

Translating Policy Intent into Action:

A Framework to Facilitate
Implementation of Agricultural
Policies in Africa

MATTHEW ELDRIDGE
JUSTIN MILNER
JAMES LADI WILLIAMS

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Translating Policy Intent into Action: A Framework to Facilitate Implementation of Agricultural Policies in Africa

Agriculture is crucial for Africa's development. More than half the continent's employment is in agriculture, and the sector accounts for approximately 15 percent of sub-Saharan Africa's total gross domestic product.¹ With its large social and economic footprint, agriculture has the potential to advance a range of national and regional priorities, including poverty eradication, food security, and job creation. Evidence from the so-called Green Revolutions in Asia and Latin America in the 20th century attests to the link between improved agricultural productivity and progress on development outcomes.²

In recent years, significant progress has been made in outlining a vision and identifying data-based policies for inclusive agricultural transformation (IAT) in Africa³—defined by the Bill & Melinda Gates Foundation as “productivity-led growth in the smallholder sector that spurs rural sector economic growth and delivers broad and accelerated impacts favoring the poor, especially women.”⁴ The pan-African ambition for such transformation was codified in the 2003 Comprehensive Africa Agriculture Development Programme⁵ and reaffirmed by the African Union Heads of State and Government in the 2014 Malabo Declaration on Agriculture.⁶

However, progress toward IAT in Africa has not kept pace with ambition. One reason is that even when governments identify, design, and approve policies based on the best available evidence, they struggle to implement them. In practice, getting the “right” reforms passed is only one step. If implementation stalls, those policies may end up on the proverbial shelf, where they live on paper but contribute very little, if at all, to meaningful changes in the lives of citizens. Therefore, understanding and improving what we term the “implementability” of a given policy (box 1) is key.

Potential barriers to implementation cover numerous technical and nontechnical issues that can persist even when policies are informed by evidence and leaders have the best intentions. Although implementation of government policy remains largely the responsibility of governments, donors like the Gates Foundation can take actions—assessing implementability, strengthening analytic capacity, making targeted investments, convening key partners, focusing attention, etc.—to help tackle some of the barriers to effective implementation.

BOX 1

Key Terms

This document uses several key terms, which we define as follows:

- The **policy process** has several overlapping stages: problem identification, policy formulation, approval, implementation, and evaluation. The process is not linear and contained; rather, it is dynamic, messy, and contested.
- A **public policy** is a statement by government about what it intends to do about a public problem.⁷ This project uses a broad definition of policies to accommodate a range of formal government decisions, including laws and executive orders that forge agreement, regulate, subsidize, and invest.
- **Policy implementation** is the execution of a policy decision in line with its stated goals or objectives. Implementation involves several actions, including planning, mobilizing resources, coordinating stakeholders, monitoring performance, and ensuring accountability for results.
- **“Implementability”** is the degree to which a policy can be successfully carried out and is determined by technical and nontechnical factors at the intersection of the policy design and the implementation environment.

This document is the culmination of an effort undertaken by the Urban Institute to help the Bill & Melinda Gates Foundation’s African agriculture team better understand and support effective implementation of evidence-informed agricultural policies by African governments and their partners.⁸ Reflecting the goals of the project, this document is divided into three sections:

1. **Synthesis of evidence** on policy implementation concepts, barriers, and opportunities, particularly in the African agriculture sector
2. A **framework** to improve the implementability of specific policies
3. **Five policy case analyses** to illustrate the application of implementation analysis and the framework to select policies

1

Observations on Implementing Agricultural Policies in Africa



Observations on Implementing Agricultural Policies in Africa

Policy implementation is often an overlooked and underappreciated component of the policy process. Although no grand unifying theory exists to frame analysis of policy implementation, decades of theoretical and practical work have generated valuable insights to inform how to think about implementation: it links policy intent to outcomes, demands action (and may be impeded by the lack of it), and involves complex interactions between various stakeholders.

Although the field may lack an overarching approach, successful policy implementation is clearly crucial to achieving a policy's intended benefits. And while the implementation “blind spot” is a challenge for policymakers in many sectors and regions, it is especially relevant for the African agriculture sector, where seemingly strong policies fail to realize anticipated outcomes. Many of the African agriculture experts interviewed for this project described implementation as a “missing link.”⁹ The literature also supports this view, indicating a gap in the field's understanding of implementation in agriculture. For example, Alliance for a Green Revolution in Africa's *Africa Agriculture Status Report 2018*¹⁰ notes that African governments have a clear understanding of the policies required to drive agricultural transformation in their countries, but there is much less clarity on how to prioritize and implement those policies.

Although context varies considerably from country to country, our research yields several observations regarding the IAT policy landscape in Africa:

- **National visions for agricultural transformation often exceed national capacities to implement transformative policies.** Many countries adopt plans and visions for their agriculture sector and rural economic development. Often written as national agriculture investment plans (NAIPs), these exercises can be overly ambitious, fail to prioritize policy options, and be inconsistent with the government's ability to implement them. Governments with insufficient capacity—made up of resources, systems, and institutions—have difficulty undertaking functions essential to implementation, including planning, mobilizing resources, coordinating diverse stakeholders, and monitoring performance. Ethiopia's NAIP, for instance, notes that the primary challenge facing its agriculture sector is not the lack of comprehensive or consistent policies, but limited institutional capacity, including insufficient human resources to implement those policies.¹¹ As one interviewee put it, some agricultural policies “may be too complex for what a country can do.” Furthermore, national ambitions and policies set in the capital may be incompatible with the capacity at lower levels of government and/or may not take into consideration capacity variations across levels of government. For subnational governments, unfunded mandates, or the devolution of implementation responsibilities without facilitating resources, stymie policy implementation.¹²

- **Policies are sometimes approved without securing the resources needed to implement them,** leaving implementing agencies without the funding to cover necessary capital or operational expenses (e.g., staffing offices and delivering services). Sometimes, policies are implemented piecemeal or without funding for core components. For example, budget constraints have made ensuring compliance and monitoring of input subsidy and micronutrient policies a challenge in Ghana, Malawi, South Africa, Tanzania, and Zambia.¹³ Although countries may draw from external sources to finance implementation, interviewees questioned the sustainability of this practice. Other funding models, such as public-private partnerships, may be appropriate in certain contexts but carry their own challenges such as government capacity to manage contractor performance. Budget constraints affect other elements needed for successful implementation. Infrastructure projects that are not built or are not well-maintained because of funding gaps can limit the effectiveness of a policy's implementation and impact, especially policies that target smallholder-led agricultural transformation.¹⁴ The poor condition of transportation systems, including road and rail, and inadequate midstream logistics, like warehouses, storage, and processing systems, are specific examples.¹⁵

- **Pilots can be useful opportunities to test some policies but only if conducted under realistic conditions and designed with clear learning objectives linked to implementation at scale.** Pilots—which provide an opportunity to test a policy in a specific place for a specific period of time and with a clear monitoring framework—can offer cost-effective opportunities to learn the strengths and weaknesses of a new policy before full (costly) implementation in order to amend the design and improve implementability. Pilots can also be used to conduct A/B testing, where different variations of policy components are tested to compare effectiveness (e.g., a subsidy set at three different levels). Pilots should be seen as data collection and policy refinement opportunities and as complementary inputs to, not substitutes for, careful design and planning. Unfortunately, because pilots are closely scrutinized, implementers and champions feel significant pressure for the pilot to succeed, which may translate into pilots that are designed and supported in ways that are unrealistic at scale and make failure unlikely. This can undermine their ability to provide accurate data useful for improving the policy's implementability. As a result, “pilots never fail, [but] pilots never scale.”¹⁶ Additionally, not all policies are suitable for a pilot (e.g., trade agreements), and a number of factors need to be considered when determining where to run a pilot and how to interpret data for other, dissimilar contexts.

- **Poor coordination and overlapping mandates create confusion during implementation.** Coordination of entities tasked with implementation is a challenge horizontally (i.e., across government ministries), vertically (i.e., between different tiers of government), and between state and nonstate actors such as businesses.¹⁷ Overlapping mandates, without guidance on roles or responsibilities, worsen the coordination challenge by making ensuring accountability for results more difficult.¹⁸ Researchers and interviewees attributed this challenge to the absence and inadequacy of coordinating mechanisms and protocols and guidelines on implementation.

- **Political obstacles, such as a lack of sustained political leadership and conflicting stakeholder interests, can undermine implementation.** Momentum for implementation depends on sustained commitment from leaders¹⁹ and can be vulnerable to shifting priorities because of political transitions. Cultivating champions and bringing new leadership up to speed to advance ongoing reforms takes time and effort. Recent experiences with input subsidies on the continent show that politicians and other powerful stakeholders (e.g., marketing board members) have incentives to undermine policy implementation—by targeting benefits unequally, in ways that lead to greater support for them at the polls.²⁰ Such political economy–related barriers can undermine progress even in cases where technical elements (e.g., clear policies and sufficient budget) are in place. As one respondent said: “People know what to do and sometimes how to do it but [have] no incentive to do it because of political economy reasons. This is bigger than operational issues of who is going to do what.” Even when leaders are committed to implementing adopted policies, they typically must contend with diverse stakeholder groups, including those that deliberately hold back reform processes to protect their interests.
- **Incautious donor initiatives can lead to fragmentation and undermine country-led processes.** Limited domestic funding for the agriculture sector in many African countries and government human capacity constraints create a need for continued financial and technical assistance from donors. Although donor support can be instrumental in enabling the passage and implementation of evidence-based reforms, it can also complicate governments’ policy reform efforts. Donor interventions in the agriculture sector are often uncoordinated, creating bureaucratic burdens for governments, reinforcing tendencies toward siloed work, and limiting “scope for coherence between agriculture, industry, and trade policies.”²¹ Furthermore, donors often champion policies that countries cannot afford to implement, and their prominent funding role in the sector creates incentives for governments to craft “unrealistic [Comprehensive Africa Agriculture Development Programme] investment plans comprising unmanageably long lists of investment projects to attract as much funding as possible.”²² In other cases, donors may insist on their own priorities and approaches to policy implementation, without regard for government preferences; in Tanzania, for example, donors pushed for a strong private-sector role in irrigation planning that was inconsistent with the central role that agricultural ministries had envisioned for themselves.²³

2

Policy Implementation Assessment Framework

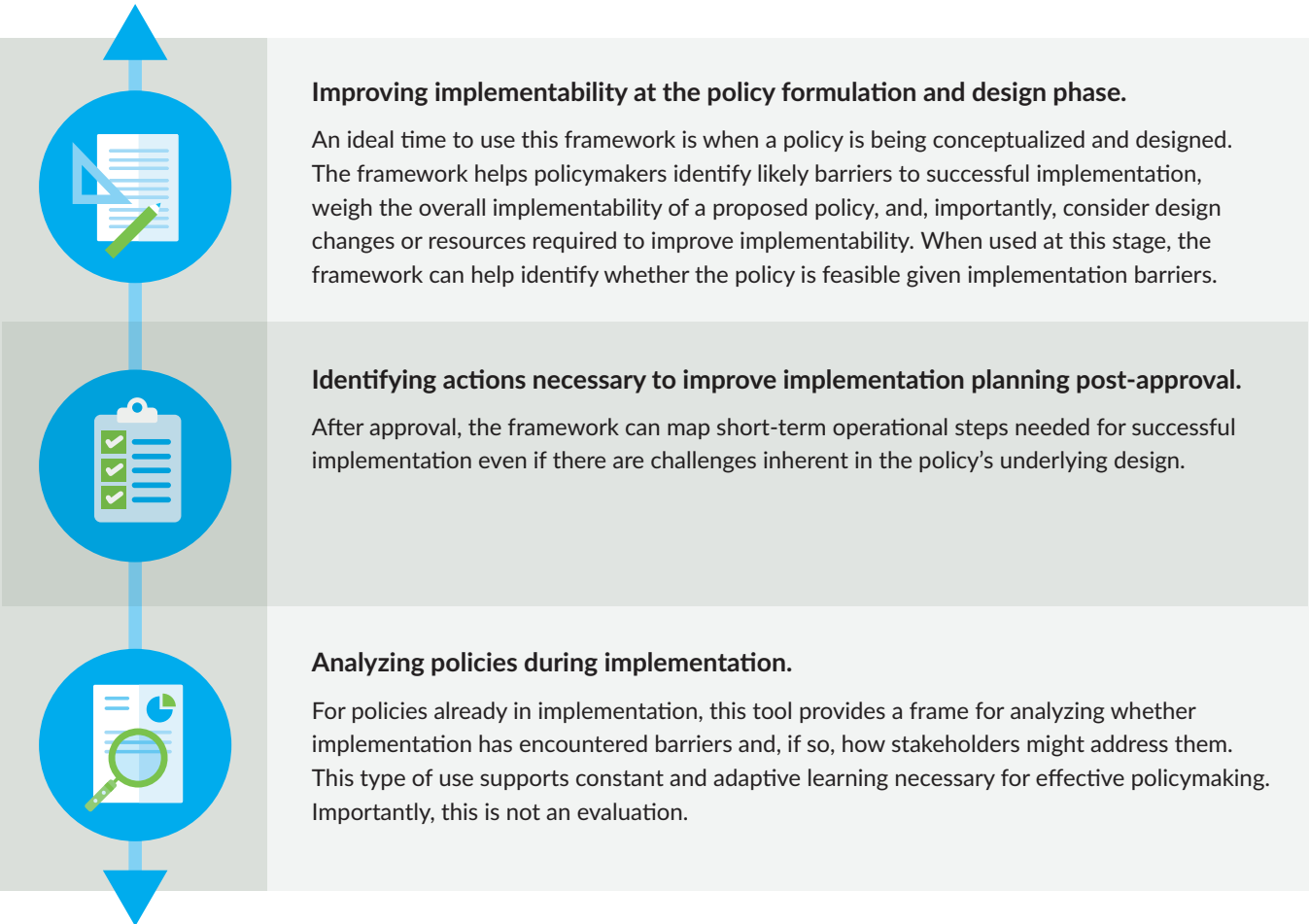


Policy Implementation Assessment Framework

Successfully implementing agriculture policies in Africa has proved challenging, with many promising policies sitting on the shelf after approval or stalling in the middle of implementation. Understanding implementation challenges and what can be done to improve the implementability of a given policy is central to prioritizing and advancing policies that support IAT across the continent.

Building on insights from literature and expert and practitioner interviews, we present a framework to support identifying, understanding, and addressing common challenges to implementing agricultural policies in Africa. This framework is designed to be used by donors and their partners to help structure their efforts to support more effective implementation of government policies for IAT. Although government officials are not the intended users of this version of the framework, this resource should be used in dialogue and collaboration with relevant government stakeholders²⁴ at each stage.

This framework has utility in at least three interconnected parts of the policy process:



To illustrate the utility of the framework, we demonstrate in box 2 how it might be used to support implementation of a national agriculture investment plan across three stages of the policy process: design, planning, and implementation.

The nature of the tool—designed around identifying common issues, providing guiding questions, and offering a menu of response options—aims to be responsive and flexible to different policy contexts. In the long run, the framework may be adapted into a public resource to help guide policy prioritization and design decisions by government policymakers and their partners (e.g., advisers, civil society organizations, and other donors).

BOX 2

Three Scenarios For Using This Framework

Using a hypothetical NAIP as an example, here are three scenarios (aligned with the three relevant policy stages) for using this framework:

- **Design and formulation.** The government of a partner country is planning to update its NAIP but is concerned about the poor implementation of the previous plan. While in the design phase, the government has requested donor support to improve the implementability of its new NAIP. Using the framework to focus on considerations like a realistic budget estimate, the political economy context, and alignment with existing policies and priorities, the government and its partners can focus the NAIP on policies with more potential for a successful implementation. As a result, the government develops a NAIP with the greatest potential to support IAT.
- **Post-approval planning.** The government has just approved the NAIP, and the Ministry of Agriculture is requesting donor support to plan implementation. Using the framework, partners can identify steps that improve implementability of the NAIP's constituent policies, including identifying necessary human resource capacities, developing clear guidance to support implementers, developing communications and stakeholder engagement strategies to inform key groups and enlist support, and building a monitoring plan to improve implementation and enable accountability.
- **Implementation.** It has been two years since the government officially began implementation of the NAIP, but anecdotal evidence suggests key elements of the NAIP have stalled. The head of government creates a commission to review progress and requests donor support. Using the framework, the commission and its donor partners can review to what extent major barriers have stymied implementation. The framework organizes an implementation analysis by presenting and describing potential barriers (e.g., poor policy targeting, a lack of institutional accountability mechanisms, insufficient infrastructure) and suggesting actions to help address them.

Considerations When Using the Framework

The policy process is messy and dynamic. No framework can fully account for all motivations, power structures, and norms. By elevating essential questions, this framework allows users to better manage the inherent complexity of implementation. It offers an approach for considering the implementability of agricultural policies and identifying where investments can make significant contributions to implementation success and drive more informed, strategic, and coordinated decisions in different contexts.

The following are some important considerations when using this framework:

- The framework does not prescribe a single course of action. Nor does it assume that a set of prepackaged solutions exists to fix all implementation problems. Rather, the framework represents an illustrative *menu* of steps a funder could take to improve implementation. Depending on the policy and the implementation context, different approaches and actions (or a combination of actions) will represent the preferred investments.
- The framework offers sample questions stakeholders may wish to ask to better understand how a given policy relates to each factor. These questions are meant to be illustrative, not exhaustive, and in using the framework, stakeholders will likely identify policy- and context-specific questions.
- The framework offers broadly relevant considerations, questions, and actions related to agriculture policy implementation. Policy case analyses in section 3 help illustrate how using the frameworks' organized identification and definition of domains and factors can help stakeholders better understand implementation considerations of actual policy instruments.
- Although implementability is an important consideration for identifying appropriate policies to support IAT, it should be interpreted alongside other data on the strength of a policy, and other tools and resources (such as evidence clearinghouses²⁷) remain crucial.
- The framework is a tool that will complement, but not replace, expertise. Stakeholders who understand the local landscape will be as important as the content itself.
- Analyses completed using this framework may lead to the conclusion that certain challenges (e.g., large budget gaps, an unfavorable political landscape) are not solvable in the short or medium term.

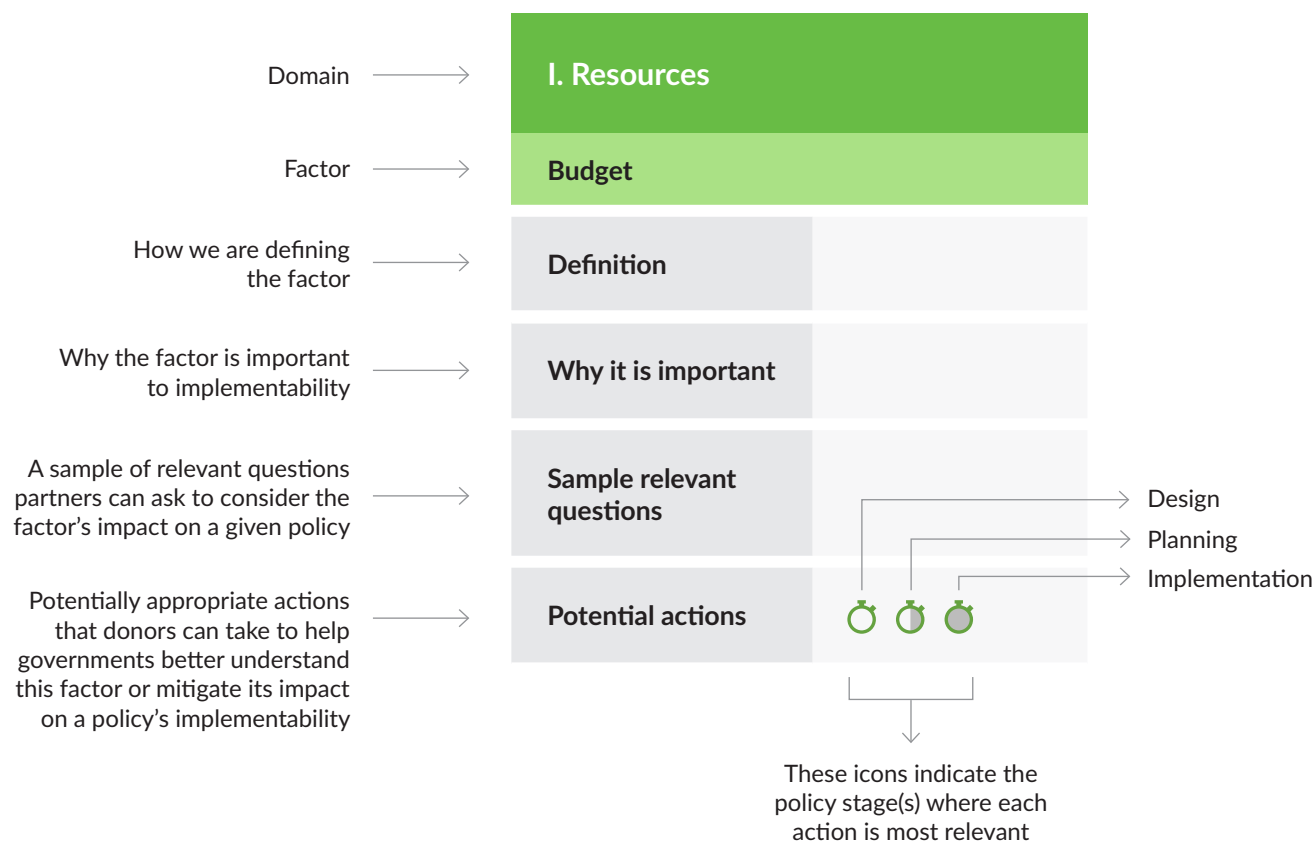
Finally, this framework is designed to improve implementation success, not ensure policy *outcomes*. Although the two are related (successfully implementing an evidence-based policy is more likely to yield the intended policy goals than an unsuccessfully implemented policy), they are distinct, and a wide range of other factors, including those within and outside the control of policymakers, can influence outcomes.

Framework Structure

The framework identifies five domains (not ranked in order of importance) to support analysis and action planning. Each domain represents a set of considerations that are important for policy implementation.



Within each domain, the framework also specifies select “factors.” These factors are specific elements that allow for deeper implementation planning and analysis. For example, within the resources domain, we have identified budget, human resources, and infrastructure and physical resources as crucial factors. For each factor, we present:



Context is crucial for determining implementability. Although this tool is structured to surface questions and implementation issues with broad relevance, each policy and country will have unique characteristics that require case-by-case discussion and analysis.

Before using the framework, users should ensure they have a thorough understanding of the policy, including its goals and the policy context. Additionally, users should be able to clearly articulate the policy’s logic and its value proposition. Securing this requires that a policy have a coherent **theory of change**²⁵ and that a **cost-benefit analysis**²⁶ of the policy’s impacts be conducted.

Framework Sections

For each factor, opportunities for donors to support implementation may vary depending on the stage of the policy process. Although all the factors are important, the table below categorizes where opportunities for actionable efforts or investments can be most relevant within the three stages: policy formulation and design, post-approval planning, and implementation.

Importantly, these scores are not the same as the factor’s “importance” to implementability at that stage. Rather, the scores are intended to guide donors in timing/aligning their engagement with points in the policy process where such engagement is likely to have the greatest impact on a policy’s implementability. Finally, even though these scores are meant to highlight opportunities for action, they are based on subjective determinations and may not reflect the full range of opportunities for government to support implementation for each factor and policy stage.

