as a supplier of agricultural inputs and buyer of produce, was the premise of the arguments critics of state intervention put forward for excluding the state from doing business in agriculture and other sectors (Clapp, 1997). Over time, however, it became clear that these assumptions were driven more by ideology or optimism than a thorough understanding of country realities.

At the start, the private sector tried to fill the gap left by the state. Much progress was made, with many positive results. They included gains in the production of specific crops. In Uganda, for example, the production of coffee in the early years of reform increased tremendously. This was because farmers responded immediately to the availability of markets for their produce by stepping up production. With the rise in their incomes, farmers could afford to pay for inputs that were readily available on the open market from importers who also responded to growing demand by increasing importation (Bategeka, Kiiza & Kasirye., 2013).

However, the other side of this story is not so rosy. The faith vested in the capacity of the private sector to measure up to the task disregarded an important reality: in some countries, and here Rwanda is a good example (Byakweli & Golooba-Mutebi, 2013), the private sector was too small and under-developed and remains so. As such, it lacks sufficient capacity to ably fill gaps left by parastatals and cooperatives. For the most part, companies

that have the capacity to import inputs tend to be confined to urban areas, and do not have well-developed distribution networks reaching into rural areas to supply farmers, especially small-scale and medium-sized farmers. Previously, such farmers depended on credit facilities and supply chains developed by cooperative societies and state enterprises. With rural farmers unable to put together money to purchase inputs for cash or unable to access inputs because of logistical challenges, many have remained unserved. This accounts for the still limited, albeit reportedly growing (Sheahan & Barrett, 2017) use of new seeds, fertilizers, and other agro-chemicals in Africa.

In addition, even where the private sector is poised to be the main player in agricultural markets, it can only do what it is supposed to do and in the right way if the state possesses sufficient regulatory capacity to ensure this happens. However, as pointed out already, regulatory capacity in many African countries is severely limited. In Uganda, weak regulatory capacity has seen the proliferation of fake inputs on the market. Pesticides, fertilizers, animal feeds and even seeds that do not germinate have become a common feature of the agriculture sector, courtesy of unscrupulous suppliers (Golooba-Mutebi & Hickey, 2010). A decision by the country's political leadership to bring in the military to take over the task of supplying inputs to poor farmers has had little impact. Some of the inputs the army supplies under its "Operation Wealth Creation" initiative have turned out to be fake. This is because the military has also had to revert to private sector suppliers to source what it distributes. As a result, the same unscrupulous suppliers the government sought to edge out of the business of supplying inputs have continued to thrive and to provide services to government-led initiatives whose objective is to contribute to agricultural transformation.¹²

¹² Interview with a senior military officer, "Operation Wealth Creation", May 2018.

Therefore, overall, although the private sector aroused hopes that it would be able to service the agriculture sector better than governments did, it has struggled to fill the gaps the state left when it stopped doing business. A notable exception here is Rwanda. In this country, the government took up the task of building the capacity of its small and inexperienced private sector to take over and manage the input supply system under its crop intensification program. At the time the program started in 2008, the private sector lacked the capacity to import, distribute and market fertilizers and seeds. The government had to step in and, through the Ministry of Agriculture, play that role. At the same time it invested in necessary infrastructure across the country, such as warehouses and stores, in preparation to hand over to the private sector.

After 5 years of program implementation, private actors took over the infrastructure and built on what the government had done, to grow efficient input distribution and retail systems. Where governments did not take such actions to build the capacity of the private sector, although agriculture as a whole and individual farmers have made remarkable advances, stiff challenges remain. Many of the challenges bedeviling the agriculture sector in Africa, such as limited use of improved seeds, fertilizers and pesticides, and lack of markets for produce, cannot be solved without the involvement of the state. That said, the state in much of Africa remains weak, in contexts where, unlike in post-genocide Rwanda (Booth & Golooba-Mutebi, 2014) and in Ethiopia (Tafere, 2018), agriculture is of far too little direct political importance to merit consistent high-level attention (Yakubu & Akanegbu, 2015).

Farmers

Most farmers in Africa are subsistence farmers, growing food for their own consumption,

selling what they are unable to consume. Other farmers engage in both growing food for their own consumption and for sale, and also some cash cropping. However, the bulk of production comes from small-scale commercial farmers who produce above the subsistence level, but are not large-scale urban consumption oriented households. A key attribute of the farming communities in Africa is that they are not organized into interest groups with the capacity and the drive and knowhow to engage in advocacy activities geared at influencing government policy. This has implications, of which the failure to compel governments to adopt policies that promote their interests, or to change those that may, in one way or another, harm them.

African governments have neglected agriculture with no consequences, and institutional weaknesses that prevent farmers from accessing the services they need persist because farmers are not organized or are weakly organized (Nyang, Webo, & Roothaert, 2010) and are unable to advocate for their collective interests. This is the case even where governments are elected and therefore are potentially susceptible to being held to account via the ballot box. Where farmers are well organized it is usually through rural producer organizations whose objective is usually securing markets for and improving the livelihood of their members, not policy advocacy as such (Latynskiy & Berger, 2016).

Donors

The Paris Declaration emphasizes the need for donor agencies to support the ambitions of aid recipient countries and for them to do no harm. This aspiration, which coordination would go a long way towards helping achieve (as Chapter 6 shows), is not one donors pursue actively. For the most part their activities are not coordinated, and they certainly resent and

resist attempts by recipient governments to coordinate them.¹³

External actors, both bilateral and multi-lateral development agencies, play a vastly important role in what goes on in the agriculture sectors of African countries. Weak internal capacity within government ministries, departments and agencies that have the mandate to promote agricultural transformation leads to the acceptance of undifferentiated policy initiatives across entire sets of countries whose contexts differ in significant ways.

As a result, donors have been and remain influential actors in matters to do with agriculture in Africa. They have been at the center of championing the reform of institutions in the agriculture sector and more generally in the public sector, with far-reaching consequences for efforts to achieve transformation. Although well meaning, and although they have produced positive results here and there, the donor-inspired reconfigurations of public bodies have also raised challenges. For example, the creation of new agencies to play roles previously reserved for ministries of agriculture has lightened the burden of multiple roles that ministries had endeavored to perform and performed badly, while also creating problems that have prevented ministries from performing the oversight functions with which they have been entrusted. Also, where national governments are unable to rein in donors and provide firm leadership, this has led to multiple projects and initiatives that overwhelm the already weak monitoring and management systems over all.

Non-governmental organizations

Like the private sector, NGOs and the non-profit sector in general occupied some of the space vacated by the state following its retreat from doing business. Donors were instrumental in

¹³ Interviews with Ugandan and Rwandan officials (several years) since 2007.

this, funding or contracting NGOs, especially international NGOs, to perform functions that the state had proved incapable of performing effectively (Bebbington, Hickey, & Mitlin, 2007). Among them were roles in such domains as training farmers in modern crop and animal husbandry, both of which involved teaching them about the advantages of using improved seeds, fertilizers and other agro-chemicals. Others included the distribution of these same inputs free of charge or at low and therefore affordable prices to poor farmers who, because they could not afford to buy them since the collapse of cooperatives, had never used them or had ceased doing so. All this was in a bid to raise productivity, which would enhance food security while also increasing the volumes of agro-exports (Kindness & Gordon, 2001).

Again, like the private sector, there are instances where the non-profit sector has acquitted

itself well, with tangible results (Mugarura, 2014; Rwembeho, 2013; Tumushabe, 2017). However, not unlike that of the private sector, the non-profit sector's effectiveness depends on the state's provision of leadership by way of coordination, guidance and regulation. In the absence of such capacity, non-profit actors can operate in haphazard ways, concentrating in areas where it is convenient to work, not necessarily, where there is greatest need. In addition, non-profit actors suffer from a peculiar constraint, that of limited reach. Unlike the state, they can only operate in a few places. As a result, many potential beneficiaries remain unserved. Moreover, where the state lacks the capacity to regulate, they can operate in ways that lead to duplication of efforts by, for example, choosing to operate in areas where already there are other actors (Bruntrup-Seidemann, 2011).

Improving Implementation and Delivery: Home-grown Solutions

Implementation and delivery models

A key challenge in implementation has been ownership over policies and strategies and, relatedly, the commitment to drive them forward. With policies for structural changes being championed by external actors, African governments have not had the space to define their own development strategies and policies to drive strong development agendas. The tendency has been to embrace externally driven broad-spectrum initiatives that are rarely tailored to their own contexts. The outcome of non-ownership and lack of commitment to implementation has been non-prioritized, poorly customized and poorly sequenced strategies whose capacity

to transform agriculture has been impaired from the start. A look at Rwanda and Ethiopia illustrates the importance of ownership over initiatives, prioritization in terms of strategy, and corresponding assertiveness in implementation (Booth & Golooba-Mutebi, 2012; Byakweli & Golooba-Mutebi, 2013). Meanwhile, Liberia is a good illustration of what happens when leaders simply go along with fashion and only pay lip service to the importance of agriculture.

Since 2000, the Rwandan leadership has been convinced that an economic and social transformation is a necessary contributor to efforts to overcome ethnic divisions and violent conflicts and ultimately a peaceful and politically stable society (Booth & Golooba-

Mutebi, 2014). As a result, within an integrated economic transformation strategy, the Government of Rwanda adopted policies and programs, in particular the Rwandan Land Policy in 2004 and the Crop Intensification Program (CIP)¹⁴ in 2008, that proposed concrete measures to transform farming practices countrywide from traditional subsistence to commercially oriented agriculture and focusing on higher value commodity crops. Specifically, the crop intensification program balanced land-use between intercropping diverse crops and mono-cropping a set of six priority crops. This was a politically astute combination of food security crops and higher value export crops (Byakweli & Golooba-Mutebi, 2013).

Public investment in the sector supported this initiative. The investment was characterized by alignment of funding from external sources to the government's own agenda. Between 2012 and 2016, the share of public expenditures in support of food and agriculture in Rwanda was about 7%, with execution rates exceeding 100% and a share of administrative costs averaging 10% (FAO, 2018). Public expenditures were supply-focused over the period, focusing on categories such as input subsidies, payments to producers and agricultural infrastructure. The 50% of expenditures originating from donor sources were directed to public goods such as irrigation, research and development.

Furthermore, Rwanda provides an example of the iterative process of experimenting with and developing delivery mechanisms and the kind of timeframe it takes to get things right. Following the signing of the Paris Declaration on Aid Effectiveness in 2005, the Government of Rwanda adopted the Rwanda Aid Policy in 2006. The country began to experiment with setting up Single Project Implementation Units

(SPIU) in all line ministries and implementing agencies. The establishment of these units represented an effort to merge multiple project implementation units (PIUs) in one ministry into one SPIU. The objectives were: increasing the pace of project implementation, improving coordination, reducing transaction costs by sharing functions, and ensuring retention of experienced staff that previously would seek opportunities elsewhere once the individual projects ended.

In 2008 an external consultant guided the introduction of SPIUs as a pilot project in a few ministries, among them, the Ministry of Agriculture. The results were modest, not least because implementation had been rushed, with ministries ill prepared for the transition from multiple PIUs to SPIUs (Versailles, 2012). The initiative petered out, due to limited capacity, insufficient involvement and push from senior ministers and because of constraints imposed by development partners. However, the Ministry of Health achieved progress not least because it had grown its own mini-SPIU organically from 2006.

In 2010–2011, participants at the annual Development Partners Retreat decided to institute SPIUs again. Reflecting on the lessons of the pilot phase, the government adopted a more coherent approach. It included providing full-time technical support and coordination from within the Ministry of Finance and Economic Planning and the adoption of a flexible and dynamic model by the Cabinet. Recognizing the differences in capacity as well as practical and legal parameters of existing PIUs, a transition period was planned and some flexibility given to individual ministries for phasing in the transition from PIUs to SPIUs. Also, in 2011 the Cabinet approved a harmonized salary scale for SPIU staff, which

¹⁴ The Crop Intensification Program was launched in 2008 with the main goals of increasing agricultural productivity in high potential food crops and ensuring food security and self-sufficiency. It relies on land use consolidation, improved seed and fertilizer use, proximity extension service by proximity service providers, change in farmer behavior, and agriculture product marketing, amongst other activities.

is more generous than the standard scale in ministries, but lower than in individual PIUs. Ultimately, the SPIUs streamlined project management and contributed greatly to implementation and delivery, including in the agriculture sector.

Ethiopia is another striking success story. Over 25 consecutive years, the country has registered better than the 6% agricultural growth rate sought by CAADP. Since the Ethiopian People's Revolutionary Democratic Front (EPRDF) took power, Ethiopia has been notable for the unified, coordinated focus of the government. Its efforts in the agriculture sector have been characterized by strong prioritization of the seed/fertilizer requirements for growth, and constant monitoring and re-examination of the general strategy (Berhanu, 2012; Lavers, 2012). Elsewhere on the continent, there have been many efforts to promote inclusive and participatory approaches in the definition of development plans and strategies, with agriculture portrayed as a key ingredient. Unfortunately, more often than not, implementation has been inconsistent.

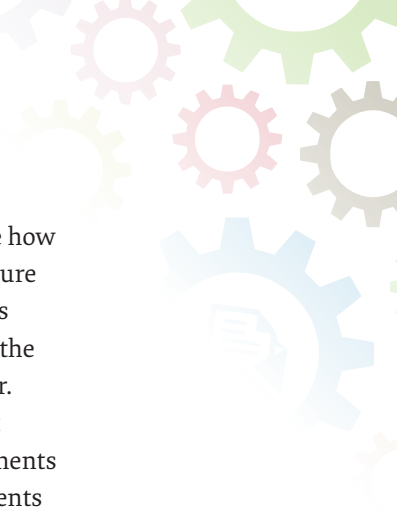
In considering how to strengthen coordination, Ethiopia offers important lessons from which other countries could learn. Dissatisfied that its very large public extension workforce was delivering agricultural yields well below even sub-Saharan Africa standards (Berhanu, 2012), the country set up the Agricultural Transformation Agency (ATA) in 2010. Modeled on similar agencies in South Korea, Taiwan and Malaysia, its key objective was to catalyze the transformation of the agriculture sector by performing two primary functions. The functions were: i) identifying systemic constraints to agricultural development and, based on studies and

analysis, recommend prioritized interventions to address those and ensure sustainability and structural transformation; and ii) supporting the establishment of strong linkages and coordination among agricultural stakeholders and related institutions and projects to ensure effectiveness of agricultural development activities. ATA reports to a council made up of both federal and regional leaders. The objective is to promote enhanced coordination within the government. ATA's lifespan was intended to be 15 years, during which time it would build the capacity of the Ministry of Agriculture to take over its functions.

From its inception, the agency worked with sector partners to develop and agree on a prioritized list of necessary interventions to catalyze agricultural transformation. The list was collated into an Agriculture Transformation Agenda, which is aligned to the country development strategies, the first and second Growth and Transformation plans. To accommodate shifting demand and respond to changes in the political and economic context, ATA has a nimble and results-oriented structure that enables it to reorganize its areas of intervention and teams to respond quickly to emerging needs or new priority areas (EATA, 2017). ATA has also developed very strong analytical capacity and introduced a level of transparency in reporting that paved the way for data-driven project management practices and decision making.

Meanwhile in Liberia, despite policy documents reiterating the importance of agriculture between 2006 and 2016,¹⁵ little political attention was devoted to the sector. As the country emerged from a devastating civil war in 2003, public policy focused on reconstruction efforts and in particular on infrastructure development and developing the

¹⁵ A statement of policy intent was adopted to this effect in 2006, followed by the Food and Agriculture Policy and Strategy (FAPS) in 2008, where H.E. President Ellen Johnson Sirleaf affirms: "The sector remains the most viable, sustainable and renewable source of national income". Such statements were repeated in public policy and international fora over the next 10 years.



extractive sector. As a result, agriculture was not prioritized. On average, between 2011 and 2016, the government allocated only 1.39% of public expenditures to the agriculture sector. A significant proportion of the resources were devoted to administrative costs—up to 99.5% of the budget of the Ministry of Agriculture in 2011 and 2012 (Kanneh, 2017).

The Liberia Agricultural Transformation Agenda (LATA) in 2016 adopted an alternate implementation strategy based on prioritization of crops, inclusivity of stakeholders and multi-level engagement. One key aim of the program was to spearhead a “movement” that would encourage wide scale support to agriculture and position it as the main economic diversification strategy for the country, at a difficult time when Liberia’s economy was seriously hit by the drop in commodity prices and the disruption caused by the Ebola Virus Disease (EVD). Jointly designed by the Ministry of Agriculture and the Ministry of Commerce and Industry, it was spearheaded and monitored by a Presidential Task Force which brought together a number of key ministries and agencies. At the same time, the Agriculture Donor Working Group (ADWG), which had been dormant since the Ebola Virus Disease struck in 2013-2014, was revived with a view of encouraging strategic alignment to the government’s program and better coordination of donor efforts in the agricultural sector. This attempt to better coordinate efforts and provide a new impetus to the sector was met with success. Nearly all donors embraced the program, including re-aligning funds to support it. There is also anecdotal evidence that the domestic private sector has manifested renewed interest in agriculture, though there is yet little data to substantiate a long-term impact of the program, which died out in the build up towards the elections of 2017.

Among the three countries, it is easy to see how the differences in prioritization of agriculture within their overall development strategies affected their respective results. However, the differences in policy ownership run deeper. For example, analysts have contended that unlike the usually hyperbolic vision documents routinely adopted by developing governments and then not used, Rwanda’s Vision 2020 is a real point of reference for ministers and civil servants (Booth & Golooba-Mutebi, 2014). This contrasts sharply with Liberia Rising 2030, which civil servants rarely reference, or the Liberia Agricultural Sector Investment Plan (LASIP), developed as part of the CAADP commitment in 2010 and then rapidly forgotten. Indeed, an evaluation of the plan’s implementation conducted in 2017 revealed that “many persons, staff and administrators working in the agriculture sector, especially within implementing partners’ organizations and sector ministries and agencies have either not heard of LASIP, seen it or read and understood the programs” (Kanneh, 2017, pp. 13). It should come as no surprise therefore that there is little to show for it on the ground.

There is no evidence that every African country and country context is suitable for replicating the Rwandan or Ethiopian models and approaches. Nonetheless, the principles of adopting systemic solutions and working towards coordination of stakeholders and alignment of government strategies are worth emulating. Practitioners highlight the need to integrate rigorous analysis and proven project management practices for effective execution, and the necessity to set up innovative nimble delivery mechanisms that can translate national agricultural plans into activities that have an impact on the ground (Boettiger, Denis & Sanghvi, 2017).

New partnership between state and non-state actors

As we have seen, the wave of liberal reforms has created new categories of stakeholders that are now an integral part of the whole development process. Unfortunately, in most African countries what has not materialized is the necessary investment, including in beefing up state capacity, to bring them to speed. Nor has there been sufficient attention to using reformed institutions and incentivizing reformed state organs to play the roles envisaged for them. This lack of incentivization, whether by stick or carrot, applies to non-state actors. The notion that newly engaged entrepreneurs, subsistence farmers and NGOs entrusted with new, hitherto unfamiliar roles, would easily become capable players in the pursuit of economic growth and prosperity (Golooba-Mutebi & Booth, 2018), was as highly optimistic as were assumptions about the beneficial impact of multi-party competition and devolution.

Experience over the last three decades points to the need for a new type of pragmatism, underlain by recognition of the complexity of change processes being attempted by African countries (Andrews, Pritchett, & Woolcock, 2017). While there are no roadmaps that can

Conclusion

There is visible mounting interest in agriculture by many African governments. Indications that there is greater awareness about the potential of agriculture include the signing of international compacts, often followed by development partners, traditional and non-traditional, availing funding. Among drivers of the renewed interest are demographic pressures that are increasingly undermining food insecurity, and

be applied with absolute certainty of success in the current context, some levers are more promising than others. In particular, it is interesting to highlight processes that support the emergence of a class of entrepreneurs that can operate in a competitive environment, either on the domestic or regional and international levels, as opposed to politically well connected but inefficient firms that lobby for non-inclusive and non-transformational policies.

Based on the insight that in developing countries, the business environment is a result of the dynamic interaction between political elites and economic actors, primarily through negotiated “deals” rather than altruistically driven institutions (Pritchett, Sen, & Werker, 2018), policy makers can elect to promote businesses that will catalyze, through their activities, further growth-driven policy changes in the agriculture sector. This calls for an appreciation of the kind of political economy that drives change within a country, a differentiation between the categories of private interests and sets the path for an openly different type of partnership between government and private sector, whereby companies interested only in profiteering would play a greater role in the interest of the agriculture sector.¹⁶

joblessness especially among the youth, and its implications for national security (Jayne & Ameyaw, 2016).

As a result of internal and external dynamics, African countries have taken individual development trajectories that defy attempts to define a “one size fits all” strategy. Moreover, as much as continental and international policies serve the objective of bringing together countries towards one shared goal, they fall

¹⁶ See, for example, Booth & Golooba-Mutebi (2012) on Rwanda.

short in their attempts to enforce specific actions that will support the realization of those goals. In fact, evidence has shown that even using conditionality associated with external financial assistance to induce policy and institutional change seldom succeeds (Killick, 1998).

For this opportunity to translate into outcomes, policy reformers in African countries need to take stock of country realities and experiment with homegrown strategies to address the complexity of agricultural transformation and to adopt innovative approaches that go beyond paying lip service to aid effectiveness. It is important to seek to integrate, coordinate and incentivize local stakeholders.

Analyzing both context and pathways so far taken by the countries, we identify the following drivers of effective execution and lessons from which others may want to learn:

- **Ownership and strategy:** Governments must rise to the challenge of agricultural transformation and prioritize a way forward for the agriculture sector that is pro-growth, addresses systemic issues and sequences development plans accordingly. Otherwise, attempts to reform the sector will fail or remain too limited to make an impact. Effective delivery is in large part a function of country ownership, strategic focus and political trade-offs that facilitate prioritization. Governments need to assume ownership for building and strengthening the agricultural ecosystem in ways that incentivize smallholder farmers and agripreneurs to invest in the sector. This must be accompanied by creating a supportive ecosystem and adopting holistic approaches that are tailored to development of the agricultural value chain. It should be based on rigorous analysis that can ensure that

the agricultural value chains that are promoted at national level are effectively profitable, whether these are targeted to import substitution or export orientation.

- **Coordination and alignment:** Faced with limited resources and reduced roles in their economies, governments should harness the opportunities presented by non-state actors through mutually beneficial partnerships and alignment towards a common goal. This calls for a renewed partnership between state and non-state actors, which may be managed through either purpose-built autonomous agencies, multi stakeholder sector working groups or less formalized elite interactions. Countries must continue investing in organizing smallholder farmers; encourage industry associations of entrepreneurs and NGO and donor coordination with a view to optimize the impact of their actions. National strategies and plans must factor in a broad range communication and training, the main constraints to be addressed being behaviors and culture at all levels.
- **Flexible structures and champions:** Many countries are still struggling with the change of roles that has occurred since programs for structural transformation were initiated. In certain instances, although the mandates of government ministries and agencies have changed on paper, they have not evolved in ways that reflect the envisaged changes. However, flexibility is key. Also critical is the presence of respected champions who can liaise and coordinate effectively between various interest groups (Colman & Mellor, 2007) and promote convergence. The heavy architecture of government is ill suited for such large scale and complex

transformation projects. Countries should experiment further with nimble, outcome focused mechanisms with strong backing from the national leadership, and which are empowered to galvanize actors within the sector, problem solve and tackle systemic constraints as and when they arise towards achieving the agriculture strategy.

- **Getting politics right:** Should they be serious about agricultural transformation, country leaders and policy makers should think seriously about what kind of political contexts are conducive to driving transformation in agriculture and other domains. Cases such as Rwanda (Golooba-Mutebi & Booth, 2013), Ethiopia (Oqubay, 2015) and farther afield in Asia (Bell, 2015; Henley, 2015) suggest that elite consensus around national development or transformation projects is critical. This is not least because it minimizes adversarial political contestations that in several parts of Africa have produced instability and violent conflict over the last 30 years. In the absence of political stability guaranteed only by a broad elite consensus around common goals and visioning guarantees, prospects for any kind of transformation diminish. This, in turn, leads to situations of the kind that

have kept many African countries caught up in poverty traps.

- **Bringing in the private sector:** Governments must deliberately nurture and encourage development of an entrepreneurial class that can operate in a competitive environment, either on the domestic or regional and international levels. As the Rwanda example has shown, calls for greater involvement of the private sector easily underestimate the small size and relative inexperience of private sector players across the continent, attributes that render the private sector unable to play important roles in the pursuit of agricultural transformation.
- **Minimizing negative impact:** The social contract and political stability must be maintained if pro-growth stakeholders are to function and to play their roles. The type of change being envisaged in agriculture at continental level will transform traditional lifestyles. To minimize resistance to change, it is important for policy makers to address negative externalities, promote off-farm opportunities for struggling farmers, and put in place mechanisms for sustainability. As previously argued, none of this is possible without political stability.

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6 Enhancing Coordination in the Agriculture Sector

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Key Messages

- 1** High level political support and leadership at the level of the President or Prime Minister is required to ensure that agricultural strategies and plans meet both sectoral and political objectives.
- 2** Committed political leadership by the sector minister and technical leadership by the permanent secretary or secretary general are critical to drive agricultural transformation in a country.
- 3** Agriculture sector coordination outside of the mainstream civil service structure tends to work well and deliver in the short term. The timeframe for the existence of such a coordination mechanism should be determined from the start.
- 4** Effective agriculture sector coordination requires buy-in from all key stakeholders—relevant government ministries and departments, private sector, farmer organizations, civil society, academia, and development partners—with regular sector performance reviews and dialogue.
- 5** Strong agriculture sector coordination needs to be supported by a robust monitoring and evaluation system at ministerial level to provide evidence to facilitate planning and decision making.

Introduction

Agricultural transformation requires public and private investments both within and outside agriculture. Public investments in agriculture include: (i) agricultural research to generate the technologies that are needed to boost productivity; (ii) agricultural extension services to provide advisory services to farmers; (iii) policies and strategies to guide sector planning and investments; and (iv) strengthening institutional and human capacity to drive agricultural transformation. These investments are typically made by

ministries responsible for agriculture, livestock and fisheries, jointly or separately, depending on a country's government structure. Investments that are necessary to transform agriculture but are under the mandate of government ministries other than agriculture include: (i) rural or feeder roads that link farmers to input and output markets; (ii) financial services that support capital acquisition and also create opportunities for saving; (iii) rural market infrastructure including produce

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markets and post-harvest storage facilities; (iv) water resource management, including irrigation infrastructure; and (v) regional and international market access. It is these multi-ministerial roles to transform agriculture that motivate the need for creating multi-sectoral coordination bodies or platforms that bring all stakeholders together. These bodies agree on interventions and how to coordinate their implementation in a way that will lead to achievement of common and agreed national and sector development goals and targets.

Multi-sectoral coordination platforms take different forms in different countries. However, they tend to include agriculture-related government ministries and agencies (agriculture, finance, trade, cooperatives, water and environment), farmer organizations, private sector associations, civil society, academia, and development partners. In some countries, specific bodies or agencies are established to undertake multi-sector coordination. These bodies tend to be backed by high level political leaders and are chaired by high level technical people in the President's

office, the Prime Minister's office, or by permanent secretaries of core ministries (agriculture or finance). The countries usually ensure that the chair is credible and has respected convening power that makes it easier or mandatory to bring together other stakeholders to agree on actions and hold them accountable for delivering results. The Prime Minister's Office or the Ministry of Finance are seen to have the power to bring together all players because of their assumed sectoral neutrality, and therefore are usually the chairs of these multi-sectoral coordination platforms. In other countries, multi-sector coordination is achieved through agriculture sector working groups (ASWGs) with the same diversity of stakeholders. However, these are operational in nature and may not need high level political patronage for them to be functional, and they are more sustainable. To ensure effective coordination and alignment of development partner programs to national priorities, in some countries have donor working groups who meet separately but are members of ASWGs and participate in meetings of the multi-sector coordination agency.

Benefits of multi-sectoral coordination in agricultural transformation

Establishing multi-sector coordination platforms or agencies is an appealing concept. Usually the platform is established to support the implementation of a national agriculture investment plan (NAIP) that specifies the activities to be implemented by various agencies in line with their respective mandates. In some cases, NAIPs have annual milestones for each activity against which performance of the ministries and agencies is measured. Depending on the planning cycle at country level, the NAIPs are 3–5-year plans. Multi-sectoral coordination allows joint planning and coordinated implementation, minimizes

duplication of activities, and therefore brings about efficiency in the utilization of scarce public resources. It brings together the highest technical leaders of ministries and agencies (permanent secretaries or directors) who decide how resources are allocated. It also creates a platform for regular meetings to review progress made towards the sectoral goals and targets and, where necessary, take corrective action. In fact, several countries have, as a result of adopting a multi-sectoral approach to agricultural transformation, established formal agriculture joint sector review (JSR) platforms to review progress in the implementation

of NAIPs on a regular basis, usually once a year before a new financial year starts. The outcomes of the annual performance review are meant to inform the choice of priorities for the next financial year and are captured in the ministerial budget framework papers for the next financial year. Regular sector reviews with all the stakeholders are important for ensuring mutual accountability among the various stakeholders towards the milestones and

targets in the NAIP. At ministerial level, these platforms allow for information exchange about the plans of the cooperating ministries to create synergy and minimize duplication and wastage of public resources. For the non-state actors, the platforms create space for them to voice concerns about implementation of NAIPs or call for policy or regulatory reforms to create a conducive environment for private sector investment in agriculture.

Challenges with multi-sectoral coordination

Attractive as multi-sectoral coordination mechanisms are, many countries have faced challenges in sustaining them over long periods of time. Here we discuss some of the challenges governments face with multi-sector coordination:

- Usually, multi-sectoral coordination agencies are created outside of the mainstream civil service system. They tend to have well-trained staff who are paid higher salaries than their counterparts in the civil service. The staff are provided with a better working environment in terms of office space and equipment. This leads to resentment by civil servants towards the staff of the coordination agency—a situation that creates poor working relations and hinders effective coordination of the sector.
- Sometimes the coordination agencies are tied to the political election cycles of governments. If the leadership changes, the coordination agency may not survive with the new government, or if it does, the new government may appoint new staff without the requisite skills. Even when the same government remains after an election, the focus may change in line with the new election manifesto. This may bring into question the continued existence of the coordination agency. Without strong political interest and backing by government, survival of such agencies is difficult.
- Multi-sectoral agencies are usually funded by donor-supported programs with specific time frames. Once this funding runs out, sustainability becomes a challenge because they are not formally established within the civil service structure and therefore are unable to receive parliamentary budget allocations.
- Multi-sector coordination agencies also suffer, over time, from reduced interest and commitment by the leadership of the various stakeholders that they coordinate. Initially, especially if there is strong political support from the President or Prime Minister, the various ministries and organizations are represented at the highest level of ministers, permanent secretaries or directors. Over time, the level of representation reduces to junior staff who cannot make decisions or commitments on behalf of their ministries or organizations. This hampers the pace of program implementation. There is also a tendency for ministries to revert to their traditional mandates and pay little or no attention to priorities arising from the JSRs.

- Since multi-sectoral coordination platforms are not statutory bodies, decisions taken in their meetings are not binding on the respective ministries, agencies and departments. No mechanism exists to enforce resource allocation to priorities arising out of the planning meetings, JSRs or steering committee of the coordination mechanism.
- Placing multi-sector coordination agencies outside of the mainstream civil service is seen by some, as failure by governments to reform the civil service to make it more efficient. Creation of these agencies is considered an easier task than reforming the civil service. Other actors feel the agencies further weaken the mainstream ministries, instead of strengthening them.

Case studies

To illustrate the benefits and challenges of multi-sectoral coordination mechanisms, we present case studies for Uganda, Kenya and Rwanda. The Uganda and Kenya case studies illustrate multi-sector coordination using agencies, while the Rwanda case study illustrates multi-sector coordination through a strong ASWG.

