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# Policy Brief

## Comprehensive Mapping of Food Systems is Necessary to Guide Transformation Efforts: The Case of Rwanda

AGRA-IFPRI Policy Brief #4

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# Policy Brief#4<sup>1</sup>

## Introduction

Rwanda has made significant strides in improving its food systems, with notable progress in reducing malnutrition and stunting, especially among children. Stunting rates declined from over 50% in the early 2000s to 33% by 2020, reflecting the government's commitment to addressing food insecurity and enhancing nutrition through a range of agricultural and public health initiatives. The country's Crop Intensification Program (CIP) has played a pivotal role in increasing agricultural productivity, especially for staple crops like maize, beans, and Irish potatoes, which has contributed to better food availability across the country. Despite these achievements, substantial challenges persist. Almost 19% of households still face food insecurity, with the highest prevalence in rural areas. Additionally, malnutrition continues to affect vulnerable populations, with anemia rates among women of reproductive age at 37%, signaling gaps in nutrition security. Environmental concerns, including soil degradation, water scarcity, and climate change, further complicate efforts to sustain agricultural productivity. Approximately 40% of Rwanda's land is affected by soil erosion, and shifting climate patterns pose increasing risks to agricultural yields. These challenges indicate the need for a more strategic, research-based approach to understanding and transforming Rwanda's food system.

Transforming food systems is a complex task, as they comprise multiple interconnected domains. For instance, improvements in agricultural productivity directly affect nutritional outcomes, while economic growth can both drive and be constrained by the food system's performance. In Rwanda, agriculture accounts for 24% of GDP and provides employment to more than 70% of the population, underscoring its economic importance. Yet, the agriculture sector faces limitations, including the country's small land area, environmental degradation, and climate-related vulnerabilities. Thus, environmental sustainability must be considered alongside efforts to enhance food security. In addition, undernutrition exists alongside obesity, which is growing concern in urban areas, and related public health problems, such as rising rates of noncommunicable diseases such as diabetes. These challenges underscore the need to rethink how food systems interact with public health.

In light of these multifaceted challenges, comprehensive food systems mapping becomes essential for effective policymaking and investment planning. Food systems mapping provides a detailed analysis of the many components of the food system, offering insights into the areas that need the most attention and resources. In Rwanda's case, a comprehensive mapping effort was conducted to evaluate various aspects of the food system, including food availability, nutrition outcomes, environmental factors, and financial flows. The mapping also reviewed policies, institutions, and actors involved in the food system to assess their efficiency, relevance, and capacity to address the country's pressing food security challenges. By synthesizing data from a wide range of indicators, this mapping exercise revealed critical points of failure in the system that require targeted interventions, such as the underfunding of nutrition security programs and the insufficient adoption of climate-smart agricultural practices.

<sup>1</sup> John Ulimwengu, James Warner, Vine Mutyasira, Boaz Keizire. 2024. "Comprehensive Mapping of Food Systems is Necessary to Guide Transformation Efforts: The Case of Rwanda." Policy Brief #4. Nairobi: AGRA, IFPRI, and IDRC.



This policy brief presents a summary of the food systems mapping exercise completed for Rwanda, emphasizing the findings that can inform the design of future agrifood systems investment plans. This mapping shows us where Rwanda’s food system currently stands and highlights the areas where further efforts are needed. It identifies gaps in policy coherence, institutional capacity, and financial resource allocation, providing a clear framework for targeted investments.

By presenting this summary, the brief demonstrates how the insights from the food systems mapping can guide strategic decisions and investment strategies that address Rwanda’s most critical food security challenges. By allocating resources based on the mapping’s insights, Rwanda can ensure that its food system is more resilient, sustainable, and capable of supporting its growing population while addressing environmental and economic constraints.





## 2. Rationale for Comprehensive Food Systems Mapping

Comprehensive food systems mapping is essential for guiding effective investment planning in Rwanda’s agrifood sector. Given the complexity of Rwanda’s food system, investments must be supported by detailed, research-based knowledge that can provide a holistic view of the system’s strengths, weaknesses, and opportunities for transformation. The food system is multifaceted, encompassing agricultural production, distribution, consumption, and related sectors, each of which is influenced by numerous factors such as health outcomes, economic growth, and environmental sustainability. To make sound decisions on where to allocate resources, it is necessary to have a deep understanding of the interplay between these factors, which can only be achieved through a thorough analysis of key components like food system indicators, policies, institutions, actors, and financial flows.

### ***Need for Research-Based Knowledge***

Effective investment planning for agrifood systems requires a comprehensive understanding of the food system is critical for identifying priority areas where investment is needed most. This involves analyzing a wide range of indicators, including food availability, nutrition outcomes, agricultural productivity, and environmental factors, so that decision-makers can assess Rwanda’s current food security status and understand how different areas, crops, or populations are affected. For example, fluctuations in food production, such as cereal or vegetable yields, directly impact food availability, prices, and nutrition, highlighting areas where interventions may be urgently required.