- = **Relatively limited opportunities** for donors and partners to support governments on the factor at this stage
- = **Some opportunities** for donors and partners to support governments on the factor at this stage
- = **Significant opportunities** for donors and partners to support governments on the factor at this stage; there is at least one critical action to significantly improve the policy’s implementability

I. RESOURCES	POLICY PROCESS STAGE		
	Design	Planning	Implementation
Factors and descriptions			
Budget			
Funding to support policy implementation, including both capital and operational expenditures	●●●	●●●	●●●
Human resources			
Sufficient staff with the necessary technical and nontechnical knowledge, expertise, and skills in key roles and levels of authority (e.g., senior leadership, midlevel bureaucrats, frontline staff, short-term contractors)	●●	●●●	●●●
Infrastructure and physical resources			
Public assets needed to carry out a given policy, including infrastructure, vehicles, buildings, and physical resources	●●●	●●●	●●●

II. PLANNING AND COORDINATION		POLICY PROCESS STAGE		
Factors and descriptions		Design	Planning	Implementation
Targeting				
Policy focus on intended beneficiaries, products, and locations where it can have the biggest impact		● ●	● ● ●	● ● ●
Guidelines and documentation				
Guidelines and planning documents that specify roles, responsibilities, and procedures, including clarifying which units “own” elements of implementation		●	● ● ●	● ●
Management and coordination				
Capacity of implementing agencies to support effective planning and performance management		● ●	● ● ●	● ● ●
Policy alignment and sequencing				
Fit or conflict between the policy and other domestic laws and policies and external commitments		● ● ●	● ●	●
III. LEADERSHIP AND OWNERSHIP				
Factors and descriptions				
Public sector champions				
Leaders at multiple levels to drive momentum and “own” implementation		●	● ● ●	● ● ●
Inclusive stakeholder engagement				
The landscape of actors in the policy ecosystem whose actions can facilitate or undermine implementation progress and policy design and implementation processes that are inclusive of diverse stakeholders		● ● ●	● ● ●	● ● ●
Education, messaging, and awareness				
Education and awareness of key groups (e.g., designated implementers, private and civil society actors, and the public) regarding a policy’s purpose, implementation requirements, and potential impacts		●	● ● ●	● ●

IV. MEASUREMENT AND ACCOUNTABILITY		POLICY PROCESS STAGE		
Factors and descriptions		Design	Planning	Implementation
Monitoring systems				
Data systems and processes to track implementation, provide evidence to inform modifications, and to benchmark against measures of progress and success		● ●	● ● ●	● ● ●
Transparency and public access to information				
Systems and protocols that enable transparent access to information, as a necessary condition for accountability, and empower public scrutiny		●	● ●	● ● ●
Institutional accountability				
Administrative and political oversight mechanisms to ensure accountability for results by discovering and addressing poor implementation because of incompetence, fraud, or negligence		● ● ●	● ●	●
V. POLITICAL ECONOMY				
Factors and descriptions				
Power, incentives, and institutional norms				
Implications of stakeholder incentives, power relationships, and institutional norms for implementation; ensuring policies take account of distributional impacts by identifying “winners” and “losers” and address potential barriers through design or follow-on activities		● ● ●	● ●	● ●
Political priorities				
Assessment of the relative importance and urgency of a given policy on the political agenda of leaders across levels of government		● ● ●	● ●	●

I. Resources



Budget

Definition	Funding to support policy implementation, including both capital and operational expenditures
Why it is important	Ensuring that a policy will have sufficient funding to be implemented is an essential but often missing step in the policymaking process. Without sufficient funding to cover policy costs, implementation will suffer. Even if cost savings are expected, making the changes will inevitably require funds in the short term. Some policies are enacted without a clear understanding of how they will be funded or rely on estimates based on flawed or overly rosy assumptions. Even when sufficient funding is available to carry out the policy, delays in disbursement of those resources can undermine implementation.
Sample relevant questions	<ul style="list-style-type: none"> • What are the policy's start-up costs, including any necessary capital investments? • What are the ongoing operational costs (e.g., compliance enforcement, salaries), and who will bear them? • How will policy implementation be funded (e.g., national budget, contributions from subnational levels of government, donor funding)? • Has adequate funding been secured, and what are the main threats to sustainable funding for the policy?
Potential actions	<p>Create a multiyear budget. 🕒🕒</p> <p>Create a budget using intervals that make sense for the policy. For example, if the project has high start-up costs but will have low ongoing operational costs, consider a budget that provides estimates for year 1, year 2, and years 3 to 10. It is important that this budget include as many relevant cost elements as possible to create a more accurate estimate (e.g., vehicles, offices, software, travel). Implementation requires establishing a clear understanding of the direct and indirect costs of a policy. These estimates must rely on sound, evidence-based assumptions and figures and use accepted accounting and budget forecasting practices. In establishing a policy implementation budget, it is important to consider not just the amount but the composition and quality of the funds. This means considering the funding source(s), the timing and availability of disbursements, and the systems in place for fund management.</p> <p>Use sound budget assumptions. 🕒🕒</p> <p>Every budget projection makes assumptions. It is good practice to make these assumptions clear and for them to be independently validated. For example, if evidence suggests the potential maize productivity increase for a new policy ranges from 20 to 30 percent, budget projections that rely on an assumed increase of 35 percent are not realistic.</p>

Potential actions	<p>Of course, even assumptions made in good faith and with solid evidence and techniques will not always be accurate. Building in contingency funding is helpful, although not always economically feasible. Budget estimates should offer a range of likely alternative scenarios so policymakers understand the probability of under- or over-budgeting.</p> <p>Explore and help secure funding for the policy.  </p> <p>Donors could support analyses that look at budget options to bridge funding gaps, including alternative funding strategies. This could include blending domestic and development financing sources, including opportunities to devolve some budgetary authority to subnational government units. Devolution is particularly attractive for policies with high variation across the country in terms of needs or conditions and where local financial management capacities are strong. This could include a formula for matching central government transfers with subnational resources. An alternative funding strategy could consider the appropriateness of a public-private partnership delivery model to facilitate implementation.</p> <p>Develop a costed work plan.  </p> <p>Both a planning and management tool, the costed work plan specifies time-bound priorities and activities needed for full implementation of the policy. It also includes detailed cost estimates for each activity, thus allowing implementing agents to understand the scale of resource mobilization required to sustain implementation. Because implementation involves several stakeholders, drafting a costed work plan requires inputs from a diverse group of stakeholders, further providing an opportunity for coordination and alignment of goals. Given its components (e.g., activities and resources), the costed work plan also provides a structure for monitoring implementation progress. This could be useful for funders interested in financing implementation, as they may wish to restrict their financial support to certain aspects of implementation.</p>
Human resources	
Definition	<p>Sufficient staff with the necessary technical and nontechnical knowledge, expertise, and skills in key roles and levels of authority (e.g., senior leadership, midlevel bureaucrats, frontline staff, short-term contractors)</p>
Why it is important	<p>Successful policy implementation requires having people with the characteristics, understanding, skills, access to information, knowledge, and training that enable them to perform effectively in their roles. Staff and advisers charged with managing and carrying out the policy should possess the necessary specialized skills and know-how to ensure high-quality implementation.</p>

<p>Why it is important</p>	<p>Strong human resource capacities are important at multiple levels, including senior leadership, midlevel agency staff, and frontline staff in the field. In addition, people responsible for implementation often need a range of technical and nontechnical knowledge, expertise, and skills. At each level, people will have a part in the implementation of a given policy.</p> <p>Gaps in technical skills specific to the policy and gaps in nontechnical fields such as management, performance monitoring, budgeting, and delivery can undermine implementation. In many places, civil service pay scales and government rules can make it difficult to recruit and retain staff with highly specialized skills in demand outside government.</p> <p>Successfully implementing some policies may require staff members with appropriate demographic profiles and cultural competencies. For example, policies targeting women farmers may require women outreach and extension workers because of cultural or religious norms. Similarly, staff members in management and planning roles who hail from target communities may be able to leverage their cultural knowledge to improve implementation.</p>
<p>Sample relevant questions</p>	<ul style="list-style-type: none"> • Has an assessment been conducted to understand how implementing the workloads of staff at implementing agencies will change as a result of the policy? • Where are the greatest technical and nontechnical gaps in capacity, and how might they be addressed? • Are there easy-to-use tools or resources that can help those tasked with supporting implementation do their job better? • Have enough staff members or contractors been recruited and selected to meet the requirements of policy implementation? • How does the policy change staff responsibilities/routines? Are staff cross-trained to understand one another's roles?
<p>Potential actions</p>	<p>Conduct a rapid human resources review. 🕒🕒</p> <p>Develop a quick, high-level analysis of the <i>existing</i> capacity and the <i>needed</i> capacity for policy implementation. External consultants could look at the key human resource inputs for policy implementation and assess whether enough staff members with the requisite skill sets are in the roles. The resulting product would offer a game plan for funders and government to consider additional areas of support to facilitate implementation. Options might include the following:</p> <ul style="list-style-type: none"> • <u>Invest in training.</u> Support trainings that drive skill-building for key staff to understand policy goals and perform their roles effectively. • <u>Invest in new staff.</u> Provide short-term funding to support new staff or consultants to fill critical gaps, as needed.

Potential actions

- Work to achieve greater role clarity. Develop clear job descriptions and organizational hierarchy to ensure key roles are filled.
- Explore recruitment and retention strategies. Develop strategies for recognition or remuneration of staff.

This high-level exercise can be complemented by a workload assessment that understands how staff workloads will change as a result of the policy and helps identify pinch points.

Develop tools and resources to assist frontline implementers.

Individuals tasked with implementing elements of a policy could benefit from resources (e.g., guidance or checklists) that provide easy access to best practices. This is particularly useful for tasks that are complex or require close adherence to specific standards (e.g., enforcing regulations). These resources should be written clearly (minimizing jargon) and with guidance on what to do if there are questions. These resources will supplement and reinforce any training delivered and provide in-the-moment guidance for consistent, high-quality implementation.

Embed technical advisers to support management and implementation.

Some countries may need technical input on specific issues at specific times. Rather than retaining such expertise on staff, countries can get the needed temporary support from external technical advisers (i.e., consultants) with country and policy expertise. Using externally funded and sourced advisers embedded in national agricultural policy processes can be useful for short-term assistance to address human resource weaknesses. In the past, advisers played many roles. Today, advisers who cover food and agriculture “typically function at a high advisory level, primarily on policy and strategic issues.”²⁸ However, it is best to pair such investments with an institutional capacity-building effort within agencies to transition the embedded advisers’ functions in the long term.


Infrastructure and physical resources

Definition

Public assets needed to carry out a given policy, including infrastructure, vehicles, buildings, and physical resources

Why it is important

This factor includes the tools, infrastructure, and other tangible assets that can facilitate or inhibit successful policy implementation. In this context, infrastructure refers to the systems that provide crucial services for the well-being of households and the productivity of firms, including transportation, power, water, and sanitation. This also includes equipment and resources to cultivate the land, deliver inputs (seed, fertilizer, equipment), water the fields, harvest the crops, store the harvested crops until they can be transported or sold, transport crops to market, and sell crops.

Why it is important	<p>Poor infrastructure and physical resources are a major challenge for agricultural growth and development. When infrastructure fails, it undermines businesses, job creation, and economic development.²⁹ The challenges of insufficient infrastructure and physical resources are often related. For example, residents of rural areas often do not live close to adequate roads, which makes transporting inputs and produce difficult for farmers. Coupled with poor storage facilities in the continent, this leads to post-harvest losses, meaning that a lot of agricultural production either reaches consumers in poor condition or never arrives at all.</p>
Sample relevant questions	<ul style="list-style-type: none"> • What physical resources and elements of infrastructure are required to successfully implement the policy, and what are likely barriers, gaps, and limitations? Can any of these resource needs be met by borrowing or sharing resources with other projects and stakeholders? • What governmental entities might need to collaborate on infrastructure and resources to implement the policy? • How might infrastructure and physical resource needs vary by geographic area? • How might needs and maintenance costs increase over time (e.g., with increased usage)?
Potential actions	<p>Map required infrastructure and physical resources to identify opportunities and gaps.</p>  <p>It is important to understand how the policy will leverage infrastructure and other physical resources at different stages of implementation. Funders could support an analysis that maps how infrastructure and physical resources will be used and highlights the various places where they might inhibit or support effective implementation. The map could help identify opportunities for quick wins and short-term investments to catalyze policy implementation. This planning should consider any unique acquisition or maintenance needs related to the physical resources (e.g., fuel for vehicles). To the extent appropriate, acquisition and maintenance strategies should be built into the budget and planning for policy implementation (e.g., be on the radar of the implementation team).</p>

II. Planning and Coordination



Targeting

Definition

Policy focus on intended beneficiaries, products, and locations where it can have the biggest impact

Why it is important

Agricultural policy interventions may be designed to address specific constraints to agricultural development, but to be effective, those policies need to be targeted to where they are likely to have greatest impact. Targeting can be considered in several ways, including in terms of geographic area (e.g., localities, districts, regions), farm inputs (e.g., specific crops), and farmer and household characteristics (e.g., income level, landholding size and quality, gender). When designing and implementing policies, it is essential to consider that farmers are not a homogeneous group; rather, they have various social and economic identities that shape their constraints and opportunities, a reality that calls for differentiated responses to problems.

Ensuring that policies are well-targeted is therefore essential for the implementation of IAT policies, meaning that governments should decide on eligibility/targeting criteria for most policies. Targeting considerations also apply to nonagricultural policies that have implications for agriculture (e.g., infrastructure investments). For instance, infrastructure projects commonly target areas that are “already well endowed,” as opposed to less endowed areas where such projects could make a meaningful difference for local development.³⁰




Although research evidence can point to how best to target a policy, effective targeting is in practice a challenge, especially for input subsidies.³¹ It “requires high levels of policy information and skills”³² that are not readily available. Additionally, politicians may target policies in a way that allows them to “take credit at election time.”³³ Implementers need to be mindful of how such politicization of policies can frustrate effective policy implementation.

Sample relevant questions

- Can target populations be identified (with data) and served distinctly from other populations?
- Does the allocation of resources for implementation reflect targeting requirements or priorities? How are targeting considerations reflected in the policy’s monitoring and evaluation plan?
- Are certain populations and geographic areas more difficult to reach than others? What complementary supports or investments can improve targeting?

Potential actions	<p>Use data to ensure the policy is targeted to support its goals. 🕒</p> <p>Although the intent of or goals behind a policy may be to help specific beneficiaries (e.g., farmers with few resources), the language used to draft the policy may be overly broad, enabling elites to capture policy benefits. Using data, consultants can help policymakers specify that the policy should assist those with greater needs and how they should be helped. This is a fundamental step for targeting, allowing the targeting mechanisms to be developed in planning and rolled out in implementation.</p> <p>Facilitate the development of practical methods for targeting policies. 🕒</p> <p>On a case-by-case basis, donors can support rapid analytical fieldwork to support implementers in targeting intended beneficiaries. This analytical work can take place during policy development to inform how to target a policy. It can also be launched as soon as the policy's targeting criteria are established, at which point its focus would be on identifying practical steps and resources needed for effective targeting. Depending on the policy in question, this fieldwork can be leveraged to consult targeted communities and use their input to inform the implementation plan. Digital identification (e.g., through cellular technology) can assist with targeting to ensure the intended population benefits (e.g., direct benefit transfer in agriculture mechanization in India).</p>
Guidelines and documentation	
Definition	<p>Guidelines and planning documents that specify roles, responsibilities, and procedures, including clarifying which units “own” elements of implementation</p>
Why it is important	<p>Policy implementation does not end with the final, “approved” policy language. Additional guidelines, regulations, and planning steps are important to ensure successful implementation. Broadly, this “implementation guidance” helps clarify policy next steps by specifying roles, responsibilities, and procedures. This includes clarifying which units “own” elements of implementation.</p> <p>Policy guidance can take different forms, with varying degrees of formality. The people tasked with implementing the policy are typically different from those who drafted the policy, making the policy guidance crucial. In this rule-making process, administrative agencies often lend expertise that can help inform the development of guidelines and regulations. Overall, guidance can support institutional and legal framework development and push legal and regulatory changes to enable organizations, institutions, and agencies at different levels and sectors to enhance their capacity to meet policy goals.</p> <p>This element of policy implementation offers significant latitude to the “rule makers” in how they interpret and translate the intent of a policy into actual implementation. The space for interpretation means that the guidelines can have significant effects on how well policies are carried out.</p>

Sample relevant questions	<ul style="list-style-type: none"> • What types of guidelines, rules, and regulations might be necessary for policy implementation? • Who has the authority to interpret the policy and translate it into guidelines? • What support might responsible parties need to develop effective guidance? • How will the guidelines be communicated to those responsible for implementation? • What support will be necessary to help subnational entities interpret guidelines?
Potential actions	<p>Provide external support for guideline development. 🕒</p> <p>Funders could support external experts or consultants to work with agencies or offices tasked with interpreting a policy. These consultants could help the agencies or offices think through the necessary guidance and documentation to support implementation. This could include a review of guidance for implementation of similar policies in other countries to identify best practices, a scan of the policy language to identify areas where the policy is vague or where implementation guidelines are needed, and the development of implementation checklists to support those tasked with implementation. Funders could also help in the development and execution of a communication plan to widely share the guidelines and good practices.</p> <p>Support occasional reviews of and updates to implementation guidance. 🕒</p> <p>To ensure implementation documentation is still providing comprehensive guidance to implementers, conducting occasional reviews may be beneficial. This could include asking implementers whether any aspects are vague, lack clarity, or are disputed. Based on the findings, the guidance could be revised or replaced.</p>
Management and coordination	
Definition	Capacity of implementing agencies to support effective planning and performance management
Why it is important	<p>Implementation can be bolstered by institutional structures that position staff to focus on the effective planning, performance management, and oversight of policies and programs. Related to other factors (such as human resources), this factor centers on how those resources are organized to support policy implementation.</p> <p>These structures are important because they create the enabling context and systemic backing for the people charged with implementation to do their job well. Organized and effective staff focused on implementation make a big difference for achieving policy goals; without these supports, people are often left to their own devices to figure out implementation and best practices.</p>

Why it is important	<p>Coordination within government is key to effective implementation. Such coordination operates on different levels: ensuring horizontal (across agencies) and vertical (across levels of government) coordination is important to developing clear distinctions in cases of overlapping mandates or authority. Coordination can also decrease duplication, eliminate contradictions across policies, lessen unintended impacts (one entity might otherwise make decisions that create problems for others), increase responsiveness to the demands of different groups, and better address cross-cutting problems.³⁴</p>
Sample relevant questions	<ul style="list-style-type: none"> • Which offices/agencies/teams are directly responsible for the implementation and oversight of the policy? • What existing institutional structures (e.g., staffing teams) are in place to support this policy's implementation? • What are the benefits (and drawbacks) of developing a new office/agency/team responsible for implementation? • Are there overlapping authorities that should be delineated more clearly? • Are there precedents for coordinating cross-government efforts on policy implementation, and do any platforms or units already exist (e.g., within the Ministry of Finance)?
Potential actions	<p>Map implementation roles and potential conflicts of authority.  </p> <p>A policy may inadvertently create confusion about which government agency is tasked with implementation (or wading into existing overlapping authorities). During design and planning, it is important to clarify roles and divisions of authority in either the policy itself or any guidance developed. Mapping potential conflicts in advance is crucial to heading off or mitigating future disagreements over authority.</p> <p>Analyze alternative implementation models.  </p> <p>There is often more than one way to implement a given policy. For instance, a top-down approach to implementation is when central government entities dominate the process. In other cases, implementation happens through the delegation of responsibilities to lower levels of government. In yet other situations, citizens play a large role in implementation (e.g., community leaders select and verify subsidy recipients), or the private sector is central in implementation (e.g., through a public-private partnership delivery model). Funders could support analysis of alternative implementation approaches, accounting for the costs and benefits of various options as well as potential obstacles (e.g., assessing the adequacy of the government procurement system if considering a model that relies on private contractors). Such analysis would seek to identify the best way to structure policy implementation given a country's institutional and socioeconomic realities as well as the available evidence on the effectiveness of each approach in similar settings.</p>

Potential actions

Support the formation of an implementation team.

Implementation teams can be created within government agencies tasked with implementation (e.g., the Ministry of Agriculture) or, if necessary, as a team external to the government (often quasi-public).

- **Internal implementation team.** An implementation team is solely focused on the creation or interpretation of guidelines and the development of clear next steps across multiple levels of government and considers how best to communicate and disseminate that information. Establishing implementation teams and identifying members of a team do not necessarily mean hiring new professionals or even adding a team. A first step can be the assessment of existing teams and personnel. Existing staff or teams might be redeployed or redesigned for the implementation oversight.
- **External implementation team.** If external, the implementation team or unit can be funded by donors directly and can provide a time-bound capacity boost to government agencies by focusing entirely on the implementation of a project or policy. Potential downsides are that external teams can generate high direct and indirect costs, develop into parallel organizations, and even dilute central government policy through their allegiance to donor agendas.³⁵

Support intragovernmental coordination mechanisms.

Implementation activities for a given policy may fall under the mandate of different agencies and ministries. Against this background, diverse stakeholder groups could come together through an agricultural working group that serves as a platform for collaborative planning, allocation of resources, and periodic reviews of progress against targets. The working group should primarily be made up of midlevel officials, with oversight from high-level technical officers to encourage the commitment of involved parties.³⁶ Funders might also support the development of networks of officials across agencies to pursue common policy goals. Networks can be formal or informal and may develop over time through interactions among civil servants who work together and know one another well enough to be able to coordinate outside official channels.


Policy alignment and sequencing

Definition

Fit or conflict between the policy and other domestic laws and policies and external commitments

Why it is important

For policies to be most effectively adopted and implemented, it is important that they be aligned as much as possible with, but not duplicative of, existing laws and policies. This “policy coherence” ensures that different types of policies produce synergies for sustainable development or, at the very least, that one policy will not undermine the developmental effects of another. Policy incoherence arises, at least partly, because in most developing countries, “agriculture and trade-related objectives and strategies are identified through separate prioritization, negotiation and coordination processes, associated with agriculture and trade ministries respectively.”³⁷ Policy alignment is important at both the policy formulation and implementation stages to make sure authorities and policy goals are as complementary as possible.

<p>Why it is important</p>	<p>Often, the success of a policy depends, at least in part, on other policies.³⁸ In certain cases, implementation of a given policy will work better “if the outcome of another policy measure has been achieved.”³⁹ For example, implementation of a policy that builds the capacity of seed companies would facilitate the success of a different policy that provides for “self-regulation” by those companies of seed quality control processes. The interdependence of policies implies that policies (and implementation steps) need to be intentionally and logically sequenced—to boost the chances of implementation success.</p> <p>National policies also sometimes conflict with international commitments, treaties, or agreements (both bilateral and multilateral) such as trade agreements. For example, a new policy that provides import subsidies to benefit an important crop may contravene a regional trade agreement (to which the country is a signatory) that prohibits such subsidies. Similarly, a new policy or an element of that policy may conflict with external relationships and agreements with international organizations (e.g., the World Bank or African Development Bank), bilateral or philanthropic donors, foreign private or state-owned companies, or other external entities.</p>
<p>Sample relevant questions</p>	<ul style="list-style-type: none"> • What other policies are needed as prerequisites or complements to facilitate successful implementation of this policy? How should those policies be sequenced? • What domestic policies, laws, or regulations does this policy intersect with? To what extent does the policy contradict existing or forthcoming policies? • How might existing commitments in international trade agreements, outstanding loans, or commercial agreements with foreign entities conflict with the policy? • What steps might be easily taken to preserve the intent of the policy while improving alignment with existing commitments?
<p>Potential actions</p>	<p>Conduct a policy coherence and alignment review. </p> <p>A relatively simple but important step is to review the policy against domestic laws and policies (in this and other sectors) and foreign commitments (including loans, trade agreements, and commercial agreements).</p> <ul style="list-style-type: none"> • <u>Domestic alignment</u>: Funders could support an analysis of how to coordinate policymaking within and across different ministries to ensure that development policies and policies in other sectors (i.e., areas of public policy addressed by a specific ministry) are “mutually supportive” rather than “offsetting.” A related idea is to support the development of memoranda of understanding to solidify arrangements between implementing agencies. In some cases, this review may identify a need to sequence policies to maximize the likelihood of success. • <u>Foreign alignment</u>: As a first step, the review should identify the key policy priorities and attendant steps and then compare these with relevant external commitments. An existing (or, if necessary, new) donor coordinating body at the national or sectoral level may be a useful venue for identifying potential misalignments. If external commitments diverge from the national interest (especially longer-term interests), there may be valid reasons for policies to conflict with them. But the implications of breaking commitments can be significant, particularly if they jeopardize other national

Potential actions

priorities. It is therefore important to carefully consider the alignment between new policies and existing external commitments.