Uganda Case Study: Coordinating Implementation of the Plan for Modernization of Agriculture

Background

From 1997 to 2007 Uganda's national development agenda was guided by the Poverty Eradication Action Plan (PEAP) whose objectives and focus evolved in response to the country's changing development challenges and opportunities. First published in 1997, the PEAP had four major pillars: (i) creating a framework for economic growth and transformation; (ii) ensuring good governance and security; (iii) directly increasing the ability of the poor to raise their incomes; and (iv) directly increasing the quality of the life of the poor (MFPED, 2000). The PEAP underwent two revisions, in 2000 and 2004, with each edition informed by a review of past performance, as well as taking on board and responding to new challenges and opportunities in Uganda's quest for economic growth, good governance, security, and improved delivery of social services. The

PEAP was a policy framework to guide different sectors on key government priorities and enable them to develop sectoral plans and detailed implementation activities and budgets.

To tackle rural poverty through agricultural transformation, a sector-wide policy framework, the Plan for Modernization of Agriculture (PMA) was similarly developed in 2000, with seven interventions (MAAIF & MFPED, 2000):

- National Agricultural Advisory Services (NAADS)—providing demand-driven advisory services, formation of farmer groups, promoting technology uptake, and supporting agricultural enterprise development.
- National Agricultural Research System (NARS)—for agricultural research and technology development that addresses and is guided by farmers' needs.
- Rural Financial Services—to increase access to credit by farmers and small-scale enterprises through microfinance institutions, savings and credit cooperative societies and commercial banks that have a rural reach.
- Marketing and agro-processing—to promote value addition to agricultural products, support market development and market access regionally and internationally.

- v) Supportive physical infrastructure—to provide basic infrastructure such as roads connecting input and output markets, information and communication technology infrastructure, and rural electricity to promote value addition to agricultural products and create rural non-farm employment.
- vi) Agricultural education—to promote teaching of agriculture in schools from primary to tertiary institutions, as well as functional adult literacy that enables farmer to read and write and keep records, aimed at changing attitudes toward farming as a business.
- vii) Sustainable use and management of natural resources—to ensure that natural resources are used responsibly in order to serve the needs of current and future generations.

The idea behind the PMA was to take a holistic and synergistic approach to agricultural development in particular and rural development in general, focusing on transforming subsistence agriculture to commercial agriculture. The PMA was a multi-sectoral framework, guiding sector investments that, if well implemented and coordinated, would lead to the achievement of its overall objectives: (i) increased agricultural production and productivity; (ii) increased household incomes; (iii) household food security; and (iv) employment creation in rural areas.

Coordinating PMA Implementation

Given the multi-sectoral nature of the PMA, the different ministries and agencies needed to work together towards the common objectives of rural poverty reduction and agricultural transformation. This required effective supervision and coordination across government agencies, local governments,

private sector, donors and civil society. As such, a PMA Steering Committee, chaired by the Permanent Secretary/Secretary to the Treasury of the Ministry of Finance, Planning and Economic Development (MFPED) and co-chaired by the Permanent Secretary of the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) was established. To handle the day-to-day business of the Steering Committee, the PMA Secretariat was created in 2001. The mission of the Secretariat was to “coordinate and provide support for the transformation of subsistence agriculture to commercial agriculture for poverty reduction.” Its main roles were to:

- i) provide cross-sectoral linkages between the PMA Steering Committee (PMA SC), PMA Forum and the PMA implementing ministries, institutions and agencies
- ii) provide cross-sectoral technical and policy analysis—directly or through task groups and consultants—to enable the PMA SC make informed decisions
- iii) monitor and produce performance reports on the implementation of the PMA, including monitoring the utilization of PMA non-sectoral conditional grants to local governments
- iv) carry out the decisions of the PMA SC, follow-up and monitor the implementation of the PMA
- v) liaise with donors supporting the PMA cross-sectoral programs and projects to ensure sustainable funding and reporting on progress
- vi) prepare work-plans and budgets for approval by the PMA SC and manage the PMA Secretariat’s operational funds
- vii) prepare papers on specific agenda items that summarize the content of reports and issues to be considered, clearly indicating decisions required at meetings

- viii) initiate and organize PMA seminars and workshops and publish reports and studies on the PMA

Challenges in PMA Coordination

For the first 4 years (2001–2004), the PMA was fairly well coordinated. The PMA SC met every month, with meetings attended by permanent secretaries, commissioners and directors of planning of the relevant ministries; President of the Uganda National Farmers Federation; Director of the Private Sector Foundation; heads of donor agencies (World Bank, FAO, DANIDA, USAID, DFID, etc.). The PMA SC was a strong platform and its decisions and recommendations were taken seriously. However, over time its momentum reduced. By 2007, ministries, other than MFPED and MAAIF, were no longer represented at the highest level. They sent junior staff who could not commit or make decisions on behalf of their ministries. This weakened the Steering Committee. What led to this state of affairs? When the PMA was born in 2001, it had the political support of the President. During the 2001 presidential campaign, agricultural modernization was a key element in the election manifesto of the National Resistance Movement (NRM)—the President’s party. In the run up to the 2006 presidential elections, NRM had a new campaign slogan: Prosperity for All (PFA). This rapidly changed the dynamics, with political attention shifting from PMA to PFA. The target of both the PMA and PFA was the same: poor small-scale farmers. The differences were that PFA was more interventionist than the PMA, and the center of PFA coordination was the Office of the Vice President. Essentially, the same government was implementing two similar programs, targeting the same farmers, but coordinated from two different centers. This created confusion for ministries, local governments and other stakeholders. Attempts to reconcile PMA and PFA resulted in MAAIF taking up the role of coordinating PFA, supported by the PMA Secretariat.

However, by this time the PMA concept had been damaged irreparably. In 2010, the PMA and PFA were combined into one framework, the five-year Agricultural Sector Development Strategy and Investment Plan (DSIP) (MAAIF, 2010). The PMA Secretariat played a pivotal role in the formulation of the DSIP and also spearheaded the formulation of Uganda’s first comprehensive National Agriculture Policy that was approved by Cabinet in 2013, but its role of sector coordination was much diminished. After 15 years of existence, the PMA Secretariat finally closed in 2016.

Lessons from PMA Coordination

- i) High level political support is necessary for multi-sectoral coordination to succeed and the program or project needs to deliver results that politicians can use to account to the electorate. In a way the PMA failed to adjust to this reality.
- ii) While donor support was critical in the creation of the PMA, its sustainability depended on the government creating a budget line within the MAAIF budget framework to ensure constant and secure financing. This was only done for the operational budget, but not the program budget of the PMA Secretariat. This hampered the implementation of decisions of the PMA SC.
- iii) The PMA was not backed by legislation, even though some of its components, such as agricultural advisory services, and national agricultural research were backed by specific legislation. This created imbalance in the implementation of the seven interventions—these two had guaranteed resources while the other five did not. The idea of a holistic approach to agricultural transformation in Uganda was, therefore, undermined by selectively financing only two of the seven interventions.

Kenya Case Study: The Agricultural Sector Coordination Unit

Introduction

The Agricultural Sector Coordination Unit (ASCU) was established in 2005 as an inter-ministerial unit and secretariat to the agricultural and rural development ministries and non-state actors. The period 2004–2010 was characterized by economic reforms. The government was implementing the *Strategy for Revitalizing Agriculture (SRA) 2004–2014* (Republic of Kenya, 2004), the sector strategy to actualize the *Economic Recovery Strategy for Wealth and Employment Creation* (Republic of Kenya, 2003). Agricultural services were spread across 10 government ministries, with more than 130 pieces of legislation and 34 parastatals whose mandates often conflicted or overlapped. The sector urgently needed legislative, regulatory and parastatals reforms. ASCU was therefore formed to steer the reform agenda through coordination of the multi-stakeholders and sector ministries towards the implementation of sector strategies and development agenda. Its key roles were mainly to provide a platform for linkages and collaboration of key sector players, and a platform and an enabling environment where sector-wide consultations among various implementation levels could be undertaken. Besides these roles, the unit was meant to be a referral center for agriculture sector reforms through the provision of reliable and timely information for better resource allocation.

ASCU and the Kenya Agricultural Sector Coordination

To better perform its mandate of coordinating activities that were located in various agriculture sector ministries and performed by various stakeholders, ASCU adopted a Sector-Wide Approach (SWAp). The structure of ASCU comprised the National Forum, the National

Steering Committee, the Inter-ministerial Coordination Committee (ICC), the Technical Committee (TC), and the Thematic Working Groups (TWGs). ICC was a committee of sector ministers and/or their permanent secretaries and donor groups that ensured sector-wide coordination and consultation. Six TWGs were formed, namely (i) Legal, Regulatory and Parastatals Reforms; (ii) Research and Extension; (iii) Agribusiness, Value Addition and Marketing; (iv) Inputs and Financial Services; (v) Food and Nutrition Policy and Programmes; and, (vi) Sustainable Land and Natural Resources Management.

TWGs were a critical component of the coordination process. The main roles of the TWGs were to conduct in-depth analysis of relevant issues outlined in the SRA and develop plans of action and programs for resource allocation and investment. The TWGs also prepared various policy documents and provided guidance in the implementation of policies and programs within the sector. Membership of the TWGs was drawn from the private sector, NGOs, universities and senior government officers from the sector ministries, and development partners. TWG meetings were originally planned to be convened and chaired by directors of the sector ministries, but were in practice chaired by private sector representatives.

Key Achievements of ASCU

Under ASCU, several achievements were registered. Foremost was the adoption of the sector-wide approach in the agriculture sector. ASCU provided a platform for key agriculture sector stakeholders to interact, thereby allowing for a common approach to tackling sector problems and avoiding duplication. Some of the key achievements are:

- a) **Sector coordination:** Through ASCU initiatives, agriculture sector ministries and stakeholders jointly addressed

issues of common interest (such as the preparation of the Medium-Term Expenditure Framework (MTEF) budgets, development of joint development strategies, and environmental conservation and economic stimulus activities) together and in a more coordinated manner. Technical committees (TCs) were adapted and ICC was formed.

- b) Legal, regulatory and parastatals reforms:** The process of legal, regulatory and parastatal harmonization and consolidation was initiated and completed in 2010, leading to the enactment of key statutes.
- c) Inputs and financial services:** Lack of access to quality inputs and financial services were identified as major constraints to increased productivity. Both the Vision 2030, Kenya's blueprint for achieving a middle-income status by 2030, and the SRA identified access to inputs and financial services as critical to the success of the agriculture sector. Key programs that were initiated to address the constraint included the National Accelerated Agricultural Input Access Program (NAAIAP), and the *Njaa Marufuku Kenya* (NMK). ASCU supported the development of strategies and coordinated efforts to achieve these initiatives through the TWGs. Other initiatives to increase access to credit such as *Kilimo Biashara* program and fertilizer subsidies were also rolled out through a collaborative effort between the Kenya Government, the International Fund for Agricultural Development (IFAD), Equity Bank and AGRA.
- d) Preparation of sector development strategies and plans:** The SRA was developed before the Vision 2030 was enacted. To align the strategy with the Vision 2030, ASCU facilitated the preparation of the Agricultural Sector

Development Strategy (ASDS). ASCU also was instrumental in preparing the Agricultural Sector Medium Term Plan (MTP) I and II (Republic of Kenya, 2008, 2013), and spearheaded the development of the sector-wide M&E framework.

- e) Research, extension and advisory support services:** ASCU supported the review of the National Agriculture Research Systems (NARS) policy that established the mechanisms for harmonization of operations, financing and coordination of these institutions, and the recognition of the private sector in research. The National Agricultural Sector Extension Policy (NASEP) was also completed.

Besides these achievements, ASCU was instrumental in the preparatory work for enhancing market access through the development of the Agribusiness Policy, and the National Food and Nutrition Security Policy and program. These achievements are a testament to what can be accomplished with a viable and enabling environment that allows stakeholder involvement.

Challenges to agriculture sector coordination in kenya

Kenya's new Constitution was promulgated in 2010, ushering in a devolved system of governance. Under the new arrangement, most agricultural functions were devolved to the county level, leaving policy making at the national level. These new developments presented challenges to policy making and implementation, and therefore to agriculture sector coordination. In response, ASCU established county coordination units and seconded personnel to the counties to enhance the coordination of services at that level. Since the ASDS was also developed before the new Constitution was promulgated, there was need to align it to the Constitution (Royal Embassy of Denmark/DANIDA, 2010). A new strategy, the

Agricultural Sector Growth and Transformation Strategy (ASGTS) is being developed to replace the ASDS and align it to the Constitution. ASCU has also faced problems of lack of credible and reliable data for informed decision making, unstable staff establishment, overlaps of interventions and suboptimal participation by the private sector. While the TWGs were supposed to be chaired by the private sector, this was not the case for some of them, and private sector participation kept declining. In addition, direct intervention by some actors such as donors and development partners have created overlaps, which, though well-intentioned, lead to duplication of efforts and tend to undermine agriculture sector coordination.

Lessons Learned

The complex nature of the agriculture sector and the multiple stakeholders spread across the public and private sectors who may be have competing interests, poses key challenges to sector coordination. Establishment of a coordination unit is only the first step to ensure sector coordination. Awareness needs to be created among the key sector players for complete buy-in. There must be goodwill by all participants for sector coordination to work. Each stakeholder must be convinced about the synergies they will gain by participating in the initiative, otherwise they will not participate. Secondly, agriculture sector coordination requires time, commitment and resources for it to work. The structures must also be in place that allow for regular consultation and sharing of ideas.

Rwanda Case Study: Coordinating implementation of the Strategic Plans for Agricultural Transformation

Background

The commitment of the Government of Rwanda to agricultural transformation as a priority driver of economic growth is well

established. This priority is based on the urgent need to reduce poverty which is more prevalent in rural than urban areas and on the predominant role of the agriculture sector in the national economy. Rwanda's Vision 2020 which reflects the citizens' aspiration and commitment to reach a middle income status foresees a productive and market-oriented agriculture sector among the key pillars leading the country to this aspiration. This vision is made operational through a series of medium-term strategies for national economic development and poverty reduction (EDPRS 1 and 2) and the first phase of the National Strategy for Transformation (NST1) adopted in September 2017 following the presidential election as an implementing instrument of the 7 Year Government Program covering the presidential terms in office (2017–2024) and the remainder of the Economic Development and Poverty Reduction Strategy (EDPRS2, 2013–2018). With the overall goal of “accelerating Rwanda's progress to middle income status and better quality of life through sustained growth and reduction of poverty”, EDPRS II identifies modernization of agriculture and animal husbandry as one of the key drivers for building a diversified, integrated, competitive and dynamic economy (MINECOFIN, 2013).

The Vision 2020 and medium-term national strategies for economic development and poverty reduction (NST1) present, therefore, a framework and guiding tool on which agriculture policies and PSTAs are based. In this perspective, the Government of Rwanda in July 2018 has adopted the new National Agricultural Policy whose vision is for Rwanda to become a nation that enjoys food security, nutritional health and sustainable agricultural growth from a productive, green and market-led agricultural sector. The policy sets up a guiding framework to ensure food and nutrition security, modern agribusiness technologies professionalizing farmers in

terms of production, commercialization of the outputs and the creation of a competitive agriculture sector. The policy objectives, formulated according to the Malabo Declaration (2014) under the CAADP framework of the AU include (i) increased contribution to wealth creation, (ii) economic opportunities and prosperity, (iii) improved food security and nutrition, and (iv) increased resilience and sustainability.⁴ To implement this policy, the Government of Rwanda also adopted in July 2018 the fourth phase of the Strategic Plan for Agriculture Transformation (PSTA4).⁵

Key PSTA4 priority programs

In the framework of implementation of the country's Vision 2020 and mid-term strategies for economic development and poverty reduction as reflected in the national agriculture policies, MINAGRI has been implementing a series of PSTAs since 2004. The first phase of PSTAs: (PSTA 1) was developed and implemented from 2004 for 4 years; the second phase; (PSTA 2) started in 2008 and ended in 2012; the third phase; (PSTA 3) was from fiscal year 2013/2014 to 2017/2018. The fourth phase (PSTA 4) is now approved to cover the period 2018–2024. Though the key priorities have slightly changed from the first phase to the fourth phase, the overall objective of PSTAs remains consistently to transforming the agriculture sector into a modern, productive, market-oriented, knowledge-based and wealth creating sector. The development and implementation of PSTA4 is strongly built upon the lessons (successes and failures) from the previous PSTAs, other emerging issues, and the new government's policy orientation.

The key priority programs in PSTA 4 are:

- (i) Innovation and Extension with focus on agricultural research and innovation development to improve soil health and

fertility, proximity extension and advisory services and skills development for agriculture value chain actors.


- (ii) Productivity and Resilience with focus on sustainable land husbandry and crop production intensification, effective and efficient irrigation under Integrated Water Resources Management (IWRM) framework, animal resources and production systems, nutrition-sensitive agriculture and mechanisms for increased resilience.
- (iii) Inclusive Market and Value Addition with focus on market linkages and increased production for exports, agricultural market risks, financial services, quality assurance and regulations.
- (iv) Enabling environment and Responsive Institutions with focus on agricultural institutions development, evidence-based policy development and regulatory frameworks, commercialization of value chains in the agricultural sector and planning, coordination and budgeting.
- (v) Cross-cutting areas including, capacity development, gender and family, environment and climate change, regional integration and disaster management.

Coordinating PSTA4 Implementation

Rwanda's agricultural development is a multi-faceted undertaking and by its nature involves policies, programs and projects that touch upon distinct areas such as environment, water resources management, infrastructure development, education, land tenure systems, financial systems, and so forth. The route to successful implementation of PSTA4 requires the government to use a SWAp for proper coordination of investments in a functional sector perspective within the context of

⁴ National Agriculture Policy (MINAGRI, 2018).

⁵ Strategic Plan for Agricultural Transformation (PSTA4) (MINAGRI, 2018).



the established decentralization system for cost-effective service delivery to the citizens (MINALOC, 2012). Through this approach, MINAGRI coordinates interventions from different stakeholders to ensure that they respond to a fully articulated and internally consistent vision of the path to the sector's development, so that duplication and inconsistencies in program and project implementation are minimized. For the SWAp to be effective, MINAGRI uses cross-sectoral coordination mechanisms to drive the implementation of the PSTAs. The next section discusses some of the existing cross-sectoral coordination platforms in Rwanda that support the implementation of government policies and strategies including the PSTA4.

National Umushyikirano (Dialogue) Council

The National Dialogue (*Umushyikirano*) Council (NUC) is a national forum provided for by the Constitution of the Republic of Rwanda of 2003 revised in 2015 (Art.140). It is convened at least once a year and chaired by H.E. the President of the Republic. It brings together the President and the citizens' representatives to debate issues relating to the state of the nation and national unity. Since it started, the NUC has been serving as a high level platform to improve coordination across institutions and enhance accountability. Issues of agriculture sector coordination and service delivery are among the key thematic areas that are mostly discussed during the NUC meetings. The resolutions of this Council are submitted to the concerned institutions to enable them to improve service delivery to citizens (MINIJUST, 2015).

National Leadership Retreat

The National Leadership Retreat (NLR) serves as a national platform that brings together Rwanda's leaders to reflect on progress towards achieving the country's aspiration as defined in the national strategic documents. It is convened and chaired by H.E. the President of the Republic of Rwanda at least once a year. Deliberations

during the NLRs focus on issues relating to sector coordination, accountability and quality services delivery. Being one of the key drivers for Rwanda's economic growth and poverty reduction, deliberations on how to strengthen the coordination framework of agriculture sector has continued to be one of the key priority discussion topics of the NLR meetings. The NLR has been an important platform for improving agriculture sector coordination and service delivery in the country. For example, in the 15th session of the NLR convened from February 26 to March 1, 2018, Rwanda's leaders deliberated on coordination issues in the agriculture sector; the leaders resolved to ensure sustainable increase of agriculture sector productivity for economic growth.

Inter-Ministerial Coordination Committee

The Inter-Ministerial Coordination Committee (IMCC) is a coordination mechanism established by Presidential Order N° 01/01 of 14/01/2013. It determines the functioning, composition and procedure for decision making at Cabinet level (PMO, 2013a). The key responsibility of the forum is to deliberate on the policy papers or any other specific issues before they are adopted by the Cabinet. The IMCC meetings are convened and chaired by the Right Honorable Prime Minister and in his absence; the meetings are chaired by the Minister in charge of Cabinet Affairs chairs or any Cabinet Minister designated by the Prime Minister. The forum members include Ministers, Ministers of State and the Director of Cabinet in the Office of the Prime Minister (PMO, 2013b). Through this forum, the coordination of agricultural sector alongside other sectors is strengthened.

Clusters Framework

Since the adoption of the first phase of the Economic Development and Poverty Reduction Strategy (EDPRS I) in 2007, the Government of Rwanda has established three clusters as coordinating mechanisms to support the

implementation of the EDPRS I priorities as embodied in three flagship programs, namely sustainable growth for jobs and exports; Vision 2020 *Umurenge* and governance (MINECOFIN, 2007). These are the economic, social and governance and justice clusters. Agriculture is one of the key priorities under the economic cluster chaired by the Minister of Finance and Economic Planning and co-chaired by the Minister of Trade and Industry. Through the economic cluster, agricultural policies, strategies, transformational projects, and other policy issues requiring broader consultations before they are submitted to the Prime Minister's Office for cabinet adoption are discussed. The forum also helps to fast-track implementation of agricultural strategic decisions and initiate new policies and strategies or reforms to the existing policies to accelerate the country's development. For these platforms to be effective members of each cluster develop a quarterly action plan of items to be discussed and cluster meetings are held at least twice every quarter. The minutes and the quarterly reports indicating the clusters' achievements and challenges are submitted to the Prime Minister's Office.

Development Partners Coordination Group

In response to the recommendations from the Rome high level forum on Harmonization (February, 2003), Marrakech Roundtable on Managing for development results (February, 2004), the Paris Declaration on Aid effectiveness (March, 2005), and the Accra Agenda for Action (2008)⁶, in 2010 the Government of Rwanda established the Development Partners Coordination Group (DPCG) as the highest level coordination body in the country, responsible for overseeing the entire aid coordination system (MINECOFIN, 2010). The DPCG serves as a forum for policy dialogue on coordination of development aid to Rwanda in order to: (i) ensure its effectiveness and impact on achieving

the national priorities of poverty reduction and international commitments; (ii) harmonize development partners' program, project and budget support to Rwanda; (iii) avoid duplication; and (iv) foster aid effectiveness. Through this forum, the partners' interventions are aligned with the agricultural sector strategic and action plans, to ensure that the planning, budgeting and implementation of the budget, program and projects are aligned and reinforce each other.

Sector Working Group

The Sector Working Groups (SWs) are platforms which bring together the public sector institutions and their stakeholders to discuss the sector's planning and prioritization. Each sector has its sector working group. For the agricultural SWAp to be effective, MINAGRI has put in place the Agricultural Sector Working Group (ASWG) to coordinate all the sector stakeholders around key agricultural development issues. The forum constitutes a strong mechanism to create mutual accountability and transparency in governance and has the potential to create effective partnerships for agricultural development. The ASWG is composed of Sub-Sector Working Groups (SSWGs) or Technical Working Groups for policy development, implementation and service delivery. The current ASWG comprises four clustered SSWGs: (i) SSWG Cluster 1 Planning and Budgeting—focuses on planning, budgeting, M&E and other cross-cutting issues such as, gender, environment, nutrition and capacity building; (ii) SSWG Cluster 2 Crop Development—focuses on agricultural inputs, research, extension services, soil conservation, irrigation, mechanization and post-harvest; (iii) SSWG Cluster 3 Agribusiness, Markets and Export Development—focuses on agribusiness development, agricultural export promotion, agri-finance, rural feeder roads; and (iv) SSWG Cluster 4 Livestock Development—focusing on animal nutrition, genetic improvement,

⁶ <http://www.oecd.org/dac/effectiveness/34428351.pdf>

extension service in livestock, dairy, meat and small livestock promotion.

The ASWG is co-chaired by the MINAGRI Permanent Secretary and a representative from the lead donor agency. Each SSWG cluster is also co-chaired by MINAGRI representative and a donor representative appointed annually through the SWAp group. An annual calendar of the meetings is established and agreed upon by all stakeholders in which ASWGs meet quarterly and SSWGs meet twice a month (or more, as necessary). In addition to the above operational platforms, there is an Agricultural Joint Sector Review (AJSR) which is a forum that brings together all the Sector Working Groups (SWG) stakeholders to engage in policy dialogue and to ensure ownership, accountability and transparency of the EDPRS implementation and monitoring process. The Forward Looking Agricultural Joint Sector Review meets between May and June of every year to agree on priority policy actions and budgeting for the following fiscal year which starts on July 1 while the Backward Looking Agricultural Joint Sector Review meets between August and September every year to review the achievements of the previous fiscal year which ends in June.

Joint Performance Contract framework

Since 2006, the performance contracts, commonly known as *Imihigo* have been central and an integral part in the coordination of national planning and implementation of government policies across all government institutions. As the country continues to aspire towards achieving its vision of becoming a middle income country by 2020, many transformative and impactful interventions, mostly defined in EDPRS II require joint planning, implementation and M&E by many stakeholders and a robust coordination framework at all levels. Under this context, the joint *Imihigo* framework was introduced in

the planning process of the 2015/2016 financial year to ensure a well-coordinated planning, implementation and M&E of sector annual plans. As per the EDPRS II, the key priorities within the joint *Imihigo* framework include agriculture, exports, energy, job creation, urbanization and improved settlement, social protection and service delivery.

Central and local government coordination meetings/platforms

This is a coordination forum that brings together high level officials from central and local governments including ministers, governors, heads of agencies, mayors and private sector federation representatives to debate on issues of sectors coordination so as to enhance service delivery. These meetings are convened and chaired by the Prime Minister at least once a year. Interaction between the central and local governments through these platforms is crucial in monitoring, coordination and fast-tracking of agricultural development programs.

Joint Action Development Forum

The Joint Action Development Forum (JADF) is a multi-stakeholder platform established at District level provided for by the Prime Minister's instructions N° 003/03 of 03/07/2015 to ensure coordination and collaboration among stakeholder partners to guarantee joint integrated planning and monitoring of development initiatives.⁷ It ensures full participation of citizens in the local development process, promotes the culture of dialogue and accountability and enhances efficiency of development efforts and avoids duplication or redundant efforts. JADF members come from distinctly different backgrounds including local government, civil society organizations, private sector, and other local development partners. JADF meetings are a key platform facilitating the implementation of effective decentralization by providing a forum for agricultural service

⁷ Prime Minister's Instructions No 003/03 of 03/07/2015 establishing the Joint Action Development Forum and determining its responsibilities, organization and functioning (RGB, 2015).

provision and development planning accountability. The Rwanda Governance Board (RGB) is in charge of coordinating JADF activities through stakeholder consultative fora at national and provincial levels and follows up JADF operations in districts through the National JADF Coordination Secretariat which is under the Department of Service Delivery, Good Governance and JADF.

Public Investment Committee

The Public Investment Committee (PIC) approves ongoing and new investments at central government level which meet requirements for implementation for agriculture and other sectors. The PIC is chaired by a high level representative of the Ministry of Finance and Economic Planning (MINECOFIN, 2017b). The committee is comprised of high level representatives of key spending ministries.

Local Government Projects Advisory Committee

The Local Government Projects Advisory Committee (LGPAC) was established and provided for by the National Investment Policy to advise on the quality and relevance of ongoing and new projects that meet the requirements for implementation at district level. The LGPAC is chaired by a high level representative of MINECOFIN and co-chaired by a high-level representative of the Ministry of Local Government (MINALOC). The committee is constituted of high level representatives from provinces and key spending ministries.

Public Private Dialogue

The Public Private Dialogue (PPD) is a national structured mechanism established in 2012 for the private sector and the Government of Rwanda to jointly discuss key business issues and private sector constraints across different sectors in an effort to find appropriate and shared solutions. For the agriculture sector, PPD serves as platform to exchange

knowledge and find solutions to address core issues related to the agriculture value chain. In 2016 the government enacted the law N° 14/2016 of 02/05/2016 governing Public Private Partnerships to regulate PPDs in Rwanda.⁸ The public-private partnership (PPP) law established a PPP Steering Committee which serves as the gateway and provides an oversight function of PPP projects. The Steering Committee is specifically responsible for approving shortlisted bidders and the preferred bidder for a PPP project.

Challenges in PSTAs Coordination

Since the adoption of the first phase of PSTAs (PSTA1) in 2004, their coordination mechanisms have improved over time. However, some challenges/weaknesses are still being observed with regard to the implementation of annual policy action targets:

- (i) Weak engagement and participation of some key stakeholders.
- (ii) Weak linkages between policy actions reflected in PSTAs and annual action plans of some partners.
- (iii) Limited consultation within the ministry, and with implementing agencies as well as other sector stakeholders to ensure ownership of SSWGs for effective implementation of policy actions.
- (iv) Decentralization of some services at district and sector levels not yet fully operational.
- (v) Weak enforcement of accountability for stakeholders who do not honor their commitments.

Lessons from PSTAs Coordination

- High political support and active engagement of high level government officials, in particular ministers, is needed

⁸ The Law N° 14/2016 of 02/05/2016 Governing Public Private Partnerships (RDB, 2016).

- to reinforce ownership of the coordination mechanism.
- A strong and dynamic M&E system is needed to track progress towards implementation of policy actions, reinforce accountability and create a learning and reflective forum for stakeholders.
- The coordination frameworks are important mechanisms for efficient allocation of financial resources and improved accountability and transparency in governance with potential to create effective and sustainable partnerships for agricultural development.

Conclusions and recommendations

From the three case studies presented, several conclusions emerge that can guide any country that is considering to establish a multi-sectoral coordination mechanism to drive agricultural transformation.

1. High level political leadership and support at Presidential or Prime Minister level is critical to ensure that agricultural transformation plans and strategies are in line with the political, economic and social objects of country. This ensures that no alternative initiatives are designed to compete with existing ones.
2. Within the agriculture sector, committed political leadership by the minister and technical leadership by the permanent secretary is critical to drive agricultural transformation. The minister ensures alignment of NAIPs and other agricultural programs to political objectives, while the permanent secretary ensures technical feasibility and supervises program implementation, review and reporting.
3. Sustainability of sector coordination mechanisms outside of the mainstream civil service needs to be well articulated at the time of their establishment. If the coordination mechanisms are temporary, the timeframe for their existence should be in place from the start, with transition or termination measures well defined. Outside of the civil service, sector coordination requires predictable financing, preferably through government budgetary appropriation.
4. Effective sector coordination requires buy-in from all the various stakeholders: relevant government ministries, private sector, farmer organizations, civil society, academia and development partners. This requires regular sector performance reviews and dialogue. Agricultural JSRs provide such a platform at country level. The CAADP biennial review report that is produced by every country every 2 years is a rich tool for enhancing agriculture sector coordination. The report identifies areas that are needed to advance agricultural transformation and improve thematic and overall sector performance.
5. Strong agriculture sector coordination needs to be backed by a strong M&E system, both at the ministry responsible for agriculture and at the agency or platform that is responsible for multi-sector coordination where this happens outside of the ministry.

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7 Mutual Accountability in CAADP and Agricultural Transformation

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Key Messages

- 1** Current agriculture JSRs and supporting infrastructure (e.g., CAADP M&E and public expenditure reviews) have been more inclusive than in the past, and have involved multiple stakeholders, including state and various non-state actors.
- 2** The inaugural CAADP BR report, with the accompanying AATS, is a commendable achievement, as 85% percent of the total member states, including several that are not yet officially implementing CAADP, prepared country reports.
- 3** Issues with data availability and quality undermine the utility of the CAADP BR report and the AATS in formulating effective policies and achieving desirable outcomes.
- 4** To address the data issues, in-depth assessment of national statistical systems with respect to the BR data demands will be essential to develop a strategy to strengthen human and institutional capacities for data collection and analysis for the BR report.


Introduction

At the Second Ordinary Session of the Assembly of the African Union (AU) held in July 2003 in Maputo, Mozambique, the Heads of State and Government launched the Comprehensive Africa Agriculture Development Programme (CAADP), an agriculture-led integrated framework of development priorities aimed at reducing poverty and increasing food security on the continent (AU-NEPAD, 2003). At the time, the African leaders agreed to spend a minimum of 10% of their total expenditure on agriculture and to pursue 6% annual agricultural growth rate as a target. The commitment to CAADP was renewed at the Assembly of the AU in 2009 in Sirte, Libya, and again in 2014 in

Malabo, Equatorial Guinea, with the adoption of the *Malabo Declaration on Accelerated African Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihood*.

Other key stakeholders in the sector such as the private sector and development partners also committed to align to CAADP accordingly with, for example, the launch of the Grow Africa initiative for private sector enterprises (Grow Africa, 2016) and development partners committing to tying their assistance to progress in implementing CAADP through the Global Agriculture and Food Security Program (GAFSP, 2016) and the New Alliance for Food Security and Nutrition (New Alliance, 2016).

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Since then several achievements in the policy-making process have been associated with CAADP. For example, CAADP has significantly raised the political commitment and profile of agriculture; has contributed to more specific, purposeful, and incentive-orientated agricultural policies; and has promoted greater participation of multiple state and non-state actors in agricultural policy dialogue and strategy development processes (AU-NEPAD, 2010). Some of the specific tools, mechanisms, and processes that have contributed to these achievements include the annual CAADP Partnership Platform and Business meetings since 2006 that bring together the different stakeholders at various levels to review progress and make plans for the future (AU-NEPAD, 2014); preparation of the four pillar framework documents to guide adaptation of the CAADP principles and targets into national and regional policy making (AU-NEPAD, 2010); development of a monitoring and evaluation (M&E) framework (Benin, Johnson, & Omilola, 2010) and a mutual accountability framework (Oruko, Randall, Bwalya, Kisira, & Wanzala, 2011) and establishment of the knowledge systems to provide analyses that track progress, document success, and derive lessons for the implementation of the CAADP agenda (IFPRI, 2014). Because CAADP is continuously adapting to experiences during implementation and to expectations of stakeholders, it has persisted unlike other AU initiatives which have faded away (Brüntrup, 2011). Regarding its effects, (Benin, 2018) shows that implementing CAADP and reaching higher stages of implementation has had a significant positive impact on agricultural government expenditure, official development assistance (ODA), land productivity, and labor productivity.

With adoption of the Malabo Declaration in 2014, the African leaders raised the bar and committed to “mutual accountability to results and action” by conducting a biennial review (BR) of progress in achieving the commitments made in seven areas: (1) Re-committing to the principles and values of

the CAADP process; (2) Enhancing investment finance in agriculture; (3) Ending hunger in Africa by 2025; (4) Reducing poverty by half by 2025 through inclusive agricultural growth and transformation; (5) Boosting intra-African trade in agricultural commodities and services; (6) Enhancing resilience of livelihoods and production systems to climate variability and other related risks; and (7) Strengthening mutual accountability to actions and results.

The commitment to mutual accountability to results and action raises a fundamental question about the role of mutual accountability (MA) processes and mechanisms in enhancing the capabilities of governments to implement the vision and strategies that will deliver quick results and foster agricultural growth and transformation on the continent. This chapter addresses this fundamental question and related issues using as background information the inaugural CAADP BR report and the accompanying Africa Agricultural Transformation Scorecard (AATS) that was launched at the 30th ordinary session of the AU assembly in Addis Ababa, Ethiopia, in January 2018 (AUC, 2016).

The next section presents the rationale for MA, and the different MA processes and mechanisms used globally. This is followed by an elaboration of MA practices in Africa, looking at their evolution from pre-CAADP periods to discern challenges and best practices. The experience of the inaugural CAADP BR process and AATS is then presented with the results and lessons, in comparison to scorecards used in other sectors on the continent. To gain initial insights into the effects of MA, the scores from the CAADP BR were used to analyze correlations between progress made in CAADP MA and development outcomes, represented by the indicators on the different performance categories in seven thematic areas of the Malabo Declaration. This is followed by conclusions and implications for strengthening government capacity and M&E systems.

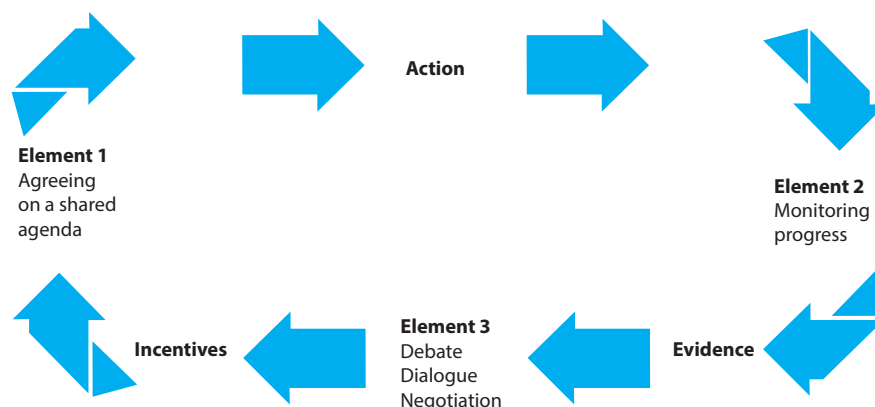
Rationale for Mutual Accountability: A Theoretical Background

Mutual accountability can be understood in two ways (Vance, Lowry, & Eggett, 2013). First, as a virtue, it is referred to as a quality in which an entity displays a willingness to accept responsibility. Second, as a mechanism, it is a process in which an entity has a potential obligation to explain their actions to another entity which has the right to pass judgment on the actions and to subject the reporting entity to potential consequences for their actions or inactions. In a broader sense, accountability can also be defined as the means to oblige those in authority “to take responsibility for their actions, to answer for them by explaining and justifying them to those affected, and to be subject to some form of enforceable sanction if their conduct or explanation for it is found wanting” (OHCHR & CESR, 2013).

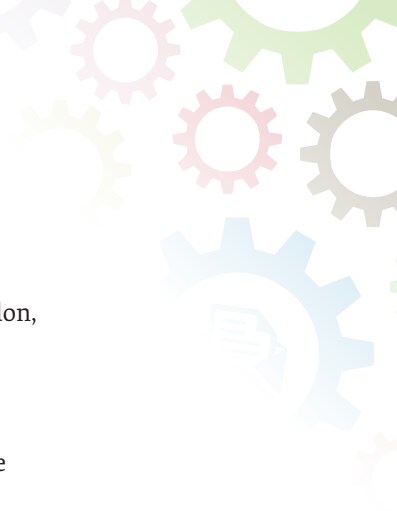
Following this, mutual accountability (MA) in this chapter is defined as a process by which two or multiple parties agree to be held responsible for the commitments that

they have made to each other. As such, MA is built around three key elements, as depicted in Figure 7.1: first, the process starts with a shared agenda through clear, specified goals and reciprocal commitments that generate actions; second, these actions need to be monitored and reviewed by the peer to ensure that commitments are upheld; and third, based on evidence, parties engage in debate, dialogue and negotiation around goals and actions (Steer & Wathne, 2009). As pointed out by (Frink & Klimoski, 2004), “from the most primitive tribal systems to loosely structured alliances to the most sophisticated production systems, social systems of any sort demand, at some level, general agreement about expectations and rules guiding behavior” (p. 2). Thus, accountability is at the root of viable social systems, more so in formal public and private organizations where it relies on trust and partnership to encourage the behavior change needed to meet commitments for advancement of the system.

Figure 7.1: Generic mutual accountability process



Source: (Steer & Wathne, 2009)



In theory, adoption of a common agenda should improve the efficiency of policy outcomes whenever national policies may generate international spillovers (Etro, 2002). Indeed, in the context of supranational agreement, a common agenda can significantly reduce the scope of free-riding behavior among member states and improve the credibility of national policies vis-à-vis other partners such as the private sector and civil society. The assumption is that the common agenda comes with clear, specified goals and reciprocal commitments that generate actions, and the actions are monitored and reviewed to ensure that commitments are held. However, without a formal enforcement mechanism (through a supra or neutral independent entity) that forces the partners to stay with pre-announced commitments, there is no guarantee that the common agenda's goals will be achieved. With respect to a common development agenda, (Alesina, Angeloni, & Etro, 2001) contend that the first best policy would require that the union dictates a different policy for each member state and that the policy preferences of every member state are known and verifiable which is highly unrealistic, especially if information about the preferences of member states are not verifiable. Therefore, MA offers the required peer-review mechanisms that allow for regular verification of countries' policy commitments and implementation progress.

Moreover, supranational development agenda such as CAADP may suffer from an intrinsic irreconcilability between the timetables of individual participating governments and those necessary to pursue the actual objectives of the common agenda (Triulzi & Montalbano, 2001). This inherent discrepancy between objectives and tools of common agenda often forces national governments to implement policies that are sometimes inconsistent with the agreed-upon common goals. Therefore

they are prone to failure because of time inconsistency. Although mostly applied to monetary and fiscal policies (Barro & Gordon, 1983), the issue of time inconsistency is prevalent in a variety of situations where policy-making processes can be framed as a game involving at least two players. Time inconsistent equilibrium refers to the case where policy makers opt out of an announced commitment due to its sub-optimality after the other party (often the private sector) has made decisions on the basis that the announced policy will prevail indefinitely. When discretion is left to policy makers, Kydland and Prescott (1977) show that it is incompatible to have optimal policy results and time consistency at the same time. (Omosogbon, 2017) uses the Lucas Critique, as an expression of time or dynamic inconsistency, to explain the wide gap between the predictions of models and policy implementation success in Africa. In this case, MA can serve as a mechanism to prevent players from defaulting on agreed-upon commitments.

At country level, the signing of a CAADP compact with its common goals and targets can be considered as a formal agreement between stakeholders, especially between the government, donors, and the private sector. If, for example, the private sector perceives that the government has an incentive to deviate from the policy to which it has previously committed, the sector will incorporate the expected government behavior such that the costs of being cheated are avoided and the policy maker is denied the benefits derived from cheating. In this case, the time-consistent outcome is attained when the expectation of the private sector is set at the level where the government has no incentive to abandon its commitments. One way would be to allow policy targets to be legislated as a law. This would include strengthening the role of parliamentary portfolio committees. However,

strict rules such as these are sub-optimal when some discretion is needed to alleviate the adverse effects of unanticipated economic and social shocks (Clarke, 1996). Finally, when reputational factors are accounted for in a game with several rounds, there is equilibrium. Indeed, even if the government is tempted to cheat, there is a reputational cost, measured in terms of the private sector's skepticism over future government announcements. In other words, the government discounts the punishment and makes announcements such that the expected benefit of cheating is at least as big as the associated expected reputational cost.

National agricultural policies would not be credible if their implementation is considered improbable by the private sector and other stakeholders. Therefore, increasing the credibility of national governments becomes critical. Three main ways have been suggested for achieving this (Triulzi & Montalbano, 2001): first is to limit governments' institutional powers through adoption of adequate institutional reforms; second is to reduce governments' incentives to make modifications after policies have been announced; and third is to increase the credibility of agricultural policies through credible supranational agreements which have the capacity to limit government's discretion over agricultural policies as would any credible institutional reform. As pointed out by (Triulzi & Montalbano, 2001), however, "national governments would be more likely to follow virtuous development policies if, in fact, participation in international agreements and institutions were more advantageous than implementing security, trade and budget policies which deviate from such virtuous paths" (p. 7). We argue that MA reinforces the punishment mechanism and lowers the appetite for moving away from commitments on the part of the government and therefore

increases the credibility of national development strategies as announced by the government. In the case of CAADP, for example, punishment is subtle and may be limited to loss of credibility and reputation, which may have an impact on a country's ability to mobilize resources from both the private sector and donor community. (Weisband & Ebrahim, 2007) write that: "the magic wand of accountability is regarded as a supervening force able to promote democracy, justice, and greater human decency through the mechanisms of transparency, benchmarked standards, and enforcement" (p. 1). This is in line with the notion of democratic accountability which encompasses both political and social accountability based on the core democratic principle of popular control over public decision making (Bjuremalm, Gibaja, & Molleda, 2014).

According to Steer, Wathne, & Driscoll (2009), based on different theoretical traditions, accountability frameworks can be in various forms:

- *Representative*: Where the system of enforceability is the democratic process of elections, freedom of information legislation and legislative oversight of the executive. Correction of non-commitment can be sought through both political and legal sanctions. This is primarily the basis for democratic accountability, that is, within a nation or state.
- *Corporate*: This is based on contracts and legally binding agreements that clearly state sanctions in a breach of contract and have a heavy emphasis on compliance. This type of accountability can be between both equal peers and unequal parties. Punishment can be both judicial and financial.
- *Collaborative*: This is based on shared interests and commitments without specific political, legal or economic

sanctions. The foundation of this type of relationship is the ambition to achieve common goals. It entails a “logic of participation” rather than a “logic of compliance”. This type of enforceability is commonly present in international agreements between member states, such as the Kyoto Protocol, which are based on codes of conduct and voluntary standards. Means of correction are primarily social and reputational, such as peer review and peer pressure. The CAADP MA, and other African Union treaties, conventions, protocols and charters, falls under the collaborative type.

A review conducted in 2008 by Oxford Policy Management (Droop, Isenman, & Mlalazi, 2008) defined three different types of international accountability mechanisms:

- *Spotlights:* These include non-official mechanisms that seek to provide independent review on performance. Examples include the Centre for Global Development’s Commitment to Development Index that tracks progress of 27 of the world’s richest countries on policies that affect more than five billion people living in poorer nations; the African Monitor that monitors development commitments, delivery and impact on the grassroots and brings strong African voices to the development agenda; the Africa Progress Panel that promotes policy change through a combination of analysis, advocacy and diplomacy; the DATA Report that gives people in developing countries access to information they need to hold their governments accountable and improve their lives; and the Heavily Indebted Poor Countries (HIPC) Capacity Building

Programme that aims to establish in each beneficiary country the capacity to design, implement and monitor its own national debt management strategy.

- *Mirrors:* These are often used in peer reviews and can be thought of as partners holding up a “mirror” to one another. Examples include the Africa Peer Review Mechanism, the DAC Peer Review process, and the European Union (EU) Consensus on Development.
- *Two-way mirrors:* These are mechanisms that allow partners to oversee one another’s performance in the context of “mutual” agreements. Such mechanisms include the Monterrey Consensus, the Paris Declaration, the Working Party on Aid Effectiveness (including the monitoring of the Paris Declaration), the UN Development Cooperation Forum, the high-level dialogue around the Financing for Development compact and the Strategic Partnership with Africa, and the Africa Partnership Forum/UNECA Mutual Review of Development Effectiveness.

To improve effectiveness of MA mechanisms, it is essential to implement stronger modalities of horizontal accountability through mirror and two-way mirror formats, and stricter compliance mechanisms as opposed to simple monitoring or surveillance mechanisms. There is also an urgent need to promote the national counterparts of MA exercises by strengthening local capacities in participating countries and ensuring that national parliaments play a central role in accountability exercises. At the continental level, autonomous and impartial expert groups are essential to guarantee the success of the accountability exercises.

Practice of Mutual Accountability in the Agriculture Sector in Africa

This section discusses MA practices in Africa, starting with practices from the pre-CAADP period and ending with a focus on the importance of MA in CAADP, including a presentation of the CAADP MA framework, progress made in implementing it, and lessons in terms of best practices. Variants of accountability processes can be traced back to before the adoption of CAADP in 2003 and have derived from agreements between various combinations of state, development partners, the private sector, civil society organizations (CSOs), and farmer-based organizations (FBOs). These typically fall under the collaborative accountability framework discussed in the theory section, with the different types of mechanisms (spotlight, mirror, and two-way mirror) being used depending on the nature of the agreement, the partners involved, and those interested in providing or seeking information on performance related to the agreed-upon commitments.

This section is based on the authors' observations, which derive from their involvement in the joint sector review (JSR) assessment and post-assessment support process, as well as from discussions with other stakeholders mentioned later in the section who were also involved in JSR assessments. Other conclusions about post-assessment outcomes are in line with the outcomes of several meetings that took place in 2016.²

From 2013, the Regional Strategic Analysis and Knowledge Support System (ReSAKSS) together with the AUC, NEPAD Agency, and other partners embarked on assessments of agricultural sector review mechanisms in several countries in Africa, to identify gaps, and propose how those gaps may be filled to

create inclusive and robust review mechanisms for the agriculture sector. This was needed to facilitate the process of implementing National Agricultural Investment Plans (NAIPs) in African countries.

To carry out the JSR assessments in a country, the starting point was to hold discussions with government authorities on the importance for assessment of existing review mechanisms. At the initial meetings, ReSAKSS representatives made presentations on best practices of accountability mechanisms, and then presented the JSRs as one way of operationalizing MA within the context of CAADP. This was often followed by comments from sectoral members, leading to an agreement on how to conduct the JSR assessment in the country. The overall JSR assessment process then involved reviewing a country's existing review mechanisms. Typically, to build national capacity, the assessments were carried out by national consultants in liaison with members of the sector, with support from ReSAKSS. The review areas included policies and programs, and agricultural performance. The assessments identified strengths, weaknesses, opportunities and threats (SWOT) in the sector, and then based on the results and findings from the assessment, recommendations were made to improve performance in the sector. Once the assessments were finalized and reports developed, the processes culminated in a sector-wide national validation workshop to share the results and have them critiqued and improved.

Various institutions and personnel played various roles in the process. In general:

- Political leadership and anchoring in the CAADP Mutual Accountability framework

² For example, at the 2016 ReSAKSS Annual Conference in Accra, Ghana, impacts of JSR assessments were discussed by country participants (<http://conference.resakss.org/2016/07/30/about-the-conference/>).

was provided by AUC and The NEPAD Planning and Coordinating Agency (NPCA).

- Overall coordination and guidance was provided by the country CAADP team, which included convening technical meetings, facilitating inputs by local stakeholder groups, hiring local expert(s), and overseeing report preparation.
- ReSAKSS provided technical support to the consultation processes on the ground, in addition to taking part in review and assessment activities where needed.
- Senior researchers from the International Food Policy Research Institute (IFPRI) provided methodological support and backstopping for the review and assessment activities.
- At least one lead local expert (consultant) worked with the ReSAKSS and IFPRI teams.
- Design of technical events (validation workshops) was led by Africa Lead.

The Evolution of Mutual Accountability in Africa

The NEPAD African Peer Review Mechanism (APRM), established in 2003, was among the early initiatives that sought to subject African governments to a peer-to-peer review process as a way of fostering the adoption of policies, standards and practices that would yield political stability, high economic growth, sustainable development and sub-regional economic integration (Cilliers, 2003). Within the same spirit, NEPAD advocated for a process of mutual review of development partners in terms of their commitment to Africa. The understanding was that APRM would have positive benefits to those countries that would subject themselves to the process (Hope, 2005). For example, the good governance and democratic principles explicit in APRM were generally found to be good for

development (Tavares & Wacziarg, 2001) with some authors such as Zack-Williams (2001) pushing the argument further and equating democratic governance as a *conditio sine qua non* (indispensable, essential condition) for development.

However, MA as expressed in the 2005 Paris Declaration and the Accra Agenda for Action of 2008, focused on financial accountability between donors and governments to enhance Africa's development results (WP-EFF, 2008). The Busan Global Partnership for Effective Development Co-operation of 2011 embodied the principles of the 2008 Accra Agenda for Action and of the 2005 Paris Declaration and was notable for its expanded recognition of South-South development support and multi-stakeholder involvement. Although mutual accountability stood at the heart of the Paris Declaration's and Accra Agenda's commitment for reforming aid relationships (Steer, Wathne, & Driscoll, 2009), the scope of such practices was narrow (UN DESA, 2011).

In recognition of the potential importance of the MA concept in facilitating the achievements of sectoral goals, NPCA in 2011 developed a Mutual Accountability Framework (MAF) for CAADP to guide MA processes at continental, regional and country levels (NEPAD, 2011). The core principle embodied in the CAADP MAF is that accountability should be based on known procedures that are mutually agreed upon. The main components include the needs to have: (i) a shared vision/agenda among the cooperating parties; (ii) common objectives and strategies for achieving the vision; (iii) jointly agreed performance indicators based on mutually agreed performance criteria; and (iv) an understanding that the MA process would be based on genuine open dialogue and a debate process based on consent, common values, and trust within the sector.

Differences between Current and Previous MA Processes

The main difference is that current practices are more inclusive of stakeholders (state, private sector, and non-state actors (CSOs, FBOs, development partners) whereas the previous ones involved a limited number of stakeholders, for instance the government and a development partner (see, for example, Government of Burkina Faso, 2014).

Furthermore, whereas previous MA practices did not emphasize joint agreement and could proceed despite lack of consensus, modern MA practices consider consensus as cardinal for their validity which is important. Again, whereas previous MA practices based solely on a single agreement that contained aspirations and commitments of the parties, modern MA practices apply to a wide variety of documents, including agreements, quasi-contracts, programs, projects and plans (see, for example, Government of Malawi, 2014).

Furthermore, whereas previous MA practices conducted the review in simple ways, current practices are more technically robust, and they seek to establish linkages between policies, programs, projects and outcomes, using methods that are more detailed and evidence-based. The current practices are deeper, and more holistic in coverage and seek to understand the bigger picture without the need to compromise the parties' understanding of the details that may explain sectoral results. The CAADP MAF (NEPAD, 2011) has become the basis for constructing improved MA mechanisms including JSRs.

Agriculture Joint Sector Reviews as a Means for Operationalizing the MA Concept

The agriculture JSR, which is a mechanism for operationalizing the CAADP MAF, involves stakeholders in the sector holding each other

accountable for delivery on objectives that they jointly developed and using yardsticks on which they jointly agreed. Falling under the two-way mirror mechanism presented in the theory section, JSRs create a platform to: (i) assess the performance and results of the agriculture sector; (ii) assist governments in setting sector policy and priorities; and (iii) assess how well state and non-state actors have implemented pledges and commitments as laid out in NAIPs, programs, projects, and other agreements (CAADP MA-M&E JAG, 2012). JSRs also facilitate information sharing and consensus building among different stakeholders in a particular sector.

Principles of an effective joint sector review

A JSR should be country owned, of relevance to the sectoral common agenda, be inclusive of all relevant parties who are expected to be affected, impartial, enhance national planning, be sensitive to gender, and be capable of generating a learning experience that further advantages the whole MA process in the sector (CAADP MA-M&E JAG, 2012). In this way, JSRs allow diverse stakeholders to get insights into and influence overall policies and priorities of the sector.

The process and conduct of a typical joint sector review

A typical JSR has important procedural and substantive elements. The procedural elements relate to the requirements for an acceptable JSR for purposes of achieving the CAADP and Malabo commitments, and the substantive elements encapsulate the material aspects of the JSR, which may comprise the content, methods, coverage, and depth of the review among others (CAADP MA-M&E JAG, 2012).

Procedural elements for a joint sector review

From the JSR guidelines (CAADP MA-M&E JAG, 2012), a typical JSR takes place within a

sector-wide platform for review. In general, the conduct starts with a joint sector review committee (JSRC) being charged with the task of conducting the JSR. The JSRC then utilizes the structures of the review platform to develop and share terms of reference with the various stakeholders in the sector, including the experts chosen to carry out studies relevant for the JSR. The review team assesses data demands to answer the questions raised in the terms of reference for the JSR in light of the existing data quality and analytical capacities available to the sector (CAADP MA-M&E JAG, 2012). Where capacities are insufficient decisions are made on how to fill gaps. Thereafter the team conducts the studies or analysis and proceeds to prepare the JSR reports that are discussed by the JSRC and other technical personnel before they are shared with senior sectoral managers for their opinion and review. Once the reports are cleared at this level, they are then presented at a JSR meeting of the stakeholders, most of whom have representatives who are members of the JSRC.

The final JSR meeting is typically referred to as a validation meeting. It popularizes sectoral findings and seeks comments that become part of the final report. The sector then drafts sectoral action plans. A comprehensive matrix of JSR best practices is included in Appendix Table 7.1.

Substantive elements of a JSR

As practiced currently, the substantive elements of the JSR revolve around the review of input, output, outcome and impact indicators which in theory are expected to be affected by the performance of the stakeholders in respect of the commitments they made (CAADP MA-M&E JAG, 2012). The areas of focus include a review of: (a) development results such as income growth, poverty and hunger reduction,

food and nutrition security; (b) overall agriculture sector growth, with specific subsector and commodity-specific targets; (c) required financial and non-financial resources to effectively implement the NAIP, programs or projects; (d) policies, programs, institutions, and implementation processes within which the plans are implemented; and (e) the analysis of linkages (including pathways to achieve the development results), enabling environment, and assumptions (CAADP MA-M&E JAG, 2012).

Effectiveness of joint sector of review as a mutual accountability tool

Some specific reviews feeding to the JSR include public expenditure review (PER), and public expenditure and financial accountability (PEFA). The incidence of these in different countries is presented in Table 7.1. Burkina Faso, Ethiopia, Ghana, Malawi, Rwanda, Senegal, Tanzania, Uganda, and Zambia are among the leading countries implementing these, especially since the adoption of CAADP in 2003. The AUC and the NPCA through ReSAKSS also conducted assessments of JSR practices in 21 countries (see Table 7.1) to help the governments improve or initiate their JSRs. Other countries seem to implement JSR-like processes, although an assessment is yet to be done to make specific recommendations for improving them. At regional level, the Economic Community of West African States (ECOWAS) was the first regional economic community (REC) to hold a regional JSR, which took place in June 2016.

The JSR assessments elucidate how current MA practices fit into the ideals of modern day MA principles. Table 7.1 shows that many countries are now engaging in JSR or JSR-like mechanisms, but some must still be encouraged to entrench their practice in the agriculture sector. The assessments also show that the current JSR practices are more inclusive, predicated on consensus, country-owned, and

based on trust. Assessments also show that JSRs have led to an expansion of the scope of the sectoral reviews compared to past routines in Malawi, Mozambique, Swaziland, Zambia, Ghana, Uganda, Burkina Faso, Rwanda, and Senegal.³ The process has stimulated a drive by stakeholders to start taking review results seriously by drawing action plans, which may have led to improvements in agriculture sector performance. In certain respects, these findings support the findings of (Nhemachena, Matchaya, & Nhlengethwa, 2017) in their study of JSR experiences in Malawi, Swaziland, Zambia and Mozambique, in which JSRs raised the drive towards accountability and results and enhanced stakeholder engagements.

Monitoring donor practices has provided both internal and public pressure for change in donor practices and has made aid more predictable whereas the discussions have broadened into politically sensitive areas (such as governance) and to include domestic stakeholders (Steer, Wathne, & Driscoll, 2009). Whereas the private sector, FBOs, and CSOs in general never participated in JSR processes in many countries (including Malawi, Zambia, Mozambique, Ghana and Senegal), currently, there is a drive towards inclusion of all these stakeholders in some countries, including Malawi, specifically drawing up arrangements that provide for presentations by the private sector and CSOs at JSR meetings.

Table 7.1: Highlights of mutual accountability processes, mechanisms, and tools in Africa, 2008-2017

Region/ Country	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Southern Africa										
Angola										
Botswana			AgPER							
Lesotho										
Madagascar										
Malawi				AgPER	JSR-L	JSR-L	JSR-A	2 JSRs	2 JSRs	2 JSRs
Mauritius										
Mozambique				AgPER			JSRA	JSR		JSR
Namibia										
South Africa										
Swaziland								JSR-A		
Zambia	AgPER				JSR-L	JSR-L	JSR-L	JSR-A	JSR-A	
Zimbabwe									JSR-A	
Eastern and Central Africa										
Burundi						PER			JSR-A*	
DRC								JSR-L	JSRA	JSRA
Ethiopia					JSR-L	JSR-L	JSR-L, JSRA	JSR-L*	JSR-L, PER	
Kenya						PER		PER	JSRA	
Rwanda					2 JSRs	2 JSRs	2 JSRs	2 JSRs	2 JSRs	2 JSRs
Seychelles					PEFA				PEFA	JSR-A

³ For details, see for example Government of Malawi (2014), Government of Mozambique (2014), Government of Ghana (2014), Government of Uganda (2012), Government of Burkina Faso (2014), and Government of Senegal (2014).

Region/ Country	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Tanzania					JSR-L	JSR-L	JSR-A		JSR	JSR
Uganda					JSR-L	JSR-L	JSR-L	JSR-A, JSR-L	JSR	JSR
Somalia										
Sudan							PER			
South Sudan										
Djibouti										
Congo Republic								JSR-L		
Central Africa Republic					JSR-L					
Western Africa										
Benin		APR						JSR-A		JSR
Burkina Faso	APR				AgPER		JSR-A	JSR	JSR, AgPER-lite	JSR
Côte d'Ivoire		APR					AgPER	JSR-A	AgPER-lite	
Eritrea										
Ghana		APR				AgPER	JSR-A	JSR	JSR	JSR, AgPER- lite
Guinea						AgPER				
Guinea Bissau										
Liberia					AgPER					
Mali	APR									AgPER- lite
Niger		APR							AgPER	
Nigeria		APR								JSR
Senegal						AgPER	JSR-A	JSR	JSR	JSR, AgPER- lite
Sierra Leone							AgPER			
Togo		APR			AgPER			JSR-A		JSR

Source: compiled by ReSAKSS (2018).

Source: Compiled by ReSAKSS (2018)

Notes: JSR = joint sector review; JSR-A = JSR assessment (reports can be downloaded at www.resakss.org); JSR-L = a JSR-like process; PER= public expenditure review; AgPER = agriculture sector PER; AgPER-lite = lighter version of AgPER; PEFA = public expenditure and financial accountability; APR = agricultural sector performance review conducted by ReSAKSS in the western Africa region.

* JSR-L in Ethiopia is medium-term review; JSR-A not completed in Burundi; JSR-A initiated in Seychelles.

Lessons learned on joint sector review design and operationalization

JSRs are becoming more inclusive, impartial, evidence based, and results oriented, and the scope of work is expanding, all of which are to the benefit of the agriculture sector (Nhemachena, Matchaya, & Nhlengethwa, 2017). Furthermore, JSR practices have improved the attitude toward accountability and governance of resources within the sector.

- **JSR as a quasi-contract:** In some countries (e.g., Ghana, Malawi, Mozambique and Senegal), participation of FBOs, CSOs, and the private sector has improved in terms of number of stakeholders and scope of JSRs (Nhemachena, Matchaya, & Nhlengethwa, 2017), but it has yet to reach desired levels. It seems that the absence of a binding contract among stakeholders limits adherence to agreed actions.
- **Absence of legally enforceable agreement is a potential challenge:** Enforceability of the MA agreements is not governed by binding national laws, but is mainly based on the understanding that a party will feel morally bound to adhere to the agreement. In some cases, the parties may feel duty bound to act in accord with the MA framework or may do so out of fear of humiliation by compliant parties, CSOs, or politicians, but this is a weaker incentive for performance compared to one based on rule of law and enforcement.
- **Stakeholder capacities are important:** The parties to an MA agreement should have the capacity to deliver on the commitments they make. In some countries, however, capacity is weak (Nhemachena, Matchaya, & Nhlengethwa, 2017), thus, deliberate efforts to develop stakeholder capacities may be an imperative.
- **JSRs have brought stakeholders closer:** This is an important step toward realizing a well-coordinated resource allocation regime within the agriculture sector in each country.
- **JSRs have provided voice through dialogues and meetings:** JSR platforms have increased the likelihood that the voice of FBOs, CSOs, and the private sector is heard and put to some use. This may be a result of the trust created between government and other stakeholders through direct interaction.
- **JSRs have improved resource allocation spatially and over time:** JSRs have led to discussions about targeting other public projects away from areas with a huge presence of NGOs performing similar tasks. Wasteful duplication of effort may be on the decline. For example, a discussion with sectoral players in Malawi showed that “improved targeting is one of the benefits of the JSR.”⁴
- **Once introduced, JSRs have improved over time:** JSR practices have positively changed, and are improving over time (e.g., in Burkina Faso, Ghana and Malawi). Changes have occurred in terms of inclusivity and scope of work over time.
- **Develop strong M&E:** Most countries that have conducted JSRs are articulating the need for better data and, hence, M&E more than before. Taking tangible steps to strengthen data and M&E systems is critical.
- **Governments should be proactive and continue to take the lead:** Where JSRs are more entrenched governments have also been proactive which is not surprising. Leadership of the agriculture sector and its processes is within the exclusive competence of government. Therefore governments should take JSRs seriously and must lead them, which includes using their own financing.