Strengthen funder coherence and coordination.




Along the lines of “do no harm,” the programs of work that funders support in the agricultural sector should align as much as possible and not create contradictory goals for government. Donors can support these coordination efforts by creating or participating in agriculture-sector working groups and reviewing their portfolio of investments to ensure they operate in line with government efforts and help (or at the very least do not inadvertently hinder) implementation of the policy.

III. Leadership and Ownership



Public sector champions

Definition	Leaders at multiple levels to drive momentum and “own” implementation
Why it is important	<p>Committed policy champions within government are essential to drive implementation in the face of political, administrative, or technical challenges.</p> <p>Champions feel a sense of “ownership” of a given policy and play key roles in sustaining implementation momentum, even after popular attention may wane. Champions also leverage their positions and influence to strengthen the legitimacy of implementing agencies, provide needed supports (e.g., financial resources), and align stakeholder incentives.⁴⁰</p> <p>Potential champions include both bureaucrats and political office holders and can exist across different levels and arms of government, including within parliament, the office of the president, line ministries, technical bureaus, and subnational units of government. Although champions can include those in junior or midlevel positions, senior-level champions are typically more able to influence agricultural policy systems.⁴¹</p> <p>It is important to recognize that champions within the African agriculture policy landscape often operate under difficult conditions. They may face severe financial and capacity constraints against the backdrop of political and institutional challenges that limit their ability to focus on implementation. Identifying and supporting champions might not only advance a given policy’s implementation prospects but could also empower and encourage the efforts of dedicated and forward-thinking officials.</p>
Sample relevant questions	<ul style="list-style-type: none"> • Who are the known champions of the policy, and what roles (formal or informal) do they play in its implementation? • What factors might constrain the ability of champions to perform expected roles? • Are the champions veto players (i.e., actors whose concurrence is necessary to proceed)? Do they have power to ensure sufficient funding of the policy? • How can resources be provided to motivate and empower champions to advance implementation?



<p>Potential actions</p>	<p>Develop adaptable tactical toolkits. </p> <p>These toolkits help build champions' capacity to apply evidence-based practices in their efforts to influence the implementation process. Such toolkits could include, for example, guidance on administrative advocacy to ensure agencies properly support and resource their implementation responsibilities, communication strategies to effectively convey policy goals and components, and relationship management tips for cultivating relationships with other key stakeholders able to influence the implementation process.</p> <p>Sponsor networks of policy champions in priority policy areas.  </p> <p>Being a policy champion can be a thankless, lonely job, and champions may not feel sufficiently equipped and supported to enthusiastically drive implementation while balancing other obligations. A network of policy champions would offer public recognition and provide a platform for like-minded champions, affirming the value of their efforts while enabling them to exchange advice with peers, share resources, and forge connections to sustain momentum for implementation. These networks could be informal (e.g., communities of practice) or formal (e.g., presidential fellowship programs). Different champions will have access to different levers that influence the implementation process, and such a platform could facilitate coordination and planning of champions' efforts. The network should be sufficiently resourced, providing members with access to financial, technical, and capacity-building support that would enable more entrepreneurial interventions of champions throughout the implementation process. These supports can also ease some of the institutional stressors that erode champions' persistence.</p>
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Inclusive stakeholder engagement

<p>Definition</p>	<p>The landscape of actors in the policy ecosystem whose actions can facilitate or undermine implementation progress and policy design and implementation processes that are inclusive of diverse stakeholders</p>
<p>Why it is important</p>	<p>Any given policy will have a diverse group of people, from private and public organizations, concerned with or involved in its implementation. These actors tend to be organized into “advocacy coalitions”—like-minded stakeholders who work in concert to advance their policy objectives. When organized into advocacy coalitions, private sector and civil society supporters can help facilitate implementation by showing that the policy has a base of support and countering arguments by opponents of the policy. Advocacy coalitions and their members have agency and can exert positive or negative influences on implementation depending on their values as well as their resources and relative power, including money, expertise, and supporters.⁴² It is important to understand existing mechanisms of collective action among such coalitions in communities where the policy will be implemented.</p>

Why it is important	<p>Effective policy implementation requires inputs from various actors who may have de facto or de jure “ownership” of the policy. For example, implementation responsibilities may be distributed across government ministries and agencies; private actors may bear some implementation responsibilities (e.g., distributing fertilizers for subsidy schemes); and civil society coalitions could play a monitoring role and create pressure for effective implementation.</p> <p>Additionally, stakeholders have a critically important role in creating demand for a policy. Ensuring policies are designed in ways that create value for key stakeholders includes the likelihood that these stakeholders will put pressure on government to continue or expand implementation.</p> <p>During policy design and implementation, state actors need to pursue inclusive engagement that encompasses a wide range of stakeholders because implementation is likely to succeed only when diverse sets of actors find common ground. This provides an opportunity to consolidate conflicting interests, improve policy design, identify potential implementation barriers, and use stakeholder knowledge to strengthen the implementation strategy.</p>
Sample relevant questions	<ul style="list-style-type: none"> • How were stakeholders consulted during policy design and implementation planning? • Which stakeholders are needed to implement the policy? Are there conflicting views on how the policy should be implemented? • Why—and how—might certain stakeholders disrupt implementation? • What platforms or opportunities exist to adapt the implementation strategy to align competing viewpoints or reflect local knowledge?
Potential actions	<p>Support meaningful public engagement in the policy design process. 🕒</p> <p>Stakeholders are more likely to support (or be less likely to oppose) a policy if they feel they have had a meaningful opportunity to share their perspective and especially if they can influence design (in a way that preserves the policy’s intent and objectives). Such public engagement forums, along with opportunities for public comment, provide opportunities to identify potential advocates and issues or concerns of interest. Donors are likely to support these engagements indirectly, by funding or encouraging local partners. Donors can also conduct or support a “demand analysis” to understand exactly what components of the proposed policy might yield significant value for key stakeholders and, thus, fuel sustained support during implementation.</p> <p>Map key stakeholders. 🕒</p> <p>The first step in understanding the relevant stakeholders and their potential relationship to the policy is to map all key stakeholders, which is one component of a political economy analysis. Together with that analysis, the stakeholder map helps identify important relationships, power dynamics, and patterns of rent seeking that may be disrupted by the policy.</p>


Potential actions	<p>Build and equip advocacy coalitions. 🕒 🕒</p> <p>Donors can support the strengthening of advocacy coalitions by brokering introductions, providing financial support, and supporting direct engagement with the policy implementation process. Appropriate actions might include convening periodic stakeholder forums to discuss implementation progress and challenges, offering training to advocates on communication strategies and how-tos on reviewing government reports, and activating coalition members to help with messaging (to elected officials and/or local stakeholders).</p>
Education, messaging, and awareness	
Definition	<p>Education and awareness of key groups (e.g., designated implementers, private and civil society actors, and the public) regarding a policy’s purpose, implementation requirements, and potential impacts</p>
Why it is important	<p>Policy language is often dense, technical, and unintentionally confusing. Although guidance and secondary legislation (e.g., regulations) provide essential information to enable implementation, they are typically not designed with a general audience in mind and do little to clarify the intent, purpose, and main components of a given policy. At the same time, understanding the policy and its implications is crucial for those tasked with implementing the policy (e.g., ministries, regulators, private service providers). In the absence of adequate messaging, deviations from the original policy intent are likely to occur during implementation.</p> <p>Information on policy requirements can also be distorted (intentionally or unintentionally) during communications within and between organizations. This results in inconsistent or conflicting interpretations of the policy by implementing actors, which makes compliance with the policy difficult—especially when several stakeholders are involved in implementation.⁴³</p> <p>In addition, it is often necessary to ensure that intended beneficiaries have access to accurate information on the policy and the ways they might interact with it (e.g., services or supports that are now accessible). This is especially crucial to help citizens exercise ownership of and create demand for the policy and to facilitate compliance when a policy requires citizens to make behavioral changes (e.g., applying fertilizers).</p> <p>Effective implementation requires deliberate and extensive efforts by government actors to socialize key stakeholders to the policy (including the private sector, civil society, and citizens, where appropriate). Whether the policy introduces a big or small change, communication of the policy requirements should be clear and consistent enough to ensure that key actors understand the policy well enough to implement it.</p> <p>Finally, communicating policy impact (including early evidence through quick wins) can be crucial to convincing key stakeholders of the merits of the policy and can help champions support long-term implementation (e.g., equipping them to advocate with policymakers for additional resources).</p>

<p>Sample relevant questions</p>	<ul style="list-style-type: none"> • How have high-level political leaders publicly communicated the policy's content and vision? • How can champions at different levels ensure a common understanding of the policy and its goals? • How will champions use different communication channels to ensure that there is sufficient demand for the policy and that beneficiaries will be able to take advantage? • Who will be responsible for executing the communication strategy? How must this strategy change for different audiences (e.g., farmers)?
<p>Potential actions</p>	<p>Develop a communication strategy. </p> <p>Policy leaders should ensure the policy, its goals, and key elements are clearly conveyed to important groups of stakeholders, such as regulatory agents, officials tasked with supporting implementation, farmers or others targeted as beneficiaries, local officials, and the public. The strategy should specify the depth, format, and purpose of appropriate messaging and education by intended recipients and what they need the information for. For example, farmers may need accessible, image-focused pamphlets and audio ads that explain how to access a service, while ministry bureaucrats may need a diagram that shows how the pieces fit together and the role their offices play. To harmonize key messages across agencies and limit avenues for misinterpretation of the policy, the strategy should be developed collaboratively by entities charged with leading the implementation process. A time-bound implementation plan should also be developed to facilitate implementation of the communication strategy.</p> <p>Provide technical assistance to support implementation of the communication strategy. </p> <p>Officials or governmental units must be equipped with tools for effective policy communication. If the responsibility for communicating the policy is not clearly established, this technical assistance could be targeted at relevant officials with managerial responsibilities.</p>

IV. Measurement and Accountability



Monitoring systems

Definition	Data systems and processes to track implementation, provide evidence to inform modifications, and to benchmark against measures of progress and success
Why it is important	<p>Monitoring the implementation of a given policy or program is essential not only to understand progress but also to help identify when more measures are needed (e.g., additional budget or staff, improved guidance notes). As noted by the Organization for Economic Co-operation and Development, policy monitoring and evaluation can “support strategic planning and policy making by improving the links between policy interventions and their outcomes and impact; enhance accountability and provide legitimacy for the use of public funds and resources; promote learning and enhance policies’ efficiency and effectiveness.”⁴⁴</p> <p>By setting benchmarks (mostly activities and outputs) and measuring progress against those benchmarks, monitoring enables informed management of policy implementation, including strategic decisions related to where to focus attention and resources and whether additional action by policymakers is necessary.</p>
Sample relevant questions	<ul style="list-style-type: none"> • What elements need to be tracked (inputs, process steps, outputs), and what types of data (quantitative, qualitative, or both) will be needed? • Who has access to the data needed? Will they be held at the local level? Will they be held by national ministries? Are formal data agreements needed? • How can existing data systems support implementation monitoring? • Is the agency tasked with implementation capable of monitoring implementation? If not, is there an office it can partner with?
Potential actions	<p>Advise policymakers to articulate specific, clear, outcomes-oriented policy goals. </p> <p>During policy design, policymakers should be encouraged to articulate specific policy goals within the policy language. This exercise will make developing a monitoring plan easier and will ensure the plan can align with the policy’s stated intent.</p>


Develop a monitoring plan.

Policy implementation should be preceded by a clear, detailed, and realistic monitoring and evaluation plan. These plans often include the following:

- Questions to guide monitoring. Consider what information policymakers (and other stakeholders) want to gather through a monitoring framework. Use the policy's theory of change to guide this exercise by identifying the types of information needed at each step in the model. For example, if the logic model for a voucher program identifies recruitment of extension officers as a key step, an important question for the framework is: "Are there sufficient extension officers hired for this program?"
- Key performance indicators (KPIs) and time-bound targets. Plans should establish indicators that articulate the policy's target goals and allow for measurement of progress. Ideal KPIs (or performance measures) should be specific, measurable, achievable, relevant, and time-bound.⁴⁵ Date targets help boost accountability (e.g., by end of month N, X custom officers are trained on new phytosanitary standards). To improve the likelihood that the KPIs will be taken seriously and updated regularly, it is important that they be relatively few in number. For projects with long start-up periods, "milestone" indicators are useful for tracking progress in the absence of output data.
- Clear protocols and tools for analyzing and interpreting data. Once the KPIs are identified and the data are assembled, understanding what the data mean is the final step in the feedback loop. Project partners should have clear guidance for interpreting and acting on data, particularly data that indicate stalled progress in key areas. Implementing partners might wish to set expectations for regular (e.g., quarterly) meetings to review implementation and KPIs and a process for identifying corrective action (e.g., requiring the implementation team to recommend actions for missed targets).

Conduct a data systems diagnostic review to determine the availability, accessibility, and quality of data needed to monitor policy implementation.

Robust monitoring will likely require collecting data on multiple KPIs. Partners should identify where KPI inputs will come from, who holds the data, and how data will be accessed. A diagnostic review may be helpful to ensure the desired data can be easily accessed and is of sufficiently reliable quality. Such a diagnostic may identify weak spots that can be addressed by dropping nonessential KPIs, selecting alternative data sources, or making improvements to strengthen the data quality. While possibly yielding the biggest benefits (helping strengthen the wider data system), this last step is likely to require investments and reforms that may be costly or time-consuming. In some cases, small fixes may be sufficient (e.g., changing how data are coded, automating some processes, or installing simple quality-control measures). Data diagnostics should aim for "good enough" data systems because a focus on excessive precision may be difficult and costly and discourage adoption of *any* measurement system.⁴⁶

<p>Potential actions</p>	<p>Develop implementation dashboards and templates for regular policy implementation reports.  </p> <p>One easy way to track progress is through dashboards that present KPIs and targets in an accessible format for implementation teams, key policymakers, and, as appropriate, the public. These dashboards need not be elaborate to be effective, but care should be taken to ensure they are user friendly (including by being web-accessible) and provide necessary context. These dashboards can be expanded upon through more detailed reviews of the status of implementation delivered on a regular basis (quarterly, every six months, or annually, depending on the need and the stage of implementation) to “allow leaders to compare progress across priorities; identify actions for relevant departments, with dates and named responsibilities; and reassess the allocation of resources and attention based on each priority area’s need and distance to targets.”⁴⁷ Tools for tracking delivery progress can be tailored to the unique needs of the department and the nature of the policy but should, at a minimum, provide clear information on progress and barriers and inform decisions on areas that need more attention. Color-coded indicators provide a rough but easily understood gauge of progress.</p>
<p>Transparency and public access to information</p>	
<p>Definition</p>	<p>Systems and protocols that enable transparent access to information, as a necessary condition for accountability, and empower public scrutiny</p>
<p>Why it is important</p>	<p>Transparency and public access to information have intrinsic value and are a cornerstone of accountable governance and sound public policy. Transparency is a necessary (but not sufficient) condition for accountability by enabling scrutiny and facilitating public participation in policy processes.⁴⁸ Transparency and access to information “are crucial in ensuring access and participation, and can contribute to reducing or preventing corruption, clientelism and inefficiency.”⁴⁹ Unlike the earlier “education, messaging, and awareness” factor (which is about efforts by the policy team to share information with stakeholders for the purpose of education), this factor relates to the ability of the public to seek out information on implementation for the purposes of accountability.</p> <p>What this means in practice for policies may vary depending on the policy and country. However, the key concept is ensuring the public has access to information on the results of government decisions and the process that led to those decisions.⁵⁰ The transparent flow of information is also essential to facilitating smooth implementation. For example, when governments are not transparent about details of fertilizer subsidy programs, fertilizer importers are hesitant to secure the fertilizers, thus delaying distribution.</p>

<p>Sample relevant questions</p>	<ul style="list-style-type: none"> • What are the national legal requirements for public access to data on government policies (including on spending of money for each activity)? • What could prevent the public from accessing timely information about this policy? What steps can be taken to address those barriers? • Are there policy-related data or information that must remain confidential for legal purposes? • How will champions provide guidance to implementing stakeholders about what information can and cannot be disclosed?
<p>Potential actions</p>	<p>Encourage the delegation of or recruitment of a staff person to be responsible for providing public updates on implementation. 🕒</p> <p>This may fall to a member of the implementing ministry's information and communications office or a person on the main implementation team, but someone should be responsible for fielding and responding to public and media inquiries related to implementation of the policy. This person should be able to point people to available data and information on the policy and answer reasonable questions.</p> <p>Help set clear expectations, and provide a template for public access to data on implementation. 🕒🕒</p> <p>Although this will largely be guided by national legal frameworks and precedents, new policies can create opportunities for policymakers to set expectations for sharing public updates on progress. Donors can help encourage the use of regular (e.g., yearly) public reports that provide accessible updates on implementation progress. These reports might refresh readers on the policy's language and intent; update readers on progress since the previous report; share budget information, including projected needs; and highlight key barriers that were encountered and the actions that have been planned in response. To ensure reports are accessible, they should be written in plain language, present straightforward information, be accompanied by context, and be translated into all relevant languages (national languages and, if applicable, the primary language in regions where the policy is implemented).</p> <p>Organize information sessions with key user groups. 🕒</p> <p>Civil society organizations, agriculture analysts and businesses, media organizations, and politicians may be interested in tracking and improving the implementation of some public policies, but they cannot do this without access to current and thorough information. Civil society organizations that focus on government (e.g., watchdogs or effective government groups) may be particularly important to ensuring an appropriate level of public accountability. To ensure these stakeholder groups are empowered to track implementation and apply appropriate scrutiny, they should be invited to attend information sessions where they can learn about and ask questions about the policy (including its components and time-bound targets), its monitoring and evaluation framework, and opportunities to access and scrutinize data.</p>

Institutional accountability

Definition	Administrative and political oversight mechanisms to ensure accountability for results by discovering and addressing poor implementation because of incompetence, fraud, or negligence
Why it is important	<p>Accountability is multifaceted. At the national level, there are several main types of accountability mechanisms: (1) legal, policy, and regulatory mechanisms; (2) administrative accountability through government bureaucratic structures; (3) political accountability in parliament; (4) fiscal accountability; and (5) external accountability mechanisms such as media and civil society.⁵¹ For this factor (what we call “institutional accountability”), we focus on Nos. 2 and 3, mechanisms within the institutions of government that provide accountability for action and performance.</p> <p>Administrative accountability is manifested through bodies, processes, and procedures set up within government ministries to ensure a policy or program is implemented as designed. This oversight responsibility should be distinct from the unit responsible for managing implementation and exists to ensure there are internal (within a ministry) mechanisms that provide accountability for progress and pressure for performance.</p> <p>Political accountability in functioning democracies is generally provided by parliamentary bodies.⁵² The main relevant tools through which parliaments can exercise oversight of agricultural policy implementation are parliamentary committees, commissions of inquiry, and direct questioning of ministers. Parliamentary committees are the primary way that parliaments exercise systematic oversight of the executive branch of government. Committees enable parliament to “track the work of individual government departments and ministries, and conduct specific investigations into particularly salient aspects of their policy and administration.”⁵³</p>
Sample relevant questions	<ul style="list-style-type: none"> • How will the implementing ministry ensure accountability for implementation? • How might a distinct project implementation unit support policy implementation? What administrative accountability mechanisms would be important for implementation? • What are the consequences for poor implementation because of incompetence, negligence, or graft? Who has the authority and power to enforce these? • What ability, if any, do citizens and civil society actors have to create accountability for results?

Potential actions

Develop an accountability map to clarify roles and responsibilities, and identify accountability “blind spots” that require oversight.

Policies, particularly complex ones that require implementation action by different bodies operating at different levels, have complex accountability relationships that exceed the oversight that a parliamentary committee provides for a ministry. It helps to map the main implementing agents (e.g., local officials, national regulatory bodies, units of the Ministry of Agriculture) and their functions vis-à-vis policy implementation and then identify who holds whom accountable and how. For example, parliament may exercise political accountability over the Ministry of Agriculture, which is also fiscally responsible to the Ministry of Finance, while the Ministry of Agriculture exercises legal and administrative accountability over smaller units at the local level.⁵⁴ Such an exercise can reveal gaps, places where no clear accountability mechanism exists, or that because of power dynamics, the body tasked with oversight has weak authority or capacity.

Assess the oversight capacity of relevant parliamentary committees.

Given the importance of parliamentary committees' oversight function to ensuring political accountability for policy implementation, it is useful to consider the strength of the oversight committee(s) tasked with that function. Relevant measures of committee capacity include whether the committee has dedicated technical staff and has issued oversight reports, as well as the degree of opposition representation on the committee and qualitative factors such as the committee's reputation among informed stakeholders in the country. Because implementation of policy packages often cuts across multiple government ministries, there is likely to be similar overlap among parliamentary committees. As such, an additional element of capacity in these cases is ensuring that mechanisms for interaction and collaboration among committees exist and, if not, determining whether establishing them is possible.

Support the establishment of a permanent delivery unit within the responsible agency.

Unlike project management offices/teams (which are set up to guide implementation of specific projects), delivery units are “an extension of senior leadership” and a “small group of dedicated individuals focused exclusively on achieving impact and improving outcomes.”⁵⁵ Delivery units should challenge delays and ask difficult questions to ensure implementation momentum. Delivery units can help establish and maintain routines, including frequent check-ins that help identify problems early and galvanize action.

V. Political Economy



Power, incentives, and institutional norms

Definition	Implications of stakeholder incentives, power relationships, and institutional norms for implementation; ensuring policies take account of distributional impacts by identifying “winners” and “losers” and address potential barriers through design or follow-on activities
Why it is important	<p>Policy implementation takes place not within a vacuum, but within the larger political context of a country shaped by diverse stakeholders facing different incentives, power relationships, and institutions that govern behavior. For instance, communities may have different ethnic traditions, be dominated by different political factors, or be heavily influenced by a powerful market participant that can hinder or facilitate implementation.</p> <p>Stakeholders may have various incentives that, in the context of agriculture policy change, influence their willingness to support or oppose the implementation of a given policy. An important factor is the policy’s distributional impacts: the benefits and losses it creates and to whom they accrue. Stakeholders with significantly more to lose than to gain from a new policy may oppose it. If they are sufficiently powerful and not somehow assuaged, these stakeholders may slow or undermine implementation.</p> <p>It is also important to consider the institutions—formal and informal—that shape power relationships between stakeholders as well as their economic and political outcomes. For instance, significant portions of a country’s economy might operate with unclear property rights and no practical access to formal dispute resolution processes. Expanding the policy to actors in these parts of the economy may prove difficult as long as this underlying informality is unresolved. Similarly, traditional processes of land allocation, access to community resources, and dispute resolution will interact with the implementability of many policies.</p>
Sample relevant questions	<ul style="list-style-type: none"> • What incentives shape the attitudes and behavior of key stakeholders toward the policy? • Which groups benefit and which groups lose from the policy change? How? • What is the nature of the relationship between stakeholders (e.g., state and commercial interests)? • How can government and other stakeholders help mitigate harms experienced by groups as a result of the policy?

Potential actions

Conduct a political economy analysis (PEA).

This analysis will map structural conditions (e.g., historical legacies and sociocultural factors), the formal and informal rules and norms that shape stakeholder behavior in the agriculture sector (or in the country more broadly), and the processes for negotiating competing interests. Such analysis could also qualitatively shed light on economic rents being captured in the status quo and how rent flows will be affected by the new policy. Donors can use stakeholder (power) maps and draw from several PEA methods (e.g., “Drivers of Change” from the United Kingdom’s Department for International Development,⁵⁶ “Thinking and Working Politically” from the United States Agency for International Development,⁵⁷ “Problem-Driven Political Economy Analysis” from the World Bank⁵⁸) that can be tailored to meet the needs of particular situations. Integrating insights from PEA into policy design can help ensure that policies are both technically sound and politically feasible, thus increasing their implementability. Importantly, even though little can be done (in the context of a given policy) to change underlying political economy conditions, PEA insights have implications for other important elements such as how to structure targeting or whether the policy should be sequenced with other policies.


Identify policy design options to ease or offset negative impacts.