4 Discussions between authors and Readwell Musopole, Department of Planning, Ministry of Agriculture, Malawi.

The CAADP Biennial Review and the Africa Agriculture Transformation Scorecard

This section looks at some of the specific tools used in reporting or tracking performance on agreed upon commitments on MA. It focuses on scorecards, starting with their utility in MA and how they have been used in general, and then discusses the experience of the inaugural CAADP BR process and its accompanying AATS in comparison with practices in other sectors.

The plethora of development goals and commitments made at the global, Africa-wide, sub-regional, national, and sub-national levels has made it necessary for policy makers, researchers, and development practitioners and stakeholders to develop innovative ways of tracking, analyzing, and displaying progress made on the various goals and commitments in user-friendly, easily-accessible, and understandable formats to support review and MA processes. Scorecards and dashboards are such commonly-used tools, and their use in Africa to track progress in various indicators at different levels and in different sectors has grown over the last 10 years.

A scorecard is a performance management tool for assessing progress made toward set goals, targets, commitments, or milestones. It is useful for obtaining feedback, identifying bottlenecks, and continuously learning from experience to make required improvements and ensure the attainment of desired outcomes. Typically, scorecards display effort or progress made against a benchmark or target while dashboards display status at a specific point in time. Dashboards are analogous to an automotive dashboard and display status of progress often in charts or graphs or gauges. As they can sometimes overlap, the terms dashboard and scorecard have often been used interchangeably, although strictly speaking, scorecards are a

measure of progress made toward desired outcomes while dashboards indicate status. Historically, the business sector has used performance scorecards by applying the balanced scorecard concept, a performance metric used in strategic management to identify and improve the internal functions of a business and their consequential outcomes, as well as to provide feedback to organizations (Kaplan & Norton, 1992).

Performance scorecards are used in other sectors and can be used independently of the balanced scorecard methodology to monitor the progress toward set goals or targets. The integral concepts of scorecards are *targets* and *key performance indicators*, which represent metrics used to evaluate factors that are critical to the achievement of set targets or goals. Performance scorecards allow for peer-to-peer metric comparison of performance to stimulate continuous improvement of interventions toward agreed goals.

Use of Scorecards and Dashboards in Africa

As part of managing for development results and to facilitate policy and investment planning, implementation, monitoring, and MA, African leaders, especially through the auspices of the AU, have adopted the use of performance scorecards and dashboards. The AU has produced continental scorecards and dashboards for the water and sanitation sector, malaria eradication, gender equality and women empowerment, and public health spending to assess progress or status across countries, regions, and the continent (ALMA, 2018; AUC, 2015a, 2015b, 2016).

One of the successful initiatives that uses a scorecard is the African Leaders Malaria

Alliance (ALMA), which was launched in 2009 to provide African leaders with a forum for tracking countries' progress in the fight against malaria and to share best practices and address challenges (ALMA, 2018). The Alliance adopted the *ALMA Scorecard for Accountability and Action* in 2011 to track, on a quarterly basis, national and sub-national level progress toward meeting malaria elimination targets set out in the AU Catalytic Framework to End AIDS, TB and Eliminate Malaria in Africa by 2030 and other initiatives. Appendix Figure 7.1 (in the annex) shows an example ALMA scorecard for a subset of countries during the third quarter of 2017. The scorecard presents status and progress on various indicators such as the number of insecticide classes with mosquito resistance, operational long-lasting insecticide treated nets (LLINs) coverage, and LLIN financing levels. The regular monitoring of progress using the scorecard has: i) been effective in keeping malaria eradication high on the agendas of African governments; ii)

enabled countries to enact policies that support effective malaria control and elimination; iii) allowed for countries to share best practices; and iv) rewarded countries making the most progress with ALMA awards for excellence, thus driving further commitment to the fight against malaria. For example, the progress is demonstrated by the number of malaria cases and deaths in Africa which declined by 42% and 66% respectively during 2000–2015 (WHO, 2018).

Another example is the *Africa Scorecard on Domestic Financing for Health*, an initiative to boost domestic investment in the health sector. The scorecard was adopted by African leaders at the 27th AU Summit held in Kigali, Rwanda, in July 2016. However, the first health sector financing scorecard released in 2016 was fraught with data challenges and largely relied on the national health accounts (NHAs) methodology used by the World Health Organization (WHO). Its success and subsequent scorecards will require governments to adopt the WHO methodology

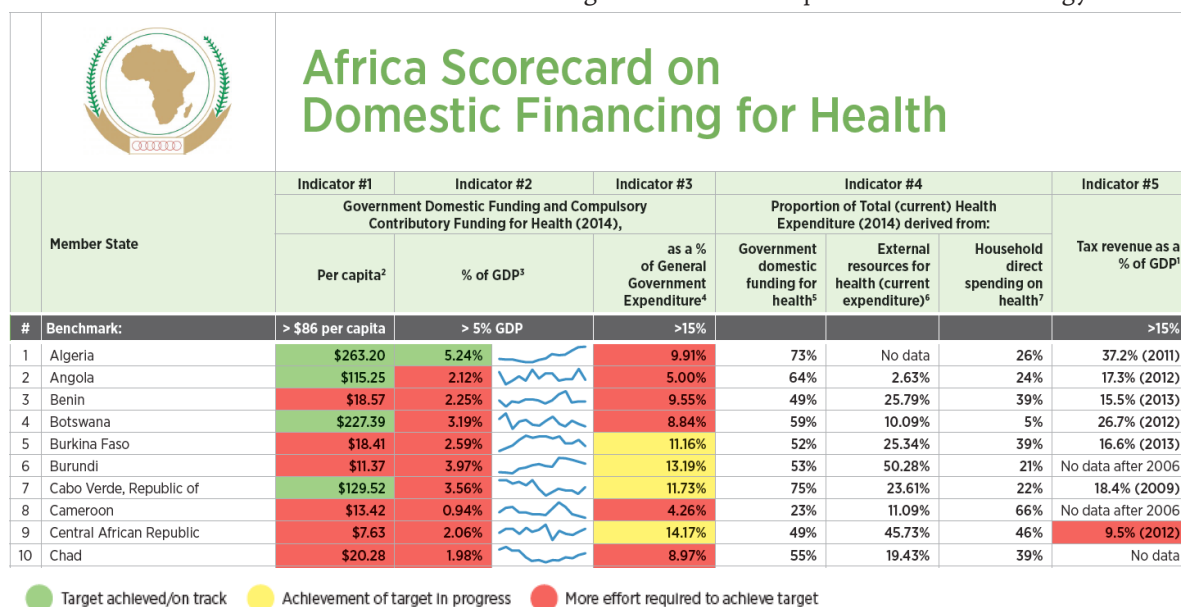


Figure 7.2: Example of the Africa Scorecard on Domestic Financing for Health

Note: Only first 10 countries are shown.
Source: (AUC, 2016)

and conduct NHA surveys yearly to generate reliable and comparable data over time (Aidspan, 2016). Figure 7.2 shows an example of the 2016 scorecard on five indicators based on government domestic financing for health, source of total health expenditures, and tax revenues as a share of gross domestic product (GDP).

Unlike the malaria and health financing scorecards already presented, the African Gender Scorecard launched by AUC in 2015 computed scores across groups of different indicators (see Figure 7.3). For each indicator, the computed score looks at gender parity based on the female to male ratio while the group or sector score is calculated as an unweighted arithmetic average of indicator scores for the group or sector (AUC, 2015a). The scorecard is meant to help fast-track the implementation of AU member states' commitments on equitable growth, gender equality and women's empowerment as spelt out in Africa's Agenda 2063 and other commitments such as the Solemn Declaration on Gender Equality in Africa. The 2015 scorecard focused on sectors that have a direct bearing on the lives of women and

girls: health, education, political and decision-making, access to and ownership of land, access to credit, business, and employment. The 2016 gender scorecard was on the theme of women's rights and used three clusters, namely women's economic rights, women's social rights, and women's civil and political rights, to assess Africa's progress in implementing commitments to women's rights. Whereas the gender scorecard has been valuable in providing an overview of progress in implementing the commitments, it has highlighted the importance of data availability for evidence-based decision making. For example, due to missing data, scores could not be calculated for some sectors and the scores are not ideal for cross-country comparisons because the year of data for each indicator varies from country to country (AUC, 2015a).

The performance scorecard methodology used in the inaugural CAADP BR process is like that used in the water and sanitation sector (AUC, 2015b). In 2013 and 2014, AUC produced a Water and Sanitation Sector Scorecard that reports progress of AU member states on implementing the 2008 AU Declaration on the Sharm El Sheikh commitments on

Country	Economic empowerment				Political empowerment Women in Politics and Decision-making	Social empowerment		Stand-alone indicators					
	Business Sector	Access to Land Sector	Access to Credit Sector	Employment Sector		Education Sector	Health Sector	Proportion of households within 15 minutes from a source of drinking water (%)		Access to improved sanitation facilities (%)		Maternal Mortality Ratio (per 100,000 live births)	
								Urban	Rural	Urban	Rural	2005	2013
Algeria	•	0	14	2	4	12	10	...	...	97.6	88.4	100	89
Angola	7	0	7	5	4	6	10	...	...	86.8	20.1	750	460
Benin	6	1	10	6	1	5	10	72.9	49.9	25.3	5.1	420	340
Botswana	7	5	8	8	1	11	10	...	...	77.9	41.8	340	170
Burkina Faso	2	1	7	6	1	7	9	45.0	23.0	50.4	6.7	500	400
Burundi	5	...	7	6	5	8	10	64.6	21.9	42.7	48.1	910	740
Cameroon	1	...	7	6	3	8	10	64.6	33.3	61.7	26.8	63	590
Cabo Verde	3	10	...	6	7	12	•	...	...	75.2	47.2	690	53
Central African Republic	6	...	11	9	2	5	10	62.2	43.0	43.6	7.2	1100	880
Chad	4	...	4	4	2	5	9	73.9	37.3	31.4	6.5	1200	980

Figure 7.3: Example of the 2015 African Gender Scorecard

Source: (AUC, 2015a)

Notes: ... = no data available for scoring; • = insufficient data for scoring; only the first 10 countries are shown.

achieving water and sanitation goals. A total of 42 and 47 AU members contributed to the 2013 report and 2014 report respectively based on self-assessments across 7 thematic areas. The scorecard methodology calculates a composite performance index for each country and across seven thematic areas of water infrastructure, protection of water resources, water supply and sanitation, risks management, water governance, financing, and capacity development. On average, the country reporting rate was moderate (62–64%). The lack of baseline data and inadequate capacity to provide information on all the performance categories was a key challenge. Nonetheless, the 2013 water and sanitation report and scorecard led to the formulation of the Kigali Action Plan focused on extending water and sanitation to an additional 5 million people in 10 pioneer AU member states.

Scorecards have also been used at country level, for example, the governance scorecard produced by Rwanda's Governance Board, an independent state agency. The scorecard provides a user-friendly tool to help drive policy governance reforms in Rwanda by evaluating progress across eight dimensions of governance: i) rural of law; ii) political rights and civil liberties; iii) participation and inclusiveness; iv) safety and security; v) investing in human and social development; vi) control of corruption, transparency and accountability; vii) quality of service delivery; and viii) economic and corporate governance (RGB, 2018). In addition, scorecards have been used at local level, for example, community scorecards in rural areas of Malawi are used to assess and improve the quality of local service provision and to promote dialogue, transparency, and accountability between service providers and users (see (Wild & Harris, 2011).

Drawing on lessons learned from the use of various scorecards, and particularly the success


with the water and sanitation scorecard which brought about tangible action to drive progress particularly through the Kigali Action plan, AUC resolved to apply the same performance scorecard approach to the CAADP BR called for in the Malabo Declaration.

The CAADP BR and AATS: Process, Methodology, Reporting, and Results

Following the adoption of the Malabo Declaration in 2014 (AUC, 2014), the AUC and NPCA, in collaboration with RECs and various technical partners, led efforts to operationalize the MA commitment and prepare for the inaugural BR report. Key steps in the process included the: i) development of BR tools and methodologies in 2016 including a technical note on the scorecard methodology, 43 CAADP/ Malabo indicators to benchmark country progress, technical reporting templates, and guidelines; ii) permanent secretaries of agriculture meeting in March 2016 to validate strategic guidelines for rolling out the BR process; iii) experts group meeting in August 2016 to review the BR evaluation methodology and adopt the BR weighting system; iv) training of trainers in November 2016 to provide technical support to AU member states; and v) organization of 6 regional training workshops, between February and July 2017, for 156 national experts from 52 countries on the various BR guidelines and tools.

CAADP BR and AATS Methodology

Like the water and sanitation scorecard, the CAADP BR and AATS calculates a score on a scale of 0 to 10 to reflect how much a specific target (absolute score) or a milestone (relative score) has been achieved, based on the observed values of 43 indicators in a particular year. Each score, which is an expression of the country's effort or progress on the scale, was compared against a benchmark to derive a minimum score that a country should achieve to be on track in



a particular year. Scores for each country were aggregated using equal weights across the seven Malabo thematic areas. Therefore, indicators under each performance category are equally weighted to arrive at intermediate-level scores (called C-scores) for 23 performance categories. Then scores for performance categories under each thematic area were aggregated using equal weights to arrive at higher-level scores (called T-scores) for each of the seven Malabo thematic areas. The seven T-scores were also aggregated using equal weights to arrive at an overall score, or the CAADP BR-score (for details of the methodology, see AUC, 2017). An equal weighting system was adopted largely to simplify the scorecard approach.⁵ However, because the number of indicators under each thematic area is not the same, indicators under a thematic area with the highest number of indicators attract the smallest weight. Similarly, indicators under a thematic area with the least number of indicators attract the largest weight. The scores can be compared across reporting AU member states to see the relative performance, and to see those that are on track versus those that are not, based on the minimum score needed for a country to be on track.

CAADP BR Reporting and Compilation

Following regional training workshops, the trained country experts embarked on executing their country BR roadmaps which included holding in-country consultations for data collection, establishing a BR committee to oversee the reporting process, collecting and analyzing data, and drafting the BR country progress report. RECs and technical partners such as ReSAKSS supported countries with data collection, analysis, and reporting. Initially, countries were given until the end of June 2017 to submit their reports to RECs, a deadline that proved difficult to meet for most countries due to the late roll out of the BR process. For

example, data collection in the Northern Africa countries only began in late July. Before a report was submitted to the respective REC, it had to undergo a multi-stakeholder review and validation. However, not all countries managed to hold a multi-stakeholder validation workshop.

The RECs worked with technical partners to review the reports and data, enter country data into the BR database to generate country scores for the period 2015–2016, and draft country and regional progress summaries before their onward submission to AUC. AUC, NPCA, RECs, and technical partners held a write shop in Nairobi, Kenya, from 25 to 27 September 2017 to review the country and regional summaries and draft the continental BR report. In early October of 2016, the draft continental BR report was presented to and endorsed by the AUC Specialized Technical Committee (STC), which includes ministers of agriculture, thus marking a key milestone in fulfilling the Malabo MA commitment. The draft report was based on country reports of 43 AU member states. Four countries that had not submitted their reports by then were given until October 31, 2017 to do so for inclusion in the final continental report.

CAADP BR and AATS Results

The continental BR report including the AATS was adopted by the AU Heads of State and Government during their January 2018 summit held in Addis Ababa, Ethiopia. A total of 47 out of 55 AU member states submitted BR reports and data that were used to produce the continental BR report and AATS. The level of reporting is a commendable achievement given the constraints the countries faced: the BR is unprecedented; the delayed rollout of the process, and that several countries faced challenges related to poor quality data; limited time for data collection and analysis; and limited financial resources to support the process. Another reason for this being a commendable effort is that fewer

⁵ Challenges of using equal weights are discussed as part of CAADP BR lessons.

than the 47 reporting countries are officially implementing CAADP in their countries. By the end of 2017, for example, 42 of the member states had signed a CAADP compact and only 33 of them had a first-generation NAIP (Makombe, Tefera, Matchaya, & Benin, 2017).⁶

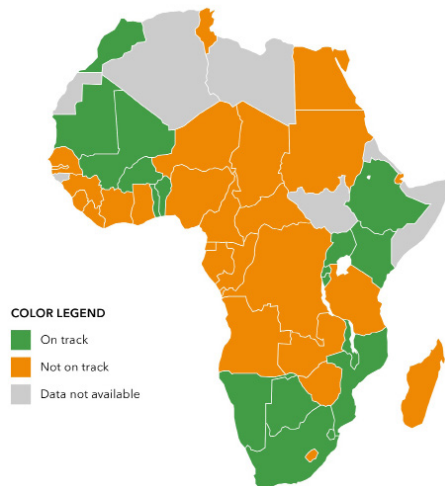
Of the 47 reporting countries, 20 obtained an overall agricultural transformation score of at least 3.9, out of the maximum 10, indicating that they are on track to achieving Malabo commitments by 2025 (AUC, 2016; see Figure 7.4). In addition, Rwanda, Mali, and Morocco were respectively awarded the first, second, and third prizes during the summit for making the most overall progress on agricultural transformation. Botswana and Lesotho were also recognized for their strong performance on the commitment related to promoting intra-African agricultural trade. Regionally, only Eastern and Southern Africa are on track to achieving the Malabo commitments with scores of 4.2

and 4.0 respectively. With a score of 3.6, Africa as a whole is not on track to achieving these commitments.

In general, the scorecard shows that, out of seven thematic areas, Africa as a whole has made the most progress in two of them on recommitting to the principles and values of the CAADP by having improved NAIPs, policies, and institutional arrangements to support CAADP/ Malabo implementation and establishing inclusive mechanisms and platforms for MA and peer review. In these areas, about 63% of reporting countries are on track in recommitting to CAADP principles, while a total of 30 out of 32 reporting countries are on track with respect to the MA commitment. With lower progress in the other five thematic areas, nearly half (27) of the reporting countries were assessed as not being on track to meeting the overall Malabo commitments.

Tracking the progress on agricultural Transformation

The scorecard highlights progress, but shows nearly half of African countries are not on track to meet agricultural transformation commitments from the 2014 Malabo Declaration



COLOR LEGEND
 ■ On track
 ■ Not on track
 ■ Data not available

The 2017 Africa Agriculture Transformation Scorecard (AATS)

Country overall progress for implementing the Malabo Declaration for Agriculture transformation in Africa

Against the 2017 benchmark of 3.9 out of 10 which is the minimum score for a country to be on track for implementing the Malabo Declaration, countries whose score (out of 10) appears in "green" are ON TRACK, and countries whose score appears in "red" are NOT ON TRACK for the 2017 reporting exercise to the January 2018 AU Assembly.

Country	Score	Country	Score	Country	Score	Country	Score
Algeria	1.3	Angola	2.1	Benin	4.3	Botswana	4.4
Burundi	4.7	Burkina Faso	4.2	Cameroon	2.1	Cabo Verde	4.6
General African Avg	2.4	Chad	2.2	Comoros	1.3	Congo	2.8
Côte d'Ivoire	3.5	DR Congo	1.4	Dibouti	3.2	Egypt	3.4
Equatorial Guinea	3.6	Eritrea	1.3	Ethiopia	5.3	Gabon	2.9
Gambia	3.1	Ghana	3.9	Guinea	3.3	Guinea-Bissau	1.3
Kenya	4.8	Lesotho	3.7	Liberia	0.9	Libya	1.3
Madagascar	3.1	Malawi	4.9	Mali	5.6	Mauritania	4.8
Mauritius	5.0	Morocco	5.5	Mozambique	4.1	Namibia	4.1
Niger	3.5	Nigeria	3.4	Rwanda	6.1	Rep. A. Sahara	1.3
Senegal	1.5	Senegal	3.8	Seychelles	4.0	Sierra Leone	1.5
Somalia	1.3	South Africa	4.1	South Sudan	1.3	Sudan	1.9
Tanzania	4.0	Tanzania	3.1	Togo	4.9	Togo	1.7
Uganda	4.4	Zambia	3.6	Zimbabwe	3.2	2017 Benchmark	3.9

Figure 7.4: Country BR overall progress on agricultural transformation and 2017 AATS

Sources: Map: (IFPRI, 2018) based on AUC (2018); Scorecard: (AUC, 2018).

⁶ Following the Malabo Declaration, CAADP implementation at country level is now divided into four phases: domesticating the Malabo Declaration commitments; NAIP appraisal or formulation; NAIP implementation; and monitoring progress against the Malabo Declaration targets (NEPAD, 2016).

Thus, the BR report and scorecard highlight the challenges that need to be urgently addressed to drive agricultural transformation on the continent. For example, while the continent as a whole has made good progress toward halving poverty, progress has been slower in establishing more inclusive public-private partnerships for commodity value chains, creating more job opportunities for youth in agricultural value chains, and further supporting the participation of women in agribusiness. Data on the proportion of new jobs for youth in agriculture were unavailable in most countries while the 22 countries reporting on the indicator reported the total proportion of youth in agriculture and not just for 2015–2016 (AUC, 2016). Thus, there is need to improve the tracking of data on youth in agriculture.

In addition, according to the BR report, progress has also been slower and needs to be accelerated with respect to ending hunger by 2025; tripling intra-African agricultural trade; enhancing resilience to climate variability particularly through investments for resilience building initiatives; and enhancing investment finance for agriculture. For example, although 34 countries were on track with respect to establishing intra-African trade policies and institutional conditions, only 3 achieved the minimum growth rate required to triple intra-African trade (Lesotho, Niger, and Senegal).

With respect to the predictions of the theory presented earlier, the inaugural BR process is based on country self-assessments which in most countries were time constrained and lacked validation workshops involving multiple stakeholders, especially CSOs and FBOs, to review the data and country report. This opened the self-assessment exercise to the potential of cheating if a government determined there was a marginal to zero *reputational cost* for cheating. Improving the credibility of the BR country self-assessment

exercise will require strengthening country statistical systems to ensure objective data accuracy checks, guaranteeing adequate time for the process, and engaging non-state actors throughout the process to scrutinize BR data and sources. Moreover, to help deal with any potential *time inconsistency*, the process should be linked to a formal country agreement, similar to the CAADP compact, where all key stakeholders have commitments to which they are held accountable and expectations of non-state actors are set such that the government has no incentive to renege on its policy commitments.

Learning from and Strengthening the CAADP BR Process and AATS

The inaugural BR process was largely successful, especially given the: i) high level of reporting by countries, which demonstrated their strong commitment to the process; ii) vital leadership from AUC and NPCA; iii) critical coordination role played by RECs; and iv) dynamic support of technical and development partners. Moreover, the report and scorecard have generated excitement and momentum around the CAADP implementation agenda at the continental and global levels. Within the continent, African leaders have applauded the process and expressed their desire to work on the areas in which their countries did not do well to improve progress toward achieving Malabo commitments. Development partners have congratulated Africa for its effort in implementing the Malabo Declaration commitments and have committed to enhance their support for CAADP.

The BR process, report, and AATS have emphasized the importance of having adequate and high-quality data to support evidence-based analysis and decision making, reliably assess progress, and effectively identify and address bottlenecks to

accelerate progress toward meeting Malabo commitments. More specifically the process highlighted the following key challenges:

- Weak country data and M&E systems and capacities, including:
 - poor data quality and unavailability of data in required formats
 - poor data sharing protocols across ministries, departments, and agencies (MDAs) that have a bearing on agriculture, food security, nutrition, and rural development
 - weak technical capacities for data collection, M&E, and analysis
- Narrow stakeholder platforms for review and dialogue, that is, not being inclusive of all key stakeholder groups especially CSOs and FBOs
- Lack of champions in public and private institutions and political commitment as well as limited awareness about the BR process in some countries
- Limitations associated with the performance scorecard methodology, including the:
 - use of equal weights across all the indicators, which vary in the degree of difficulty to implement, can bias the BR scores in favor of the commitments that are least difficult to implement
 - issue of assigning a zero-score for lack of data for reporting countries, which can bias the results, but can also encourage not reporting low performance
- Initiating the process early to ensure that countries and RECs have adequate time to execute all key steps of the BR roadmap
- Improving data quality and strengthening data collection, M&E, and analysis systems and technical capacities in countries
- Strengthening intersectoral coordination and establishing innovative platforms for sharing data across ministries, departments, and agencies
- Strengthening agriculture JSRs which are the bedrock for an inclusive and comprehensive BR process and making them an integral part of the BR process
- Making use of country knowledge networks such as country Strategic Analysis and Knowledge Support System (SAKSS) platforms where they exist to support data collection and analysis efforts
- Promoting country ownership of the BR process including through countries having dedicated budget lines to finance the BR process and dedicated champions to drive the process
- Broadening the role of non-state actors in the BR process and increased awareness among all stakeholders
- Strengthening the BR scorecard methodology and indicators that were problematic during the inaugural BR. For example, differential weights based on degree of difficulty of meeting different commitments, as well as the contribution or importance of an indicator to achieving desired outcomes, will more likely result in unbiased results that reflect the value addition of CAADP.

Strengthening MA and the next BR requires urgently addressing the challenges highlighted by the process. Lessons learned and key action areas going forward include the need for:

Progress in CAADP Mutual Accountability and Outcomes

Nearly all reporting countries (94%) were assessed as being on track in establishing inclusive mechanisms for MA. However, less than half (20 of the 47 countries) of the reporting countries are assessed being on track to meeting the Malabo commitments. This seems surprising because committing to the CAADP principles and values is expected to improve the policy-making process and to safeguard the design and implementation of good policies, which in turn is expected to lead to desirable policy outcomes. Furthermore, MA is expected to serve as a mechanism to prevent diversion by governments from agreed-on commitments. To explore this further, the scores from the CAADP BR are used to analyze correlations between progress made in CAADP MA and development outcomes, represented by the indicators on the different performance categories in seven thematic areas of the Malabo Declaration. Although correlations do not imply cause-effect relationships, they serve as first order analysis to make some initial assessments of the potential relationships.

In the CAADP BR, the Malabo commitment on “MA for actions and results” comprises three performance categories (PC): “increasing country capacity for evidence-based planning, implementation, and M&E” (labeled PC

7.1); “fostering peer review and mutual accountability” (PC 7.2); and “conducting a biennial agricultural review process” (PC 7.3). See (AUC, 2017) for details of the methodology. The specific indicators are: I 7.1 = index of capacity to generate and use agriculture statistical data and information (which is based on Agricultural Statistics Capacity Index); I 7.2 = existence of inclusive institutionalized mechanisms and platforms for MA and peer review (which is based on implementation according to the best practices of JSRs as laid out in Section 3 of this chapter); and PC 7.3 = country BR report submission (which is based on measures of quality such as the review process and inclusive validation of the report). Progress in each of these three indicators is weighted equally to derive an MA score. The summary for Africa and the sub-regions is shown in Table 7.2. As the results show, progress in the underlying indicators is dominated by submission of a country BR report. Because the higher level scores (C-scores and T-scores) are based on equal weighting of the performance at the immediate lower levels, submission of a country BR report also dominates the C-scores and the T-score. Basically, submitting a BR report gets you a third of the way to being assessed as being on track to meeting the MA commitment.

Table 7.2: Summary of CAADP BR scores and performance in mutual accountability, 2015-2016.

	T-Score	C-Score in performance category			Progress in indicators		
		PC 7.1	PC 7.2	PC 7.3	I 7.1	I 7.2	I 7.3
Malabo target	n.a.	n.a.	n.a.	n.a.	63.0	100%	100%
Africa	3.35	2.12	4.70	9.22	52.4	49.5%	92.4%
Central Africa	3.04	0.00	0.40	8.71	29.0	4.0%	87.1%
Eastern Africa	7.16	4.70	7.19	9.60	59.1	71.9%	96.0%
Northern Africa	5.15	2.50	3.82	9.13	68.1	38.2%	91.3%
Southern Africa	5.94	2.09	6.39	9.35	54.8	63.9%	93.5%
Western Africa	5.45	1.32	5.69	9.33	45.5	56.9%	93.3%

Source: AUC (2018).

Notes: PC 7.1 = increasing country capacity for evidence-based planning, implementation, and M&E; PC 7.2 = fostering peer review and mutual accountability; PC 7.3 = conducting a biennial agricultural review process; I 7.1 = index of capacity to generate and use agriculture statistical data and information; I 7.2 = existence of inclusive institutionalized mechanisms and platforms for mutual accountability and peer review; and I 7.3 = country BR Report submission. Range of scores is 0 to 10.

n.a. = not applicable.

The results of the correlations between the MA T-score and the scores of progresses in the outcomes are shown in Table 7.3. In general, the correlation coefficients with respect to the underlying indicators are mostly near-zero and statistically insignificant. Only 5 of the 37 indicators had estimated coefficients which are statistically significant: quality of agricultural inputs (I 3.1iii); budget lines for social protection (I 3.4); prevalence of wasting (I 3.5iii); agricultural commodity value chains (I 4.2); and budget lines for resilience (I 6.2). Surprisingly, most of the estimated coefficients with respect to the Malabo thematic areas (T-scores) and performance categories (C-scores) are strongly statistically significant. This seems weird as the few statistically significant indicators seem to dominate the scores at higher levels, because

of the equal weighting system which seems to introduce some bias. For example, it is much easier for the government to have a budget line for social protection (I 3.4) or for resilience (I 6.2) than to spend as budgeted or agreed on (e.g, I 2.1i or I 21II). This implies that sub-scores should enter higher level scores with differential weights based on some measure of their relative importance in achieving an outcome. Treating the achievement of different commitments as equal will likely bias BR results toward countries making progress in the least important indicators or commitments for achieving overall agricultural transformation and undermine the motivation for making progress in all the commitments or putting more effort in the commitments which are most difficult to achieve.

Table 7.3: Correlation coefficients between MA T-score and progress in Malabo commitments (T-scores, C-scores, and indicators), 2015–2016

Label	Malabo thematic area, performance category, or indicator	Coef.	P-value	Sig.
	Malabo thematic area (T-Scores)			
PC 2	Enhancing Investment Finance in Agriculture	0.217	0.143	
PC 3	Ending Hunger by 2025	0.704	0.000	***
PC 4	Halving Poverty through Agriculture by 2025 Agriculture Commodities	0.328	0.025	**
PC 5	Boosting Intra-African Trade in	0.429	0.003	***
PC 6	Enhancing Resilience to Climate Variability	0.509	0.000	***
	Performance category (C-Scores)			
PC 2.1	Public Expenditures in Agriculture	0.252	0.087	*
PC 2.2	Domestic Private Sector Investment in agriculture, agribusiness, agroindustry	n.a.		
PC 2.3	Foreign Private Sector Investment in agriculture, agribusiness, agroindustry	n.a.		
PC 2.4	Enhancing access to finance	0.058	0.696	
PC 3.1	Access to Agriculture inputs and technologies	0.510	0.000	***
PC 3.2	Doubling agricultural Productivity	0.090	0.547	

Label	Malabo thematic area, performance category, or indicator	Coef.	P-value	Sig.
PC 3.3	Reduction of Post-Harvest Loss	0.329	0.024	**
PC 3.4	Strengthening Social Protection	0.522	0.000	***
PC 3.5	Improving Food security and Nutrition	0.419	0.003	***
PC 4.1	Sustaining Agricultural GDP for Poverty Reduction	-0.011	0.939	
PC 4.2	Establishing Inclusive PPPs for commodity value chains	0.515	0.000	***
PC 4.3	Creating job for Youth in agricultural value chains	0.171	0.250	
PC 4.4	Women participation in Agri-business	-0.057	0.704	
PC 5.1	Tripling Intra-African Trade for agriculture commodities and services	0.159	0.287	
PC 5.2	Establishing Intra-African Trade Policies and institutional conditions	0.362	0.012	**
PC 6.1	Ensuring Resilience to climate related risks	0.269	0.067	*
PC 6.2	Investment in resilience building	0.457	0.001	***
	Indicator			
I 2.1i	Public agriculture expenditure as share of total public expenditure	0.173	0.261	
I 2.1ii	Public Agriculture Expenditure as % of agriculture value added	0.211	0.169	
I 2.1iii	ODA disbursed to agriculture as % of commitment	-0.060	0.727	
I 2.2	Ratio of domestic private sector investment to public investment in agriculture	0.012	0.943	
I 2.3	Ratio of foreign private direct investment to public investment in agriculture	-0.192	0.242	
I 2.4	Proportion of men and women engaged in agriculture with access to financial services	0.031	0.864	
I 3.1i	Fertilizer consumption (kilogram of nutrients per hectare of arable land)	0.059	0.701	
I 3.1ii	Growth rate of the size of irrigated areas from its value of the year 2000	0.055	0.732	
I 3.1iii	Growth rate of the ratio of supplied quality agriculture inputs (seed, breed, fingerlings) to the total national inputs requirements for the commodity	0.435	0.034	**
I 3.1iv	Proportion of farmers having access to Agricultural Advisory Services	0.160	0.324	

Label	Malabo thematic area, performance category, or indicator	Coef.	P-value	Sig.
I 3.1v	Total Agricultural Research Spending as a share of AgGDP	0.160	0.350	
I 3.1vi	Proportion of farm households with ownership or secure land rights	-0.148	0.420	
I 3.2i	Growth rate of agriculture value added, in constant US dollars, per agricultural worker	-0.139	0.464	
I 3.2ii	Growth rate of agriculture value added, in constant US dollar, per hectare of agricultural arable land	-0.064	0.687	
I 3.2iii	Growth rate of yields for the national priority commodities	-0.017	0.921	
I 3.3	Reduction rate of Post-Harvest Losses for (at least) the 5 national priority commodities	0.422	0.345	
I 3.4	Budget lines (%) on social protection as percentage of the total resource requirements for coverage of the vulnerable social groups	0.644	0.000	***
I 3.5i	Prevalence of stunting (% of children under 5 years old)	0.005	0.974	
I 3.5ii	Prevalence of underweight (% of children under 5 years old)	-0.258	0.112	
I 3.5iii	Prevalence of wasting (% of children under 5 years old)	-0.304	0.056	*
I 3.5iv	Proportion of the population that is undernourished	-0.025	0.890	
I 3.5v	Growth rate of the proportion of Minimum Dietary Diversity-Women	0.027	0.954	
I 3.5vi	Proportion of 6-23 months old children who meet the Minimum Acceptable Diet	-0.092	0.612	
I 4.1i	Growth rate of the agriculture value added	-0.004	0.978	
I 4.1ii	Agriculture contribution to overall poverty reduction target	n.a.		
I 4.1iii	Reduction rate of poverty headcount ratio, at national poverty line (% of population)	-0.181	0.555	
I 4.1iv	Reduction rate of poverty headcount ratio at international poverty line (% of population)	-0.355	0.490	
I 4.1v	Reduction rate of the gap between the wholesale price and farmgate price	0.021	0.923	
I 4.2	Number of priority agricultural commodity value chains for which a PPP is established with strong linkage to smallholder agriculture	0.460	0.001	***

Label	Malabo thematic area, performance category, or indicator	Coef.	P-value	Sig.
I 4.3	Percentage of youth that is engaged in new job opportunities in Country chains	-0.145	0.520	
I 4.4	Proportion of rural women that are empowered in agriculture, agriculture value	0.064	0.793	
I 5.1	Growth rate of the value of trade of agricultural commodities and services within Africa	0.072	0.710	
I 5.2i	Trade Facilitation Index	-0.036	0.836	
I 5.2ii	Domestic Food Price Volatility Index	0.036	0.845	
I 6.1i	Percentage of farm, pastoral, and fisher households that are resilient to climate and weather-related shocks	-0.293	0.224	
I 6.1ii	Share of agriculture land under sustainable land management practices	-0.049	0.797	
I 6.2	Existence of government budget-lines to respond to spending needs on resilience building initiatives	0.457	0.001	***

Source: Authors' calculations based on AUC (2018).

Notes: *, **, and *** represent statistical significance at the 10, 5, and 1 percent level, respectively.

Another bizarre factor has to do with the MA score. For example, countries like Botswana, Mauritius, Morocco and Namibia which are yet to start implementing CAADP have higher MA scores than some veteran CAADP-implementing countries like Burkina Faso, Tanzania and Zambia (see Table 7.4). As the presentation in Section 3 of the chapter also shows, Burkina Faso, Tanzania and Zambia have been implementing JSRs and agPERs for a long time and are therefore expected to have stronger MA processes and mechanisms that are consistent with the CAADP principles (see Table 7.1).

It is possible though to have good MA processes and mechanisms in place irrespective of whether CAADP is being implemented or not. However, as the Malabo Declaration is being implemented within the

framework of CAADP, it is important to define the MA indicators and scores accordingly. Otherwise, perverse results such as shown in Tables 3 and 4 can undermine the motivation for adopting the CAADP MAF and adopting the recommended best practices. As Table 7.4 also shows, there is no reward or positive score for reporting progress on an indicator, except when the progress surpasses the minimum threshold (see I 7.1 in Table 7.4). Thus, although all the veteran CAADP-implementing countries did report on indicator I 7.1, they received zero scores like some of the non-CAADP implementing countries that did not report anything. Since reporting is important for learning, such scoring could undermine effort for having a comprehensive database on all indicators.

Table 7.4: Summary of CAADP BR scores and performance in mutual accountability for selected countries by stage in CAADP implementation, 2015–2016

	T-score	C-score in performance category			Progress in indicators		
	PC 7	PC 7.1	PC 7.2	PC 7.3	I 7.1	I 7.2	I 7.3
Malabo target	n.a.	n.a.	n.a.	n.a.	63.0	100%	100%
Yet to start CAADP							
Botswana	6.52	0.0	10.00	9.56	n.d.	100.0%	95.6%
Mauritius	5.39	0.0	9.17	7.02	60.0	91.7%	70.2%
Morocco	9.89	10.0	10.00	9.67	68.1	100.0%	96.7%
Namibia	6.16	0.0	8.89	9.58	n.d.	88.9%	95.8%
Advanced in CAADP							
Burkina Faso	5.55	0.0	6.94	9.70	58.6	69.4%	97.0%
Tanzania	5.39	0.0	6.67	9.50	61.6	66.7%	95.0%
Zambia	5.11	0.0	5.56	9.77	48.0	55.6%	97.7%

Source: AUC (2018).

Notes: PC 7.1 = increasing country capacity for evidence-based planning, implementation, and M&E; PC 7.2 = fostering peer review and mutual accountability; PC 7.3 = conducting a biennial agricultural review process; I 7.1 = index of capacity to generate and use agriculture statistical data and information; I 7.2 = existence of inclusive institutionalized mechanisms and platforms for mutual accountability and peer review; and I 7.3 = country BR Report submission. Range of scores is 0 to 10; n.d. = no data.

The fundamental hypothesis of CAADP is that it brings benefit by reforming evidence-based planning and implementation, rooted in the principles of country ownership, inclusiveness, and MA, among others. Because it takes time to secure stakeholders' buy-in of the various CAADP principles and processes, and for the principles and processes to be institutionalized, capturing a time dimension of the process will be an important feature to capture in the MA indicators. For example, the cumulative

number and quality of JSRs undertaken before the review (as shown in Table 7.1), for example, may be used as the starting point to measure progress or calculate the MA score. Similarly, there is a need for consistency in how lower level indicators and scores are aggregated to obtain a higher level score, considering the importance of different indicators or commitments in transforming agriculture, increasing incomes, reducing poverty, and improving food and nutrition security.

Conclusions and Implications for Strengthening National M&E Systems

In adopting the 2014 Malabo Declaration on Accelerated African Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihood, which encapsulates CAADP from 2003, African leaders made a commitment to mutual accountability to results and action, which is expected to help them stay on track to implement their vision and strategies. Since the launch of CAADP,

MA processes and mechanisms have been put in place, starting with the development of the CAADP MAF and followed by agriculture JSRs and supporting infrastructure (e.g., CAADP M&E and public expenditure reviews). As opposed to previous MA processes and mechanisms, the current ones have been more inclusive and involved multiple stakeholders, including state and non-state

actors. Consistent with the theory and findings from other studies, these achievements seem to have stimulated a drive by stakeholders to start taking review results seriously by drawing action plans, which may have led to improvements in agriculture sector performance. Then in January 2018 at the 30th ordinary session of the AU assembly in Addis Ababa, the first CAADP BR report and the AATS was inaugurated, a commendable achievement in Africa's renewed quest for pursuing an agriculture-led development agenda.

A total of 47 of the 55 (85%) AU member states submitted country BR reports and data that were used to produce the continental BR report and AATS. Of the 47 reporting countries, 20 (42%) were assessed as being on track to achieving the Malabo commitments by 2025. Whereas Eastern and Southern Africa, out of the five regional groupings, were assessed as being on track, Africa as a whole was not. Furthermore, correlations between progress in MA and progress in outcome indicators were mostly near-zero and statistically insignificant.

Several challenges and issues in existing MA process and mechanisms, including the BR process, were identified: weak agricultural monitoring and evaluation systems; poor data quality; reporting based on country self-assessment; and narrow stakeholder platforms for review and dialogue; limited capacity and awareness, among others. These observations

raise a fundamental question about how to improve and enhance the capabilities of governments to implement the vision and strategies that will deliver quick results and foster long-term agricultural growth and transformation in the continent.

Based on the lessons learned from the JSRs and inaugural BR, in-depth assessment of national statistical systems with respect to the BR data demands will be critical. Results of the assessment can then be used to devise a plan to strengthen institutional and human capacity of institutions involved in data collection and analysis for the BR report. It will be important for this to be done around the country's main statistical agency, with the notion of going beyond the ministries of agriculture. Where possible, having a BR desk within the main statistical agency, as is typical with having sector desks within ministries of finance, may be useful. Before drafting the BR report, the database to be used must first be reviewed for coherence and consistency by an in-country independent technical committee. In addition, the process should be linked to a formal country agreement where all the key stakeholders make commitments to which they are held accountable and expectations of non-state actors are set out in such a way that the government and all parties will have no incentive to renege on their policy commitments.

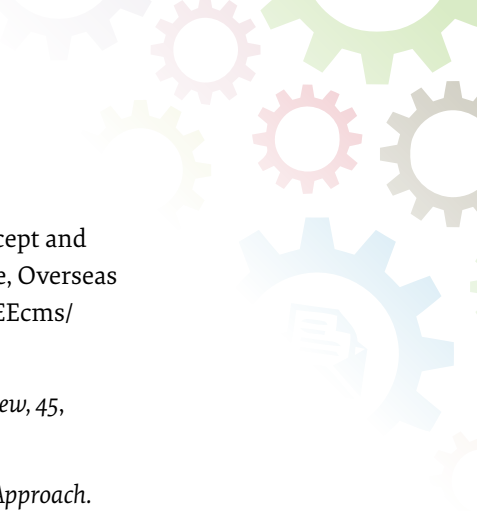
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Appendix

Appendix Table 7.1: AUC and NEPAD guidance on best practices for the Joint Sector Review (JSR)

Action item	Existing best practice
JSR Steering Committee (SC)	SC provides strategic direction for the establishment and operation of the JSR. It is usually chaired by the Ministry of Agriculture and includes as members leading donors and 3–4 other representatives of key stakeholder groups
Existence of JSR Secretariat	Secretariat coordinates activities and operations of the JSR and JSR SC. It can be made up of core staff from the Planning & M&E Unit of the Ministry of Agriculture.
Existence of JSR Terms of Reference (TOR) for the JSR	TOR to lay out JSR objectives, state and non-state stakeholders and their roles, roles of the SC and Secretariat, operating principles, structure and frequency of JSR meetings and follow up and implementation of actions, etc. TOR may also need to be developed for consultants hired to conduct JSR studies.
Resources are mobilized	Mobilize resources (human and financial) to support operations of the JSR.
Steering Committee/ Secretariat invites a broad and inclusive group of state and non-state actors/ stakeholders to participate in JSR	A key aspect of the JSR is that it allows broad group of state and non-state stakeholders to influence overall policies and priorities of the sector by assessing how well they have implemented their commitments stipulated in the CAADP compact, National Agriculture and Food Security Investment Plan (NAFSIP), and related cooperation agreements such as under the New Alliance for Food Security and Nutrition.
Existing agricultural policy dialogue and review processes; data quality and analytical capacities are assessed	An assessment of any existing agricultural policy dialogue and review processes, data quality, and analytical capacities and tools and networks and any existing knowledge systems is key to identifying any gaps and coming up with ways to fill gaps and enhance capacities, tools, and processes through the JSR.
JSR studies/analysis conducted	Consultants may need to be hired and supervised by the SC to conduct JSR studies. Consultants can come from think tanks, universities, or private companies and should work closely with staff from the Planning Unit, and the JSR SC and Secretariat.
JSR Review Team established	Team made up of a multi-stakeholder group (state and non-state actors) with technical expertise to review and comment on various aspects of the JSR report



Action item	Existing best practice
JSR report prepared	Preparing evidence based on relevant high-quality studies and reports on the JSR content areas. To be an effective mutual accountability process, the JSR report will need to be grounded in high quality data and analysis as well as transparency and inclusive stakeholder participation.
JSR meeting conducted	Organize meeting over 1–3 days, using various formats (plenary discussions, small groups, field visits, etc.) to allow stakeholders to discuss or verify the evidence and recommendations presented in the JSR report. This can be done at different levels (national and sub-national). The process should assist in identifying sector priorities and policies and specific actions for the different stakeholders to put in place. These would be captured in a JSR Aide Memoir.
There is follow up on JSR meeting actions	Closely monitor and ensure implementation of recommendations and decisions of the JSR meeting (embodied in the JSR Aide Memoir). Groups that meet more regularly such as the Agriculture Sector Working Group can help with follow up and monitoring. The monitoring forms the basis of the next JSR cycle.
JSR experiences are shared with other countries	As many countries are still setting up JSR, it is essential to share lessons, best practices, and experiences to further strengthen country JSRs. Forums such as the CAADP Partnership Platform (PP) and ReSAKSS Annual Conference provide an opportunity to do this.

Source: [http://resakss.org/sites/default/files/JSR-Best-Practices/JSR%20Best%20Practices%20Matrix%20\(March%202014\).pdf](http://resakss.org/sites/default/files/JSR-Best-Practices/JSR%20Best%20Practices%20Matrix%20(March%202014).pdf)

Appendix Figure 7.1A: Example of the ALMA scorecard for accountability and action, 3rd quarter of 2017

Country	Commodities financed			Financial control		Monitoring and Management		Implementation		Impact		Funding					Tracer indicators for maternal and child health				
	LINRS financing 2017 projection (% of need)	Public sector RDT financing 2017 projection (% of need)	Public sector ACT financing 2017 projection (% of need)	World Bank rating on public sector management and institutions 2016 (CPA Cluster D)	Insecticide classes with mosquito resistance confirmed since 2010	Insecticide Resistance Monitoring and Management (Nov 2015 - June 2016)	Scale of Implementation of ICCR (2016)	Operational LINRS coverage (% of at risk population)	Estimated malaria incidence (2015-2016)	Global Fund Allocations - Malaria (2017-2019)	Estimated % of Total Population living with HIV who have access to antiretroviral therapy (2016)	Estimated % of children (0-14 years old) living with HIV who have access to antiretroviral therapy (2016)	% deliveries assisted by skilled birth attendant	Postnatal care (within 4 hrs)	Exclusive breastfeeding (% children < 6 months)	Vitamin A Coverage 2014 (2 doses)	DPT3 coverage 2016 (recorrection among 0-11 month olds)				
Angola	95	100	100	3.3	3	4	3	53	\$26,896,141	21	14	50	73	38	6	60					
Benin	99	100	100	3.3	4	4	100	89	\$3,262,878	57	31	77	73	41	99	63					
Botswana	100	100	100		1	1	100	89	\$1,287,500	83	60	95	20	20	70	65					
Burkina Faso	100	65	87	3.5	4	4	100	▲	\$9,228,889	60	24	66	12	50	98	91					
Burundi	100	74	82	2.4	3	3	▲	▲	\$36,656,018	61	26	65	19	63	69	96					
Cabo Verde	100	100	100	3.8	0	0	93	93	\$691,100	57	65	99	65	28	96	96					
Cameroon	80	82	100	3.0	3	3	100	100	\$6,454,364	37	18	65	65	28	96	85					
Central African Republic	100	62	100	2.2	3	3	100	100	\$7,097,648	24	17	54	34	34	34	54					
Chad	86	51	47	2.7	2	2	100	100	\$3,769,221	39	13	34	13	1	86	78					
Comoros	100	100	51	2.7	0	0	100	100	\$4,098,185	35	82	82	45	12	14	91					
Congo	0	40	31	2.5	2	2	100	100	\$12,660,940	23	24	94	80	33	99	73					
Cote d'Ivoire	100	100	95	3.2	4	4	100	100	\$11,117,115	41	26	59	70	12	99	96					
Democratic Republic of Congo	100	100	100	2.5	3	3	100	100	\$347,651,023	42	29	80	45	45	99	92					
Djibouti	100	100	100	2.7	2	2	100	90	\$2,731,792	26	9	97	12	12	68	68					
Equatorial Guinea	75	5	4	2	2	2	▲	31	0	42	15	68	44	7	33	33					
Eritrea	100	100	100	2.5	2	2	100	100	\$21,554,342	59	33	34	28	69	49	95					
Ethiopia	100	100	100	3.5	4	4	100	100	\$126,840,218	59	34	28	17	58	71	96					
Gabon	0	0	0	3.6	0	0	9	3	0	63	38	89	53	6	75	75					
Ghana	100	100	100	3.6	4	4	95	95	\$11,531,421	34	15	74	81	52	23	93					
Guinea	100	100	100	2.9	3	3	56	56	\$56,663,302	35	18	43	37	21	66	66					
Guinea Bissau	100	100	100	2.2	0	0	▲	70	\$1,573,379	33	14	46	48	53	98	68					
Kenya	100	100	100	3.4	4	4	100	100	\$63,225,487	64	64	92	53	61	28	78					
Liberia	100	100	100	2.9	3	3	100	100	\$36,265,149	19	10	81	71	55	0	92					
Madagascar	91	100	99	2.8	3	3	98	98	\$52,000,000	5	2	44	45	42	99	93					
Malawi	100	100	100	3.2	3	3	100	100	\$30,870,374	66	48	95	38	61	41	84					
Mali	100	100	100	3.0	4	4	35	21	\$4,991,600	35	23	60	58	33	69	73					
Mauritania	100	100	100	3.3	0	0	87	87	\$8,616,615	23	23	64	57	41	89	86					
Mozambique	100	100	100	3.2	4	4	100	100	\$167,870,339	54	38	54	34	41	99	96					
Namibia	100	100	100		0	0	74	74	\$1,922,654	64	66	98	65	49	99	92					

KEY: TARGET ACHIEVED OR ON TRACK PROGRESS BUT MORE EFFORT REQUIRED NOT ON TRACK NOT APPLICABLE COUNTRIES WITH A MALARIA CONTROL/ELIMINATION SCORECARD

NO DATA ▲ INCREASE SINCE LAST UPDATE ▼ DECREASE SINCE LAST UPDATE ▶ WITH THE SUPPORT OF RBM PARTNERS ▶ PRODUCED BY WHO ON BEHALF OF ALMA

Notes: Only first 29 countries are shown. Source: (ALMA, 2018)

8

Conclusion

John W. Mellor¹

Since 1980, agricultural productivity across sub-Saharan Africa has increased annually by less than 1% on average. Population has grown at between two and three times that number. Poverty has increased.

However, considerable variation exists among countries in the wake of structural adjustment programs in the 1980s and 1990s, including conflict and political instability, and other macroeconomic shocks such as decline in commodity prices. Rwanda and Ethiopia, now considered successes, experienced declines in agricultural productivity over the 20-year period from 1980 to 2000 before increasing their agricultural productivity over 50% and 100% respectively in the following 2 decades. There are now stirrings of concern in a range of African countries about agriculture and its place in national development.

The African Union (AU) provides a continually evolving blueprint (CAADP) for creation of national agricultural development plans stating the requirements for the accelerated growth to drive agricultural transformation. AGRA in successive annual reports and practical experience has further developed what needs to be done. A few African countries, most notably Ethiopia, have developed and successfully implemented detailed national plans explicitly based on CAADP and have consequently achieved rapid agricultural growth and large-scale reduction in poverty.

This report is concerned not with what is to be implemented, but how implementation

is to occur. What are the components and sequences of action to achieve the objectives of the plans? It has been a common criticism of African governments that they have failed to implement plans, policies and investments for agricultural transformation. This report deals with the set of implementation issues.

For this purpose, AGRA commissioned six scholarly papers to inclusively analyze the key elements of implementation and conversely the reasons for failures in implementation. They comprise the core of this report. Chapter 2 covers the essential political will for implementation of the strategy and plan. Chapter 3 analyzes the essential starting point: the formal vision, strategy, priorities, and plan. Chapters 4 and 5 treat the many government institutions that must be mobilized to implement the vision and strategy. Chapter 6 deals with the inevitable issues of coordination of diverse efforts spread over many ministries and departments and outside government as well. Chapter 7 analyzes the issues of accountability, emphasizing the CAADP record on accountability for the CAADP based efforts. How are the implementation efforts to be judged and improved? Chapter 8 then summarizes actionable efforts for implementing the agricultural transformation with all its benefits.

It is implicit in this analysis that the objective is a rapid rate of growth of agricultural output. The agricultural transformation is meant to provide the conditions for achieving that rapid growth. CAADP states a 6% growth rate for agriculture. Such a high rate is

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essential given the rapid rate of population growth in African countries.

Per capita growth lies behind the contribution of agriculture to major societal objectives. The growth rate for agricultural output must be markedly faster than the population growth rate, hence the focus on achieving a 6% growth rate. Implementation of measures to achieve that high rate of growth is the focus of this report.

Agricultural growth is implemented by farmers and small-scale commercial farmers are central to that effort. The small-scale commercial farmer is defined as above the subsistence level but not so large and urban-oriented as to disconnect from the rural scene and the sources of rural poverty. They produce 85% of the agricultural output and are commercial (they sell a major portion of their output and purchase inputs), and have sufficient income to take risks and provide a portion of capital requirements.

The smaller subsistence and below subsistence operators are many, but produce less than 10% of agricultural output. A major share of their income derives not from farming but from non-farm sources and they are substantially focused on that source of income.

Large-scale urban consumption oriented farmers produce less than an additional 10%. Neither they nor the subsistence farmers should be excluded from participation in growth, but the focus is on the production dominant small-scale commercial farmer, currently neglected, with specific requirements for growth.

In many African countries a substantial share of rural households do not have land and make their living by producing and selling a range of non-farm goods and services. These are almost entirely sold in the rural areas


with the prime market being the small-scale commercial farmer. For analytical purposes, the subsistence farmers are lumped with these households. Poverty is reduced when the small-scale commercial farmer increases agricultural production and income, and spends, as is typical, on the order of half of that incremental income on the rural non-farm sector (Mellor 2017.) Producing more of those goods and services increases income in that sector and lifts them out of poverty. That sector includes the bulk of the poor, explaining the standard finding of agricultural growth as the prime source of rural poverty reduction.

It follows that a simple average of all landholdings, most common in the literature (e.g., Collier & Dercon, 2014), is grossly misleading. It provides the basis for the erroneous but common view of production dominance by subsistence size holdings, quite inconsistent to the production of the bulk of output by the small-scale commercial farmers. That leads to the erroneous suggestion that the future of growth lies with large-scale farms that comprise a very small proportion of the farmed land.

The core of this report is six chapters carefully chosen to reflect the dominant effect of their substance on the agricultural transformation. The authors were as carefully selected for their breadth and depth of knowledge of that subject matter area. The following sections place the content of each of the six ensuing chapters in their relation to each other and to the objective of the report. This is followed in a final section drawing of conclusions across that set.

Chapter 2. Fostering Political Will to Drive Agricultural Transformation

Political will describes the commitment of major political figures in support of



government actions to accelerate agricultural transformation and growth. Without that commitment the agricultural transformation will not occur. Political will is especially important for agricultural transformation because of the predominant role of public sector investment, institutions, and policy in that sector. Agricultural growth depends on large and decisive government actions and hence requires political will.

Lack of political will for making the various requirements of achieving agricultural growth central to their approach to governance is endemic in African countries. It is the underlying cause of poor progress in agricultural growth and hence of poverty reduction.

Prime examples of lack of political will for agricultural transformation are the urban bias documented by Lipton (1989), the heavy taxation of agriculture documented in many publications, particularly including those of the World Bank, and widespread failure to meet the CAADP calls for 10% of government budget to agriculture, or the 1% of agricultural gross domestic product (GDP) to be spent on agricultural research. A sign of change is the now widespread abandonment of the deleterious taxation policies—mainly under the pressure of measurement and documentation of the harmful effects in World Bank and other publications.

Brinkerhoff (2010) as cited in Chapter 2, identifies nine aspects of political will: (1) government initiative (not largely non-government sources); (2) development and implementation of a national plan (which has the backing of the Head of State); (3) choice of policies and programs (based on economically sound criteria); (4) mobilization of stakeholder support of policies (efforts to mobilize support); (5) public commitment

and allocation of resources (formal statement of policies and commitment of resources); (6) investments and reforms to strengthen implementation capacity (e.g., in the area of procurement and human resource management); (7) application of credible sanctions (to ensure difficult to achieve programs are implemented); (8) continuity of effort (recognition of need for long-term efforts); and (9) learning and adaptation (demonstration of ability to adapt to changing circumstances).

In practice, measurement of political will has concentrated on the easily derived CAADP stated 10% of government budget to agriculture. By that measure, none of the regions of Africa met the target and, on average, were less than half. Although the measure seems reasonable, it is notable that Ethiopia, a major success story in agricultural growth rate, also fell short of meeting that target.

Because of the importance of public sector research an alternative measure of political will is the extent to which the CAADP target is reached of 1% of agricultural GDP spent on research. Only 6 of 36 African countries surveyed met that goal. On average, the percent allocation has declined since 2014, suggesting decline in political will.

To summarize, political will towards agricultural transformation has improved very little in Africa over the past few decades and remains far less favorable than in Asia. There are hints that the situation is beginning to turn.

What to do about this? Obviously, when the Head of State shows an interest in moving towards transforming agriculture donors should respond vigorously. This should include increasing support for the key government institutions in agricultural

transformation—research/extension and planning.

Without that move by the Head of State, donors need to search out the ever-present national proponents of government orientation towards agriculture and support them with the burgeoning literature on the broad impact of accelerating agricultural growth. Universities will always have scholars interested in agriculture and they need to be supported, with conferences, travel grants, and direct research support. Foreign researchers should also be supported as they ally with national researchers. Support for rural infrastructure is always helpful. All this prepares the way for eventual change towards a positive approach to agriculture at which point donors can weigh in directly.

These must seem weak recommendations, given the central requirement of political will if the agricultural transformation is to be pursued. However, that is simply recognition that political will must come from within the national elites. It cannot be imposed from outside.

Chapter 3. Securing a Strong Country Vision, Strategy, and Prioritized Plans and Flagships

Implementation begins with a vision, leading to strategy and hence a basis for a plan and setting priorities consistent with the limited resources. While the vision tends to be maintained over time, the strategy and priorities that follow from the vision are adaptable and ever-changing with conditions including those that follow implementation.


Agricultural transformation is not a product solely of the ministry of agriculture. It is shaped and implemented through several ministries and many non-governmental institutions. That requires a vision, strategy,

and implementation measures that are economy wide. This, in turn, requires that the Head of State be the source of the vision and strategy and provide the required national leadership. Agricultural transformation is an economy-wide effort with large-scale economy-wide benefits. If seen as solely an effort of a ministry of agriculture, it fails.

Vision comes from the mindset of elites. Elites are not just in government. Elites come from across the society: government, the legislature, business leaders, non-governmental public sector leaders, and farmers. It is their mindset—in other words the way they think and the way they choose to act—within the context that they live in day-to-day that determines vision. Of course, the vision must be popularized if it is to be implemented. Strategy is the path followed for implementation of the vision. That path must be consistent with the realities of the institutional structures, capabilities and development context.

Agricultural transformation is only possible if the elite of a country and the Head of State genuinely view it as central to their political agenda. A country's elite needs to see it as central to their broader development view; providing that broader view is an important entry point for implementing change.

The elite may well have a vision constrained by limited knowledge of the full ramifications of accelerated agricultural growth. This weakens their ability to obtain a broad following for their vision. The broad range of academic studies is important in bringing to the elite a full understanding of the immense impact of an agricultural transformation. It is much more than feeding people. Unfortunately, much of the foreign aid community is also deficient in this knowledge with consequently impaired impact. They



often see agriculture as simply meeting the need for food for a growing population. That simple need can be met by imports, but the full range of effects of an agricultural transformation cannot be met in this way.

Ethiopia's Prime Minister Meles Zenawi came to office in 1993 with a vision and key elements of strategy developed from books (as a leader of guerilla forces he had one horse to ride and one for his books—a true intellectual!) and honed by years of living in rural areas, interacting with rural leaders. One of those books was entitled Agriculture on the Road to Industrialization.

His strategy was Agricultural Development Led Industrialization (ADLI). As a guerilla force leader, he required support from the local leaders comprised largely of the small-scale commercial farmers that are the focus for accelerated growth. The vision was sold to the country. Prime Minister Meles' task in Ethiopia was likely facilitated by the relatively strong infrastructure and dominant one party political structure. Selling the vision was facilitated in rural areas by 63,000, later growing to 93,000, rural extension workers. In a similar manner, in 2007 Morocco's leadership provided a vision and strategy for broad-based agricultural transformation.

The varied national context within which strategy is implemented is rationalized by country typologies. These accommodate differences in institutional structures, the relative strength of public and private sectors, and types of political relationships. The key elements of typologies are the type of political settlement and patronage networks, the economic structure and scale of value adding private sector, and the level of institutional and human capacity. Implementation must recognize the quite different country

typologies for each of these elements and adjust accordingly.

When the implementation structure and institutions are weak, as is the norm in African countries, special efforts are needed to mobilize foreign aid, foreign institutions, and national support to strengthen those institutions and manage in the face of weakness.

As implementation proceeds, the focus must shift from simply meeting numerical targets such as 10% of government expenditure on agriculture to attention to the quality of that expenditure. Meeting the 10% target with low quality effort is not likely to succeed in meeting the objectives.

In summary, developing effective links between policy and budgeting is necessary. More important is to harness political capital to reforming public budget architecture in favor of rural and agrarian transformation.

Lack of democratization looms large when it comes to explaining (and hence diagnosing implementation needs) lack of political will to pursue agricultural transformation,. Political competition increases the attention to agricultural growth and hence to the extent of discrimination against agriculture on such items as taxation. Although increasing, democratization change has still been too small to allow much impact on the overall level of support for agriculture. However, there does appear to be change in favor of more democratization, hence political competition and hence more favorable policies towards agriculture. Farmers comprise a major share of households in low and even in middle income countries, leading to more emphasis on agriculture when votes matter.

Those who wish to increase political will for agricultural transformation can pursue several avenues. Most important is strengthening farmer organizations. While organizations of large-scale farmers are common, strong and influential, organizations of small-scale commercial farmers are virtually non-existent and their lack reduces the potential importance of the large population of such. Other approaches such as promoting policy-based research are less direct and less likely to succeed on their own but play an important role when other forces are brought into play. Conditioning foreign aid on increased national resources to agriculture is a substantial alternative, although foreign aid agencies seem rarely to do so.