Based on the likelihood and significance of political economy barriers to implementation, policymakers and their partners could consider two policy design actions:

- **A transition period.** In cases where a sudden policy change would ignite strong opposition, a transition or probationary period can ease the impact. For example, a 90-day no-penalty period for compliance with a new regulation can facilitate compliance by giving those affected time to plan accordingly. The risk of a gradual approach (that progress could stall before the reform is fully implemented) should be weighed against the potentially greater risk of nonimplementation because of strong resistance to rapid policy change.
- **Complementary compensatory measures.** If those who stand to “lose” as a result of a policy represent a strong, credible threat to the policy, policymakers can consider whether it is appropriate to modify the policy or draft new policy measures to offset some of the financial or political losses. Pursuing this option—if it is financially feasible and technically sound—can convert opponents of the policy into supporters or neutral parties.

Provide incentives to implementing agents as needed.

Some policies will present onerous requirements for implementing agents (e.g., ministry-level bureaucrats, local officials, extension workers), and these agents typically comply with policy requirements only when they have strong incentives to do so.⁵⁹ Incentive problems can be addressed through transparency and accountability measures, but some will require policy changes like earmarked funding, reporting requirements, and rotation of staff. Supports that can be used to encourage implementation also include the provision of technical assistance and guidance, each of which can ease the burden of implementation.

Political priorities	
Definition	Assessment of the relative importance and urgency of a given policy on the political agenda of leaders across levels of government
Why it is important	<p>The degree to which a policy aligns with existing and emerging political priorities significantly influences the level of attention, resources, and effort that implementation receives. The emergence of a new policy is often a signal that it is a priority; however, the priorities of leaders and countries, and the attention they bring, change, often unpredictably. Policy priorities are influenced by unforeseen crises (e.g., Africa's food price crisis of 2007–08), advocacy by powerful groups on different sets of policy issues,⁶⁰ changes in government, changes in political alliances, and economic conditions, among other factors. In effect, the political support and momentum surrounding a policy during the design and approval stage may not last through implementation.</p> <p>Electoral incentives and political transitions are particularly disruptive factors that influence prioritization of policies and, later, their implementation prospects. Although political incentives (e.g., an upcoming election) may accelerate efforts on some policies, electoral cycles also reshuffle priorities and may encourage sudden shifts. Political transitions can also threaten implementation; departures by elected or appointed champions can disrupt momentum. New officials will likely bring their own priorities and may disregard or actively seek to undermine existing policies. Ultimately, the vulnerability of public policies to shifting priorities makes it necessary to institutionalize them soon after approval.</p>
Sample relevant questions	<ul style="list-style-type: none"> • How important is the policy to national priorities for agricultural development, food security, or poverty alleviation? • What is the nature of public opinion toward the policy? • How does the forthcoming election cycle intersect with the timeline for implementing the policy? • Is the upcoming election cycle likely to lead to the loss of power for key political figures who support the policy or are involved in its implementation?
Potential actions	<p>Assess the alignment between a policy and national priorities. </p> <p>Policies are more likely to be implemented if they are prioritized, and policies are more likely to be prioritized if they are consistent with national priorities. These national priorities may be articulated in guiding documents such as a NAIP or other guiding statements (e.g., 5- or 10-year vision strategies) on topics like rural development and poverty alleviation.</p>

Potential actions

Map the political calendar during implementation planning.

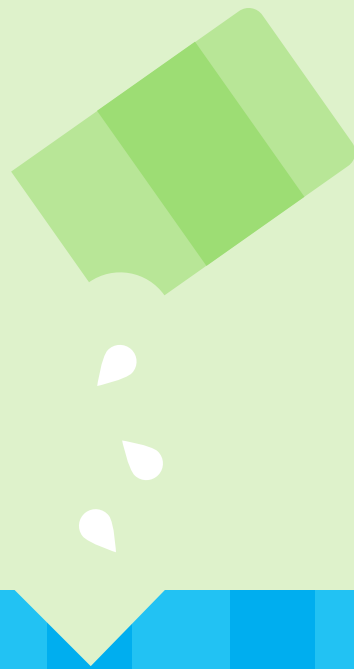
This exercise allows implementers to anticipate and plan for slowdowns or disruptions to government processes because of elections. Mapping the political calendar could also shed light on which aspects of implementation are most vulnerable to election-related disruptions and inform the sequencing of implementation steps. Additionally, it could reveal windows of opportunity for further advocacy that might be needed to ensure that a given policy is implemented. Calendar items to consider include elections (at all levels of government), tenure expirations/transitions, and start and end dates of legislative sessions.

Strengthen engagement with incoming governments during leadership transitions.

As appropriate, when government changes, donors should proactively engage with incoming officials (policymakers or policy advisers) to advocate on behalf of policies with sound IAT benefits. These dialogues should focus on how the policy aligns with the national development priorities and political priorities of the incoming government. Not all worthy policies will have currency with a new government, so being strategic is important. Policies with clear potential for beneficial outcomes and limited obvious association with the political platform of the outgoing government have the greatest chance of being “carried over” into the new government. In practice, policy advocacy should be coordinated among like-minded stakeholders (e.g., through the agriculture-sector working group) to boost impact.

3

Policy Case Analyses



Policy Case Analyses

The policy implementation framework was designed for broad relevance—meaning that it highlights questions and considerations that are broadly relevant to a wide range of policies and contexts—but with a recognition that neither is it exhaustive nor is each factor equally relevant to every policy.

To test the framework's validity and to demonstrate how it can be applied to actual policy instruments, we developed five policy case analyses:

- 1 **National agriculture investment plans**
- 2 **Regional trade agreements**
- 3 **Fertilizer subsidies**
- 4 **Seed regulations**
- 5 **Rural electrification programs**

These instruments were selected for their relevance to ongoing policy discussions within Africa. Their inclusion in this report does not necessarily imply that they are "recommended" policies.

For each analysis, we briefly describe the general intent of the policy, summarize core implementation elements and significant implementation challenges, and demonstrate how the structure of our framework (specifically the domains and factors) apply to this policy type. We intentionally offer sample relevant questions that differ from those in our main framework to illustrate how the framework can be adapted to account for differences in specific policies. These analyses were developed through a review of literature and interviews with subject matter experts.

National Agriculture Investment Plans

National agriculture investment plans (NAIPs)⁶¹ are medium-term frameworks intended to help countries translate their visions and strategies for agricultural development into action by articulating investment priorities. The adoption of NAIPs has primarily been spurred by the Comprehensive Africa Agriculture Development Program (CAADP)⁶² and reaffirmed by the Malabo Declaration on Agriculture. Indeed, a country's NAIP is seen as "the key vehicle towards achieving the Malabo Declaration targets" (although it is not seen as the only vehicle).⁶³

NAIPs are broad, setting a strategic orientation for investment by outlining priorities that the government wants to focus on with its donor and private sector partners. Most NAIPs start by identifying key challenges and goals that the country wants to achieve within the plan's time frame. With their framing around "investment," NAIPs intend to highlight resource needs and emphasize the importance of leveraging private investment. At the same time, NAIPs rarely identify specific partners and the roles of each stakeholder and do not offer enough detail to identify and prioritize investment-ready projects.

Implementation Elements and Challenges

NAIPs are developed in a consultative manner, led by the Ministry of Agriculture but in collaboration with relevant line ministries, parliamentarians, donors, and private sector and civil society partners (e.g., industry associations, fertilizer companies, organizations representing smallholder farmers). The process is often organized by consultants whose job it is to bring together the various partners. The document is then validated at the national level. Depending on the governance of the country, the document is either signed by the agriculture minister or approved by the entire cabinet. Although NAIPs are not voted on in parliament, parliamentary commissions in charge of key issues (e.g., land and health) are engaged.

There is no standard practice for managing the implementation of a NAIP, but responsibility usually sits in departments or offices of policy and planning within agriculture ministries. Given the high-level attention given and the cross-sector focus of many NAIPs, the responsibility could also sit within the president's or prime minister's office or the Ministry of Finance. Agriculture-sector working groups, which coordinate donors and other partners, support NAIP implementation by monitoring progress and aligning members' activities to it.

NAIPs face the following implementation challenges:

1. **Instead of being limited to realistic and implementable priorities, NAIPs are often used as a vehicle for a broad range of potentially relevant investments aligned with the national vision.** Improving prioritization requires focusing on investments that countries have the desire and the capacity to implement, guided by both technical and political considerations. Also, the significant role of donor

funding in the sector “has contributed to the formulation of unrealistic CAADP investment plans comprising unmanageably long lists of investment projects to attract as much funding as possible, and including interventions already planned by donors.”⁶⁴

2. **NAIPs lack the level of detail required to guide implementation on constituent priorities.** NAIPs often do not identify specific partners and their roles, establish the business case for action, or outline relevant implementation model considerations.
3. **NAIPs are often treated as static investment frameworks (designed and then set for five years), which limits their flexibility during implementation.** But NAIPs could be regularly updated to reflect changing needs and realities (e.g., responding to the COVID-19 pandemic, adjusting to climate change), and their time frames can exceed five years as long as they are realistic. They can also be accompanied by efforts to create subsector or region-specific investment plans that provide more granularity and may be easier to adapt for implementation.

In practice, because of these challenges, NAIPs are sometimes criticized as overly broad statements that are difficult to implement in a coherent or holistic way. Addressing this criticism may require being explicit about the document’s purpose (mobilizing resources into the highest priority investments) and ensuring the NAIP is designed with that purpose in mind. This includes adopting a transparent and carefully considered method and criteria for scoring and ranking investment priorities. For example, for each investment priority being considered, stakeholders could identify the estimated return on public investment, the potential for advancing one or more IAT goals, the opportunities to leverage private investment, the alignment with strategic national goals, or any number of other criteria. The NAIP could then include only those investment priorities that score highest on some composite score. For each of these top priorities, the NAIP could then offer explicit guidance to support implementation, such as assigning specific roles, setting targets to support mutual accountability, and developing realistic estimates of what it would cost to fully implement them.

Mapping National Agriculture Investment Plans to the Policy Implementation Framework

1. RESOURCES

Countries have limited resources; however, NAIPs are often constructed with little regard to such funding constraints. NAIPs “[try] to cover everything at the same time while overestimating the financial resources that will be committed to” them.⁶⁵

Even if leveraging private and donor resources, many (or most) priorities within a NAIP cannot be adequately funded, especially within the five-year time frame of most plans. NAIPs also often fail to share detailed breakdowns of cost estimates, including assumptions and options (for instance, clearly showing how costs vary depending on the implementation approach and depth).

Realizing investments within the NAIP will require significant human resource contributions from various ministries and levels of government. NAIPs should consider mapping anticipated requirements, identifying gaps that need to be addressed, and determining whether the gaps can be filled by short-term (e.g., contractor) labor, new government staff, or private entities.

Successfully implementing a NAIP may depend on the existence of significant infrastructure, including roads, which falls outside the scope of the NAIP itself and may be the responsibility of other government or private entities. The plan should be sure to acknowledge these needs, and as part of the consultative process to build NAIPs, they should try to catalogue these needs.

Factors and Sample Relevant Questions

Budget

- How does the plan incorporate different fiscal projections (e.g., assuming status quo growth versus a sharp decline in government revenue)?
- Are confidence intervals assigned to budget estimates for individual investments and the total plan?
- Does the plan identify costs that can be shared with other ministries or with the private sector?
- How does the projected investment commitment align with historical trends in the sector?

Human resources

- Which investment priorities within the NAIP best leverage existing human resource capacities, and which will require investments in new capacities?
- How would disaggregating NAIP priorities by region affect the implementing ministries’ capacity development strategies?

Infrastructure and physical resources

- Does implementation of the NAIP require infrastructure investments from other sectors/ministries?

2. PLANNING AND COORDINATION

Although NAIPs are national strategy documents, they must acknowledge the regional variation that exists in most countries and reflect this in their selection and analysis of investments. For instance, national investment priorities that focus on maize have little relevance to areas of a country where maize is not grown. Region-specific priorities may make more sense, particularly for policies that are crop-specific.

Given NAIPs' scale, successfully implementing most plans will require significant coordination and collaboration across various governmental (between and within national and subnational levels) and nongovernmental entities. Responsibility for NAIPs may sit with planning and policy offices within agriculture ministries. But this arrangement could lead to "sector capture," whereby "coordination of the NAIP is trapped in the Ministry of Agriculture (or its equivalent) rather than entrusting the coordination to high-level coordination and accountability structures in the Office of the President or Prime Minister."⁶⁶ Other coordination bodies, such as offices in the Ministry of Finance or Planning or a cross-ministry committee, will likely be necessary to coordinate and track progress on a regular basis. Agriculture sector working groups help coordinate efforts externally,

especially with donors. Interministry cooperation and coordination should be "based on a strategy above the NAIP" such as the national development plan.⁶⁷

This needs to be preceded by the defining and dividing of roles, tasks, and responsibilities, some of which can be articulated in the NAIP and some of which should be outlined in accompanying guidelines. In particular, clearly articulating the division of roles among the government, donors, and the private sector is critically important considering that NAIPs are intended to leverage the skills and resources of all three. Effectively leveraging private partners is particularly important given the scale of the challenges that most agriculture sectors face.

Finally, even when developed through a consultative process, NAIPs are sometimes written with limited regard to other sectors' strategy documents and priorities. Indeed, there are significant opportunities for NAIPs to link explicitly with other ministries. For example, NAIPs could identify coordination and co-investment opportunities with health ministries on nutrition, public works ministries on roads, or trade ministries on reducing nontariff barriers to agricultural products.

Factors and Sample Relevant Questions

Targeting

- Does the NAIP account for regional variation, and are region- or subsector-specific investment plans needed?
- Does the NAIP target investment priorities to specific beneficiaries (e.g., smallholder farmers) in a coherent and compelling way?

Guidelines and documentation

- Does the NAIP identify clear roles and responsibilities for each investment priority?
- Does the NAIP distinguish between government and private sector roles? Is there a compelling rationale for this?

Management and coordination

- How does the NAIP propose implement key priorities, and does it explain why that strategy is better than the other options?
- How will internal (government) efforts to implement the NAIP be coordinated with external bodies such as the agriculture-sector working group?

Policy alignment and sequencing

- How is the NAIP linked to the strategic frameworks of adjacent sectors (e.g., nutrition, environment, infrastructure, and social protection)?
- Does the NAIP include a thorough review of policies in place and those in the pipeline that are likely to affect the plan's priorities?

3. LEADERSHIP AND OWNERSHIP

An NAIP's broad focus makes feeling "ownership" over the entire plan difficult for key stakeholders. Although NAIP development processes are meant to be consultative, existing consultative mechanisms at the national level often exclude key stakeholder groups, especially smallholder farmers and civil society. For instance, Ghana's NAIP has been described as "an exercise in government-donor relations without significant civil society influence."⁶⁸ Similarly, in Nigeria, NAIP planning is typically top-down, with superficial participation by civil society.

Within government, champions who understand the NAIP, recognize its value, and are willing to contribute to its implementation are important. Given the scale of a NAIP, identifying champions of particular elements may be a more fruitful and manageable approach than finding champions for the entire NAIP, particularly for mid-level

champions. It is particularly useful to secure champions in other ministries or departments to help ensure progress is made on NAIP elements that require the partnership, expertise, and resources of those other entities.

Perhaps the most crucial partner in NAIP implementation is the private sector; NAIPs are often seen as efforts to leverage private sector resources and capacities in the interest of national agriculture priorities.⁶⁹ The plan should ensure private stakeholders have an opportunity to meaningfully contribute to the NAIP's development, especially to identify where they see a role for the private sector (e.g., investments with high up-front costs but significant revenue potential in the medium term). This engagement helps ensure the inclusion of more realistic opportunities for private investment.

Factors and Sample Relevant Questions

Public sector champions

- For parts of the NAIP that require the support of other ministries and offices, are there clear champions to facilitate that cooperation?

Inclusive stakeholder engagement

- How engaged are private partners, smallholder farmers, and civil society in the NAIP's development, and how does the plan incorporate their perspectives on where private sector partners can add the most value?
- How coordinated is the private sector, and are there representative industry groups that can articulate overlap between the NAIP and industry priorities?
- What incentives does the private sector need to support the NAIP's priorities, and how can these be efficiently created?

Factors and Sample Relevant Questions

Education, messaging, and awareness

- What methods will be used to communicate the NAIP to the public clearly and to convey useful information?
- How can the NAIP communication strategy be linked to the national development strategy?

4. MEASUREMENT AND ACCOUNTABILITY

Most NAIPs are accompanied by a monitoring and evaluation log frame,⁷⁰ but these often lack details on how outputs will be verified, reflecting the broad nature of most NAIPs. Greater attention to truly prioritizing investments may contribute to more realistic, if still high level, log frames.

Barriers to effective monitoring of agricultural interventions in Africa also apply to the implementation of NAIPs. These challenges, according to a review of Malawi's Agricultural Sector-Wide Approach, include "(1) lack of timely data due to late or non-reporting; (2) poor data quality; (3) weak data utilization at all levels of the system; and (4) weak governance of M&E across the sector."⁷¹

Systems to monitor NAIP implementation should be coordinated and, to the extent feasible, integrated with existing sector dashboards. Individual investment priorities should be tracked and broken down by constituent components, with clear mechanisms and processes to enhance accountability (e.g., who is tracking the performance indicators, what is done with that information).

Indicators selected for a NAIP monitoring framework should be at the program, enabling environment, and sector levels; be relatively few in number; be distinct from one another; and not be costly to measure.⁷² Indicators should also be clearly linked to purpose, although this does not mean they should collect information only on outcomes and impact—inputs and outputs provide useful information on implementation progress.

Additionally, linking the NAIP to accountability structures in the president's office may be crucial to align incentives and encourage a focus on results among the various entities involved in NAIP implementation. Enhancing accountability to domestic stakeholders includes ensuring that the public (including media) has access to program-level data and that parliamentary committees are kept apprised on updates and budget figures.

Factors and Sample Relevant Questions

Monitoring systems

- Is there a sector-wide monitoring and evaluation framework? How is the NAIP integrated with it?
- What indicators best capture aggregate progress on NAIP implementation?
- What resources are needed to ensure the monitoring framework can be properly maintained? Do key stakeholders have sufficient buy-in to support the monitoring framework?

Transparency and public access to information

- How can media and other civil stakeholders be ensured access to regular updates on NAIP implementation?

Factors and Sample Relevant Questions

Institutional accountability

- Given the broad nature and long time horizon of the NAIP, what administrative accountability mechanisms can be created to ensure progress continues and key priorities are not forgotten?
- Which parliamentary committees have a stake in NAIP oversight (including committees whose interests overlap with the NAIP, such as health)?

5. POLITICAL ECONOMY

NAIPs are not simply technical documents; they also reflect political interests and the priorities of private actors. To some extent, this is to be expected and tolerated (unless it leads to distorted outcomes) because political support is essential to finalizing and implementing a NAIP. The plans are fundamentally statements of priorities and must reflect some level of agreement on those priorities by key stakeholders.

Factors and Sample Relevant Questions

Power, incentives, and institutional norms

- How might the NAIP accommodate the interests of key stakeholder groups without jeopardizing the integrity of the investment prioritization process (e.g., is there a way to rank technically sound investments against politically feasible ones)?

Political priorities

- How does the NAIP correspond with other national strategy documents such as the national development plan, and is there a way to update the NAIP if and when those high-level priorities change?

Regional Trade Agreements

Regional trade agreements (RTAs) are treaties between two or more governments that define the rules of trade for signatories.⁷³ There are two broad types of RTAs: custom unions, in which members share a common external tariff structure, and free trade areas, in which members maintain autonomous external trade policies.⁷⁴ By reducing barriers to trade, trade agreements aim to boost competition and the volume of trade, benefiting consumers (by providing access to more affordable and higher-quality goods) and spurring economic realignment to sectors in which a country has a comparative advantage.⁷⁵ As multilateral trade liberalization negotiations have stalled (the Doha Round), countries are increasingly looking to regional trade agreements.

Trade agreements generally necessitate changes in existing trade policies—such as removal or reduction of tariffs, nontariff barriers, or industry subsidies—and the alignment of other national policies that affect trade. For example, harmonizing technical requirements to improve transport across borders (e.g., axle load limits) or specifying the equivalence of different systems for packaging, grading, and sizing products. RTAs often have built-in monitoring and dispute resolution mechanisms that specify where and how changes should be made and agreed-upon rules should be enforced. But countries often interpret provisions differently, and their commitment to the established resolution mechanisms may vary.

RTAs are popular for both symbolic and economic reasons despite the costs of negotiation and implementation of new agreements and the need to navigate the “spaghetti bowl of trade rules and commitments.”⁷⁶ They seek to reduce trade barriers among members but often also have symbolic and political importance. The African Continental Free Trade Area (AfCFTA) is an important, highly relevant example, with implications for African agriculture.⁷⁷

Implementation Elements and Challenges

Distinguishing between factors necessary to implement a specific trade agreement and factors necessary to facilitate trade more broadly can be challenging. The pace and sequencing of agriculture trade liberalization, along with the presence or absence of supports to cushion costs and facilitate adjustment programs, have significant influence on whether key groups (e.g., farmers and poor consumers) benefit from these policies.⁷⁸ The first step toward an RTA is multilateral negotiations. Countries with clearly defined negotiating positions (reflecting domestic agreement) and diplomatic capacity to adapt and forge alliances enter negotiations in strong positions.⁷⁹ Once completed, negotiations are followed by early implementation steps like member ratification and notification of the World Trade Organization.

Full implementation of an RTA includes several broad components:⁸⁰

1. Development and passage of new legislation (or amendments to existing legislation) to ensure policy conformance and coherence with the RTA
2. Issuance of directives, regulations, and guidelines to clarify and help operationalize the laws
3. Public dissemination of information on the RTA to ensure awareness and compliance
4. Monitoring, enforcement, and evaluation to support compliance and identify needed modifications or new policies to support the RTA
5. Amendment and modification of the RTA, as necessary

Implementing RTAs involves several public stakeholders—primarily agents of the central government, including parliamentarians, trade ministries, and border customs agents—and the compliance of various private agents such as individual exporters and exporters as well as key business groups.

Trade agreements, perhaps more than any other policy instrument, have significant potential for disrupting the economic conditions in a given country. Mitigating these disruptions, especially through phased implementation and accompanying policies to support adjustment, is critical to prevent the reforms from stalling in the face of popular opposition. In addition, although evidence exists that trade agreements can support food security,⁸¹ government and other stakeholders may need additional policy reassurance to assuage concerns.

The literature suggests that several issues are particularly relevant for facilitating the efficient implementation of RTAs, including the following:

- **Identifying, designing, and implementing the necessary concomitant domestic policies and guidance.** RTAs are external commitments that are only able to be implemented through a set of domestic policy actions (e.g., aligning national standards, improving the physical and human capacity of customs offices, reducing tariffs, creating trade adjustment programs). These additional policies may themselves face unique implementation barriers and considerations.
- **Harmonizing commitments with existing laws and agreements.** New trade agreements may run counter to existing domestic trade policies and could conflict with other external commitments. (South Africa, for example, has multiple RTAs in force, including with the European Union and through the Southern African Customs Union.⁸²)
- **Participating in external accountability mechanisms.** As treaties, RTAs make inherent commitments to external parties (other countries and international bodies) and require clear mechanisms for tracking implementation and compliance and resolving disputes not just internally but also with foreign parties. Existing arbitration mechanisms, such as through the World Trade Organization, can be supplemented by processes and measures specific to the RTA. Clarifying laws and ensuring accountability through courts are key.

- **Building systems that transparently provide predictable and reliable information to all stakeholders.**

Trade policies require clear, accessible, and up-to-date information on applicable tariffs, standards, and requirements. Stakeholders (e.g., exporters) need ready access to this information and need confidence that trade rules will not change frequently or unexpectedly.

Mapping Regional Trade Agreements to the Policy Implementation Framework

1. RESOURCES

Budget is important for investments—including those to support enforcement such as customs offices and to facilitate trade such as improved roads—and because of the reduction in tariff revenue (a major revenue source for some countries). Although lower trade barriers may yield improved revenue in the medium to long term, they may have a negative short-term fiscal impact that countries should anticipate and plan for.