In conclusion, democratization in the natural course of events shifts political will towards agricultural transformation. African countries seem to be moving slowly in that direction. In this context, foreign aid could condition aid to reinforce that tendency. It is notable that foreign aid to Asian countries resulted in substantial development of critical public institutions for accelerated agricultural growth, ready for when the context changed.

It is equally notable that foreign aid has not, in recent years, played that role in Africa. When foreign aid was doing so much to assist Asian countries agriculture, it was doing likewise in a few African countries, notably Ethiopia and Nigeria. In these countries, the foreign aid assisted agricultural universities to continue to graduate the agricultural elite and provided the core of national support for the agricultural transformation. By the time other African countries were ready for this influence it had largely receded from foreign aid priorities.

Chapter 4. Agribusiness Enabling Environment for Agricultural Transformation

Agribusiness is an important part of structural transformation of agriculture and governments have a substantial potential to assist in filling that role. African countries as for much of agricultural growth lag well behind Asian countries in their government assistance to agribusiness in fostering agricultural transformation. This assistance cuts across the full set of institutions.

Four basic principles underlie the role of government in assisting growth of agribusinesses. First, is sound macroeconomic policy. Second, is permissive rather than prohibitory policies towards the private sector. Third, is the government not entering directly in the provision of agribusiness goods and services. Fourth, is provision of infrastructure with intensity and wide geographic coverage. Providing infrastructure requires substantial resources.

Several African countries commit the third error. For a substantial period, the focus was on the close to universally negative policies for agribusiness growth in the area of macro policy. Many years of focus including numerous studies documenting and measuring the negative impacts has provided a more favorable macro policy environment in most African countries. This has served to illuminate the current importance of the other three principles.

A major survey of agribusinesses across 11 African countries provides the bulk of the evidence cited throughout this chapter. The survey shows an external environment quite unfavorable to agribusiness, providing a major reason for the low growth rate of the agribusinesses for achieving the

economic transformation. Most required is transparency and efficiency in operation of government institutions related to agribusiness. The current context throughout Africa is poor. Implementation requires a country by country analysis of these unfavorable features and change in a positive direction.

Consistent with the bulk of this report, business leaders emphasized the importance of the public agricultural research and extension program. Business leaders recognized the output from these institutions as the dominant cause of accelerated agricultural growth, which they in turn saw as essential to the success of their business. Increased farm output strengthens agribusiness that in turn provides better service to market farm output and to supply production inputs. The business people also saw agricultural finance and taxation as a substantial underlying problem set that requires public sector action.

To summarize the business view, there is a consistent recognition that public actions and institutions are critical to growth of agricultural production that was in turn vital to the two-way relationship with the agribusinesses. The private sector business had views consistent with the emphasis in this report on public sector actions to drive the private agriculture sector: support research and extension at a high level, and ensure through government action that financing focused on the needs of the small-scale commercial farmer is available.

Business leaders had strong views about the need for a strengthened role for government—vision and strategy, provision of contexts in which business and government can interact for the benefit of the agricultural transformation and growth.

Several agencies have developed detailed plans and programs for the agribusiness sector. Prominent among these is AGRA through implementation of the Micro Reforms for African Agribusiness (MIRA) to provide African governments with access to high quality local and international technical assistance for identifying, prioritizing and reforming “problem” agricultural policy, laws, regulations and administration.

In summary, central to implementation of government opportunities and requirements for accelerated growth of agribusiness is organization of the businesses to articulate needs and to press government to meet those needs. Important in that process are the several non-governmental organizations (NGOs) which already focus on policy advocacy for agribusiness development.

Chapter 5. Implementation and Delivery Capacity for Agricultural Transformation

It is clear throughout this report that government institutions are essential to accelerated agricultural growth and transformation. To understand the current requirements for implementation of government efforts it is essential to understand the decimation of the required institutions in the context of World Bank structural adjustment policies of the 1980s and, subsequently. The major bilateral donors generally accepted these policies and reinforced them.

The salient feature was decimation of the public sector extension programs on the assumption that these functions were better carried out by the private sector. With widespread encouragement, the international and national NGOs filled this gap in only small geographic areas of the countries—nationwide efforts ceased. Concurrently, the

vital link between research and the farmer was lost as the NGOs generally did not link with the national research systems and did not carry farmer's problems back to those research systems. Note the contrast in the Ethiopian success involving a large number of rural extension agents.

While the national agricultural research systems were not decimated as much as the extension systems, their growth slowed and they were generally weakened. Similarly, foreign aid to African countries did not foster the growth of agricultural development banks, which were so central to their assistance to Asian countries. In Africa, the core group of farmers was largely left without access to financing on the scale required for the agricultural transformation.

Similarly, in this context each of the five sets of major institutional systems performed at a lower level than in the Asian countries in the earlier period. Central governments were left weak with low capacity to coordinate the wide range of activities. Local governments were in principle strengthened relative to central governments but faced a wide range of NGOs with little coordinating capacity. The private sector, where already well organized, was able to respond to the greater emphasis on that sector but most commonly this sector was initially weak and responded poorly. Small-scale commercial farmers were of course little organized and therefore lacked voice. Donors continued in a largely uncoordinated manner with some regions of a country covered with a multiplicity of sometimes competing programs while others were left largely untouched. Effective implementation of the agricultural transformation requires reversal of these policies. Reform of donor policies is essential. Following CAADP is a good start.

A country with a vision and a strategy and organized for action was able to benefit from

foreign aid in this context. Ethiopia benefitted substantially from foreign aid as it was fitted by the government, in large part at least, into a well-planned effort. Rwanda, starting later shows some of the same context. Generally, African countries were poorly motivated or organized to benefit. The few strong states worked the system the rest gained little or not at all.

Foreign aid has a natural highly productive role in building the key institutions for agricultural transformation. Their own institutions are the appropriate model and consistent with CAADP. The highest priority is to achieve sustained rapid growth in the agricultural research system and to ensure large fully-integrated extensions systems. A national agricultural finance system of the type fostered by donors in Asia is equally essential in Africa, but has not been pursued by donors. Generally, ministries of agriculture need strengthening throughout the key departments and building a planning department is a key element.

Implementation is essential to building and refocusing government departments and requires a strategy and a plan and explicit statement of the role of government departments, and the need to restructure such departments to fulfill the plan. That must be done in a context of a paucity trained personnel and a consequent need to provide training to enlarge that group at all levels.

Chapter 6. Enhancing Coordination in the Agricultural Sector

Previous chapters demonstrated a wide range of agencies and institutions involved in transforming agriculture. Their size and interactions require coordination. That requires, initially, a coordinating agency. Eventually the need for such an agency will decline and coordination will take place

directly between the multitude of required partnerships.

Agricultural transformation with its many benefits requires large efforts not only in ministries of agriculture but across many ministries, across the public and private sectors and from diverse foreign donor agencies. In low and middle income countries, particularly those in Africa, this occurs in a context of little experience of diverse agencies cooperating on complex tasks. Consequently, when government makes a major commitment to agricultural transformation it creates an agency to coordinate the diverse efforts across ministries, private sector, and donors.

Countries that prioritize agricultural transformation not only must develop those wide ranging oversight capacities, but given their placement in a wide range of ministries and other institutions, they need to develop coordinating mechanisms. In the long run, each of the many institutions will coordinate themselves leading to overall coordination. In the short and intermediate run, a coordinating agency will be seen as necessary. Such an agency will have high-level support, normally the Head of State, and will be seen as an interagency department housed in the Head of State's office or possibly the finance ministry or planning ministry.

These coordinating bodies go by a multiplicity of names, but they have a common commitment at the highest level of government. The Prime Minister or President plays a key role. An agency will be created of substantial size and budget with representation from a wide range of public and private bodies and from the international donor community.

To illustrate the complexity and a range of approaches, case studies of coordinating agencies are presented for three countries

chosen because they have a strong track record in this regard. Uganda had its Plan for Modernization of Agriculture; Kenya had the Agricultural Sector Coordinating Unit; and Rwanda its Agriculture Sector Working Group for Coordination of the Sector Plan for Agricultural Transformation—similar titles, same functions, very similar structures. In each case, the Prime Minister played a central role. In some cases, a donor agency also had a central role, as co-chairperson, and was always represented. In each case, there was explicit buy-in from all the agencies involved.

Donors often play a major role in seeing the need for such an agency, helping to create it, and in its financing. However, success requires a clear commitment by the government and substantial broad-based support. Typically, the composition of the coordination body is of high-level representatives from each of the major components. However, with the passage of time, those agencies with modest personnel commitments to the agricultural transformation effort reduce the level of representation and with that, their participation gradually recedes. Donors, while fostering the coordination body, frequently drift off into freestanding programs they support that are not well coordinated. That is probably a natural effect.

The eventual declining importance of a formal coordinating body is also a normal and desirable course of events. To begin an agency is needed to ensure coordination, as time passes civil servants see their specific functions in coordinating specific elements that are in their purview and do so. The process gets institutionalized within the existing framework.

The core of action on coordinating bodies is a capacity, including financing, for ad hoc studies of specific aspects of the agricultural

transformation effort, with specific recommendations for improvement. In essence the coordinating body with its broad representation diagnoses problems, delineates an approach to studying and recommending solutions, and ensures that the studies are effective.

Chapter 7. Mutual Accountability in CAADP and Agricultural Transformation

Accountability is a process by which individuals are held responsible for commitments they have made. All social systems demand accountability. It starts with explicit goals and commitments, a monitoring process, and debate and negotiation in response to the monitoring. Because CAADP, as discussed throughout this monograph, is central to implementation of African agricultural transformation it is logical to emphasize the CAADP efforts at accountability. The signing of an agreement ensures the accountability processes. Accountability brings a major benefit of popular legitimacy and hence support to public progress.

The African Peer Review Mechanism (APRM) of the NEPAD Agency was among the early initiatives that sought to subject African governments to a peer-to-peer review. The aim was to foster the adoption of policies, standards and practices that would yield political stability, high economic growth, sustainable development, and sub-regional economic integration.

Within the same spirit, NEPAD advocated for a process of mutual review of development partners in terms of their commitment to Africa. The understanding was that APRM would have positive benefits to those countries that would subject themselves to the process (Hope, 2005) For example, the

good governance and democratic principles explicit in APRM were generally found to be beneficial to development (Tavares & Wacziarg, 2001) with some authors such as (Zack-Williams, 2001) pushing the argument further to equate democratic governance as a *conditio sine qua non* (indispensable, essential condition) for development.

The CAADP Joint Sector Review approaches accountability broadly with sector wide approaches. It is managed to ensure full national acceptance of the process. A scorecard is generated to provide comparability across regions and countries and approaches. The process involves a complex system of approvals, culminating in a final review and generation of the final report. Donor programs are also analyzed and reported. The systems lack of explicit enforcement mechanisms is often cited as advantageous, leading to broad acceptance. The key to broad acceptance is national commitment rather than enforcement mechanisms.

The scorecard has many items. That is sensible since numerous features are involved in a successful program. The scorecards show substantial success—63% of reporting countries in committing to CAADP principles; and 30 of 32 countries on track to mutual accountability commitments. Somewhat over half of the countries report meeting Malabo commitments. However, all the foregoing is the product of the many items on the scorecard. It is like projects with many objectives, a majority of which are easily achieved, giving the impression that all is well, when the few key items are poorly represented in the list of successes.

Thus, when we turn to the final product measures in CAADP—a 6% agricultural growth rate; 10% of government revenue to agriculture, and 1% of agricultural GDP

allocated to research—the conclusion is that no more than a small handful of countries meet these targets. The multi-item measure is useful in bringing out the specifics of

response. But it is not an appropriate measure of the degree of success to be expected in attaining the objectives.

Summary of Priority Areas of Implementation to Strengthen Government Capacity to Drive the Agricultural Transformation

Foreign aid tends to have a poverty reduction orientation. Agricultural growth is consistently shown to be the most important driver of poverty reduction particularly rural poverty. Thus, foreign aid is commonly on the side of pushing generally urban oriented African governments towards greater emphasis on the rural sector and specifically on agriculture. This summary focusses on how foreign aid programs can strengthen government capacity to implement agricultural transformation and thereby drive rural poverty reduction. In practice, national institutions and pressure groups wanting to strengthen government capacity to implement agricultural transformation will take largely the same approach. The summary in that context follows the outline of the six main chapters of this report. It is divided into two sections. The first covers governments not committed to an agricultural transformation. For these, the concern is how to get them to make that commitment. The second covers governments that are committed to an agricultural transformation and how to assist them in that endeavor.

Government not committed to an Agricultural Transformation

Many African countries neglect the agriculture sector in their development planning. This is because the base of their political support is urban, perhaps a natural orientation of many political leaders to the

urban sector, and a view that they want their country to become modern and that modernization occurs in the urban areas not in the “backward” agriculture sector. It also appears rural development tends to lend itself less well than urban development to large corruption offtake. In addition, urban-oriented elites tend to not understand the potential for contribution to overall growth and to the economic transformation incident to development of the agriculture sector.

Of course, encouraging democratization and hence favoring increasingly democratic countries is the most powerful general approach to increasing emphasis on agriculture and the rural sector.

Changing the national focus requires identifying the groups within and outside of government with a predilection towards agricultural transformation. Although in the minority, they are generally a substantial force. Strengthening them is the efficient focus of foreign aid concerned with forwarding agricultural transformation.

Once identified, these groups need to be supplied with the considerable statements available of the full range of growth, poverty reduction, and urban diffusion benefits of rapid agricultural growth through agricultural transformation. Rich accessible literature exists that serves this purpose. This publication and the African Development Bank’s annual review for 2018 both provide

a solid base of information helpful to understand the relation between agricultural transformation and the larger goals of economic development. The most recent book length treatment of these issues is Mellor (2017). In addition, there is a rich research-based literature of details in numerous university and other sources. Foreign aid can be immensely helpful by assembling and distributing the literature, including foreign aid personnel providing oral versions. Seminars are an efficient means of pursuing this approach.

Assistance should be given to institutions analyzing agricultural growth. Universities and research institutes will always have a few key staff who understand and research aspects of agricultural transformation for their country. Research grants to those institutions and individuals strengthen the intellectual base for favoring priority to agricultural transformation and expand the base of knowledge to increase the effectiveness of measure to move agricultural transformation forward.

Government agencies central to agricultural growth should be strengthened, particularly the research/extension system that is crucial to progress, to prepare it to have an impact. This also enlarges a knowledgeable effective lobby for agricultural transformation.

All the above were favored in Asian countries that were initially no more oriented to agricultural transformation than contemporary African countries. But as the base was prepared, when the Green Revolution struck the systems were ready to respond with the essential complements and all governments touted the great success and then provided a favorable environment for continued efforts on agriculture.

These measures will have immediate effects on the rural sector and poverty reduction, though

not on the large scale that broad government priority would provide. More important they build the base of national support for an agricultural orientation to government policy. This paves the way for a large-scale effect at an appropriate time. Best be ready.

Foreign assistance to rural infrastructure is not likely to have much effect in swinging governments to broad support for an agricultural transformation, in part because the requirements are so large that foreign aid is such a small proportion of the need, and because the impact of rural infrastructure depends on a wide range of complementary activities to increase the farmer response. Of course when the government swings to emphasis on agricultural transformation all rural infrastructure investment proves valuable.

Similarly, integrated field programs, currently popular in foreign aid in Africa to accelerate agricultural growth in small areas of the country, will have little impact because of their limited geographic area coverage, the lack of the critical government institutions, and lack of will. They get lost rather than serving as models.

Development along the preceding lines creates a favorable environment, personnel, and lobby for agricultural transformation at such time as political support swings in that direction.

Government committed to an Agricultural Transformation

Where a government is committed to agricultural transformation foreign aid should be much larger than to governments which are not committed—this provides incentive for commitment. The first priorities are to:

Large-scale assistance to the national research system and integrated extension is a natural for major foreign assistance. This is the core of the public sector institutional input. Developed

countries have in their national systems the role models and the experience to be effective in such foreign assistance. This is the number one effort. Research is always under supported, requiring technical assistance to strengthen research including foreign training and foreign travel as well as experts from high income countries on both short and long-term arrangements. Tying this to PhD training is particularly desirable and should always involve research in the home country with the research advisor with fully adequate travel and research support. Each of these elements requires substantial finance. None are adequately emphasized in African countries. The effective approach to foreign assistance should be financed on a much larger scale than in the past. There is much experience with financing and linking high income countries universities with sister institutions in low and middle income countries. This is a highly effective form of aid and needs to be expanded well beyond the size of earlier efforts.

Support university and research institute research—what needs to be done and what is

being done need constant analysis to be relevant and effective. Agricultural transformation does not have a complex formula suitable to all countries without adaptation even though the key elements are known and are in common. Analysis of the national effort is a constant need.

Building the policy analysis capacity. This is usually grossly deficient and is important to the constant fine tuning of agricultural growth programs.

Technical assistance to specific technical areas in the private sector is highly effective, most notably in developing the private sector seed multiplication system. Building a government system for providing technical assistance in accounting and business management to the private sector is also likely to be a general need.

Effective implementation of agricultural development and transformation plans requires a wide range of institutions, staffed with trained personnel. Initially, there must be a central agency devoted to overseeing implementation.

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The Africa Agriculture Transformation Scorecard and Dashboard Overview

In 2003, African Union (AU) leaders adopted the Comprehensive Africa Agriculture Development Programme (CAADP) in Maputo, Mozambique, usually referred to as the Maputo Declaration. In June 2014, AU Leaders reiterated their commitment to the CAADP principles and values by adopting the Malabo Declaration on Accelerated Agricultural Growth and Transformation in Malabo, Equatorial Guinea. The Malabo Declaration has seven commitments. As part of this, the AU leaders requested the African Union Commission (AUC) and the NEPAD Planning and Coordinating Agency (NPCA) in collaboration with partner institutions to:

- (i) Develop mechanisms that enhance Africa's capacity for knowledge and data generation and management to strengthen evidence-based planning and implementation.
- (ii) Institutionalize a system for peer review that encourages good performance on achievement of progress made in implementing the provisions of this Declaration and recognize biennially exemplary performance through awards.
- (iii) Conduct on a biennial basis, beginning from 2017, an Agricultural Review Process, and start reporting on progress to the Assembly from its January 2018 Ordinary Session.

Responding to the call by the AU Heads of State and Government, AUC and NPCA translated the seven Malabo Commitments into seven thematic areas of performance:

- (i) Recommitting to the principles and values of the CAADP process
- (ii) Enhancing investment finance in agriculture
- (iii) Ending hunger in Africa by 2025
- (iv) Reducing poverty by half, by 2025, through inclusive agricultural growth and transformation
- (v) Boosting intra-African trade in agricultural commodities and services
- (vi) Enhancing resilience of livelihoods and production systems to climate variability and other related risks
- (vii) Strengthening mutual accountability to actions and results

The AUC and partners through wide consultations further defined these commitments within 23 performance categories and 43 indicators for the 7 thematic areas of performance. These were aligned to the commitments to evaluate country performance in achieving agricultural growth and transformation goals in Africa through the inaugural Biennial Review Report (BRR). The BRR presenting performance by member states for the period 2015–2016 was produced in 2017 and presented to Heads of State and Government at the AU Summit in January 2018 in Addis Ababa, Ethiopia.

At the presentation of BRR, the Assembly commended the positive response of member states in conducting self-assessments, carrying out an inclusive validation process, and providing information for the preparation of the inaugural report on their progress in

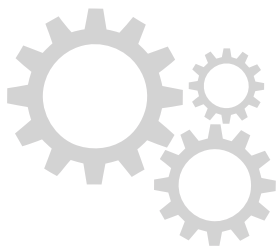
achieving common goals on agricultural transformation in Africa.

The BRR also contains Africa Agriculture Transformation Scorecard that offers a snapshot of the countries' performance per indicator. Throughout the process of developing the Biennial Review, AUC and NEPAD recognized the need to communicate the data and results of the Review in ways that would inspire lasting popular attention to African agriculture and trigger positive action by Heads of State and Government and policy makers. Based on this, the Ethiopian Agricultural Transformation Agency, the Bill & Melinda Gates Foundation (BMGF), AGRA and other partners along with a core group of Heads of State and Government led by the immediate former Prime Minister of Ethiopia, H.E. Hailemariam Desalegn, and other global champions worked with AUC and NPCA to develop a compelling communications and accountability tool to meet this objective.

Following consultations with partners and champions throughout 2017, a draft high-level indicator dashboard tool was developed using the BRR and populated with a subset of 18 of the 43 Biennial Review indicators.¹ This dashboard is modeled on the African Leaders Malaria Alliance, a successful accountability scorecard used in the African public health sector.

During the January 2018 AU Summit Prime Minister Hailemariam Desalegn noted that the summary dashboard using the traffic light indicator is under development to serve as a tool for Heads of State and Government to easily review progress against lead Biennial Review indicators and compare results across countries. The Heads of State dashboard was presented and adopted as an advocacy and communication tool at the 14th CAADP Partnership Platform in Libreville, Gabon, in 2018.

¹ These consultations began with a technical experts meeting hosted by the AU in Dakar, Senegal, in August. It was a meeting of select African Heads of State champions, hosted by the Ethiopian Prime Minister along with the AUC, NEPAD, and BMGF on the sidelines of the 2017 UN General Assembly, and a meeting of select global champions hosted by the Prime Minister and Bill Gates at the 2018 World Economic Forum in Davos, Switzerland.



Technical Notes

The following conventions are used in the Tables:
o or 0.0 = nil or negligible...or () data not available or missing

Sources of data as follows:

Population, total (millions)

Source: World Development Indicators, World Bank

Rural Population (% of total population)

Source: World Development Indicators, World Bank

Rural Population Growth (annual %)

Source: World Development Indicators, World Bank

Poverty Headcount Ratio at \$1.90 a day (2011 PPP) (%)

Source: ReSAKSS (Regional Strategic Analysts and Knowledge Support System).

<http://www.resakss.org/>

Ratio of agricultural exports to agricultural imports

Source: ReSAKSS (Regional Strategic Analysts and Knowledge Support System).

<http://www.resakss.org/>

Employment rate (% of population, 15+ years)

Source: ReSAKSS (Regional Strategic Analysts and Knowledge Support System).

<http://www.resakss.org/>

Agricultural ODA (% total ODA)

Source: ReSAKSS (Regional Strategic Analysts and Knowledge Support System).

<http://www.resakss.org/>

Agriculture Value Added per Worker (Constant 2010 USD)

Source: ReSAKSS (Regional Strategic Analysts and Knowledge Support System). 2018

Agricultural Value Added (% GDP)

Source: ReSAKSS (Regional Strategic Analysts and Knowledge Support System). 2018

Government Agriculture Expenditure (constant 2010 US\$, billion)

Source: ReSAKSS (Regional Strategic Analysts and Knowledge Support System). 2018

Government Agriculture Expenditure (% of agriculture value added)

Source: ReSAKSS (Regional Strategic Analysts and Knowledge Support System). 2018

Researchers, Government (FTEs)

Source: ASTI (Agricultural Science and Technology Indicators). ASTI database. International Food Policy Research Institute (IFPRI).

<http://www.asti.cgiar.org/>

Spending, Total (as a share of AgGDP, %)

Source: ASTI (Agricultural Science and Technology Indicators). ASTI database. International Food Policy Research Institute (IFPRI). <http://www.asti.cgiar.org/>

Spending, Total (million constant 2011 PPP dollars per million population)

Source: ASTI (Agricultural Science and Technology Indicators). ASTI database. International Food Policy Research Institute (IFPRI). <http://www.asti.cgiar.org/>

Researchers, Total (FTEs per 100,000 farmers)

Source: ASTI (Agricultural Science and Technology Indicators). ASTI database. International Food Policy Research Institute (IFPRI).

<http://www.asti.cgiar.org/>

Researchers, Total (FTEs per million population)

Source: ASTI (Agricultural Science and Technology Indicators). ASTI database. International Food Policy Research Institute (IFPRI).

<http://www.asti.cgiar.org/>

Population, Total (in Millions)

Country	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Angola	21.00	21.76	22.55	23.37	24.22	25.10	26.00	26.92	27.86	28.81	29.78
Benin	8.45	8.70	8.94	9.20	9.46	9.73	10.00	10.29	10.58	10.87	11.18
Botswana	1.91	1.95	1.98	2.01	2.05	2.09	2.13	2.17	2.21	2.25	2.29
Burkina Faso	14.25	14.69	15.14	15.61	16.08	16.57	17.07	17.59	18.11	18.65	19.19
Burundi	7.94	8.21	8.49	8.77	9.04	9.32	9.60	9.89	10.20	10.52	10.86
Cabo Verde	0.49	0.49	0.50	0.50	0.51	0.51	0.52	0.53	0.53	0.54	0.55
Cameroon	18.40	18.91	19.43	19.97	20.52	21.08	21.66	22.24	22.83	23.44	24.05
Central African Republic	4.28	4.35	4.40	4.45	4.48	4.49	4.50	4.52	4.55	4.59	4.66
Chad	10.78	11.13	11.50	11.89	12.29	12.71	13.13	13.57	14.01	14.45	14.90
Comoros	0.64	0.66	0.67	0.69	0.71	0.72	0.74	0.76	0.78	0.80	0.81
Congo, Dem. Rep.	58.42	60.37	62.41	64.52	66.71	68.98	71.32	73.72	76.20	78.74	81.34
Congo, Rep.	3.98	4.12	4.25	4.39	4.51	4.63	4.75	4.87	5.00	5.13	5.26
Cote d'Ivoire	19.09	19.50	19.94	20.40	20.90	21.42	21.97	22.53	23.11	23.70	24.29
Equatorial Guinea	0.83	0.87	0.91	0.95	0.99	1.04	1.08	1.13	1.18	1.22	1.27
Eritrea	4.15	4.23	4.31	4.39	4.47	..	..	..	..	..	..
Ethiopia	81.00	83.18	85.42	87.70	90.05	92.44	94.89	97.37	99.87	102.40	104.96
Gabon	1.49	1.54	1.59	1.64	1.70	1.76	1.82	1.88	1.93	1.98	2.03
Gambia, The	1.54	1.59	1.64	1.69	1.75	1.80	1.86	1.92	1.98	2.04	2.10
Ghana	22.70	23.30	23.90	24.51	25.12	25.73	26.35	26.96	27.58	28.21	28.83
Guinea	10.10	10.32	10.56	10.79	11.04	11.28	11.54	11.81	12.09	12.40	12.72
Guinea-Bissau	1.45	1.48	1.52	1.56	1.60	1.64	1.68	1.73	1.77	1.82	1.86
Kenya	38.09	39.15	40.24	41.35	42.49	43.65	44.83	46.02	47.24	48.46	49.70
Lesotho	1.98	2.00	2.02	2.04	2.06	2.09	2.12	2.15	2.17	2.20	2.23
Liberia	3.51	3.66	3.81	3.95	4.07	4.18	4.29	4.39	4.50	4.61	4.73
Madagascar	19.43	20.00	20.57	21.15	21.74	22.35	22.96	23.59	24.23	24.89	25.57
Malawi	13.84	14.27	14.71	15.17	15.63	16.10	16.58	17.07	17.57	18.09	18.62
Mali	13.68	14.14	14.61	15.08	15.54	16.01	16.48	16.96	17.47	17.99	18.54
Mauritania	3.31	3.41	3.51	3.61	3.72	3.83	3.95	4.06	4.18	4.30	4.42
Mauritius	1.24	1.24	1.25	1.25	1.25	1.26	1.26	1.26	1.26	1.26	1.26
Mozambique	22.19	22.85	23.52	24.22	24.94	25.68	26.43	27.21	28.01	28.83	29.67
Namibia	2.08	2.11	2.14	2.17	2.22	2.26	2.32	2.37	2.43	2.48	2.53
Niger	14.67	15.23	15.81	16.43	17.06	17.73	18.43	19.15	19.90	20.67	21.48
Nigeria	146.42	150.35	154.40	158.58	162.88	167.30	171.83	176.46	181.18	185.99	190.89
Rwanda	9.45	9.71	9.98	10.25	10.52	10.79	11.07	11.35	11.63	11.92	12.21
Sao Tome and Principe	0.16	0.17	0.17	0.17	0.18	0.18	0.19	0.19	0.20	0.20	0.20
Senegal	11.87	12.20	12.55	12.92	13.30	13.70	14.12	14.55	14.98	15.41	15.85
Seychelles	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.10
Sierra Leone	6.02	6.17	6.31	6.46	6.61	6.77	6.92	7.08	7.24	7.40	7.56
Somalia	11.04	11.37	11.71	12.05	12.40	12.76	13.13	13.51	13.91	14.32	14.74
South Africa	49.89	50.41	50.97	51.58	52.26	53.00	53.77	54.54	55.29	56.02	56.72
South Sudan	8.86	9.26	9.67	10.07	10.45	10.82	11.18	11.53	11.88	12.23	12.58
Sudan	32.28	32.96	33.65	34.39	35.17	35.99	36.85	37.74	38.65	39.58	40.53
Swaziland	1.14	1.16	1.18	1.20	1.23	1.25	1.27	1.30	1.32	1.34	1.37
Tanzania	41.92	43.27	44.66	46.10	47.57	49.08	50.64	52.23	53.88	55.57	57.31
Togo	6.00	6.16	6.33	6.50	6.68	6.86	7.04	7.23	7.42	7.61	7.80
Uganda	30.59	31.66	32.77	33.92	35.09	36.31	37.55	38.83	40.14	41.49	42.86
Zambia	12.73	13.08	13.46	13.85	14.26	14.70	15.15	15.62	16.10	16.59	17.09
Zimbabwe	13.33	13.56	13.81	14.09	14.39	14.71	15.05	15.41	15.78	16.15	16.53

Source: World Development Indicators <http://databank.worldbank.org/data/source/world-development-indicators>

Rural Population (% of total population)

Country	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Angola	62.3	61.5	60.7	59.9	59.1	58.3	57.5	56.7	56.0	55.2	54.4
Benin	59.3	58.9	58.5	58.1	57.7	57.3	56.9	56.5	56.1	55.6	55.2
Botswana	44.5	44.2	44.0	43.8	43.5	43.3	43.1	42.8	42.6	42.3	42.0
Burkina Faso	76.8	76.0	75.2	74.3	73.5	72.7	71.8	71.0	70.1	69.3	68.5
Burundi	90.1	89.9	89.6	89.4	89.1	88.8	88.5	88.2	87.9	87.6	87.3
Cabo Verde	40.6	39.8	39.0	38.2	37.4	36.6	35.9	35.2	34.5	33.8	33.2
Cameroon	50.3	49.7	49.1	48.5	47.9	47.3	46.8	46.2	45.6	45.1	44.5
Central African Republic	61.7	61.5	61.4	61.2	61.0	60.7	60.5	60.2	60.0	59.7	59.4
Chad	78.1	78.1	78.1	78.0	78.0	77.9	77.8	77.7	77.5	77.4	77.2
Comoros	72.1	72.1	72.1	72.1	72.0	72.0	71.9	71.8	71.7	71.6	71.5
Congo, Dem. Rep.	61.6	61.1	60.6	60.1	59.6	59.1	58.5	58.0	57.5	57.0	56.5
Congo, Rep.	38.1	37.7	37.2	36.8	36.3	35.9	35.5	35.0	34.6	34.2	33.8
Cote d'Ivoire	51.7	51.0	50.2	49.4	48.7	48.0	47.2	46.5	45.8	45.1	44.5
Equatorial Guinea	61.0	61.0	60.9	60.8	60.7	60.5	60.4	60.2	60.1	59.9	59.7
Eritrea	80.5	80.1	79.8	79.4	79.0	..	..	..	..	..	..
Ethiopia	83.9	83.5	83.1	82.7	82.3	81.8	81.4	81.0	80.5	80.1	79.6
Gabon	15.6	15.1	14.7	14.3	14.0	13.6	13.3	13.1	12.8	12.6	12.5
Gambia, The	46.0	45.2	44.4	43.7	43.0	42.3	41.6	41.0	40.4	39.8	39.2
Ghana	51.3	50.6	50.0	49.3	48.6	47.9	47.3	46.6	46.0	45.3	44.7
Guinea	66.4	66.0	65.6	65.1	64.7	64.3	63.8	63.3	62.8	62.3	61.9
Guinea-Bissau	57.4	56.5	55.7	54.8	53.9	53.1	52.3	51.5	50.7	49.9	49.2
Kenya	77.6	77.2	76.8	76.4	76.0	75.6	75.2	74.8	74.4	73.9	73.5
Lesotho	76.7	76.2	75.7	75.2	74.7	74.2	73.7	73.2	72.7	72.2	71.6
Liberia	53.3	52.9	52.6	52.2	51.8	51.5	51.1	50.7	50.3	49.9	49.5
Madagascar	70.0	69.3	68.7	68.1	67.4	66.8	66.2	65.5	64.9	64.3	63.6
Malawi	84.8	84.7	84.6	84.5	84.3	84.2	84.1	83.9	83.7	83.5	83.4
Mali	66.4	65.6	64.8	64.0	63.2	62.4	61.6	60.9	60.1	59.3	58.6
Mauritania	45.4	44.7	44.0	43.3	42.7	42.0	41.4	40.7	40.1	39.6	39.0
Mauritius	58.8	59.0	59.2	59.4	59.6	59.8	60.0	60.2	60.3	60.5	60.6
Mozambique	69.6	69.5	69.3	69.0	68.8	68.6	68.3	68.1	67.8	67.5	67.2
Namibia	61.4	60.4	59.4	58.4	57.4	56.3	55.3	54.3	53.3	52.4	51.4
Niger	83.0	82.8	82.6	82.4	82.2	82.0	81.8	81.5	81.3	81.0	80.7
Nigeria	59.2	58.3	57.4	56.5	55.6	54.8	53.9	53.1	52.2	51.4	50.6
Rwanda	78.9	78.0	77.0	76.0	75.1	74.1	73.1	72.2	71.2	70.2	69.3
Sao Tome and Principe	40.3	39.6	38.8	38.1	37.4	36.7	36.1	35.5	34.9	34.4	33.8
Senegal	58.5	58.3	58.0	57.8	57.5	57.2	56.9	56.6	56.3	55.9	55.6
Seychelles	48.5	48.2	48.0	47.7	47.4	47.1	46.8	46.4	46.1	45.8	45.5
Sierra Leone	62.6	62.4	62.1	61.8	61.4	61.1	60.8	60.4	60.1	59.7	59.3
Somalia	64.0	63.6	63.2	62.7	62.3	61.8	61.4	60.9	60.4	60.0	59.5
South Africa	39.4	38.8	38.3	37.8	37.3	36.7	36.2	35.7	35.2	34.7	34.2
South Sudan	82.6	82.4	82.3	82.1	82.0	81.8	81.6	81.4	81.2	81.0	80.7
Sudan	67.1	67.1	67.0	66.9	66.8	66.7	66.5	66.4	66.2	66.0	65.8
Swaziland	78.2	78.3	78.4	78.5	78.6	78.6	78.7	78.7	78.7	78.7	78.7
Tanzania	73.9	73.2	72.6	71.9	71.2	70.5	69.8	69.1	68.4	67.7	67.0
Togo	63.9	63.4	62.9	62.5	62.0	61.5	61.0	60.5	60.0	59.5	59.0
Uganda	86.4	86.1	85.8	85.5	85.2	84.9	84.6	84.2	83.9	83.6	83.2
Zambia	62.5	62.1	61.7	61.3	60.8	60.4	60.0	59.5	59.1	58.6	58.2
Zimbabwe	66.3	66.4	66.6	66.8	67.0	67.2	67.3	67.5	67.6	67.7	67.8

Source: World Development Indicators <http://databank.worldbank.org/data/source/world-development-indicators>

Rural Population Growth (annual %)

Country	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Angola	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.0	1.9
Benin	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	1.9
Botswana	1.1	1.1	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.2	1.2
Burkina Faso	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.7	1.7
Burundi	3.1	3.1	3.0	2.9	2.8	2.7	2.6	2.7	2.7	2.8	2.8
Cabo Verde	-0.9	-1.0	-1.0	-1.0	-1.0	-0.9	-0.9	-0.8	-0.7	-0.7	-0.6
Cameroon	1.5	1.6	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.4
Central African Republic	1.5	1.4	1.1	0.7	0.3	-0.0	-0.2	-0.1	0.2	0.6	0.9
Chad	3.3	3.2	3.2	3.2	3.2	3.2	3.2	3.1	3.0	2.9	2.8
Comoros	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.2	2.1	2.1
Congo, Dem. Rep.	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.3
Congo, Rep.	2.2	2.3	2.1	1.9	1.6	1.4	1.3	1.3	1.3	1.4	1.4
Cote d'Ivoire	0.6	0.6	0.7	0.8	0.9	1.0	1.0	1.0	1.0	1.0	1.0
Equatorial Guinea	4.5	4.5	4.4	4.4	4.3	4.2	4.0	3.9	3.7	3.5	3.4
Eritrea	1.7	1.5	1.4	1.4	1.4	..	..	..	..	..	..
Ethiopia	2.4	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	1.9	1.9
Gabon	-0.1	0.2	0.4	0.7	0.9	1.1	1.2	1.2	1.0	0.9	0.8
Gambia, The	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.6
Ghana	1.3	1.3	1.2	1.1	1.1	1.0	1.0	0.9	0.9	0.8	0.8
Guinea	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.6	1.6	1.7	1.8
Guinea-Bissau	0.8	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Kenya	2.3	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.0	2.0	1.9
Lesotho	0.2	0.3	0.3	0.4	0.5	0.6	0.6	0.6	0.6	0.6	0.6
Liberia	3.3	3.5	3.3	2.8	2.3	2.0	1.7	1.6	1.7	1.7	1.7
Madagascar	2.0	2.0	1.9	1.9	1.8	1.8	1.8	1.7	1.7	1.7	1.7
Malawi	2.9	3.0	2.9	2.9	2.8	2.8	2.8	2.7	2.7	2.7	2.7
Mali	2.2	2.1	2.0	1.9	1.8	1.7	1.6	1.6	1.7	1.7	1.7
Mauritania	1.2	1.2	1.3	1.3	1.4	1.4	1.5	1.4	1.4	1.3	1.3
Mauritius	0.8	0.7	0.6	0.6	0.5	0.6	0.5	0.5	0.4	0.3	0.3
Mozambique	2.7	2.7	2.6	2.6	2.6	2.6	2.5	2.5	2.5	2.4	2.4
Namibia	-0.4	-0.4	-0.2	-0.0	0.2	0.3	0.5	0.5	0.5	0.4	0.3
Niger	3.5	3.5	3.6	3.6	3.6	3.6	3.6	3.5	3.5	3.5	3.5
Nigeria	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.0
Rwanda	1.4	1.5	1.5	1.4	1.3	1.3	1.2	1.2	1.1	1.1	1.0
Sao Tome and Principe	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.6
Senegal	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.4	2.3	2.2	2.2
Seychelles	0.0	1.7	-0.2	2.2	-3.2	0.3	1.2	0.9	1.5	0.6	0.5
Sierra Leone	2.4	2.0	1.9	1.8	1.8	1.8	1.7	1.7	1.6	1.5	1.5
Somalia	2.3	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1
South Africa	-0.3	-0.3	-0.3	-0.2	-0.1	-0.0	0.0	0.0	-0.1	-0.1	-0.2
South Sudan	4.3	4.3	4.1	3.8	3.5	3.3	3.0	2.9	2.7	2.6	2.5
Sudan	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0
Swaziland	1.7	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.8	1.8	1.8
Tanzania	2.3	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.0
Togo	2.0	2.0	2.0	1.9	1.9	1.9	1.8	1.8	1.7	1.7	1.6
Uganda	3.1	3.1	3.1	3.1	3.1	3.0	3.0	3.0	2.9	2.9	2.8
Zambia	2.1	2.1	2.1	2.2	2.2	2.3	2.3	2.3	2.3	2.2	2.2
Zimbabwe	1.8	2.0	2.1	2.2	2.4	2.5	2.6	2.6	2.5	2.5	2.4

Source: World Development Indicators <http://databank.worldbank.org/data/source/world-development-indicators>

Poverty Headcount Ratio at \$1.90 a day (2011 PPP) (%)

Country / Region	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Angola	30.0	30.0	30.0	30.0	29.0	29.0	29.0	29.0	28.0	28.0
Burundi	79.0	78.0	78.0	78.0	78.0	77.0	77.0	77.0	76.0	76.0
Benin	51.0	52.0	52.0	53.0	53.0	54.0	54.0	55.0	55.0	56.0
Burkina Faso	57.0	55.0	55.0	51.0	49.0	47.0	45.0	44.0	41.0	39.0
Botswana	22.0	21.0	18.0	19.0	18.0	17.0	16.0	15.0	14.0	13.0
Central African Republic	64.0	66.0	62.0	61.0	59.0	58.0	57.0	56.0	55.0	53.0
Côte d'Ivoire	31.0	29.0	33.0	34.0	35.0	36.0	38.0	39.0	40.0	41.0
Cameroon	29.0	27.0	26.0	25.0	24.0	23.0	22.0	24.0	20.0	19.0
Congo, Dem. Rep. of	88.0	86.0	83.0	81.0	79.0	77.0	75.0	73.0	71.0	69.0
Congo, Republic of	46.0	44.0	41.0	39.0	37.0	35.0	33.0	30.0	28.0	26.0
Djibouti	20.0	20.0	20.0	20.0	21.0	18.0	23.0	21.0	21.0	21.0
Ethiopia	40.0	38.0	37.0	34.0	34.0	33.0	32.0	30.0	29.0	28.0
Ghana	25.0	24.0	23.0	22.0	22.0	21.0	20.0	19.0	18.0	17.0
Guinea	60.0	48.0	46.0	45.0	43.0	35.0	40.0	38.0	36.0	35.0
Guinea-Bissau	63.0	64.0	64.0	67.0	66.0	67.0	67.0	68.0	69.0	70.0
Kenya	34.0	35.0	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0
Lesotho	60.0	60.0	59.0	60.0	58.0	57.0	56.0	56.0	55.0	54.0
Morocco	4.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0	2.0	2.0
Madagascar	75.0	76.0	77.0	82.0	78.0	78.0	80.0	81.0	82.0	82.0
Mali	50.0	47.0	49.0	43.0	40.0	38.0	35.0	33.0	31.0	28.0
Mozambique	71.0	69.0	68.0	67.0	66.0	64.0	63.0	62.0	60.0	59.0
Mauritius					1.0	1.0	1.0	1.0	1.0	1.0
Malawi	71.0	72.0	73.0	71.0	74.0	74.0	75.0	75.0	76.0	77.0
Namibia	25.0	24.0	23.0	20.0	18.0	16.0	14.0	12.0	10.0	8.0
Niger	72.0	61.0	60.0	58.0	50.0	55.0	54.0	46.0	51.0	49.0
Nigeria	57.0	57.0	53.0	57.0	57.0	58.0	58.0	58.0	58.0	58.0
Rwanda	65.0	65.0	65.0	60.0	65.0	65.0	60.0	64.0	64.0	64.0
Senegal	40.0	39.0	37.0	36.0	38.0	33.0	31.0	30.0	28.0	26.0
Sierra Leone	55.0	55.0	54.0	53.0	52.0	52.0	52.0	51.0	51.0	50.0
São Tomé and Príncipe	32.0	32.0	32.0	32.0	33.0	33.0	33.0	33.0	34.0	34.0
Swaziland	42.0	40.0	42.0	35.0	32.0	30.0	28.0	25.0	23.0	20.0
Seychelles	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Chad	51.0	48.0	45.0	41.0	38.0	35.0	32.0	29.0	26.0	23.0
Togo	55.0	55.0	55.0	54.0	54.0	54.0	54.0	53.0	53.0	53.0
Tunisia	3.0	2.0	2.0	2.0	1.0					
Tanzania	53.0	56.0	54.0	53.0	47.0	50.0	48.0	47.0	46.0	44.0
Uganda	46.0	45.0	41.0	41.0	39.0	35.0	35.0	33.0	31.0	29.0
South Africa	22.0	17.0	20.0	19.0	17.0	17.0	16.0	15.0	14.0	13.0
Zambia	58.0	59.0	59.0	64.0	61.0	61.0	62.0	63.0	63.0	64.0
Africa wide	45.2	44.2	43.4	43.4	42.5	42.2	41.8	41.3	40.8	40.3

Source: ReSAKSS (Regional Strategic Analysts and Knowledge Support System). <http://www.resakss.org/>

Ratio of agricultural exports to agricultural imports

Country / Region	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Angola	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Burundi	0.8	0.7	0.9	1.2	0.6	0.4	0.2	0.5	0.4	0.4
Benin	0.5	0.5	0.9	0.5	1.1	0.3	0.7	0.2	0.6	0.5
Burkina Faso	0.4	0.4	0.5	0.6	0.8	0.3	0.3	0.4	0.6	0.4
Botswana	0.3	0.3	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2
Central African Republic	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
Côte d'Ivoire	2.7	2.6	3.0	3.3	3.1	2.4	2.4	3.4	3.2	3.5
Cameroon	0.7	0.9	1.2	1.0	0.7	0.6	0.6	0.8	0.9	0.7
Congo, Dem. Rep. of	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1
Congo, Republic of	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
Comoros	0.1	0.0	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2
Cape Verde	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.1
Djibouti	0.4	0.3	0.3	0.5	0.3	0.3	0.2	0.2	0.2	0.2
Algeria	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Egypt	0.3	0.3	0.5	0.4	0.3	0.2	0.4	0.3	0.4	0.5
Eritrea	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.3	0.3	0.2
Ethiopia	1.8	0.9	1.5	2.1	1.8	2.2	2.3	3.3	2.2	1.9
Gabon	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1
Ghana	2.1	1.9	2.3	2.4	1.6	1.4	1.0	1.4	1.2	1.5
Guinea	0.3	0.3	0.6	0.3	0.3	0.4	0.3	0.1	0.4	0.4
Gambia, The	0.1	0.1	0.4	0.4	0.3	0.2	0.2	0.3	0.2	0.2
Guinea-Bissau	1.6	1.4	1.6	1.3	2.3	2.0	2.0	2.1	2.7	2.5
Equatorial Guinea	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kenya	1.8	1.6	1.3	1.7	1.2	1.1	1.3	1.0	1.2	1.3
Liberia	0.1	0.2	0.3	0.4	0.7	0.6	0.4	0.2	0.2	0.5
Libya	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lesotho	0.5	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
Morocco	0.8	0.8	0.9	0.9	0.7	0.7	0.9	0.8	1.1	0.9
Madagascar	1.2	0.8	1.0	0.8	1.3	1.0	0.9	1.2	1.5	1.5
Mali	0.4	0.4	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3
Mozambique	1.5	0.7	0.6	0.6	0.7	0.4	0.4	0.6	0.5	0.8
Mauritania	1.0	0.6	1.0	1.3	1.2	1.2	0.9	1.4	1.5	1.4
Mauritius	0.9	0.7	0.8	0.7	0.7	0.7	0.8	0.7	0.8	0.7
Malawi	4.7	2.6	3.9	2.7	3.2	5.0	2.5	3.4	3.0	2.8
Namibia	1.4	1.2	1.1	1.3	1.3	1.2	1.2	1.1	1.1	1.3
Niger	0.3	0.7	0.8	0.5	0.4	0.3	0.4	0.3	0.3	0.3
Nigeria	0.2	0.2	0.3	0.3	0.1	0.3	0.3	0.2	0.3	0.3
Rwanda	0.6	0.9	0.7	0.6	0.4	0.7	0.6	0.5	0.7	0.8
Sudan	0.4	0.3	0.3	0.2	0.2	0.3	0.1	0.2	0.4	0.2
Senegal	0.5	0.3	0.6	0.6	0.6	0.5	0.6	0.7	0.7	0.8
Sierra Leone	0.3	0.2	0.6	0.5	0.2	0.7	1.0	0.1	0.2	0.5
São Tomé and Príncipe	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
Swaziland	1.2	1.4	1.3	1.2	1.0	0.9	1.1	0.8	0.9	0.8
Seychelles	1.3	1.6	1.4	1.5	1.3	1.4	1.5	1.5	1.3	1.1
Chad	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
Togo	1.0	0.8	1.1	0.7	1.4	0.6	0.7	0.9	1.2	1.0
Tunisia	0.8	0.7	0.8	0.6	0.7	0.7	0.6	0.6	0.9	0.7
Tanzania	1.2	1.5	1.5	1.4	1.1	1.3	1.2	1.7	2.6	2.5
Uganda	1.8	1.8	1.9	1.9	2.0	2.0	2.3	1.9	2.4	2.7
South Africa	1.0	1.2	1.3	1.5	1.3	1.2	1.4	1.5	1.6	1.4
Zambia	2.8	1.5	1.9	2.7	2.5	2.5	2.5	1.6	1.5	1.5
Zimbabwe	1.0	0.6	0.8	0.8	1.0	1.0	1.3	1.4	1.3	1.1
Africa wide	0.6	0.6	0.7	0.7	0.6	0.6	0.6	0.6	0.7	0.7

Source: ReSAKSS (Regional Strategic Analysts and Knowledge Support System). <http://www.resakss.org/>

Employment rate (% of population, 15+ years)

Country / Region	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Angola	63.0	63.0	63.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0
Burundi	81.0	81.0	81.0	81.0	82.0	82.0	82.0	82.0	82.0	82.0
Benin	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0
Burkina Faso	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0
Botswana	62.0	67.0	65.0	63.0	63.0	64.0	64.0	64.0	64.0	63.0
Central African Republic	72.0	72.0	72.0	72.0	72.0	72.0	73.0	73.0	73.0	73.0
Côte d'Ivoire	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0
Cameroon	72.0	72.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0
Congo, Dem. Rep. of	69.0	69.0	69.0	69.0	69.0	69.0	69.0	68.0	69.0	69.0
Congo, Republic of	60.0	61.0	59.0	60.0	61.0	63.0	63.0	63.0	62.0	62.0
Comoros	45.0	45.0	45.0	45.0	46.0	46.0	46.0	46.0	46.0	46.0
Cape Verde	58.0	58.0	59.0	59.0	60.0	60.0	61.0	61.0	61.0	61.0
Djibouti	47.0	47.0	47.0	48.0	48.0	48.0	49.0	49.0	49.0	49.0
Algeria	36.0	37.0	38.0	38.0	38.0	38.0	39.0	39.0	39.0	39.0
Egypt	44.0	44.0	44.0	45.0	43.0	43.0	43.0	43.0	43.0	44.0
Eritrea	77.0	77.0	77.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0
Ethiopia	80.0	80.0	80.0	79.0	79.0	78.0	79.0	79.0	79.0	78.0
Gabon	45.0	44.0	41.0	38.0	38.0	38.0	38.0	39.0	39.0	40.0
Ghana	63.0	67.0	66.0	70.0	72.0	73.0	73.0	73.0	73.0	73.0
Guinea	67.0	68.0	68.0	68.0	69.0	69.0	77.0	77.0	77.0	77.0
Gambia, The	54.0	54.0	54.0	54.0	55.0	54.0	54.0	54.0	54.0	54.0
Guinea-Bissau	67.0	67.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0
Equatorial Guinea	76.0	76.0	76.0	76.0	76.0	76.0	77.0	77.0	76.0	76.0
Kenya	58.0	58.0	58.0	58.0	58.0	59.0	59.0	59.0	60.0	60.0
Liberia	57.0	58.0	58.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0
Libya	44.0	44.0	44.0	44.0	45.0	44.0	43.0	43.0	43.0	43.0
Lesotho	49.0	49.0	49.0	49.0	50.0	49.0	50.0	50.0	49.0	48.0
Morocco	46.0	46.0	45.0	45.0	45.0	45.0	44.0	44.0	44.0	44.0
Madagascar	83.0	83.0	85.0	86.0	86.0	86.0	85.0	85.0	85.0	85.0
Mali	52.0	55.0	58.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0
Mozambique	64.0	63.0	63.0	62.0	62.0	61.0	61.0	59.0	60.0	60.0
Mauritania	41.0	39.0	41.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0
Mauritius	53.0	54.0	54.0	54.0	53.0	53.0	55.0	56.0	56.0	56.0
Malawi	76.0	77.0	77.0	77.0	77.0	76.0	76.0	76.0	76.0	76.0
Namibia	50.0	40.0	44.0	48.0	45.0	42.0	41.0	42.0	43.0	44.0
Niger	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0
Nigeria	51.0	51.0	51.0	52.0	52.0	52.0	52.0	53.0	54.0	54.0
Rwanda	82.0	84.0	83.0	83.0	83.0	82.0	82.0	82.0	83.0	83.0
Sudan	42.0	41.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0
Senegal	48.0	48.0	49.0	50.0	51.0	51.0	51.0	51.0	51.0	52.0
Sierra Leone	64.0	64.0	64.0	64.0	64.0	65.0	65.0	65.0	65.0	65.0
Somalia	50.0	50.0	50.0	50.0	50.0	50.0	50.0	51.0	51.0	51.0
São Tomé and Príncipe	52.0	49.0	50.0	51.0	51.0	52.0	52.0	52.0	52.0	52.0
Swaziland	35.0	35.0	36.0	36.0	36.0	37.0	37.0	38.0	38.0	39.0
Chad	68.0	68.0	68.0	67.0	68.0	67.0	67.0	67.0	67.0	67.0
Togo	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
Tunisia	40.0	41.0	40.0	41.0	38.0	39.0	40.0	40.0	40.0	41.0
Tanzania	87.0	85.0	84.0	82.0	80.0	79.0	76.0	77.0	77.0	76.0
Uganda	78.0	80.0	80.0	80.0	81.0	83.0	83.0	83.0	83.0	83.0
South Africa	42.0	42.0	40.0	39.0	39.0	39.0	40.0	40.0	40.0	39.0
Zambia	67.0	69.0	69.0	67.0	65.0	69.0	69.0	69.0	70.0	70.0
Zimbabwe	80.0	80.0	79.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0
Africa wide	59.2	59.5	59.5	59.6	59.4	59.5	59.8	60.0	60.2	60.3

Source: ReSAKSS (Regional Strategic Analysts and Knowledge Support System). <http://www.resakss.org/>

Agricultural ODA (% total ODA)

Country / Region	2007	2008	2009	2010	2011	2012	2013	2014	2015
Angola	4.0	9.0	11.0	11.0	12.0	6.0	7.0	6.0	3.0
Burundi	7.0	3.0	2.0	4.0	5.0	10.0	10.0	10.0	11.0
Benin	6.0	6.0	7.0	7.0	9.0	7.0	7.0	9.0	9.0
Burkina Faso	8.0	9.0	8.0	9.0	12.0	13.0	14.0	13.0	8.0
Botswana	7.0			1.0		2.0	2.0	3.0	4.0
Central African Republic	11.0	4.0	1.0	1.0	2.0	1.0	1.0	1.0	1.0
Côte d'Ivoire	2.0	12.0	2.0	6.0	3.0		2.0	6.0	7.0
Cameroon	3.0	2.0	3.0	8.0	5.0	5.0	7.0	6.0	6.0
Congo, Dem. Rep. of	2.0	2.0	2.0	2.0	1.0	3.0	3.0	4.0	2.0
Congo, Republic of	6.0	1.0	1.0		2.0	3.0	4.0	4.0	5.0
Comoros	2.0	1.0	1.0	4.0	5.0	2.0	3.0	4.0	5.0
Cape Verde	2.0	5.0	5.0	3.0	1.0	1.0	2.0	1.0	1.0
Djibouti	1.0	1.0		1.0	1.0	3.0	1.0	1.0	3.0
Algeria	2.0	1.0	1.0	2.0	2.0	1.0	1.0	3.0	2.0
Egypt	3.0	3.0	4.0	4.0	7.0	3.0	1.0	11.0	7.0
Eritrea	3.0	3.0	9.0	5.0	5.0	3.0	11.0	5.0	11.0
Ethiopia	4.0	2.0	10.0	5.0	4.0	6.0	7.0	9.0	9.0
Gabon	21.0	7.0	4.0	13.0	14.0	6.0	6.0	6.0	5.0
Ghana	7.0	11.0	9.0	13.0	13.0	10.0	9.0	11.0	8.0
Guinea	8.0	4.0	9.0	5.0	4.0	1.0	5.0	2.0	2.0
Gambia, The	2.0	10.0	15.0	7.0	8.0	5.0	9.0	3.0	6.0
Guinea-Bissau	3.0	5.0	9.0	3.0	13.0	8.0	3.0	4.0	7.0
Equatorial Guinea	2.0	1.0	2.0		5.0	5.0	1.0		
Kenya	7.0	7.0	5.0	7.0	5.0	4.0	5.0	6.0	6.0
Liberia		1.0	4.0	1.0	2.0	3.0	8.0	5.0	3.0
Libya	17.0	1.0	2.0	1.0					
Lesotho			1.0		1.0	1.0		1.0	2.0
Morocco	2.0	2.0	3.0	6.0	9.0	8.0	10.0	5.0	3.0
Madagascar	11.0	7.0	13.0	10.0	10.0	10.0	6.0	11.0	7.0
Mali	11.0	11.0	15.0	17.0	18.0	14.0	9.0	13.0	9.0
Mozambique	4.0	7.0	5.0	6.0	5.0	6.0	7.0	6.0	10.0
Mauritania	11.0	6.0	10.0	7.0	5.0	3.0	5.0	5.0	3.0
Mauritius	14.0	4.0		2.0		1.0		1.0	
Malawi	9.0	8.0	9.0	11.0	14.0	9.0	10.0	10.0	11.0
Namibia	4.0	3.0	3.0	4.0	5.0	5.0	8.0	9.0	5.0
Niger	9.0	7.0	7.0	9.0	8.0	6.0	7.0	8.0	6.0
Nigeria	1.0	2.0	2.0	4.0	4.0	4.0	4.0	7.0	6.0
Rwanda	5.0	6.0	4.0	11.0	9.0	9.0	7.0	7.0	16.0
Sudan	1.0	1.0	2.0	4.0	10.0	9.0	5.0	13.0	13.0
Senegal	8.0	6.0	7.0	10.0	10.0	7.0	12.0	14.0	19.0
Sierra Leone	1.0	3.0	5.0	11.0	5.0	5.0	6.0	3.0	1.0
South-Sudan					3.0	2.0	4.0	3.0	4.0
São Tomé and Príncipe		1.0	3.0	5.0	3.0	5.0	12.0	7.0	4.0
Swaziland	7.0	20.0	13.0	8.0	15.0	13.0	18.0	9.0	16.0
Seychelles	20.0	31.0	39.0	6.0	4.0			3.0	14.0
Chad	4.0	2.0	3.0	4.0	5.0	4.0	3.0	5.0	2.0
Togo	1.0		2.0	5.0	2.0	3.0	6.0	8.0	6.0
Tunisia	3.0	4.0	3.0	3.0	3.0	2.0	2.0	3.0	5.0
Tanzania	4.0	7.0	5.0	7.0	5.0	5.0	4.0	5.0	4.0
Uganda	10.0	8.0	8.0	4.0	7.0	8.0	9.0	8.0	6.0
South Africa	2.0	1.0	1.0	2.0	1.0	1.0	1.0	1.0	1.0
Zambia	5.0	5.0	4.0	4.0	4.0	6.0	7.0	8.0	10.0
Zimbabwe	3.0	1.0	6.0	7.0	11.0	8.0	7.0	4.0	5.0
Africa wide	4.7	4.7	4.9	5.8	5.7	5.6	5.7	7.1	6.5

ReSAKSS (Regional Strategic Analysts and Knowledge Support System). <http://www.resakss.org/>

Data compiled for tracking implementation of the Comprehensive Africa Agriculture Development Programme (CAADP).

Agriculture Value Added per Worker (constant 2010 USD)

Country	2007	2008	2009	2010	2011	2012	2013	2014	2015
Angola	986	916	1,395	1,348	1,282	1,013	1,463	1,779	1,845
Burundi	165	182	181	182	184	188	188	189	197
Benin	928	949	952	920	942	956	973	1,033	1,097
Burkina Faso	379	487	425	448	437	461	461	468	445
Botswana	900	1,063	1,082	1,023	1,058	1,175	1,126	1,055	1,084
Central African Republic	787	818	801	806	840	854	465	433	443
Côte d'Ivoire	1,857	1,971	1,908	2,254	2,345	2,189	2,216	2,416	2,513
Cameroon	1,247	1,306	1,327	1,363	1,417	1,454	1,510	1,536	1,668
Congo, Dem. Rep. of	306	336	353	342	366	370	380	381	396
Congo, Republic of	811	721	940	863	782	937	1,069	1,258	1,925
Comoros	1,084	1,106	1,100	1,019	1,001	952	938	897	859
Cape Verde	4,331	4,282	4,556	4,421	4,609	4,972	5,093	5,012	5,506
Djibouti	131	137	145	142	142	141	141	142	152
Algeria	3,532	3,104	4,423	4,113	4,022	4,465	5,124	5,528	6,506
Egypt	3,894	3,928	4,237	4,583	4,868	4,064	4,180	4,356	4,548
Eritrea	344	209	178	230	217				
Ethiopia	306	352	378	373	401	456	457	459	462
Gabon	3,521	2,935	3,541	2,974	2,763	2,812	2,904	3,262	3,915
Ghana	1,277	1,462	1,574	1,497	1,405	1,402	1,438	1,385	1,281
Guinea	266	267	269	230	234	214	226	209	194
Gambia, The	304	383	411	469	334	343	333	294	304
Guinea-Bissau	732	805	770	812	860	836	708		
Equatorial Guinea	1,255	944	1,107	989	1,022	1,085	1,149	1,221	1,720
Kenya	582	617	659	744	820	835	875	936	1,072
Liberia	853	881	802	640	671	624	640	610	577
Lesotho	319	363	394	376	399	398	469	432	416
Morocco	2,868	3,384	3,887	4,049	4,359	4,254	4,869	4,392	5,087
Madagascar	295	292	327	305	302	299	280	281	272
Mali	1,119	1,210	1,186	1,268	1,338	1,429	1,421	1,498	1,542
Mozambique	249	283	306	313	315	316	315	312	327
Mauritania	1,367	1,334	1,322	1,134	974	1,053	1,092	1,368	1,513
Mauritius	7,553	7,715	7,913	7,920	8,764	9,383	9,169	9,415	9,754
Malawi	338	385	412	417	413	402	417	429	411
Namibia	3,533	3,225	3,485	3,810	3,813	3,889	3,213	3,515	3,419
Niger	508	567	494	539	497	534	510	536	534
Nigeria	5,924	6,288	6,645	7,014	7,195	7,649	7,839	8,136	8,398
Rwanda	340	342	365	366	381	417	425	444	460
Sudan	2,036	2,096	2,138	2,054	2,069	3,595	3,784	3,627	3,714
Senegal	382	453	491	498	410	446	447	443	517
Sierra Leone	935	1,002	1,054	1,053	1,143	1,208	1,369	1,530	1,367
São Tomé and Príncipe	983	519	589	635	647	661	706	691	730
Swaziland	3,231	3,029	2,846	3,243	3,197	3,294	3,569	3,556	3,641
Seychelles	838	767	646	685	726	681	928	864	848
Chad	709	757	907	1,108	696	797	814	875	920
Togo	813	927	761	732	746	1,061	1,007	1,104	1,106
Tunisia	4,281	4,023	4,354	4,072	4,508	4,978	5,046	5,213	5,662
Tanzania	454	502	541	555	572	620	650	624	653
Uganda	357	362	393	472	477	505	494	492	480
South Africa	7,307	8,343	7,978	7,412	7,521	7,495	7,628	8,274	8,238
Zambia	628	625	672	588	619	625	563	471	346
Zimbabwe	648	478	337	357	358	384	360	433	410

Source: ReSAKSS (Regional Strategic Analysts and Knowledge Support System), 2018
Data compiled for tracking implementation of the Comprehensive Africa Agriculture Development Programme (CAADP).