A critically important resource for implementing RTAs is human capacity. Countries need skilled workforces

to interpret and enforce trade agreement clauses and accompanying standards (e.g., heightened sanitary and phytosanitary standards for imports and exports; new customs procedures to expedite trade). Technical skills are also required for updating tariffs and, if applicable, negotiating amendments and modifications to agreements.

Physical infrastructure is important to both facilitate enforcement of the agreement and ensure the country can take full advantage of the agreement through smooth access to ports and borders.

Factors and Sample Relevant Questions

Budget

- What are the short-term budget implications of the tariff reductions?
- What resources are needed to upgrade trade facilities?
- Are there programs needed to offset the negative costs of the RTA on specific economic actors?

Human resources

- Do staff within the trade ministry have the technical skills to design, manage, and update rules and programs?
- Do frontline workers have the training to properly enforce standards?

Infrastructure and physical resources

- Do customs facilities need upgrading?
- What types of complementary infrastructure investments are needed to ensure producers can take advantage of the trade agreement (e.g., improved roads)?

2. PLANNING AND COORDINATION

Perhaps the single most important element of implementing an RTA is having clear, detailed policy guidance. Specifically, trade participants need up-to-date and reliable technical information on applicable tariffs and rules of origin detail in respective national tariff books. This is especially key because each state will probably have its own tariff schedule, reflecting regional integration at different speeds.⁸³

Clear guidance is also needed on the appropriate quality and sanitary/phytosanitary standards,⁸⁴ various customs procedures,⁸⁵ and restrictions on foreign investors and service providers.⁸⁶ Also uniquely relevant to trade is guidance that specifies the expiration of export subsidies and the length of special agricultural safeguards, both of which delay RTA implementation.⁸⁷ As global evidence suggests, in the absence of clear guidance, “uncertainty undermines commerce and investment decisions.”⁸⁸

Ensuring alignment and harmonization with national policies is also critically important to provide clarity and certainty. RTAs require changes in trade policies, such as removal of tariffs, nontariff barriers, or industry subsidies, as well as the alignment of other national policies that affect trade. For example, the harmonization of technical considerations to enhance efficiency of transport across borders (e.g., axle load limits) or specifying the equivalence of different systems for packaging, grading, and sizing products.⁸⁹ Most countries are also already parties to bilateral and/or regional trade agreements. This means commitments made under a new RTA must be harmonized with existing agreements.

Factors and Sample Relevant Questions

Targeting

- Where are investments needed to facilitate implementation of trade agreement provisions (e.g., offsets for specific farmers or needed border upgrades)?

Guidelines and documentation

- What RTA elements require technical guidance to clarify or offer details on implementation (e.g., sanitary standards)?

Management and coordination

- Are the roles and responsibilities of key implementing agencies (e.g., customs agents, offices within the trade ministry, parliamentarians) clearly specified and delineated?

Policy alignment and sequencing

- What national policies are inconsistent with new agreements under the RTA? What type of formal action is needed to nullify, revise, or replace them?
- What problems (if any) does nullifying or superseding existing policies or regulations raise? (For example, are there public health concerns related to loosening certain quality standards?)
- How can parties to the RTA coordinate on harmonizing tariff regimes?

3. LEADERSHIP AND OWNERSHIP

Political leaders guide their countries through negotiating and signing trade agreements. They also sustain pressure and momentum for completing necessary implementation steps and ensuring implementation is aligned with other national priorities. Political leaders include both executive officeholders and parliamentarians. However, political leaders can also become impediments to trade agreements. Agreements are often seen as political statements, and if the public turns against the agreement (in full or key components), leaders may seek to undermine implementation.

The domestic private sector also plays an important role in determining the implementability of a given trade policy. When private sector groups are not sufficiently engaged or determine that a trade agreement presents a risk, they can present real obstacles. For example, Nigeria's participation in the AfCFTA was delayed because of concerns raised

by the Manufacturers Association of Nigeria that the agreement was vague on market access and enforcement and AfCFTA could kill industry and stoke unemployment.⁹⁰

Engaging these partners early on, often through trade associations, is important to ensure countries have a unified negotiating position and commitments are made that reflect the concerns of these groups. At the same time, it is important to identify when private concerns simply reflect a desire to maintain protectionist policies that enrich some groups while hindering broader economic growth. Explicit efforts to reach out and engage private voices without political capital, particularly if this engagement seeks to go deeper than cosmetic involvement in stakeholder consultations, are crucial but challenging.

Factors and Sample Relevant Questions

Public sector champions

- Are there leaders within government (or parliament) able and willing to maintain long-term momentum for implementing the RTA?

Inclusive stakeholder engagement

- What stakeholder groups are most likely to be allies on trade reform, and how might they be activated to advocate on behalf of the policy?
- How might influential industry groups have concerns mitigated?

Education, messaging, and awareness

- How will key stakeholders (e.g., exporters) be educated on the new tariff and informed of modifications?

4. MEASUREMENT AND ACCOUNTABILITY

RTAs often have built-in monitoring and dispute resolution mechanisms that specify where and how changes should be made and agreed-upon rules should be enforced. However, there may be weak mechanisms and limited capacity within countries to measure implementation and ensure compliance. Some supranational steps can be taken—for example, in support of compliance monitoring for the AfCFTA, an African trade observatory will be established to store trade-related data that could include member notifications on the implementation of their commitments⁹¹—but, ultimately, countries will need to be transparent on rules, implementation progress or delays, and processes for navigating disputes.

Factors and Sample Relevant Questions

Monitoring systems

- What are the key milestones in implementation (e.g., stages for stepping down tariffs) that can be tracked with relative ease?

Transparency and public access to information

- Will the public have access to domestic and partner countries' data on trade agreement implementation (including timely data on schedules for eliminating tariffs)?

Institutional accountability

- How will RTA-related disputes be handled domestically?
- What enforcement mechanisms exist to ensure compliance?

5. POLITICAL ECONOMY

Implementation of regional agreements takes place only when they are in line with key “national interests,” as defined by ruling elites.⁹² Powerful groups can efficiently manipulate economic patriotism or chauvinism, enabling policies that favor these groups while cloaking them in the rhetoric of the national interest.

Both public and private sector stakeholders might extract high rents from status quo arrangements.⁹³ In particular, tariffs are a major source of revenue for African countries,⁹⁴ and the least-developed states may request a special dispensation.⁹⁵ Additionally, the elimination or reduction of protections for certain industries may be opposed by private stakeholders who profit from them.

Factors and Sample Relevant Questions

Power, incentives, and institutional norms

- What industries or sectors benefit the most from status quo measures, and how might the new policy affect them?
- How might these sectors adapt and adjust under the proposed new trade conditions?
- What influence might actors in these sectors exert and on what elements of the RTA agenda?
- Are the economic benefits spread sufficiently across different voting blocs to avoid politically motivated, concentrated gains and losses? Are there mechanisms in place to compensate policy “losers”?

Political priorities

- How might economic patriotism arguments be countered (e.g., on food security)?
- How might upcoming elections encourage delayed implementation of key RTA provisions (such as removal of tariffs that benefit influential voters)?

Fertilizer Subsidies

Fertilizer is a crucial input to boost agricultural productivity. But its use among farmers in sub-Saharan Africa is low, with an average fertilizer use of 10 kilograms per hectare (kg/ha) compared with 138 kg/ha and 222 kg/ha for farmers in South America and Asia, respectively.⁹⁶ As a result, the region accounts for just 3 percent of global fertilizer consumption⁹⁷ despite having 60 percent of the world's uncultivated arable land, contributing to the low productivity of sub-Saharan African agriculture.

Market constraints, especially the product's price or inaccessibility, often erode farmers' incentives to use fertilizers even though the societal benefits of fertilizer use outweigh the costs of purchasing the input.⁹⁸ Other barriers to usage among farmers include a lack of awareness of the benefits of fertilizer use.

Fertilizer subsidies are policies designed to address these barriers. To be effective, subsidies must be targeted to farmers who cannot afford to buy fertilizers at the market price, especially smallholder farmers. The underlying logic of these policies is that by reducing the retail price of fertilizers, more farmers will be able to acquire and use fertilizers, resulting in increases in yields and farmers' incomes.⁹⁹ Subsidies also enable farmers to gain firsthand information about the benefits of fertilizer use, and in theory, farmers who understand the benefits will continue buying fertilizers even after the subsidy scheme ends.¹⁰⁰ More broadly, fertilizer subsidy policies can be seen as advancing governments' food security and poverty alleviation agendas.

Such policies were a major feature of agricultural development strategies in the region from the 1960s to the 1980s.¹⁰¹ They were phased out in the 1990s as a result of a consensus among national governments and donors that the policies were ineffective and costly. A second generation of "market smart" subsidies has since emerged, with policies ostensibly designed to avoid the pitfalls and implementation problems of past subsidy schemes. What makes these subsidies different from earlier iterations, at least in design, is that they are meant to be temporary, with built-in exit strategies to prevent excessive and inefficient fertilizer use.¹⁰² Unlike the traditional subsidy schemes, they also have an explicit focus on developing private fertilizer markets. These "market smart" subsidies "lower the price and/or improve the availability of fertilizer at the farm level in ways that encourage efficient use of fertilizer while at the same time promoting private investment in fertilizer markets."¹⁰³ However, questions remain about how well these policies can be implemented.

Implementation Elements and Challenges

Fertilizer subsidy policies take various forms in Africa, ranging from universal schemes in which government has total control of implementation to targeted programs in which the private sector controls importation and distribution of the inputs. The implementation of such programs involves at least five aspects:

1. Estimating annual fertilizer needs and mobilizing resources for implementation
2. Establishing arrangements for procurement of subsidized fertilizer (government may lead this process, or the private sector could import fertilizer on behalf of government)
3. Developing methods to target beneficiaries (under targeted subsidy programs)
4. Distributing fertilizer to farmers through government-led or private-sector distribution networks (this process can include the use of vouchers redeemable with licensed agro-dealers)
5. Monitoring procurement and distribution processes to ensure fertilizers reach intended beneficiaries

Several challenges arise during the implementation of fertilizer subsidies. The following challenges are the most notable:

- **Inaccurate targeting and diversion of subsidized fertilizers.** Fertilizer subsidies are designed to reach farmers with low incomes, but in practice, more affluent commercial farmers tend to be beneficiaries of such schemes.¹⁰⁴ For instance, in Zambia's food security policy efforts, farmers with the largest landholdings received disproportionately more inputs from the subsidy.¹⁰⁵ Schemes that use community-based targeting to better reach farmers with low incomes, like Malawi's Agriculture Infrastructure Support Project, also end up allocating inputs to households that are not experiencing poverty.¹⁰⁶ Even in subsidy schemes that involve vouchers, studies find substantial evidence of voucher leakages from smaller to larger farmers.¹⁰⁷ Voucher recipients may sell the voucher, may use the voucher and then sell some of the subsidized inputs, or may obtain fertilizer but apply it to a crop that was not among the policy's intended targets.¹⁰⁸
- **Late delivery of subsidized inputs.** Studies attribute this challenge to a range of factors, including delays in the importation of fertilizers caused by late announcements of pertinent program details; delays in budgetary approval and tendering; delays in printing vouchers; and failures in the distribution channels.¹⁰⁹ Late delivery of fertilizers can also occur because of inadequate transportation networks. When farmers apply fertilizer late in the growing season, they fail to realize the expected gains in yields that result from fertilizer use,¹¹⁰ which can discourage them from using fertilizers in the future.¹¹¹
- **Poor exit strategies and unsustainable costs.** Most fertilizer subsidy policies in Africa do not specify a process and timeline for weaning farmers off the subsidy. Where such exit strategies exist, they are often not enforced.¹¹² As a result, fertilizer subsidies tend to evolve into expensive schemes that create

dependence on subsidies and outlive their economic usefulness.¹¹³ In fiscal years 2006–07 and 2007–08, Malawi’s fertilizer subsidy scheme accounted for 45 percent and 51 percent, respectively, of the Ministry of Agriculture’s budget. In Ghana, the cost of the country’s fertilizer program grew 54 percent a year in nominal terms between 2008 and 2012.¹¹⁴

- **Macroeconomic conditions that affect governments’ ability to sustain fertilizer subsidies.** Fertilizer subsidies are typically multiyear initiatives that require large expenditures. Because fertilizers are often imported, fluctuations in exchange rates can put the funding of a policy at risk.¹¹⁵

Mapping Fertilizer Subsidies to the Policy Implementation Framework

1. RESOURCES

Fertilizer subsidy policies are cost-intensive. The policy is usually budgeted for, but funding levels typically fall short of what is needed to achieve the targeted amount of fertilizers to be supplied to farmers.¹¹⁶ This often results in misallocation of fertilizers, as resource constraints preclude governments from matching supply with farmers’ fertilizer needs. Complementary investments in market infrastructure, communications, and research and development can improve implementation, but the extent to which governments can undertake these investments depends on available financial resources.¹¹⁷

Human resources (e.g., district agricultural extension agents) and physical resources (e.g., roads and storage spaces to hold fertilizers) are also crucial for ongoing administration and management of the subsidy program. If the policy requires subnational level implementation, government units at those levels need adequate resources to roll out the policy. For subsidy policies with large private-sector roles, it is also important to consider the capacity of private-sector partners to deliver on importation and distribution tasks.

Factors and Sample Relevant Questions

Budget

- Are resources available to provide the amount of fertilizer needed under this policy?
- Can the fertilizer be distributed reliably and at a reasonable cost?¹¹⁸
- Does the subsidy rate account for farmers’ transportation costs? If not, what would be the implication of an increase in the subsidy rate on overall implementation costs?
- Is business credit available to private input suppliers?

Human resources

- Do agriculture extension agents and other district-level actors have the resources they need to carry out implementation responsibilities (e.g., enforcing targeting requirements)?

Infrastructure and physical resources

- To what extent can the existing infrastructure/network of agro-dealers support delivery of fertilizer to smallholders, including those in remote areas?

2. PLANNING AND COORDINATION

Implementing fertilizer subsidy policies requires significant logistical coordination among government agencies and across levels of government. This is important for several aspects of implementation, such as beneficiary selection and input importation and distribution. Providing implementing agents with guidance is essential for implementation to move forward. For instance, Zambia's Farmer Input Support Program has a coordinating office that convenes workshops which provide stakeholders with terms of reference that stipulate guidelines and procedures.¹¹⁹ It is also key to consider that clarifying institutional arrangements—such as where the responsibility for beneficiary selection lies—is essential for smooth implementation.¹²⁰

Coordination is needed not only within government, but also between governments and the private sector as well as community leaders. Given their proximity to and knowledge of communities, community leaders can help governments identify eligible farmers in greatest need of subsidized fertilizers. Private actors such as agro-dealers, on the other hand, also need timely information on program details so they can arrange for timely importation and distribution of fertilizers.

Ultimately, those planning for subsidy policy implementation should be aware of the farmers' planting schedule so various implementation steps can be sequenced in a way that ensures timely access to the input.

Factors and Sample Relevant Questions

Targeting

- What methodology will be applied to identify and reach targeted beneficiaries (e.g., farmers with low incomes)?
- Will different farmers or areas have differentiated fertilizer needs based on soil characteristics?

Guidelines and documentation

- Are there clear guidelines/procedures for payments to fertilizer suppliers?

Management and coordination

- What institutional mechanisms are in place to coordinate key implementation steps, such as fertilizer procurement and distribution?
- Does the lead implementing agency have the means to provide oversight on targeting, procurement, and distribution?
- Are implementation roles and responsibilities clearly specified across government agencies and private-sector actors, where applicable?
- Is the fertilizer supply chain well-coordinated?¹²¹
- Is there opportunity and benefit to expand the private sector's role in fertilizer distribution?

Policy alignment and sequencing

- How does the fertilizer subsidy policy interact with existing policies focused on developing fertilizer markets?
- What implications do existing trade policies have for importation of fertilizers under the subsidy program?

3. LEADERSHIP AND OWNERSHIP

Fertilizer subsidies tend to have strong national ownership, evidenced by consistent and significant funding for them in national budgets. For example, the national government provides 100 percent of funding for Zambia's program and half for Tanzania's; additional funding comes from development partners in both countries.¹²² These policies have strong champions at the highest levels of a country's political leadership. Most fertilizer subsidy policies in Africa were instituted in response to major shocks or threats to food security,

and their strong political popularity assures the commitment of policymakers to implement them.¹²³

But effective implementation also requires champions at lower levels; these include bureaucrats and extension agents whose problem-solving interventions in day-to-day operations are crucial for moving implementation forward. Community leaders at the local level can also be instrumental, particularly for identifying program beneficiaries.¹²⁴

Factors and Sample Relevant Questions

Public sector champions

- Who are the policy's champions at the community, district, or regional levels? What supports do they need to be effective?

Inclusive stakeholder engagement

- What forums exist for policy dialogue between government and key stakeholder groups (e.g., farmers, agro-dealers, and fertilizer associations)?

Education, messaging, and awareness

- Have provisions been made to socialize extension agents to the purpose and modalities of the subsidy?
- What communication channels are in place to ensure farmers have information needed to access the subsidy?

4. MEASUREMENT AND ACCOUNTABILITY

Monitoring systems are crucial for several aspects of implementation, including ensuring that selected beneficiaries meet pre-determined eligibility criteria, that distributors supply fertilizers at correct prices, and that beneficiaries use the subsidized inputs as intended. Although fertilizer subsidy policies may delineate the responsibility for monitoring, it remains a challenge,¹²⁵ contributing to a lack of oversight and accountability among implementing actors.¹²⁶

Furthermore, prioritizing transparency during design and implementation can help mitigate common bottlenecks. For instance, making the process of redeeming vouchers transparent can constrain opportunities for rent seeking.¹²⁷ Transparent government communication about subsidy details (e.g., pricing information) can also help private-sector actors better estimate importation costs and plan accordingly, which helps address distribution delays.¹²⁸

Factors and Sample Relevant Questions

Monitoring systems

- Does the fertilizer subsidy policy have a time-bound monitoring plan?
- Does the policy's monitoring plan specify reporting requirements and relationships?
- What systems are in place to verify key steps, such as importing, distribution, and beneficiary selection?
- Do responsible entities have the capacity to perform this auditing function?
- How will government assess the quality of fertilizer supplied to farmers (whether through public or private channels)?

Transparency and public access to information

- Does the policy's monitoring plan envision a role for farmer organizations, agro-dealers, or community groups in monitoring implementation?
- To what extent can such groups access information they would need to monitor implementation?
- How can mobile phone technology be leveraged to facilitate farmers' access to information about the subsidies?

Institutional accountability

- How much discretion do implementing agents have to divert subsidized fertilizer from intended beneficiaries? How can such interventions be mitigated?

5. POLITICAL ECONOMY

Because fertilizer subsidies deliver a benefit, political pressures for expanding such programs are strong, which makes controlling their costs difficult.¹²⁹ Exit strategies are considered a key feature of “smart” subsidies, but those are hardly enforced because of substantial political resistance to scaling down or terminating subsidies.¹³⁰

Personal political motivations also play a role in how fertilizer subsidy schemes are targeted. Because of electoral considerations, the policies may be targeted to areas where the incumbent has strong support (e.g., Zambia) or opposition areas (e.g., Ghana and Kenya).¹³¹ As such,

it is “important to note that stated formal program objectives may differ from the objectives of individual stakeholders.”¹³²

Essentially, these schemes can be hijacked politically, which makes it paramount to understand the underlying incentives and interests of diverse stakeholder groups, including politicians, program administrators, input suppliers, and wealthy farmers. Depoliticizing these policies through the adoption of transparent, objective standards also helps.

Factors and Sample Relevant Questions

Power, incentives, and institutional norms

- At what points of implementation are politically motivated leakages of the benefit most likely?
- How might the policy's political objectives (stated or implicit) affect effective targeting of the subsidy?
- How can pressures for the perpetual continuation of subsidies be countered to improve sustainability?

Political priorities

- How vulnerable is the fertilizer subsidy policy to a change in the country's political leadership? What about to changes at lower levels of government?

Seed Regulations

Effective implementation of seed regulations is crucial for ensuring African farmers' timely access to high-quality, improved seed varieties. Seed regulations are the implementing instruments of national seed laws, acts, or decrees, which provide the legal framework for seed systems across countries. Seed regulations, broadly, prevent the sale of seeds not listed in national seed catalogues, bar unlicensed dealers from selling seeds, and build farmers' trust in seed systems.¹³³ Seed quality (certification) and variety release are the most commonly regulated areas of seed systems.

Seed quality control regulations establish minimum standards and stipulate procedures for verifying quality. Because farmers cannot assess some aspects of seed quality (e.g., genetic purity) on their own, they are often sold counterfeit seeds, which undermine agricultural productivity and the incentives to invest in new varieties.¹³⁴ Seed certification helps address these challenges.¹³⁵

Variety release regulations govern the development and release of new seed varieties, through public or private breeding programs, for subsequent production and marketing.¹³⁶ These regulations require newly developed crop varieties to undergo rigorous testing to verify that they improve upon existing seed varieties before they can be made available to farmers on a large scale.¹³⁷

In recent decades, regional harmonization of seed regulations—processes by which countries recognize one another's regulatory systems—has emerged as a priority in Africa.¹³⁸ Although implementation challenges persist, the harmonization of seed regulations promises to help streamline the process of releasing new varieties, standardize seed certification measures, and simplify requirements for seed trade across borders.¹³⁹

Although seed regulation has historically been a government function provided for by the legal framework for a country's seed sector,¹⁴⁰ a debate is ongoing over how involved governments should be in the regulation of seed systems, given inefficiencies in current regulatory approaches and against the background of rapid development of seed sectors across the continent. In a world where governments take a less prominent role in seed regulation, national seed regulatory bodies could “see their role shift from the direct supervision of seed production towards technical and policy support for the development of a wider range of seed provision options.”¹⁴¹ As some African countries' recent experiences suggest, this shift might involve expanding the private sector's role in seed regulation. However, strengthening the capacity of private actors to “self-regulate” is important for this transition to take root.

Implementation Elements and Challenges

Seed regulation systems in much of sub-Saharan Africa follow the European Union model, which requires multiple tests for seed certification and variety release processes.

Seed certification has several steps: seed crop and seed producer registration, field inspections, seed testing, and certificate issuance. Seed certifying authorities register producers growing a particular seed variety. Authorized field inspectors then conduct multiple on-site inspections to verify that seeds under production demonstrate expected characteristics. After seeds pass inspection, representative samples are sent to laboratories for purity and germination testing.¹⁴² Heads of testing laboratories then issue certificates with results and labels for certified seeds, based on yield estimates.