Agricultural Value Added (% GDP)

Country	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Burundi	34.35	37.24	37	36.97	36.9	37.07	36.31	35.67	39.61	36.36
Benin	24.27	23.97	23.77	22.74	22.85	22.3	21.34	21.46	22.49	23.17
Burkina Faso	29.94	37	32.39	32.54	30.79	31.48	31.7	31.88	30.11	29.37
Botswana	2.24	2.53	2.82	2.49	2.46	2.65	2.3	2.09	2.2	
Central African Republic	51.16	52.56	51.08	50.29	51.19	50.41	43.77	40.59	40	40.46
Côte d'Ivoire	21.99	22.68	21.2	24.53	26.69	22.53	20.98	21.05	20.07	19.05
Cameroon	21.1	21.61	21.66	21.67	21.74	21.41	21.15	20.37	20.96	
Congo, Dem. Rep. of	22.09	23.3	24.17	22.28	22.76	21.84	21.03	19.62	19.41	20.09
Congo, Republic of	4.33	3.68	4.51	3.83	3.38	3.93	4.36	4.83	7.24	8.73
Comoros	40.83	42.56	42.59	39.57	38.79	36.87	35.9	34.53	33.58	
Cape Verde	9.18	8.5	8.89	8.5	8.26	8.81	8.67	8.48	8.91	8.64
Algeria	7.57	6.59	9.34	8.47	8.11	8.77	9.85	10.27	11.67	11.91
Egypt	13.42	12.63	13	13.34	13.87	11.27	11.27	11.34	11.25	11.77
Eritrea	24.27	16.78	14.12							
Ethiopia	42.27	45.18	45.88	41.45	41.25	44.33	41.24	38.52	36.06	34.34
Gabon	4.96	4.23	5.04	3.91	3.43	3.35	3.33	3.62	4.23	4.93
Ghana	27.29	29.41	30.99	28.04	23.66	22.13	21.66	20.54	18.72	17.49
Guinea	23.38	22.82	23.64	20.25	20.27	18.32	19.28	18.2	17.29	15.23
Gambia, The	20.46	25.2	26.22	28.93	22.3	22.32	21.35	19.33	19.75	16.99
Guinea-Bissau	42.86	46.36	43.7	44.92	44.43	44.78	38.51			
Equatorial Guinea	1.37	0.89	1.06	1.06	1.05	1.06	1.19	1.3	2.06	2.64
Kenya	20.59	22.2	23.36	24.83	26.3	26.17	26.44	27.45	30.36	32.61
Liberia	65.6	65.17	58.04	44.8	44.3	38.8	37.23	35.77	34.37	34.2
Lesotho	5.12	5.48	5.86	5.26	5.28	5.01	5.84	5.31	4.88	
Morocco	10.86	11.96	13.03	12.94	13.12	12.33	13.39	11.67	12.8	11.5
Madagascar	23.39	22.32	26.84	25.77	25.96	25.77	24.29	24.35	23.5	21.34
Mali	31.35	33.13	31.77	33.02	34.56	38.11	37.97	38.33	38.22	36.99
Mozambique	24.67	26.86	27.9	27.34	26.3	25.23	24.08	22.75	22.94	22.55
Mauritania	23.62	23.44	24.11	20.29	17.09	17.93	18	21.91	24.52	24.53
Mauritius	4.38	4.07	3.88	3.64	3.7	3.66	3.38	3.26	3.1	3.14
Malawi	27.51	29.98	30.43	29.61	28.77	28.29	28.67	28.7	27.48	26.04
Namibia	8.55	7.63	8.25	8.58	8.23	8.05	6.35	6.57	6.12	
Niger	40.97	43.21	39.21	40.9	38.25	38.08	35.8	36.53	36.42	
Nigeria	24.21	24.21	23.97	23.52	23.08	23.62	23.07	22.63	22.86	
Rwanda	30.4	28.33	29.31	28.19	28	28.93	28.89	28.76	28.07	29.53
Sudan	25.18	24.51	24.67	23.31	24.36	33.14	33.76	31.85	31.42	38.14
Senegal	11.88	13.99	15.24	15.3	12.77	13.73	13.74	13.47	15.26	15.75
Sierra Leone	52.18	53.65	54.46	52.16	54.59	50.59	47.98	51.79	58.76	58.8
São Tomé and Príncipe	18.83	9.48	10.81	11.26	11.3	11.5	12.03	11.38	11.86	
Swaziland	10.75	10	9.25	10.16	9.72	9.56	9.7	9.2	9.28	
Seychelles	2.75	2.57	2.26	2.26	2.22	1.95	2.51	2.26		
Chad	54.67	54.59	46.55	51.95	51.2	54.9	50.05	50.65	50.66	48.48
Togo	35.82	40.71	32.91	31.03	30.76	42.6	39.72	41.97	40.66	41.28
Tunisia	8.64	7.85	8.3	7.53	8.53	9.08	8.96	9	9.66	
Tanzania	26.83	28.79	30.24	29.91	29.35	31.08	31.19	28.81	29	28.6
Uganda	22.28	21.38	22.4	26.21	24.89	26.09	25.34	24.7	23.6	22.62
South Africa	2.64	2.86	2.71	2.39	2.29	2.17	2.1	2.18	2.08	2.18
Zambia	12.11	11.45	11.55	9.42	9.65	9.32	8.23	6.78	4.98	
Zimbabwe	21.2	19.02	12.41	11.51	10.12	9.79	8.96	10.77	10.29	9.94

Source: ReSAKSS (Regional Strategic Analysts and Knowledge Support System). 2018
 Data compiled for tracking implementation of the Comprehensive Africa Agriculture Development Programme (CAADP).
<http://www.resakss.org/>

Government Agriculture Expenditure (constant 2010 US\$, billion)

Country	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Angola	0.73	0.67	0.64	0.46	0.38	0.38	0.60	0.49	0.25	0.17
Burundi	0.02	0.02	0.01	0.01	0.03	0.02	0.02	0.02		
Benin	0.08	0.10	0.14	0.12	0.06	0.10	0.11	0.22	0.25	0.20
Burkina Faso	0.27	0.21	0.24	0.22	0.28	0.35	0.35	0.36	0.29	0.23
Botswana	0.15	0.13	0.13	0.19	0.14	0.16	0.12	0.11	0.11	0.08
Central African Republic	0.00	0.00	0.01	0.01	0.01	0.02	0.02			
Côte d'Ivoire	0.11	0.11	0.13	0.15	0.14	0.34	0.32	0.36	0.30	0.33
Congo, Dem. Rep. of	0.06	0.06	0.06	0.01	0.01	0.02	0.03			
Congo, Republic of	0.04	0.04	0.04	0.05	0.08	0.06				
Cape Verde	0.04	0.03	0.03	0.03	0.04	0.03	0.04	0.04	0.05	0.05
Djibouti	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Algeria	1.96	1.91	2.39							
Egypt	1.16	1.04	1.16	1.10	1.13	1.06	1.05	1.28	1.34	
Ethiopia	0.74	0.71	0.64	0.61	0.61	0.65	0.65	0.63	0.59	0.86
Ghana		0.24	0.24	0.23	0.27	0.33	0.09	0.11	0.07	
Guinea	0.07	0.07	0.07	0.06	0.08	0.08	0.07	0.08	0.05	0.08
Gambia, The	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.02	0.01
Equatorial Guinea	0.05	0.03	0.06							
Kenya	0.23	0.24	0.31	0.41	0.47	0.59	0.42	0.38	0.42	0.24
Liberia	0.01	0.01	0.05	0.06	0.05	0.08	0.10			
Lesotho	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.06
Madagascar	0.06	0.22	0.29	0.11	0.11	0.10	0.10	0.04	0.10	0.09
Mali	0.23	0.25	0.22	0.26	0.29	0.13	0.24	0.28	0.32	0.28
Mozambique	0.10	0.12	0.12	0.13	0.11	0.10	0.39	0.48	0.28	0.33
Mauritius	0.04	0.04	0.09	0.10	0.06	0.06	0.07	0.08	0.06	0.07
Malawi	0.19	0.28	0.38	0.27	0.32	0.22	0.24	0.35	0.38	0.45
Namibia	0.13	0.12	0.12	0.26	0.30	0.23	0.17	0.23	0.25	0.29
Niger	0.19	0.10	0.07	0.11	0.24	0.14	0.19	0.28	0.22	0.09
Nigeria	2.39	2.47	2.91	1.59	1.34	1.43	1.42	1.47	0.98	0.75
Rwanda	0.04	0.06	0.04	0.05	0.13	0.15	0.17	0.17	0.19	0.19
Sudan	1.01	0.63	0.44	0.47	0.03	0.07	0.04	0.08		
Senegal	0.28	0.20	0.32	0.29	0.28	0.34	0.27	0.41	0.39	0.47
Sierra Leone	0.02	0.03	0.06	0.08	0.05	0.05	0.05			
South-Sudan		0.04	0.04	0.03	0.01	0.03	0.01	0.01	0.01	0.01
Swaziland	0.03	0.03	0.03	0.04	0.02	0.03	0.06	0.06	0.06	0.08
Seychelles	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.01	0.01
Togo	0.04	0.05	0.04	0.05	0.05	0.07	0.08	0.06	0.09	0.07
Tunisia	0.54	0.53	0.57	0.56						
Tanzania	0.15	0.27	0.35	0.42	0.41	0.25	0.13	0.16	0.13	
Uganda	0.12	0.19	0.14	0.13	0.15	0.17	0.17	0.16	0.19	0.11
South Africa	2.33	2.11	1.99	1.97	2.02	2.11	1.93	1.94	1.86	2.52
Zambia	0.33	0.45	0.34	0.41	0.23	0.29	0.32	0.61	0.71	0.45
Zimbabwe			0.08	0.30	0.23	0.11	0.18	0.36	0.18	0.16

Source: ReSAKSS (Regional Strategic Analysts and Knowledge Support System). 2018
 Data compiled for tracking implementation of the Comprehensive Africa Agriculture Development Programme (CAADP).
<http://www.resakss.org/>

Government Agriculture Expenditure (% of agriculture value added)

Country / Region	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Angola	14.0	13.0	8.0	6.0	5.0	6.0	6.0	4.0	2.0	1.0
Burundi	4.0	2.0	2.0	2.0	4.0	3.0	2.0	2.0		
Benin	5.0	6.0	8.0	7.0	4.0	6.0	6.0	12.0	13.0	9.0
Burkina Faso	12.0	7.0	9.0	7.0	10.0	11.0	10.0	10.0	8.0	7.0
Botswana	56.0	41.0	40.0	59.0	43.0	43.0	33.0	31.0	31.0	23.0
Central African Republic			1.0	1.0	1.0	2.0	3.0			
Côte d'Ivoire	2.0	2.0	3.0	2.0	2.0	6.0	5.0	5.0	4.0	5.0
Congo, Dem. Rep. of	2.0	1.0	1.0							
Congo, Republic of	10.0	10.0	7.0	10.0	18.0	13.0				
Cape Verde	31.0	22.0	23.0	22.0	26.0	21.0	25.0	29.0	31.0	31.0
Djibouti	8.0	8.0	8.0	8.0	12.0	12.0	12.0	12.0	11.0	
Algeria	17.0	19.0	16.0							
Egypt	5.0	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	
Ethiopia	8.0	6.0	5.0	5.0	4.0	4.0	4.0	4.0	3.0	5.0
Ghana		3.0	3.0	3.0	3.0	4.0	1.0	1.0	1.0	
Guinea	7.0	7.0	6.0	6.0	8.0	9.0	7.0	8.0	6.0	9.0
Gambia, The	5.0	5.0	5.0	5.0	11.0	4.0	3.0	4.0	8.0	6.0
Equatorial Guinea	25.0	18.0	30.0							
Kenya	3.0	3.0	4.0	4.0	4.0	5.0	3.0	3.0	3.0	1.0
Liberia	1.0	1.0	7.0	11.0	8.0	14.0	16.0			
Lesotho	26.0	20.0	19.0	19.0	14.0	16.0	13.0	11.0	10.0	30.0
Morocco	5.0									
Madagascar	3.0	11.0	12.0	5.0	5.0	4.0	4.0	2.0	4.0	4.0
Mali	8.0	8.0	7.0	7.0	8.0	3.0	6.0	6.0	7.0	6.0
Mozambique	5.0	5.0	4.0	5.0	4.0	4.0	13.0	16.0	8.0	10.0
Mauritius	10.0	11.0	24.0	26.0	16.0	16.0	20.0	21.0	17.0	18.0
Malawi	13.0	16.0	19.0	13.0	15.0	11.0	11.0	15.0	16.0	20.0
Namibia	15.0	15.0	13.0	27.0	31.0	23.0	20.0	25.0	27.0	33.0
Niger	10.0	4.0	3.0	5.0	11.0	6.0	8.0	11.0	8.0	3.0
Nigeria	3.0	3.0	4.0	2.0	1.0	2.0	1.0	1.0	1.0	1.0
Rwanda	3.0	4.0	2.0	3.0	8.0	8.0	8.0	8.0	8.0	7.0
Sudan	7.0	4.0	3.0	3.0						
Senegal	20.0	12.0	17.0	14.0	17.0	18.0	14.0	21.0	16.0	18.0
Sierra Leone	2.0	3.0	5.0	6.0	3.0	3.0	3.0			
Swaziland	7.0	7.0	8.0	9.0	5.0	7.0	12.0	12.0	11.0	
Seychelles	16.0	14.0	13.0	17.0	29.0	18.0	21.0	22.0	36.0	59.0
Togo	4.0	4.0	4.0	5.0	5.0	4.0	5.0	4.0	5.0	4.0
Tunisia	16.0	16.0	16.0	17.0						
Tanzania	2.0	3.0	4.0	4.0	4.0	2.0	1.0	1.0	1.0	
Uganda	3.0	5.0	3.0	2.0	3.0	3.0	3.0	3.0	3.0	2.0
South Africa	25.0	20.0	20.0	22.0	23.0	25.0	23.0	22.0	21.0	28.0
Zambia	18.0	23.0	16.0	21.0	11.0	13.0	16.0	36.0	55.0	37.0
Zimbabwe			8.0	26.0	19.0	9.0	14.0	23.0	12.0	11.0

Source: ReSAKSS (Regional Strategic Analysts and Knowledge Support System). 2018
 Data compiled for tracking implementation of the Comprehensive Africa Agriculture Development Programme (CAADP).
<http://www.resakss.org/>

Researchers, Government (FTEs)

Country	2007	2008	2009	2010	2011	2012	2013	2014
Benin	64.9	64.9	86.0	88.0	89.0	105.0	105.0	97.0
Botswana	82.8	68.6	78.4	85.7	94.1	96.7	100.8	100.2
Burkina Faso	217.4	215.3	188.9	185.9	179.5	189.8	204.2	275.4
Burundi	72.8	78.1	59.6	67.6	74.8	77.5	82.9	83.5
Cabo Verde			23.0	23.0	21.0	20.0	19.0	21.0
Cameroon						209.4	200.1	193.8
Central African Rep.			81.8	81.8	94.8			
Chad			39.5	50.6	60.3	64.5	73.4	80.9
Congo, Dem. Rep.			229.5	263.5	299.5	301.4	317.5	323.2
Congo, Rep.	73.4	73.4	69.6	74.4	76.8	72.3	69.7	73.4
Cote d'Ivoire	119.8	122.0	122.1	129.7	122.3	115.8	124.5	157.3
Eritrea	87.8	80.5	80.1	74.1	78.4			
Ethiopia	1,241.6	1,215.8	1,273.4	1,479.1	1,720.5	1,878.7	2,296.8	2,482.9
Gabon	40.6	48.1	48.6	42.8	33.9	34.7	34.7	35.3
Gambia, The	34.2	34.4	39.2	45.0	50.1	51.6	55.6	49.4
Ghana	354.8	374.4	378.9	390.5	428.0	420.5	406.4	407.6
Guinea	193.9	187.1	212.2	214.6	215.6	221.0	222.8	224.9
Guinea-Bissau			11.0	11.0	9.0			
Kenya	726.8	738.4	813.2	811.7	831.8	811.6	810.0	789.0
Lesotho	32.6	33.1	33.6	35.6	33.6	37.0	35.0	36.0
Liberia			9.0	20.0	32.0			
Madagascar	147.9	144.4	137.8	140.2	139.9	137.8	148.2	154.1
Malawi	73.4	70.9	81.7	99.7	101.9	72.8	84.3	87.8
Mali	158.2	192.5	214.1	224.7	233.4	226.6	233.6	239.0
Mauritania	68.7	63.2	40.3	44.9	52.0	64.9	69.9	75.2
Mauritius	86.0	87.3	93.9	89.9	94.1	103.3	107.5	111.3
Mozambique	195.0	208.0	214.0	220.0	248.0	208.0	233.0	243.0
Namibia	55.0	58.5	60.1	60.7	59.1	65.0	62.9	69.8
Niger	78.4	78.2	95.8	93.7	98.0	113.8	114.9	141.5
Nigeria	1,048.6	1,212.3						
Rwanda	84.0	80.0	85.0	98.0	111.0	126.0	156.0	104.0
Senegal	115.0	108.5	87.0	76.5	86.5	86.0	86.5	89.0
Sierra Leone	36.0	40.0	65.0	68.0	67.0	101.0	114.0	109.0
South Africa	626.9	606.9	530.7	624.3	621.2	646.1	604.0	620.4
Swaziland			10.5	9.8	9.1	6.8	8.0	7.2
Tanzania	531.9	517.2	494.6	497.2	603.9	617.2	605.6	602.6
Togo	55.4	41.3	52.7	72.1	83.1	82.8	83.9	82.7
Uganda	190.8	198.2	215.6	207.0	233.5	280.9	284.0	273.2
Zambia	142.3	174.8	182.9	188.8	184.7	161.6	174.2	188.4
Zimbabwe	82.5	104.9	124.7	115.6	122.3	103.0	113.4	120.0

Source: ASTI (Agricultural Science and Technology Indicators). ASTI database. International Food Policy Research Institute (IFPRI). <http://www.asti.cgiar.org/>

Spending, Total (as a share of AgGDP, %)

Country	2007	2008	2009	2010	2011	2012	2013	2014
Benin	0.5	0.6	0.5	0.6	0.7	0.5	0.5	0.5
Botswana	5.3	3.8	3.7	3.5	2.9	2.5	3.0	2.9
Burkina Faso	0.8	0.5	0.7	0.7	0.8	0.7	0.9	1.0
Burundi	0.9	0.7	0.8	0.6	0.6	0.5	0.4	0.5
Cabo Verde			1.0	1.1	1.1	1.1	0.9	1.0
Cameroon						0.3	0.3	0.3
Central African Rep.			0.1	0.1	0.2			
Chad			0.1	0.1	0.1	0.1	0.1	0.1
Congo, Dem. Rep.			0.2	0.2	0.2	0.3	0.3	0.3
Congo, Rep.	0.9	1.1	1.0	0.9	1.0	0.6	0.6	0.4
Cote d'Ivoire	0.7	0.6	0.6	0.5	0.5	0.6	0.5	0.5
Eritrea	0.4	0.6	0.4	0.4	0.3			
Ethiopia	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2
Gabon	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1
Gambia, The	0.9	0.6	0.5	0.3	0.8	1.0	0.7	0.8
Ghana	0.6	0.6	0.7	0.7	0.7	0.8	0.9	1.0
Guinea	0.2	0.1	0.1	0.1	0.2	0.4	0.3	0.3
Guinea-Bissau			0.0	0.0	0.0			
Kenya	1.3	1.2	1.1	1.0	0.9	0.9	0.8	0.8
Lesotho	1.4	1.3	1.3	0.9	1.0	1.0	1.2	0.9
Liberia			0.4	0.5	0.5			
Madagascar	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Malawi	0.6	0.5	0.7	0.7	0.7	0.8	0.7	0.5
Mali	0.7	0.5	0.6	0.6	0.6	0.4	0.4	0.4
Mauritania	0.8	0.4	0.5	0.6	0.5	0.5	0.5	0.5
Mauritius	3.9	4.0	4.9	5.8	4.8	5.5	6.2	5.9
Mozambique	0.4	0.3	0.4	0.4	0.4	0.4	0.3	0.4
Namibia	2.1	2.8	2.2	1.9	2.4	1.9	2.4	3.1
Niger	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nigeria	0.3	0.4	0.3	0.2	0.3	0.2	0.2	0.2
Rwanda	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7
Senegal	0.8	0.8	0.8	0.8	0.9	0.6	0.9	1.1
Sierra Leone	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2
South Africa	2.1	1.9	2.0	2.2	2.4	2.9	3.1	2.8
Swaziland			1.9	2.0	1.5	0.7	0.9	0.9
Tanzania	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3
Togo	0.5	0.4	0.3	0.4	0.4	0.2	0.2	0.2
Uganda	1.1	1.2	0.8	0.9	0.9	0.7	0.8	1.0
Zambia	0.4	0.4	0.3	0.4	0.4	0.4	0.5	0.5
Zimbabwe	0.3	0.5	0.4	0.7	0.9	1.3	1.7	1.4

Source: ASTI (Agricultural Science and Technology Indicators). ASTI database. International Food Policy Research Institute (IFPRI).
<http://www.asti.cgiar.org/>

Spending, Total (million constant 2011 PPP dollars per million population)

Country	2007	2008	2009	2010	2011	2012	2013	2014
Benin	2.2	2.7	2.2	2.4	3.0	2.1	2.0	2.2
Botswana	15.6	13.1	13.1	11.9	10.3	9.8	11.1	10.5
Burkina Faso	1.6	1.6	1.6	1.8	1.9	1.9	2.5	2.8
Burundi	2.2	1.9	2.1	1.5	1.5	1.3	1.2	1.3
Cabo Verde			5.2	5.4	5.6	6.0	4.5	4.6
Cameroon						1.9	1.6	2.0
Central African Rep.			0.6	0.6	0.8			
Chad			1.0	1.2	1.2	1.4	1.1	0.9
Congo, Dem. Rep.			0.3	0.3	0.4	0.4	0.5	0.5
Congo, Rep.	2.0	2.1	2.3	2.0	1.9	1.3	1.4	1.3
Cote d'Ivoire	4.5	4.2	3.8	3.6	3.8	3.7	3.7	3.9
Eritrea	1.3	1.2	0.7	0.5	0.5			
Ethiopia	1.1	0.9	1.0	1.2	1.1	1.1	1.3	1.3
Gabon	1.0	0.7	1.1	1.0	0.5	0.6	0.7	0.7
Gambia, The	2.9	2.4	1.9	1.6	2.7	3.6	2.5	2.7
Ghana	4.5	5.3	6.4	5.9	5.9	6.2	7.5	7.5
Guinea	0.4	0.4	0.3	0.3	0.5	0.8	0.6	0.6
Guinea-Bissau			0.3	0.1	0.1			
Kenya	6.4	6.1	6.0	6.0	6.1	5.9	5.9	6.0
Lesotho	2.0	1.9	1.9	1.3	1.2	1.3	1.5	1.2
Liberia			1.5	1.6	1.6			
Madagascar	0.7	0.7	0.6	0.4	0.4	0.4	0.4	0.4
Malawi	1.6	1.4	2.1	2.2	2.3	2.4	2.0	1.7
Mali	3.3	2.9	3.4	3.5	3.5	2.7	2.5	2.4
Mauritania	6.4	3.1	4.1	3.7	3.3	3.2	3.6	3.9
Mauritius	21.4	21.2	25.1	28.8	25.0	28.1	30.8	28.1
Mozambique	0.8	0.8	1.0	1.1	0.9	1.0	0.9	1.1
Namibia	14.4	17.3	14.7	13.9	17.2	13.9	13.1	16.5
Niger	0.5	0.6	0.8	0.8	0.8	0.7	0.8	0.8
Nigeria	3.0	3.6	3.2	3.0	3.2	2.7	2.6	2.4
Rwanda	2.2	2.2	2.4	2.5	2.7	3.0	3.0	3.3
Senegal	2.0	2.5	2.6	2.8	2.6	2.0	2.7	3.5
Sierra Leone	1.2	1.6	1.8	1.7	1.6	1.6	2.4	2.5
South Africa	6.7	6.6	6.4	6.4	6.6	7.6	8.0	7.9
Swaziland			6.8	7.5	5.3	3.7	4.9	5.4
Tanzania	2.2	2.4	2.4	2.6	2.2	2.0	1.9	2.0
Togo	2.0	2.0	1.1	1.7	1.7	1.0	0.8	1.0
Uganda	3.4	3.7	3.1	3.5	3.4	3.0	3.3	3.9
Zambia	1.5	1.3	1.2	1.5	1.3	1.4	1.8	1.8
Zimbabwe	0.9	1.1	0.6	1.2	1.6	2.6	3.1	3.0

Source: ASTI (Agricultural Science and Technology Indicators). ASTI database. International Food Policy Research Institute (IFPRI). <http://www.asti.cgiar.org/>

Researchers, Total (FTEs per 100,000 farmers)

Country	2007	2008	2009	2010	2011	2012	2013	2014
Benin	6.7	6.8	8.1	8.3	8.6	9.0	9.5	9.6
Botswana	37.2	32.3	33.9	35.2	39.3	40.7	42.2	42.4
Burkina Faso	4.1	3.9	3.5	3.4	3.2	3.2	3.3	4.2
Burundi	2.4	2.6	2.2	2.5	2.8	2.9	3.0	3.1
Cabo Verde			71.9	71.9	67.7	67.7	66.7	74.2
Cameroon						6.9	6.5	6.3
Central African Rep.			9.6	9.4	10.7			
Chad			1.5	1.9	2.2	2.3	2.6	2.8
Congo, Dem. Rep.			2.8	3.1	3.4	3.4	3.5	3.6
Congo, Rep.	19.5	19.5	18.7	19.4	19.6	18.8	18.4	19.1
Cote d'Ivoire	6.9	7.2	7.3	7.4	7.0	7.3	7.9	9.3
Eritrea	7.2	6.7	7.0	6.5	6.7			
Ethiopia	4.6	4.4	4.5	5.1	5.6	5.9	7.0	7.5
Gabon	24.5	28.2	30.3	27.8	22.3	23.5	24.1	24.6
Gambia, The	8.2	7.6	7.8	8.8	9.4	9.4	10.0	9.0
Ghana	8.3	8.5	8.7	8.9	9.5	9.1	8.8	8.7
Guinea	5.7	5.4	6.0	5.9	5.8	5.7	5.7	5.7
Guinea-Bissau			2.4	2.4	1.9			
Kenya	7.8	7.9	8.3	8.2	8.3	8.0	8.2	8.1
Lesotho	12.7	12.6	12.5	13.0	12.2	13.3	12.8	13.1
Liberia			2.1	3.4	4.9			
Madagascar	2.9	2.8	2.6	2.6	2.6	2.4	2.4	2.5
Malawi	2.7	2.7	2.9	3.2	3.4	2.7	2.8	2.9
Mali	7.8	9.0	9.6	9.7	9.9	9.3	9.3	9.3
Mauritania	10.5	9.6	6.5	7.6	8.2	9.4	9.6	10.0
Mauritius	309.0	322.3	307.0	311.3	341.8	344.0	364.5	382.2
Mozambique	2.9	3.0	3.1	3.1	3.5	2.8	3.1	3.2
Namibia	28.2	32.3	32.4	34.3	34.9	36.8	36.4	38.0
Niger	2.4	2.3	2.7	2.8	2.8	3.1	3.1	3.6
Nigeria	14.0	16.6	18.0	18.9	20.8	21.1	22.3	23.7
Rwanda	2.9	2.8	3.2	3.5	3.6	3.9	4.5	3.4
Senegal	3.8	3.6	3.0	2.6	2.9	2.8	2.8	2.8
Sierra Leone	4.3	4.6	5.9	6.3	6.2	8.7	9.6	9.2
South Africa	60.3	60.2	55.9	65.7	67.2	72.4	69.9	74.6
Swaziland			20.6	20.1	20.7	17.3	20.0	20.0
Tanzania	4.4	4.2	4.1	4.1	4.7	4.7	4.6	4.5
Togo	6.3	5.2	6.1	7.6	8.5	8.9	8.8	8.6
Uganda	3.1	3.0	3.2	3.0	3.2	3.7	3.8	3.8
Zambia	6.3	7.2	7.3	7.2	6.9	6.1	6.4	6.7
Zimbabwe	3.7	4.8	5.3	5.2	5.3	5.0	5.5	5.8

Source: ASTI (Agricultural Science and Technology Indicators), ASTI database. International Food Policy Research Institute (IFPRI). <http://www.asti.cgiar.org/>

Researchers, Total (FTEs per million population)

Country	2007	2008	2009	2010	2011	2012	2013	2014
Benin	12.9	12.9	14.9	15.0	15.3	15.7	16.3	16.1
Botswana	58.1	50.6	53.3	55.6	62.3	64.7	67.3	67.6
Burkina Faso	16.9	16.4	14.7	14.2	13.6	13.6	14.1	17.8
Burundi	10.9	11.5	9.9	11.1	12.3	12.6	13.1	13.5
Cabo Verde			47.3	47.1	42.8	42.5	40.1	44.1
Cameroon						12.0	11.0	10.5
Central African Rep.			27.7	26.7	30.2			
Chad			4.0	5.0	5.7	5.9	6.5	6.9
Congo, Dem. Rep.			6.2	6.7	7.2	7.1	7.4	7.4
Congo, Rep.	26.9	26.4	24.7	25.2	24.9	23.4	22.5	22.9
Cote d'Ivoire	10.6	10.7	10.6	10.6	9.8	9.9	10.6	12.2
Eritrea	21.5	19.9	20.6	19.3	19.7			
Ethiopia	17.4	16.8	17.2	19.3	21.6	22.8	26.9	28.7
Gabon	33.0	36.7	38.1	33.8	26.7	27.7	28.2	28.5
Gambia, The	28.5	26.4	27.2	30.8	33.0	32.8	35.2	31.6
Ghana	20.6	21.0	21.6	22.1	23.8	22.8	22.1	21.7
Guinea	22.0	20.9	23.0	22.6	22.3	21.9	21.7	21.5
Guinea-Bissau			7.1	6.9	5.5			
Kenya	26.0	26.0	27.4	26.9	27.0	25.9	26.1	25.9
Lesotho	21.4	21.2	21.0	21.8	20.2	22.1	21.2	21.7
Liberia			4.9	7.8	11.1			
Madagascar	10.1	9.6	9.0	9.1	9.0	8.3	8.5	8.7
Malawi	9.0	8.8	9.5	10.6	11.2	8.7	9.3	9.4
Mali	15.9	18.1	19.2	19.3	19.5	18.2	18.2	18.1
Mauritania	22.6	20.7	13.9	16.4	17.8	20.3	20.8	21.6
Mauritius	129.2	129.1	117.6	116.3	121.8	116.5	120.1	122.4
Mozambique	10.9	11.3	11.5	11.5	12.8	10.5	11.4	11.6
Namibia	33.9	38.4	38.1	40.0	40.3	42.1	41.1	42.4
Niger	6.5	6.3	7.5	7.5	7.7	8.5	8.3	9.8
Nigeria	11.7	13.6	14.3	14.6	15.7	15.6	16.1	16.7
Rwanda	12.0	11.6	12.9	14.3	14.7	15.8	18.3	14.0
Senegal	11.7	11.0	9.1	8.0	8.8	8.6	8.5	8.6
Sierra Leone	10.1	10.6	13.5	14.1	13.9	19.4	21.1	19.9
South Africa	15.8	15.2	13.6	15.4	15.2	15.8	14.8	15.3
Swaziland			24.4	23.5	23.5	19.4	22.1	21.6
Tanzania	16.8	16.0	15.7	15.4	17.6	17.5	17.1	16.9
Togo	13.7	11.3	13.2	16.3	17.9	18.7	18.4	17.9
Uganda	10.3	10.1	10.4	10.0	10.6	12.1	12.2	12.3
Zambia	15.7	17.9	18.0	17.8	17.0	14.8	15.5	16.3
Zimbabwe	9.2	12.0	13.2	12.8	13.2	12.3	13.5	14.3

Source: ASTI (Agricultural Science and Technology Indicators), ASTI database. International Food Policy Research Institute (IFPRI). <http://www.asti.cgiar.org/>