Variety release regulation specifies procedures that must be completed for the production and distribution of new seed varieties. New varieties go through national performance trials that last two to three years.¹⁴³ These tests serve a range of purposes: for instance, they help verify that the new variety performs better than existing ones on key indicators, such as yield and grain quality. In parallel to or following the trials, new seed varieties go through multiple rounds of “distinctness, uniformity, and stability” and “value for cultivation or use” tests that assess seed characteristics and performance.¹⁴⁴ Based on available evidence, a national variety release committee accepts (or rejects) the variety, after which it is added to the national seed catalogue.¹⁴⁵

Many African countries maintain this restrictive regulatory regime even though they may not have the resources required to implement it. With a few exceptions, they also “have been slow to cede regulatory oversight and commercial activities to the private sector.”¹⁴⁶ Available literature points to four challenges associated with seed regulation implementation:

1. **Incompatibility of regulations with local context and a lack of transparent processes.** Many countries in sub-Saharan Africa adopt overly stringent phytosanitary and seed quality standards that are not appropriate given the low level of development of their seed industries.¹⁴⁷ Countries may not have the capacity to comply with the stated requirements, especially globally recognized standards set by the International Seed Testing Association (ISTA).¹⁴⁸ Furthermore, inspection standards can be unclear; seed companies commonly complain about a lack of transparency in release processes and subjective application of the criteria for assessing varieties.¹⁴⁹
2. **Manipulation of regulatory processes and requirements.** During inspections, field officers can compromise on regulatory standards in exchange for financial incentives from seed producers.¹⁵⁰ Seed samplers can undermine regulatory processes too. Ordinarily, the sampling process depends on a representative sample of seeds, but samplers can bias a sample toward seeds that pass certification tests.
3. **Capacity and logistical constraints.** Many countries do not have enough laboratories to conduct certification tests. Where labs are available, they may not have the technical competencies for seed testing.¹⁵¹ More broadly, regulators are often overworked and underresourced,¹⁵² which can create

incentives for rent seeking by the underpaid civil servants who oversee and conduct inspections.¹⁵³ Enforcing seed certification regulations requires repeated inspection of production fields, yet the lack of resources, including for transportation, makes it hard for regulators to play this role, leading to “costly delays and losses.”¹⁵⁴

4. **Lengthy variety release processes.** National performance trials can take much longer than the expected two to three years¹⁵⁵ because of a lack of funds for the trials, bad weather, or a lack of sufficient breeder seeds for the trials.¹⁵⁶ Long delays in variety release can also happen because national committees charged with variety release may not be operational or meet infrequently. In Ghana, for example, “the lack of regular meetings by the national seed committee adds an average of one year to the variety registration process...whereas the same process in the Netherlands takes only five days.”¹⁵⁷

In addition, the growth in Africa’s seed industries (both the number of companies and the volume of seed produced) is simply too fast for the resources and capacity of governments to regulate the market. This and the aforementioned challenges are contributing to a greater role for the private sector in seed regulation. The partial privatization of seed inspection services is underway in Africa, with South Africa, Zambia, and Zimbabwe (countries with advanced agricultural sectors) leading the way.¹⁵⁸ These countries have more private seed inspectors than public ones, and for seed companies, this shift has “translated to greater efficiency in seed inspection services.”¹⁵⁹ In addition to complementing government-led seed certification functions, the private sector can self-regulate under accreditation schemes whereby governments grant seed companies the authority to declare the quality of seed they produce.¹⁶⁰ This approach would not only assure seed quality at the point of production but would also free up regulatory capacity in the public sector. However, self-regulation of this kind would primarily be possible for large seed companies because, unlike smaller companies, they tend to have the financial and human resources needed for robust internal seed quality control.

If the future of seed regulation in Africa is one of shared responsibility (implicit or explicit) and efficient allocation of regulatory roles between public and private actors, governments might wish to consider what is needed to foster a regulatory regime with greater private participation. Such a regime may help ensure timely access to quality seeds for Africa’s farmers. We examine some of these issues in the table below, using the framework.

Mapping Seed Regulation to the Policy Implementation Framework

1. RESOURCES

Human, physical, and budgetary resources in public and private systems are central to effective implementation of seed regulations. In practice, regulatory bodies are usually underresourced, leaving them without the technical and professional staff needed for implementation. Countries also need physical resources, such as laboratories and testing equipment, to enforce seed regulations. Importantly, human and physical resources need to be available in sufficient numbers and high quality to facilitate implementation. These resource considerations also apply to the private sector, especially in countries moving toward greater recognition of private sector roles. Although there is room for seed producers to develop internal quality control systems, this is largely a function of financial and human resources. Furthermore, there are resource implications for third-party inspectors who need to credibly demonstrate their capacity to assess seed quality so they can obtain government licenses.

Factors and Sample Relevant Questions

Budget

- To what extent are budgetary resources available to support the logistics of seed certification?
- What government/donor resources can be leveraged to build seed companies' capacity for internal quality assurance/accreditation?

Human resources

- Are the necessary human resources (e.g., seed inspectors, lab analysts) for certification available?
- Can governments engage third-party organizations to assess seed quality in the short term? What are the capacity-building needs of those organizations?

Infrastructure and physical resources

- Are there enough laboratories for seed testing? Are the labs accredited?

2. PLANNING AND COORDINATION

The implementation of seed regulations requires actors from various aspects of the seed system (e.g., seed development, production, and distribution). Actors in the seed system need access to clear guidance and information on core regulatory processes or steps that concern them.¹⁶¹ For instance, inspectors need guidance on assessing seed characteristics, and producers need information on the technical specifications required for growing seed and on the decisionmaking criteria and processes of national variety release committees.¹⁶²

Against the background of regional harmonization of seed regulations, it is important to consider how a given seed regulation interacts with agreements reached at the regional level. Amending national rules to align with regional frameworks takes time, and building institutions is necessary to support the implementation of those agreements. Additionally, being a party to a harmonized regulatory regime can exacerbate prevailing capacity constraints. In practice, it can mean that a country must comply with internationally accepted seed quality standards even though the country's regulatory bodies cannot implement those standards.¹⁶³

Factors and Sample Relevant Questions

Targeting

- How much oversight does this regulation require (i.e., targeted seeds, number of production sites, area and distribution of land)?

Guidelines and documentation

- Do clear, predictable guidelines exist for interpreting “distinctness, uniformity, and stability” and “value for cultivation or use” test results?
- What quality assurance guidelines are needed to facilitate seed companies’ compliance?

Management and coordination

- To what extent can the government enforce the seed regulation framework? What supports do variety release committees need?
- How appropriate is the regulation given the country’s level of institutional capacity and private seed system development?
- How effective are designated institutions for seed sector coordination?

Policy alignment and sequencing

- How does this regulation relate to national seed subsidy schemes?
- Do seed regulations within the country need to be harmonized?
- Would regional import and export processes create any implementation challenges?

3. LEADERSHIP AND OWNERSHIP*

There is a strong normative case for empowering farmers to demand better seed certification practices, given that they bear the consequences of regulatory lapses—that is, the failure of seed systems to guarantee farmers’ timely access to quality seeds.¹⁶⁴ But that demand cannot emerge if farmers are not educated on the value of purchasing certified seed.

Factors and Sample Relevant Questions

Inclusive stakeholder engagement

- How can national seed associations partner with governments to address regulatory constraints to seed sector development?
- How can governments engage farmer groups to improve responsiveness of seed systems to their needs?

Education, messaging, and awareness

- What systems are in place to publicize regulations among actors in the seed value chain (including seed companies and farmer end-users)?

* The “public sector champions” factor is not shown because of a lack of data.

4. MEASUREMENT AND ACCOUNTABILITY

Monitoring is a fundamental aspect of seed regulation. Field inspections and seed testing, both key implementation steps, are essentially monitoring activities. But the highly technical nature and breadth of seed regulation activities can make devising metrics to monitor implementation difficult. Regulators also struggle to perform these roles because of a lack of resources, thereby allowing seed producers to operate with minimal supervision.¹⁶⁵ The lack of transparency in variety registration and certification processes means farmers and other stakeholders struggle to hold the state accountable for results.¹⁶⁶ This lack of accountability is often a reflection of the influence of actors who stand to benefit from weak enforcement of regulations. Transparency is also a concern for private sector activities in the seed sector, particularly in countries with national seed subsidy programs. Seed companies can undermine regulations when they are not subject to sufficient oversight.

Factors and Sample Relevant Questions

Monitoring systems

- What data are needed to measure seed company compliance with key regulatory processes (e.g., registration, inspections)?
- Who is responsible for collecting and communicating such data? What corrective actions would such data inform?

Transparency and public access to information

- Can the public access information on processing and approval times for new varieties?

Institutional accountability

- Who are regulators accountable to? How likely are regulators to face consequences for poor implementation?
- What mechanisms can authorities use to hold private seed companies and inspectors accountable?

5. POLITICAL ECONOMY**

Although seed regulations may not be politically salient, their implementation (or nonimplementation) can serve the political-economic interests of the actors involved. It is important to consider how actors and their interests shape the priorities for seed sector development; those priorities in turn influence where investments are channeled and the relationship between the state and private sector actors.¹⁶⁷ The institutional arrangements for the production of seeds affect the enforcement of regulations. Some studies suggest that when public enterprises dominate production, regulators may have little incentive to “maintain robust internal seed quality control.”¹⁶⁸ Additionally, delays in variety release can be linked to rent seeking by influential seed producers and collusion with regulatory officials, which occurs in the absence of political will for rigorous enforcement.¹⁶⁹

Factors and Sample Relevant Questions

Power, incentives, and institutional norms

- What factors are likely to affect the incentives of regulatory authorities to enforce the regulation?
- Who has the power to undermine implementation of the regulation? How can their interventions be mitigated?
- How does the regulation affect competition among actors in the seed industry?

** The “political priorities” factor is not shown because of a lack of data.

Rural Electrification Programs

In 2018 in sub-Saharan Africa, under half the total population and a quarter of the rural population had access to electricity.¹⁷⁰ Improving this access—widely seen as crucial to advancing rural development opportunities—has emerged as a priority in several African countries.¹⁷¹ Rural electrification is associated with a range of benefits, including increased agricultural productivity and new nonfarm work opportunities.¹⁷² However, realizing such benefits depends on effective implementation of rural electrification programs.

Generally, governments manage rural electrification programs, and depending on the country, that can mean ministries of energy, departments for rural electrification, or national power companies. Setting up organizational units for implementation is typically the responsibility of the Ministry of Energy and the national utility company. Funding often comes from donors or the private sector, although governments typically retain decisionmaking authority. Most programs also engage civil society, including as part of government efforts to prioritize electrification investments in specific areas.

Implementation elements and challenges

Some countries have electrified their remote areas through well-planned, coordinated, and executed programs. Tunisia, China, Senegal, Rwanda, and Costa Rica are often cited as examples, although they all took somewhat different approaches.¹⁷³ The experiences of those countries and of countries that had less success suggest that the following implementation elements are key:

- Establish strategic policy directions and organizational units with clear objectives and authority to conduct the program.¹⁷⁴
- Identify source(s) of capital funding and ongoing operational funding (often some combination of tariffs and government or donor subsidies).
- Estimate energy demand and select appropriate technologies to meet demand.
- Mitigate political influence by developing transparent and technocratic standards and by adopting clear and objective ranking systems that target expansion to priority areas.
- Devise and implement an accountability framework (e.g., using electricity regulator) to monitor and ensure the quality of the service.

Rural electrification programs typically follow one of two approaches: grid extension or off-grid electrification.¹⁷⁵ Cost and maintenance requirements determine which approach is appropriate. Grid extension is efficient when expanding service to more populated areas with a significant energy demand (and the capacity to pay), while off-grid systems may provide better solutions for remote areas where extending access is challenging and expensive.¹⁷⁶ Off-grid programs do, however, depend on sufficient local technical, financial, and

manufacturing¹⁷⁷ capacity to manage and maintain the services.¹⁷⁸ On the whole, given the high costs of grid extension and rural populations' constrained ability to pay, off-grid systems are generally more viable and common.¹⁷⁹

A review of the literature identified four cross-cutting implementation challenges.

1. **High costs create dependence on external funding:** The biggest challenge in implementing rural electrification programs is the high initial capital cost, which many African governments cannot cover on their own. Operational costs required for system maintenance are also high.¹⁸⁰ These financial burdens are accentuated because poor households in rural areas cannot afford electricity. Moreover, poor households, who already consume too little electricity, may be unwilling to pay for further access, especially if they are not channeling it toward productive uses.¹⁸¹ Because of funding gaps, these programs often depend on external funding from private investors or donors, which makes them susceptible to external shocks¹⁸² and threatens their sustainability.¹⁸³
2. **A lack of qualified staff with the right skills limits technical capacity:** Many African countries, particularly in rural areas, do not have the technical human capital to expand, manage, and maintain rural electrification programs.¹⁸⁴ Low salaries can make attracting and retaining qualified staff difficult or encourage staff to take side jobs, which constrains effective implementation.¹⁸⁵
3. **Weak institutions undermine organizational effectiveness:** Several rural electrification programs have faltered because of implementing entities' limited capacity for ongoing operations and maintenance.¹⁸⁶
4. **Politicians disrupt program arrangements:** Rural electrification programs are vulnerable to political interference at national and local levels. Politicians may interfere with planning by prioritizing connections for key constituents (without regard to objective targeting strategies) or with management by ensuring the recruitment of unqualified but well-connected staff.¹⁸⁷ Shifting political agendas can also disrupt implementation of rural electrification projects—for example, they might not be sustained beyond the term of the government that initiated them.¹⁸⁸
5. **Poor rural infrastructure and services hinder program implementation:** Rural areas typically lack the basic infrastructure and services (e.g., energy production and distribution, repair and maintenance, billing and collection, monitoring and reporting) needed to implement electrification programs.¹⁸⁹ Additionally, houses in rural areas tend to be built with materials incompatible with electrification (e.g., mud and grass).¹⁹⁰

Mapping Rural Electrification to the Policy Implementation Framework

1. RESOURCES

Funding is the most important resource for rural electrification programs. Improving rural electricity access, especially through grid extension, requires significant capital. Funds for capital expenditures can be raised through private investment, the issuance of debt, donor contributions, or a combination.

Programs that are successful, like Rwanda's, are likely to attract additional funding.¹⁹¹ For off-grid systems, households and businesses may be asked to make a high initial investment (e.g., purchasing solar panels), which may require access to affordable funding.¹⁹² That is why in Sri Lanka and Bangladesh, a development bank developed a special unit for off-grid electricity to finance the investment in off-grid systems of companies and local organizations.¹⁹³

Funding for operations and maintenance will primarily need to come from a combination of customer tariffs and

subsidies. Subsidies, which could take the form of "cross-subsidies" from profitable systems in urban areas, could be targeted to households or to system operators (be they private, public, or quasi-public).

Physical resources such as roads are necessary to facilitate expansion (i.e., installing and maintaining electric infrastructure), while natural resources are important for off-grid electrification because it relies on renewable energy. Qualified staff are also needed, to plan, manage, and maintain the program. Local staff should be empowered to make decisions and take initiative to promote efficiency and innovation. After installation, off-grid systems sometimes do not receive enough maintenance. Sustaining access depends on well-trained entrepreneurial agents to install and maintain units.¹⁹⁴

Factors and Sample Relevant Questions

Budget

- Have any donors expressed interest in supporting the expansion of rural electrification access, and are they willing to provide financing and technical assistance?
- For programs with up-front costs for consumers that may exceed their ability to pay, are there financial products they can access (e.g., microcredit)?
- Will there be a gap between projected tariff revenue and the cost of operating and maintaining services? If so, can subsidies bridge the gap?

Human resources

- What technical skills are needed to run a program? Do staff at the national power company have these skills?
- What kind of training do local communities need to effectively participate in the process (e.g., as entrepreneur installers)?

Infrastructure and physical resources

- Given the physical conditions and resources available, what is the best (most cost-efficient and sustainable) approach/system to use?
- Are there missing factors/infrastructure that would inhibit program implementation?

2. PLANNING AND COORDINATION

Successful rural electrification programs typically create sound and independent institutions or organizations that have the clear authority to plan and execute the program.¹⁹⁵ This could take place within the Ministry of Energy or the power company focused on rural electrification, like in Mexico, Rwanda and Senegal, or through a bottom-up approach, by creating rural electric cooperatives, as Costa Rica did.¹⁹⁶ Usually, setting up organizational units is the responsibility of the Ministry of Energy and the national utility company.

Another consideration is how to navigate alternative implementation arrangements. Private actors are not typically interested in operating rural electrification programs, because

of the low profit margins,¹⁹⁷ but they can still be pivotal partners (e.g., through installation and maintenance of off-grid systems) and can provide some of the initial capital needed to expand networks. In Senegal, the creation of Agence Sénégalaise d'Electrification Rurale increased the confidence of private investors and attracted investment.¹⁹⁸

Finally, because financing is usually acquired from different sources, good coordination between stakeholders is necessary to make sure they are on the same page and to avoid delays in the process. This is not as important if a rural electrification program does not have multiple funding sources.

Factors and Sample Relevant Questions

Targeting

- What is the rationale for prioritizing specific rural areas for electrification (e.g., population size, density, existing infrastructure)?

Guidelines and documentation

- How might existing guidance and regulations need to be updated to reflect the unique needs of rural energy consumers?
- Is there existing guidance concerning the responsibilities of local energy entrepreneurs?

Management and coordination

- Is there an existing institution that manages rural electrification or could be tasked to lead it? If so, what reforms are necessary to ensure it can do its job effectively?
- Should a public, private, or quasi-public entity be given responsibility for management? If it is a private entity, what measures are needed to ensure quality of services?
- For grid extension, are there mechanisms for coordinating demand to mitigate the risk of brownouts?
- What office or entity will be tasked with coordinating the government's electrification program? Should a new office be created?

Policy alignment and sequencing

- How can the government leverage indirect program benefits (e.g., contributions to achieving the Sustainable Development Goals) to attract international attention and funding?

3. LEADERSHIP AND OWNERSHIP

The commitment of leaders at the highest level of government is crucial to elevate rural electrification to the top of a country's policy agenda. Beyond that, though, dynamic leadership is needed in implementing agencies and ministries, "with a capacity to motivate staff and bring a sense of dedication to the task of rural electrification."¹⁹⁹ Such staff can feel a sense of ownership of the policy as they see their day-to-day tasks contribute to their country's advancement. Whether this attitude takes root among frontline staff will depend on the quality of public sector jobs and the career opportunities they offer.²⁰⁰

Ownership also applies to beneficiaries, but community engagement is often overlooked during implementation.

Local participation is particularly important to ensure a need-based approach to rural electrification programs and to increase accountability. This in turn helps smoothen implementation, with fewer thefts, improved billing and revenue collection, and more stable delivery.²⁰¹ Feedback from the local population can improve program design (e.g., helping define energy demand and needs) and may even accelerate expansion if communities forgo compensation or accept below-market compensation for land intended to be used for electrical expansion (e.g., substations). As such, governments must proactively involve local communities in implementation processes even though they may not be assigned formal program roles.

Factors and Sample Relevant Questions

Public sector champions

- Have leaders demonstrated a commitment to creating regulatory frameworks needed to facilitate rural electrification?

Inclusive stakeholder engagement

- How will implementers get community buy-in for electrification-related construction?
- Are there existing community-based platforms or organizations that can be used to engage local residents on electrification?

Education, messaging, and awareness

- How can the government raise public awareness about the program?
- How can the government ensure communities are prepared to take full advantage of the forthcoming electrification?

4. MEASUREMENT AND ACCOUNTABILITY

The organizations and institutions responsible for electricity provision must be held accountable for reliably delivering electricity to rural areas. Governments often create a unit within the lead implementing agency charged with monitoring implementation and tracking program effectiveness. Whether or not monitoring functions are assigned to a single entity, authorities need to specify indicators to track implementation processes.²⁰² Indicators can be wide-ranging (e.g., installations, level of user awareness, billing), and resource constraints demand that governments be selective about which indicators to prioritize.

The experiences of countries such as India and Philippines indicate that creating independent regulatory bodies can enhance transparency and accountability, but such accountability mechanisms can thrive only when citizens have access to information and scope to participate in service delivery processes.²⁰³ Because they are implemented at the local/village level, rural electrification programs may lend themselves to participatory accountability approaches. It is thus important to consider (1) whether existing regulatory frameworks that govern such programs create sufficient opportunities for public participation and (2) whether civil society organizations or community groups have the capacity to demand accountability.

Factors and Sample Relevant Questions

Monitoring systems

- What are the metrics that define success (the number of communities reached, the number of hours of access per day, the price of service delivery, etc.), and who is responsible for tracking and verifying these data?
- What performance metrics can be built into contracts with private providers?

Transparency and public access to information

- Are there mechanisms in place to ensure that key program design elements are clear and accessible (e.g., criteria for targeting, guidance on tariff setting, engineering standards)?
- How does the government relay the progress of the program to the public?

Institutional accountability

- Are there government bodies (e.g., a high-level commission made up of representatives of the chief executive and parliament) that are responsible for energy or electrification?

5. POLITICAL ECONOMY

Rural electrification investment decisions are at risk for political interference (e.g., expanding networks to areas that have less need but are more politically important). Mitigating political influence is important to ensure that rural electrification programs maximize their impact and are planned and implemented efficiently. To assist in this, there should be a clear, transparent, and objective rating system that prioritizes investments based on need and return-on-investment potential. Costa Rica successfully took this

approach by ranking its communities based on population density, level of commercial development, and potential electricity load.²⁰⁴

There should be a good balance between technocratic decisionmaking and political responsiveness to populations' needs. In a context where ad hoc political interests dominate, longer-term strategic objectives cannot be set.

Factors and Sample Relevant Questions

Power, incentives, and institutional norms

- How might political leaders try to influence implementation of a rural electrification program (e.g., encouraging expansion first to areas with lower objective priority), and how might this be mitigated?
- Are there any private companies working on a project with similar objectives? Are they competitors or partners?
- Are there any powerful interests (e.g., traditional leaders) opposed to rural electrification?

Political priorities

- How does the objective of the rural electrification program fit into the government's broader policy agenda?
- Is the program being executed in a systematic and objective way without prioritizing political objectives?

Notes

¹ Organization for Economic Co-operation and Development/Food and Agriculture Organization of the United Nations, “Agriculture in Sub-Saharan Africa: Prospects and Challenges for the Next Decade,” in *OECD-FAO Agricultural Outlook 2016–2025* (Paris, FRA: Organization for Economic Co-operation and Development, 2016), 59–95.

² Douglas Gollin, Casper Worm Hansen, and Asger Wingender, *Two Blades of Grass: The Impact of the Green Revolution* (Cambridge, MA: National Bureau of Economic Research, 2018).

³ Sofia Baliño, David Laborde, Sophia Murphy, Marie Parent, Carin Smaller, and Fousseini Traoré, “A Policy Taxonomy for Agricultural Transformation” (New York: International Institute for Sustainable Development, 2019).

⁴ “Agricultural Development,” The Bill and Melinda Gates Foundation, accessed June 2, 2020, <https://www.gatesfoundation.org/what-we-do/global-growth-and-opportunity/agricultural-development>.

⁵ New Partnership for Africa’s Development, *Comprehensive Africa Agriculture Development Programme* (Midrand, ZAF: New Partnership for Africa’s Development, 2003).

⁶ New Partnership for Africa’s Development, *Malabo Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods* (Midrand, ZAF: New Partnership for Africa’s Development, 2016).

⁷ Thomas A. Birkland, *An Introduction to the Policy Process*, 4th ed. (New York: Routledge, 2015).

⁸ The analysis and recommendations in this document draw from reviews of academic, gray, and government literature as well as interviews with subject matter experts. The literature reviews identified foundational theories of policy implementation, common definitions for core terms and concepts, significant barriers to the implementation of agricultural policies in Africa, applied frameworks for understanding policy implementation in different sectors, and evidence on the implementation barriers faced by specific policy types (the five policy case analyses in this document: fertilizer subsidies, seed regulations, rural electrification programs, regional trade agreements, and national agriculture investment plans). These literature reviews were complemented by interviews with 19 subject matter experts to obtain a stronger understanding of the African agriculture landscape and the policy implementation challenges that this sector faces. Interviewees represented various organizations, including donors, think tanks, academic institutions, African ministries and specialized agencies, and civil society. This document particularly benefited from feedback from staff of the Gates Foundation and the Alliance for a Green Revolution in Africa.

⁹ A few respondents noted that challenges still exist with evidence generation, policy prioritization, and adoption.

¹⁰ Alliance for a Green Revolution in Africa, *Africa Agriculture Status Report: Catalyzing Government Capacity to Drive Agricultural Transformation* (Nairobi, KEN: Alliance for a Green Revolution in Africa, 2018).

¹¹ Demese Chanyalew, Berhanu Adenew and John Mellor, *Ethiopia’s Agricultural Sector Policy and Investment Framework 2010–2020* (Addis Ababa, ETH: Federal Democratic Republic of Ethiopia, Ministry of Agriculture and Rural Development, 2010).

¹² Lídia Cabral and Ian Scoones, “Narratives of Agricultural Policy in Africa: What Role for Ministries of Agriculture?” (Sussex, UK: Futures Agriculture Consortium, 2006); Danielle Resnick, *The Devolution Revolution: Implications for Agricultural Service Delivery in Ghana*, Discussion Paper 01714 (Washington, DC: International Food Policy Research Institute, 2018).

¹³ Steven Haggblade, Suresh Babu, Sheryl Hendriks, David Mather, and Danielle Resnick, “What Drives Policy Change? Evidence from Six Empirical Applications of the Kaleidoscope Model” (East Lansing, MI: Michigan State University, 2017).

- ¹⁴ Colin Poulton, "Democratisation and the Political Incentives for Agricultural Policy in Africa," *Development Policy Review* 32, no. S2 (September 2014): s101–s122, <https://doi.org/10.1111/dpr.12078>.
- ¹⁵ Federal Ministry of Agriculture and Rural Development, *The Agriculture Promotion Policy (2016 – 2020): Building on the Successes of the ATA, Closing Key Gaps* (Abuja, NGA: Federal Ministry of Agriculture and Rural Development, 2016).
- ¹⁶ Lennart Woltering, Kate Fehlenberg, Bruno Gerard, Jan Ubels, and Larry Cooley, "Scaling – from "reaching many" to sustainable systems change at scale: A critical shift in mindset," *Agricultural Systems* 176 (November 2019), <https://doi.org/10.1016/j.agsy.2019.102652>.
- ¹⁷ Tewodaj Mogues, Michael Morris, Lev Freinkman, Abimbola Adubi, and Simeon Ehui, "Agricultural Public Spending in Nigeria," in *Public Expenditures for Agricultural and Rural Development in Africa*, edited by Tewodaj Mogues and Samuel E. Benin (Abingdon, GBR: Routledge, 2012), 68–108.
- ¹⁸ Danielle Resnick and Austen Okumo, "Institutional Limits to Land Governance Reform: Federal-state Dynamics in Nigeria" (Washington, DC: International Food Policy Research Institute, 2016).
- ¹⁹ Jonathan Said and Valerie Vencatachellum, *Effective Government for Africa's Agricultural Transformation* (London, GBR: Tony Blair Institute for Global Change, 2018).
- ²⁰ Tewodaj Mogues and Alvina Erman, *Institutional Arrangements to Make Public Spending Responsive to the Poor—(Where) Have They Worked? Review of the Evidence on Four Major Intervention Types* (Washington, DC: International Food Policy Research Institute, 2016); Tamahi Kato and Martin Greeley, "Agricultural Input Subsidies in Sub-Saharan Africa," *IDS Bulletin* 47, no. 2 (May 2016): 33–48.
- ²¹ Fabien Tondel, *Understanding the Political Economy of the EAC in the Agricultural Sector: Private Sector Ambitions Facing Political Headwinds* (Maastricht, NLD: European Center for Development Policy, 2017).
- ²² Fabien Tondel, *Understanding the Political Economy of the EAC in the Agricultural Sector: Private Sector Ambitions Facing Political Headwinds* (Maastricht, NLD: European Center for Development Policy, 2017).
- ²³ Ole Therkildsen, *Policy Making and Implementation in Agriculture: Tanzania's Push for Irrigated Rice*, DIIS Working Paper 2011:26 (Copenhagen, Denmark: Danish Institute for International Studies, 2011).
- ²⁴ "Relevant government stakeholders" will vary by policy and country but may include planning, policy, and strategy offices or units of key ministries, agencies, or departments (e.g., agriculture, livestock, irrigation, land, rural development, trade, finance); the Office of the Chief Executive; the Office of the Prime Minister; other parliamentarians and parliamentary bodies; and public or quasi-public councils (e.g., environmental management councils) or bodies (e.g., regulators). As policies shift from formulation and design (where elected officials have greater influence) to planning and implementation, the responsible government actors are more likely to be technocrats or bureaucrats.
- ²⁵ Policies should have a clear and compelling articulation of how activities and outputs will yield their intended outcomes. A "theory of change" or "logic model" helps structure this exercise and ensure clarity. See Jane Reisman and Anne Gienapp, *Theory of Change: A Practical Tool for Action, Results and Learning* (Baltimore: Annie E. Casey Foundation, 2004), http://www.focusintl.com/RBM020-aecf_theory_of_change_manual.pdf.
- ²⁶ A cost-benefit analysis should use evidence to estimate the policy's costs and benefits. Ideally, the analysis should monetize these costs and benefits (including making realistic estimates of anticipated positive revenue impacts or cost savings), but if this is not possible, qualitative considerations may be suitable. Comprehensive cost-benefit analyses use economic (e.g., macroeconomic factors like commodity prices), social (e.g., impacts on critical groups like female smallholder farmers), and environmental (e.g., climate change and soil conditions) conditions as inputs.

- ²⁷ For an example, see “Digital Innovations in Food Systems: Evidence Clearing House,” CGIAR, accessed September 9, 2020, <https://bigdata.cgiar.org/digital-food-systems-evidence-clearing-house/>.
- ²⁸ Christopher Delgado, Karen Brooks, Christian Derlagen, Steven Haggblade, and Kate Lawyer, *Use of Evidence to Inform Agricultural Policy Decisions: What Have We Learned from Experience in Africa?* (Washington, DC: World Bank, 2019).
- ²⁹ Stephane Hallegatte, Jun Rentschler, and Julie Rozenberg, *Lifelines: The Resilient Infrastructure Opportunity. Sustainable Infrastructure* (Washington, DC: World Bank, 2019).
- ³⁰ Marie-Agnes Jouanjean, *Targeting Infrastructure Development to Foster Agricultural Trade and Market Integration in Developing Countries: An Analytical Review* (London, GBR: Overseas Development Institute, 2013).
- ³¹ Steve Wiggings and Henri Leturque, *Raising Agricultural Productivity in Africa: Options for Action and the Role of Subsidies* (Geneva, CHE: Africa Progress Panel, 2013); Thomas Jayne, Nicole Mason, Williams Burke, and Joshua Ariga, “Review: Taking Stock of Africa’s Second-Generation Agricultural Input Subsidy Programs,” *Food Policy* 75 (February 2018): 1–14, <https://doi.org/10.1016/j.foodpol.2018.01.003>.
- ³² Andrew Dorward, Shenggen Fan, Jonathan Kydd, Hans Lofgren, Jamie Morrison, Colin Poulton, Neetha Rao, et al., “Rethinking Agricultural Policies for Pro-Poor Growth,” *Natural Resource Perspectives* 94 (September 2004): 1–4.
- ³³ Danielle Resnick and Regina Birner, “Agriculture Policy in Africa: Understanding Decision-Making and Implementation,” WIDER Angle (blog), United Nations University, January 2011, <https://www.wider.unu.edu/publication/agricultural-policy-africa>.
- ³⁴ Guy Peters, “The Challenge of Policy Coordination,” *Policy Design and Practice* 1, no. 1 (March 2018): 1–11, <https://doi.org/10.1080/25741292.2018.1437946>.
- ³⁵ Asian Development Bank, *The Role of Project Implementation Units* (Manila, PHL: Asian Development Bank, 2005).
- ³⁶ Alliance for a Green Revolution in Africa, *Africa Agriculture Status Report: Catalyzing Government Capacity to Drive Agricultural Transformation* (Nairobi, KEN: Alliance for a Green Revolution in Africa, 2018).
- ³⁷ Food and Agriculture Organization of the United Nations and the European Center for Development Policy Management, *Policy coherence for agricultural transformation in African least developed countries: Aligning agriculture and trade policymaking processes* (Rome, ITA: Food and Agriculture Organization, 2018).
- ³⁸ B. Guy Peters, “The challenge of policy coordination,” *Policy Design and Practice* 1, no. 1 (March 2018): 1–11, <https://doi.org/10.1080/25741292.2018.1437946>.
- ³⁹ Michael Howlett, “Procedural Policy Tools and the Temporal Dimensions of Policy Design: Resilience, Robustness and the Sequencing of Policy Mixes,” *International Review of Public Policy* 1, no. 1 (June 2019): 27–45, <https://doi.org/10.4000/irpp.276>.
- ⁴⁰ Steven Haggblade, Suresh Babu, Sheryl Hendriks, David Mather, and Danielle Resnick, “What Drives Policy Change? Evidence from Six Empirical Applications of the Kaleidoscope Model” (East Lansing, MI: Michigan State University, 2017).
- ⁴¹ Alliance for a Green Revolution in Africa, *Africa Agriculture Status Report: Catalyzing Government Capacity to Drive Agricultural Transformation* (Nairobi, KEN: Alliance for a Green Revolution in Africa, 2018).
- ⁴² Paul Sabatier, “An Advocacy Coalition Framework of Policy Change and the Role of Policy-Oriented Learning Therein,” *Policy Sciences* 21, no. 2/3 (1988): 129–168.

- ⁴³ Donald Van Meter and Carl Van Horn, "The Policy Implementation Process: A Conceptual Framework," *Administration & Society* 6, no. 4 (February 1975): 445–88, <https://doi.org/10.1177/009539977500600404>.
- ⁴⁴ "Policy Monitoring and Evaluation," Organization for Economic Co-operation and Development, accessed June 19, 2020, <http://www.oecd.org/gov/policy-monitoring-evaluation.htm>.
- ⁴⁵ Heather Hahn, Teresa Derrick-Mills, and Shayne Spaulding, *Measuring Employment Outcomes in TANF* (Washington, DC: Urban Institute, 2018).
- ⁴⁶ Harry Hatry, *Transforming Performance Measurement for the 21st Century* (Washington, DC: Urban Institute, 2014).
- ⁴⁷ Michael Barber, Paul Kihn, and Andy Moffit, "Deliverology: From Idea to Implementation," February 1, 2011, <https://www.mckinsey.com/industries/public-and-social-sector/our-insights/deliverology-from-idea-to-implementation#>.
- ⁴⁸ Anne Paschke, Deirdre Dimancesco, Taryn Vian, Jillian C. Kohler, and Gilles Forte, "Increasing Transparency and Accountability in National Pharmaceutical Systems," *Bulletin of the World Health Organization* 96 (July 2018): 782–91, <http://dx.doi.org/10.2471/BLT.17.206516>.
- ⁴⁹ "Ensure Transparency and Access to Information," Social Protection and Human Rights Platform, accessed June 2, 2020, <https://socialprotection-humanrights.org/framework/principles/ensure-transparency-and-access-to-information/>.
- ⁵⁰ "Transparent Governance and Anti-Corruption," International City/County Management Association, accessed June 4, 2020, <https://icma.org/transparent-governance-anti-corruption>.
- ⁵¹ Aidspan, *Mapping Accountability Mechanisms: A Review of In-Country Accountability in Health Systems* (Nairobi, KEN: Aidspan, 2015).
- ⁵² Auditors or inspectors general, particularly those with some insulation from political interference, also provide a degree of oversight.
- ⁵³ David Beetham, *Parliament and Democracy in the Twenty-First Century: A Guide to Good Practice* (Geneva, CHE: Inter-Parliamentary Union, 2006).
- ⁵⁴ For an example of an accountability map conducted in the Kenyan health sector in 2015, see Aidspan, *Mapping Accountability Mechanisms: A Review of In-Country Accountability in Health Systems* (Nairobi, KEN: Aidspan, 2015), 15.
- ⁵⁵ Michael Barber, Paul Kihn, and Andy Moffit, "Deliverology: From Idea to Implementation," February 1, 2011, <https://www.mckinsey.com/industries/public-and-social-sector/our-insights/deliverology-from-idea-to-implementation>.
- ⁵⁶ Overseas Development Institute, *Mapping Political Context: A Toolkit for Civil Society Organizations* (London, GBR: Overseas Development Institute, 2006).
- ⁵⁷ United States Agency for International Development, *Thinking and Working Politically Through Applied Political Economy Analysis* (Washington, DC: United States Agency for International Development, 2018).
- ⁵⁸ Verena Fritz, Brian Levy, and Rachel Ort, *Problem-Driven Political Economy Analysis: The World Bank's Experience* (Washington, DC: World Bank, 2014).
- ⁵⁹ Donald Van Meter and Carl Van Horn, "The Policy Implementation Process: A Conceptual Framework," *Administration & Society* 6, no. 4 (February 1975): 445–88, <https://doi.org/10.1177/009539977500600404>.

- ⁶⁰ Steven Haggblade, Suresh Babu, Sheryl Hendriks, David Mather, and Danielle Resnick, “What Drives Policy Change? Evidence from Six Empirical Applications of the Kaleidoscope Model” (East Lansing, MI: Michigan State University, 2017).
- ⁶¹ Some countries have adopted “national agriculture and food security investment plans.” We use NAIP to refer to both.
- ⁶² Initially, the CAADP process was seen as “‘just’ about implementing a NAIP.” See African Union Commission, *Country CAADP Implementation Guidelines under the Malabo Declaration* (Midrand, ZAF: New Partnership for Africa’s Development, 2016).
- ⁶³ African Union Commission, *Country CAADP Implementation Guidelines under the Malabo Declaration*.
- ⁶⁴ Fabien Tondel, “Understanding the Political Economy of the EAC in the Agriculture Sector: Private Sector Ambitions Facing Political Headwinds” (Maastricht, NLD: European Center for Development Policy Management, 2017).
- ⁶⁵ African Union Commission, *Country CAADP Implementation Guidelines under the Malabo Declaration*.
- ⁶⁶ Sheryl Hendriks, “Guidance and Capacity Critical to National Agriculture and Food Security Investment Plan (NAIP) Design,” *AgriLinks* (blog), June 15, 2018, <https://www.agrilinks.org/post/guidance-and-capacity-critical-national-agriculture-and-food-security-investment-plan-naip>.
- ⁶⁷ African Union Commission, *Country CAADP Implementation Guidelines under the Malabo Declaration*.
- ⁶⁸ John Howell and Mark Curtis, *Fair Shares: Is CAADP working?* (Johannesburg, ZAF: ActionAid, 2013).
- ⁶⁹ African Union Commission, *Country CAADP Implementation Guidelines under the Malabo Declaration*.
- ⁷⁰ A log frame, or logical framework, is a commonly used tool to improve the design and implementation of a project by identifying main elements and their linkages. Similar tools include logic models and theories of change.
- ⁷¹ Malawi Ministry of Agriculture, Irrigation and Water Development, *National Agricultural Investment Plan* (Lilongwe, MWI: Government of Malawi, 2018).
- ⁷² African Union Commission, *Country CAADP Implementation Guidelines under the Malabo Declaration*.
- ⁷³ “Regional Trade Agreements,” World Bank, accessed July 8, 2020, <https://www.worldbank.org/en/topic/regional-integration/brief/regional-trade-agreements>.
- ⁷⁴ Caroline Freund and Emanuel Ornelas, “Regional Trade Agreements” (Washington, DC: World Bank, 2010).
- ⁷⁵ “The Case for Open Trade,” World Trade Organization, accessed July 8, 2020, https://www.wto.org/english/thewto_e/whatis_e/tif_e/fact3_e.htm.
- ⁷⁶ Linda Fulponi, “Regional Trade Agreements and Agriculture” (Paris, FRA: Organization for Economic Cooperation and Development, 2015).
- ⁷⁷ African Union, *Agreement Establishing the African Continental Free Trade Area* (Addis Ababa, ETH: African Union, 2018).
- ⁷⁸ Kym Anderson, “Agriculture, Trade Reform, and Poverty Reduction: Implications for Sub-Saharan Africa” (Geneva, CHE: United Nations Conference on Trade and Development, 2004).
- ⁷⁹ United Nations Conference on Trade and Development, *Tools for Multilateral Trade Negotiations on Agriculture* (Geneva, CHE: United Nations Conference on Trade and Development, 1999).

- ⁸⁰ Authors' interpretation of pp. 127–34 in Asian Development Bank, *How to Design, Negotiate, and Implement a Free Trade Agreement in Asia* (Manila, PHL: Asian Development Bank, 2008).
- ⁸¹ Ahmad Mukhtar, "Enhancing Food Security in Africa through Implementing the Trade Facilitation Agreement," *Bridges Africa* 6, no. 3 (May 2017); Antoine Bouët and David Laborde, "Building Food Security through International Trade Agreements," International Food Policy Research Institute, December 12, 2017, <https://www.ifpri.org/blog/building-food-security-through-international-trade-agreements>.
- ⁸² "Regional Trade Agreements Database," World Trade Organization, accessed July 8, 2020, <http://rtais.wto.org/UI/PublicSearchByMemberResult.aspx?MemberCode=710&lang=1&redirect=1>.
- ⁸³ Trudi Hartzenberg and Gerhard Erasmus, "AfCFTA Is Officially in Force—Now the Real Work Begins," *Business Day*, May 30, 2019, <https://www.businesslive.co.za/bd/opinion/2019-05-30-afcfta-is-officially-in-force--now-the-real-work-begins/>.
- ⁸⁴ Francesco Rampa, "The Political Economy around Regional Food Market Integration Policies in Africa" (presentation, Annual German Agricultural Economics Conference, Bonn, DEU, September 28, 2016).
- ⁸⁵ Trudi Hartzenberg and Gerhard Erasmus, "AfCFTA Is Officially in Force—Now the Real Work Begins."
- ⁸⁶ Trudi Hartzenberg and Gerhard Erasmus, "AfCFTA Is Officially in Force—Now the Real Work Begins."
- ⁸⁷ Linda Fulponi, "Regional Trade Agreements and Agriculture."
- ⁸⁸ Trudi Hartzenberg and Gerhard Erasmus, "AfCFTA Is Officially in Force—Now the Real Work Begins."
- ⁸⁹ Linda Fulponi, "Regional Trade Agreements and Agriculture."
- ⁹⁰ Tonderayi Mukedredzi, "Africa's Free Trade Agreement Hinges on Commitment and Implementation," *Africa Renewal* (blog managed by the United Nations), accessed July 8, 2020, <https://www.un.org/africarenewal/web-features/africa%E2%80%99s-free-trade-agreement-hinges-commitment-and-implementation>.
- ⁹¹ Trudi Hartzenberg and Gerhard Erasmus, "AfCFTA Is Officially in Force—Now the Real Work Begins."
- ⁹² Francesco Rampa, "The Political Economy around Regional Food Market Integration Policies in Africa."
- ⁹³ Francesco Rampa, "The Political Economy around Regional Food Market Integration Policies in Africa."
- ⁹⁴ Organization for Economic Cooperation and Development, African Tax Administration Forum, and African Union Commission, *Revenue Statistics in Africa: 1990–2017* (Paris, FRA: Organization for Economic Cooperation and Development, 2019).
- ⁹⁵ Trudi Hartzenberg and Gerhard Erasmus, "AfCFTA Is Officially in Force—Now the Real Work Begins."
- ⁹⁶ Saa Dittoh, Olubunmi Omotosho, Adama Belemvire, Margaret Akuriba, and Khondoker Haider, "Improving the Effectiveness, Efficiency and Sustainability of Fertilizer Use in Sub-Saharan Africa" (Washington, DC: Global Development Network, 2012).
- ⁹⁷ Zoé Druilhe and Jesús Barreiro-Hurlé, *Fertilizer Subsidies in Sub-Saharan Africa* (Rome, ITA: Food and Agriculture Organization, 2017).

- ⁹⁸ Thomas Jayne, Nicole Mason, Williams Burke, and Joshua Ariga, “Review: Taking Stock of Africa’s Second-Generation Agricultural Input Subsidy Programs.”
- ⁹⁹ Samuel Benin, Michael Johnson, Emmanuel Abokyi, Gerald Ahorbo, Kipo Jimah, Gamel Nasser, Victor Owusu, Joe Taabazuing, and Albert Tenga, *Revisiting Agricultural Input and Farm Support Subsidies in Africa: The Case of Ghana’s Mechanization, Fertilizer, Block Farms, and Marketing Programs* (Washington, DC: International Food Policy Research Institute, 2013).
- ¹⁰⁰ Thomas Jayne, Nicole Mason, Williams Burke, and Joshua Ariga, “Review: Taking Stock of Africa’s Second-Generation Agricultural Input Subsidy Programs.”
- ¹⁰¹ Ephraim Chirwa and Andrew Dorward, *Agricultural Input Subsidies: The Recent Malawi Experience* (Oxford, GBR: Oxford University Press, 2013).
- ¹⁰² Michael Morris, Valerie Kelly, Ron Kopicki and Derek Byerlee, *Fertilizer Use in African Agriculture: Lessons Learned and Good Practice Guidelines* (Washington, DC: World Bank, 2007).
- ¹⁰³ Michael Morris, Valerie Kelly, Ron Kopicki and Derek Byerlee, *Fertilizer Use in African Agriculture: Lessons Learned and Good Practice Guidelines*.
- ¹⁰⁴ Nazaire Houssou, Kwaw Andam, and Collins Asante-Addo, “Can Better Targeting Improve the Effectiveness of Ghana’s Fertilizer Subsidy Program? Lessons from Ghana and Other Countries in Africa South of the Sahara,” Discussion Paper 1605 (Washington, DC: International Food Policy Research Institute, 2017).
- ¹⁰⁵ Zoé Druilhe and Jesús Barreiro-Hurlé, *Fertilizer Subsidies in Sub-Saharan Africa*.
- ¹⁰⁶ Thomas Jayne, Nicole Mason, Williams Burke, and Joshua Ariga, “Review: Taking Stock of Africa’s Second-Generation Agricultural Input Subsidy Programs.”
- ¹⁰⁷ Jacob Ricker-Gilbert, Thomas Jayne, and Gerald Shively, “Addressing the “Wicked Problem” of Input Subsidy Programs in Africa,” *Applied Economic Perspectives and Policy* 35, no. 2 (June 2013): 322–340, <https://doi.org/10.1093/aepp/ppt001>
- ¹⁰⁸ Ephraim Chirwa and Andrew Dorward, *Agricultural Input Subsidies: The Recent Malawi Experience*; Jacob Ricker-Gilbert, Thomas Jayne, and Gerald Shively, “Addressing the ‘Wicked Problem’ of Input Subsidy Programs in Africa,” *Applied Economic Perspectives and Policy* 35, no. 2 (June 2013): 322–40, <https://doi.org/10.1093/aepp/ppt001>.
- ¹⁰⁹ Zoé Druilhe and Jesús Barreiro-Hurlé, *Fertilizer Subsidies in Sub-Saharan Africa*; US Agency for International Development and International Fertilizer Development Center, *Developing Competitive Fertilizer Markets in Africa: Policy Lessons from FTF Country Assessments* (Washington, DC: US Agency for International Development, 2015); Danielle Resnick and David Mather, “Agricultural Inputs Policy under Macroeconomic Uncertainty: Applying the Kaleidoscope Model to Ghana’s Fertilizer Subsidy Programme (2008–2015),” Feed the Future Innovation Lab for Food Security Policy Research Paper 19 (Washington, DC: International Food Policy Research Institute, 2016).
- ¹¹⁰ US Agency for International Development and International Fertilizer Development Center, *Developing Competitive Fertilizer Markets in Africa: Policy Lessons from FTF Country Assessments*.
- ¹¹¹ Maria Wanzala-Mlobela, Porfirio Fuentes, and Solomon Mkumbwa, *Practices and Policy Options for the Improved Design and Implementation of Fertilizer Subsidy Programs in Sub-Saharan Africa* (Muscle Shoals, AL: International Fertilizer Development Center, 2013).
- ¹¹² Maria Wanzala-Mlobela, Porfirio Fuentes, and Solomon Mkumbwa, *Practices and Policy Options for the Improved Design and Implementation of Fertilizer Subsidy Programs in Sub-Saharan Africa*.

- ¹¹³ Ephraim Chirwa and Andrew Dorward, *Agricultural Input Subsidies: The Recent Malawi Experience*.
- ¹¹⁴ Samuel Benin, Michael Johnson, Emmanuel Abokyi, Gerald Ahorbo, Kipo Jimah, Gamel Nasser, Victor Owusu, Joe Taabazuing, and Albert Tenga, *Revisiting Agricultural Input and Farm Support Subsidies in Africa: The Case of Ghana's Mechanization, Fertilizer, Block Farms, and Marketing Programs*.
- ¹¹⁵ Samuel Benin, Michael Johnson, Emmanuel Abokyi, Gerald Ahorbo, Kipo Jimah, Gamel Nasser, Victor Owusu, Joe Taabazuing, and Albert Tenga, *Revisiting Agricultural Input and Farm Support Subsidies in Africa: The Case of Ghana's Mechanization, Fertilizer, Block Farms, and Marketing Programs*.
- ¹¹⁶ Maria Wanzala-Mlobela, Porfirio Fuentes, and Solomon Mkumbwa, *Practices and Policy Options for the Improved Design and Implementation of Fertilizer Subsidy programs in Sub-Saharan Africa*.
- ¹¹⁷ Ephraim Chirwa and Andrew Dorward, *Agricultural Input Subsidies: The Recent Malawi Experience*.
- ¹¹⁸ Michael Morris, Valerie Kelly, Ron Kopicki, and Derek Byerlee, *Fertilizer Use in African Agriculture: Lessons Learned and Good Practice Guidelines*.
- ¹¹⁹ Maria Wanzala-Mlobela, Porfirio Fuentes, and Solomon Mkumbwa, *Practices and Policy Options for the Improved Design and Implementation of Fertilizer Subsidy Programs in Sub-Saharan Africa*.
- ¹²⁰ Kenneth Baltzer and Henrik Hansen, *Evaluation Study: Agricultural Input Subsidies in Sub-Saharan Africa* (Copenhagen, DNK: Ministry of Foreign Affairs of Denmark, 2011).
- ¹²¹ Michael Morris, Valerie Kelly, Ron Kopicki, and Derek Byerlee, *Fertilizer Use in African Agriculture: Lessons Learned and Good Practice Guidelines*.
- ¹²² Zoé Druilhe and Jesús Barreiro-Hurlé, *Fertilizer Subsidies in Sub-Saharan Africa*.
- ¹²³ Michael Morris, Valerie Kelly, Ron Kopicki, and Derek Byerlee, *Fertilizer Use in African Agriculture: Lessons Learned and Good Practice Guidelines*.
- ¹²⁴ Maria Wanzala-Mlobela, Porfirio Fuentes, and Solomon Mkumbwa, *Practices and Policy Options for the Improved Design and Implementation of Fertilizer Subsidy Programs in Sub-Saharan Africa*; Samuel Benin, Michael Johnson, Emmanuel Abokyi, Gerald Ahorbo, Kipo Jimah, Gamel Nasser, Victor Owusu, Joe Taabazuing, and Albert Tenga, *Revisiting Agricultural Input and Farm Support Subsidies in Africa: The Case of Ghana's Mechanization, Fertilizer, Block Farms, and Marketing Programs*.
- ¹²⁵ Zoé Druilhe and Jesús Barreiro-Hurlé, *Fertilizer Subsidies in Sub-Saharan Africa*.
- ¹²⁶ Danielle Resnick and David Mather, "Agricultural Inputs Policy under Macroeconomic Uncertainty: Applying the Kaleidoscope Model to Ghana's Fertilizer Subsidy Programme (2008–2015)."
- ¹²⁷ Maria Wanzala-Mlobela, Porfirio Fuentes, and Solomon Mkumbwa, *Practices and Policy Options for the Improved Design and Implementation of Fertilizer Subsidy programs in Sub-Saharan Africa*.
- ¹²⁸ Danielle Resnick and David Mather, "Agricultural Inputs Policy under Macroeconomic Uncertainty: Applying the Kaleidoscope Model to Ghana's Fertilizer Subsidy Programme (2008–2015)."
- ¹²⁹ Ephraim Chirwa and Andrew Dorward, *Agricultural Input Subsidies: The Recent Malawi Experience*.
- ¹³⁰ Ephraim Chirwa and Andrew Dorward, *Agricultural Input Subsidies: The Recent Malawi Experience*.

- ¹³¹ Thomas Jayne, Nicole Mason, Williams Burke, and Joshua Ariga, "Review: Taking Stock of Africa's Second-Generation Agricultural Input Subsidy Programs."
- ¹³² Ephraim Chirwa and Andrew Dorward, *Agricultural Input Subsidies: The Recent Malawi Experience*.
- ¹³³ Robert Guéi, Jeffery Bentley, and Paul Van Mele, "Introduction: A Full Granary," in *African Seed Enterprises: Sowing the Seeds of Food Security*, edited by Paul Van Mele, Jeffery Bentley, and Robert Guéi (Wallingford, GBR: CAB International, 2011), 1–7; Praxedis Dube and Claid Mujaju, "A Simplified Technical Guide for Seed Certification Procedures for Some Crops of Commercial Importance in Zimbabwe," *Advanced Journal of Agricultural Research* 1, no. 3 (November 2013): 96–104.
- ¹³⁴ Adu-Gyamfi Poku, Regina Birner, and Saurabh Gupta, "Why Do Maize Farmers in Ghana Have a Limited Choice of Improved Seed Varieties? An Assessment of the Governance in Seed Supply," *Food Security* 10 (January 2018): 27–46, <https://doi.org/10.1007/s12571-017-0749-0>; Tilahun Mengistu, "Institutional Arrangements and Governance Challenges in Regulating Seed Quality in Ethiopia" (paper presentation, 30th International Conference of Agricultural Economists, Vancouver, BC, presented July 30, 2018); United States Agency for International Development and Enabling Agricultural Trade, "State of the Evidence: Seed Policy Reform" (Washington, DC: United States Agency for International Development, n.d.).
- ¹³⁵ Jeffery Bentley, Paul Van Mele, and David Reece, "How Seed Works," in *African Seed Enterprises: Sowing the Seeds of Food Security*, edited by Paul Van Mele, Jeffery Bentley, and Robert G. Guéi (Wallingford, GBR: CAB International, 2011), 8–24.
- ¹³⁶ Kayode Sanni, Ali Touré, Aliou Diagne, Fatimata Bachabi, Rosemary Murori, Rakesh Singh, and Moussa Sié, "Rice Varietal Release Systems in Africa," in *Realizing Africa's Rice Promise*, edited by Marco Wopereis, David Johnson, Nourollah Ahmadi, Eric Tollens, and Abdulai Jalloh (Wallingford, GBR: CAB International, 2013), 8–24.
- ¹³⁷ Adu-Gyamfi Poku, Regina Birner, and Saurabh Gupta, "Why Do Maize Farmers in Ghana Have a Limited Choice of Improved Seed Varieties? An Assessment of the Governance in Seed Supply."
- ¹³⁸ Augustine Langyintuo, Wilfred Mwangi, Alpha Diallo, John MacRobert, John Dixon, and Marianne Bänziger, "Challenges of the Maize Seed Industry in Eastern and Southern Africa: A Compelling Case for Private-Public Intervention to Promote Growth," *Food Policy* 35, no. 4 (August 2010): 323–31, <https://doi.org/10.1016/j.foodpol.2010.01.005>.
- ¹³⁹ Katrin Kuhlmann, *Harmonizing Regional Seed Regulations in Sub-Saharan Africa: A Comparative Assessment* (Basel, CHE: Syngenta Foundation for Sustainable Agriculture, 2015); Diana Hunt and Michael Lipton, "Green Revolutions for Sub-Saharan Africa?" (London, GBR: Chatham House, 2011).
- ¹⁴⁰ Alliance for a Green Revolution in Africa, "Creating an Enabling Environment for Growing Private Sector Seed Development and Delivery in Africa" (report of stakeholders consultations, Fourth African Green Revolution Forum, Addis Ababa, ETH, September 1–4, 2014).
- ¹⁴¹ Robert Tripp and Niels Louwaars, "Seed Regulation: Choices on the Road to Reform" *Food Policy* 22, no. 5 (October 1997): 433–46, [https://doi.org/10.1016/S0306-9192\(97\)00033-X](https://doi.org/10.1016/S0306-9192(97)00033-X).
- ¹⁴² Praxedis Dube and Claid Mujaju, "A Simplified Technical Guide for Seed Certification Procedures for Some Crops of Commercial Importance in Zimbabwe."; Tilahun Mengistu, "Institutional Arrangements and Governance Challenges in Regulating Seed Quality in Ethiopia."
- ¹⁴³ Augustine Langyintuo, Wilfred Mwangi, Alpha Diallo, John MacRobert, John Dixon, and Marianne Bänziger, "Challenges of the Maize Seed Industry in Eastern and Southern Africa: A Compelling Case for Private-Public Intervention to Promote Growth."

- ¹⁴⁴ Augustine Langyintuo, Wilfred Mwangi, Alpha Diallo, John MacRobert, John Dixon, and Marianne Bänziger, “Challenges of the Maize Seed Industry in Eastern and Southern Africa: A Compelling Case for Private-Public Intervention to Promote Growth”; Katrin Kuhlmann, *Harmonizing Regional Seed Regulations in Sub-Saharan Africa: A Comparative Assessment*; Diana Hunt and Michael Lipton, “Green Revolutions for Sub-Saharan Africa?”
- ¹⁴⁵ Katrin Kuhlmann, *Harmonizing Regional Seed Regulations in Sub-Saharan Africa: A Comparative Assessment*.
- ¹⁴⁶ United States Agency for International Development and Enabling Agricultural Trade, “State of the Evidence: Seed Policy Reform.”
- ¹⁴⁷ Jeffery Bentley, Paul Van Mele and David Reece, “How Seed Works.”
- ¹⁴⁸ Katrin Kuhlmann, *Harmonizing Regional Seed Regulations in Sub-Saharan Africa: A Comparative Assessment*; David Rohrbach, Isaac Minde, and Julie Howard, “Looking Beyond National Boundaries: Regional Harmonization of Seed Policies, Laws and Regulations,” *Food Policy* 28, no. 4 (August 2003): 317–33, <https://doi.org/10.1016/j.foodpol.2003.08.005>.
- ¹⁴⁹ David Rohrbach, Isaac Minde, and Julie Howard, “Looking Beyond National Boundaries: Regional Harmonization of Seed Policies, Laws and Regulations.”
- ¹⁵⁰ Tilahun Mengistu, “Institutional Arrangements and Governance Challenges in Regulating Seed Quality in Ethiopia.”
- ¹⁵¹ Katrin Kuhlmann, *Harmonizing Regional Seed Regulations in Sub-Saharan Africa: A Comparative Assessment*; Augustine Langyintuo, Wilfred Mwangi, Alpha Diallo, John MacRobert, John Dixon, and Marianne Bänziger, “Challenges of the Maize Seed Industry in Eastern and Southern Africa: A Compelling Case for Private–Public Intervention to Promote Growth.”
- ¹⁵² Adu-Gyamfi Poku, Regina Birner, and Saurabh Gupta, “Why Do Maize Farmers in Ghana Have a Limited Choice of Improved Seed Varieties? An Assessment of the Governance in Seed Supply.”
- ¹⁵³ Tilahun Mengistu, “Institutional Arrangements and Governance Challenges in Regulating Seed Quality in Ethiopia.”
- ¹⁵⁴ Edward Mabaya, Maria Estrela Alberto, Alda Armindo Tomo, and Mainza Mugoya, “Mozambique Brief 2017–The African Seed Access Index” (The African Seed Access Index, 2017); Adu-Gyamfi Poku, Regina Birner, and Saurabh Gupta, “Why Do Maize Farmers in Ghana Have a Limited Choice of Improved Seed Varieties? An Assessment of the Governance in Seed Supply.”
- ¹⁵⁵ Katrin Kuhlmann, *Harmonizing Regional Seed Regulations in Sub-Saharan Africa: A Comparative Assessment*; Diana Hunt and Michael Lipton, “Green Revolutions for Sub-Saharan Africa?”
- ¹⁵⁶ Augustine Langyintuo, “Enabling Policy Environment,” in *Africa Agriculture Status Report: Focus on Staple Crops*, (Nairobi, KEN: Alliance for a Green Revolution in Africa, 2013), 96–112.
- ¹⁵⁷ United States Agency for International Development and Enabling Agricultural Trade, “State of the Evidence: Seed Policy Reform.”
- ¹⁵⁸ Edward Mabaya and Mainza Mugoya, “Ten Emerging Lessons from the African Seed Access Index” (African Seed Access Index, 2017).
- ¹⁵⁹ Edward Mabaya and Mainza Mugoya, “Ten Emerging Lessons from the African Seed Access Index.”
- ¹⁶⁰ Tilahun Mengistu, “Institutional Arrangements and Governance Challenges in Regulating Seed Quality in Ethiopia.”

- ¹⁶¹ Katrin Kuhlmann, *Harmonizing Regional Seed Regulations in Sub-Saharan Africa: A Comparative Assessment*; Diana Hunt and Michael Lipton, “Green Revolutions for Sub-Saharan Africa?”
- ¹⁶² Katrin Kuhlmann, *Harmonizing Regional Seed Regulations in Sub-Saharan Africa: A Comparative Assessment*; Diana Hunt and Michael Lipton, “Green Revolutions for Sub-Saharan Africa?”; David Rohrbach, Isaac Minde, and Julie Howard, “Looking Beyond National Boundaries: Regional Harmonization of Seed Policies, Laws and Regulations.”
- ¹⁶³ David Rohrbach, Isaac Minde, and Julie Howard, “Looking Beyond National Boundaries: Regional Harmonization of Seed Policies, Laws and Regulations”; Augustine Langyintuo, Wilfred Mwangi, Alpha Diallo, John MacRobert, John Dixon, and Marianne Bänziger, “Challenges of the Maize Seed Industry in Eastern and Southern Africa: A Compelling Case for Private– Public Intervention to Promote Growth”; Katrin Kuhlmann and Yuan Zhou, *Seed Policy Harmonization in ECOWAS: The Case of Ghana* (Basel, CHE: Syngenta Foundation for Sustainable Agriculture, 2016).
- ¹⁶⁴ Tilahun Mengistu, “Institutional Arrangements and Governance Challenges in Regulating Seed Quality in Ethiopia.”
- ¹⁶⁵ Adu-Gyamfi Poku, Regina Birner, and Saurabh Gupta, “Why Do Maize Farmers in Ghana Have a Limited Choice of Improved Seed Varieties? An Assessment of the Governance in Seed Supply.”
- ¹⁶⁶ David Rohrbach, Isaac Minde, and Julie Howard, “Looking Beyond National Boundaries: Regional Harmonization of Seed Policies, Laws and Regulations.”
- ¹⁶⁷ John Thompson and Ian Scoones, *The Political Economy of Cereal Seed Systems in Africa’s Green Revolution* (Brighton, GBR: Futures Agriculture Consortium, 2012).
- ¹⁶⁸ Tilahun Mengistu, “Institutional Arrangements and Governance Challenges in Regulating Seed Quality in Ethiopia.”
- ¹⁶⁹ Blessings Chinsinga, *Seeds and Subsidies: The Political Economy of Input Programmes in Malawi* (Brighton, GBR: Futures Agriculture Consortium, 2010); Adu-Gyamfi Poku, Regina Birner, and Saurabh Gupta, “Why Do Maize Farmers in Ghana Have a Limited Choice of Improved Seed Varieties? An Assessment of the Governance in Seed Supply.”
- ¹⁷⁰ The exact numbers are 43 percent of sub-Saharan Africa and 25 percent of rural sub-Saharan Africa (Moussa Blimpo and Malcolm Cosgrove-Davies, 2019, *Electricity Access in Sub-Saharan Africa: Uptake, Reliability, and Complementary Factors for Economic Impact* (Washington, DC: World Bank, 2019).
- ¹⁷¹ Rebecca Mawhood and Robert Gross, “Institutional Barriers to a ‘Perfect’ Policy: A Case Study of the Senegalese Rural Electrification Plan,” *Energy Policy* 73 (October 2014): 480–90, <https://doi.org/10.1016/j.enpol.2014.05.047>.
- ¹⁷² Maximo Torero, “The Impact of Rural Electrification: Challenges and Ways Forward,” *Revue d’économie du développement* 23, HS (2015): 49–75, doi:10.3917/edd.hs03.0049.
- ¹⁷³ Douglas Barnes, “Effective Solutions for Rural Electrification in Developing Countries: Lessons from Successful Programs,” *Current Opinion in Environmental Sustainability* 3, no. 4 (September 2011): 260–64; Douglas Barnes and Gerald Foley, “Rural Electrification in the Developing World: A Summary of Lessons from Successful Programs” (Washington, DC: World Bank, 2004); Rebecca Mawhood and Robert Gross, “Institutional Barriers to a ‘Perfect’ Policy: A Case Study of the Senegalese Rural Electrification Plan.”
- ¹⁷⁴ Tania Urmee, David Harries, and August Schlapfer, “Issues Related to Rural Electrification Using Renewable Energy in Developing Countries of Asia and Pacific,” *Renewable Energy* 34, no. 2, (February 2009): 354–57, <https://doi.org/10.1016/j.renene.2008.05.004>.
- ¹⁷⁵ Off-grid electrification involves small, decentralized electric grids (minigrids) and autonomous generation or renewable energy.

- ¹⁷⁶ Douglas Barnes, “Effective Solutions for Rural Electrification in Developing Countries: Lessons from Successful Programs”; Debajit Palit and Akanksha Chaurey, “Off-Grid Rural Electrification Experiences from South Asia: Status and Best Practices,” *Energy for Sustainable Development* 15, no. 3 (September 2011): 266–76, <https://doi.org/10.1016/j.esd.2011.07.004>.
- ¹⁷⁷ Off-grid systems rely on materials that may be manufactured locally.
- ¹⁷⁸ Helene Ahlborg and Linus Hammar, “Drivers and Barriers to Rural Electrification in Tanzania and Mozambique—Grid-Extension, Off-Grid, and Renewable Energy Technologies,” *Renewable Energy* 61 (January 2014): 117–24, <https://doi.org/10.1016/j.renene.2012.09.057>; Stefano Mandelli, Jacopo Barbieri, Riccardo Mereu, and Emmanuela Colombo, “Off-Grid Systems for Rural Electrification in Developing Countries: Definitions, Classification, and a Comprehensive Literature Review,” *Renewable and Sustainable Energy Reviews* 58 (May 2016): 1,621–46, <https://doi.org/10.1016/j.rser.2015.12.338>.
- ¹⁷⁹ African Development Bank, “Revisiting Reforms in the Power Sector in Africa” (Abidjan, CIV: *African Development Bank*, 2019).
- ¹⁸⁰ Brijesh Mainali and Semida Silveira, “Financing Off-Grid Rural Electrification: Country Case Nepal,” *Energy* 36, no. 4 (April 2011): 2,194–201, <https://doi.org/10.1016/j.energy.2010.07.004>; Tania Urmee, David Harries, and August Schlapfer, “Issues Related to Rural Electrification Using Renewable Energy in Developing Countries of Asia and Pacific.”
- ¹⁸¹ Tania Urmee, David Harries, and August Schlapfer, “Issues Related to Rural Electrification Using Renewable Energy in Developing Countries of Asia and Pacific.”; Douglas Barnes and Gerald Foley, “Rural Electrification in the Developing World: A Summary of Lessons from Successful Programs.”
- ¹⁸² Helene Ahlborg and Linus Hammar, “Drivers and Barriers to Rural Electrification in Tanzania and Mozambique—Grid-Extension, Off-Grid, and Renewable Energy Technologies.”
- ¹⁸³ Tania Urmee, David Harries, and August Schlapfer, “Issues Related to Rural Electrification Using Renewable Energy in Developing Countries of Asia and Pacific.”
- ¹⁸⁴ Helene Ahlborg and Linus Hammar, “Drivers and Barriers to Rural Electrification in Tanzania and Mozambique—Grid-Extension, Off-Grid, and Renewable Energy Technologies.”
- ¹⁸⁵ Helene Ahlborg, Frida Boräng, Sverker Jagers, and Patrik Söderholm, “Provision of Electricity to African Households: The Importance of Democracy and Institutional Quality,” *Energy Policy* 87 (December 2015): 125–35, <https://doi.org/10.1016/j.enpol.2015.09.002>.
- ¹⁸⁶ Tania Urmee, David Harries, and August Schlapfer, “Issues Related to Rural Electrification Using Renewable Energy in Developing Countries of Asia and Pacific”; Douglas Barnes, “Effective Solutions for Rural Electrification in Developing Countries: Lessons from Successful Programs”; Rebecca Mawhood and Robert Gross, “Institutional Barriers to a ‘Perfect’ Policy: A Case Study of the Senegalese Rural Electrification Plan”; Helene Ahlborg and Linus Hammar, “Drivers and Barriers to Rural Electrification in Tanzania and Mozambique—Grid-Extension, Off-Grid, and Renewable Energy Technologies.”
- ¹⁸⁷ Douglas Barnes and Gerald Foley, “Rural Electrification in the Developing World: A Summary of Lessons from Successful Programs”; Rebecca Mawhood and Robert Gross, “Institutional Barriers to a ‘Perfect’ Policy: A Case Study of the Senegalese Rural Electrification Plan.”
- ¹⁸⁸ Balachandra Patil, “Modern Energy Access to All in Rural India: An Integrated Implementation Strategy,” *Energy Policy* 39, no. 12 (December 2011): 7,803–14, <https://doi.org/10.1016/j.enpol.2011.09.026>.

- ¹⁸⁹ Rebecca Mawhood and Robert Gross, “Institutional Barriers to a ‘Perfect’ Policy: A Case Study of the Senegalese Rural Electrification Plan.”
- ¹⁹⁰ Helene Ahlborg and Linus Hammar, “Drivers and Barriers to Rural Electrification in Tanzania and Mozambique—Grid-Extension, Off-Grid, and Renewable Energy Technologies.”
- ¹⁹¹ Tania Urmee, David Harries, and August Schlapfer, “Issues Related to Rural Electrification Using Renewable Energy in Developing Countries of Asia and Pacific.”
- ¹⁹² Tania Urmee, David Harries, and August Schlapfer, “Issues Related to Rural Electrification Using Renewable Energy in Developing Countries of Asia and Pacific.”
- ¹⁹³ Douglas Barnes, “Effective Solutions for Rural Electrification in Developing Countries: Lessons from Successful Programs”; Chandra Govindarajulu, Raihan Elahi, and Jayantha Nagendran, “Electricity Beyond the Grid: Innovative Programs in Bangladesh and Sri Lanka” (Washington, DC: World Bank, 2008).
- ¹⁹⁴ Debajit Palit and Akanksha Chaurey, “Off-Grid Rural Electrification Experiences from South Asia: Status and Best Practices.” ¹⁹⁵ Douglas Barnes, “Effective Solutions for Rural Electrification in Developing Countries: Lessons from Successful Programs”;
- ¹⁹⁵ Douglas Barnes and Gerald Foley, “Rural Electrification in the Developing World: A Summary of Lessons from Successful Programs”; Rebecca Mawhood and Robert Gross, “Institutional Barriers to a ‘Perfect’ Policy: A Case Study of the Senegalese Rural Electrification Plan.”
- ¹⁹⁶ Rebecca Mawhood and Robert Gross, “Institutional Barriers to a ‘Perfect’ Policy: A Case Study of the Senegalese Rural Electrification Plan”; Douglas Barnes, “Effective Solutions for Rural Electrification in Developing Countries: Lessons from Successful Programs.”
- ¹⁹⁷ Helene Ahlborg and Linus Hammar, “Drivers and Barriers to Rural Electrification in Tanzania and Mozambique—Grid-Extension, Off-Grid, and Renewable Energy Technologies.”
- ¹⁹⁸ Rebecca Mawhood and Robert Gross, “Institutional Barriers to a ‘Perfect’ Policy: A Case Study of the Senegalese Rural Electrification Plan.”
- ¹⁹⁹ Douglas Barnes and Gerald Foley, “Rural Electrification in the Developing World: A Summary of Lessons from Successful Programs.”
- ²⁰⁰ Douglas Barnes and Gerald Foley, “Rural Electrification in the Developing World: A Summary of Lessons from Successful Programs.”
- ²⁰¹ Debajit Palit and Akanksha Chaurey, “Off-Grid Rural Electrification Experiences from South Asia: Status and Best Practices”; Douglas Barnes and Gerald Foley, “Rural Electrification in the Developing World: A Summary of Lessons from Successful Programs.”
- ²⁰² World Bank, *Monitoring and Evaluation in Rural Electrification Projects: A Demand-Oriented Approach* (Washington, DC: World Bank, 2003).
- ²⁰³ Smita Nakhooda, Shantanu Dixit, and Navroz Dubash, *Empowering People: A Governance Analysis of Electricity* (Washington, DC: World Resources Institute, 2007).
- ²⁰⁴ Douglas Barnes and Gerald Foley, “Rural Electrification in the Developing World: A Summary of Lessons from Successful Programs.”