A review of policies is also necessary to evaluate whether they are relevant, efficient, and coherent with the country’s broader development goals. Rwanda’s agricultural policies have aimed to enhance productivity and food security, but gaps remain in terms of policy coherence and alignment with on-the-ground realities. Understanding these gaps can help align future policies with the evolving needs of the food system. In addition, a review of institutions involved in the food system, from governmental bodies to local organizations, is crucial to assess their capacity to implement and manage food-related initiatives effectively. Institutions play a vital role in ensuring that policies are not only designed but also executed and monitored efficiently.

Actors in the political economy of the food systems such as private sector stakeholders, civil society organizations, and international donors—also influence how resources are distributed and utilized. Mapping the influence of these actors helps in understanding the power dynamics and incentives that shape food system outcomes. Finally, examining financial flows within the system is critical for assessing whether investments are being allocated based on need. A thorough understanding of these financial mechanisms will help ensure that resources are directed toward the areas that require them the most, avoiding imbalances or inefficiencies that could undermine food security efforts.

### ***Addressing Systematic Failures***

A well-structured, data-driven analysis of the food system is crucial for identifying points of failure that might otherwise go unnoticed in a more superficial examination. Comprehensive mapping allows for a granular look at the system’s shortcomings, from underperforming agricultural subsectors to gaps in policy implementation. This approach helps highlight where the system is failing to deliver adequate food security or where certain policies are ineffective in achieving their intended





outcomes. For example, despite significant efforts, malnutrition and food insecurity remain persistent in some rural areas, suggesting that current interventions may not adequately address the needs of vulnerable populations.

Environmental sustainability is another critical issue that needs to be addressed within the food system. Rwanda's agricultural production is highly vulnerable to environmental degradation and climate change, which threaten long-term food security. Mapping environmental factors alongside food production indicators can help identify areas where sustainable practices are needed most. By pinpointing these vulnerabilities, investments can be more strategically allocated to promote climate-smart agricultural practices and ensure the resilience of Rwanda's food system in the face of environmental challenges.

Overall, comprehensive food systems mapping provides the necessary foundation for addressing systematic failures and ensuring that investments are effectively targeted. It enables decision-makers to allocate resources where they can have the greatest impact, helping Rwanda build a more resilient, equitable, and sustainable food system.





## 3. Food System Indicators Review

The primary goal of reviewing food system indicators such as undernutrition, food availability, and agricultural yields is to identify critical weaknesses in the system and direct resources to where they are most needed. This review provides a foundation for evidence-based decision-making, helping to inform investment strategies aimed at improving food security and addressing nutritional challenges.

### ***Undernutrition and Malnutrition***

Rwanda has made substantial progress in reducing malnutrition over the past two decades, particularly in lowering the prevalence of stunting among children under five years of age. As of 2020, the stunting rate had fallen to 33% from more than 50% in the early 2000s. However, significant challenges remain in addressing other forms of malnutrition. The prevalence of anemia among women ages 15 to 49 remains high, with about 37% of women affected. Additionally, while Rwanda has relatively low rates of obesity compared to global averages, obesity and noncommunicable diseases such as diabetes are on the rise, particularly in urban areas, creating a growing public health concern. For instance, the prevalence of diabetes in adults has increased to 2.8%. This highlights the complexity of Rwanda's nutritional landscape, where issues of undernutrition coexist with rising concerns about overnutrition and related diseases, known as the double burden of malnutrition.

### ***Food Availability***

Food availability remains a critical concern for Rwanda's food security. Despite improvements, the country still faces fluctuations in the supply of key food items such as vegetables and fruits. The per capita availability of vegetables, for example, increased to 80 grams per day by 2021, which is a significant improvement from previous years but remains below the global average of 140 grams per day. Similarly, the availability of fruits per capita has increased but continues to fluctuate, impacted by seasonal variations and inconsistent supply chains. These fluctuations are indicative of broader instability in Rwanda's food supply chain, making it difficult to ensure that all population groups have consistent access to a diverse and nutritious diet.

Moreover, Rwanda is heavily dependent on staple crops such as maize and rice for dietary energy. While cereal production has grown in recent years, the country remains vulnerable to production volatility. For instance, cereal yields in Rwanda have fluctuated from 1.5 to 2.3 tons per hectare over the last decade, reflecting challenges in maintaining stable agricultural productivity. Food availability is also influenced by postharvest losses, which remain a persistent issue. For instance, fruit and cereal losses were recorded at 18% and 16%, respectively, in 2020, contributing to food insecurity.

### ***Cereal and Vegetable Yields***

Agricultural productivity in Rwanda remains volatile, particularly in cereal and vegetable yields, which form the backbone of the country's food supply. Cereal yields have experienced fluctuations over the past decade, averaging 2.0 tons per hectare, which is lower than the Eastern African average of 2.4 tons per hectare. Vegetable yields have similarly shown variability, with significant improvements in some years, followed by periods of decline. For example, while vegetable yields peaked at 9.2 tons per hectare in 2018, they declined to 8.5 tons per hectare in 2020. This volatility is primarily due to weather-related shocks, limited use of modern agricultural technologies, and inadequate infrastructure to support consistent productivity.



The country's reliance on rainfed agriculture makes it particularly vulnerable to climate change and environmental degradation. In addition to climatic factors, there are infrastructural challenges that affect yields, such as limited access to irrigation and modern farming equipment. While Rwanda has made significant investments in agricultural productivity, these efforts have yet to translate into stable and sustainable yield improvements across all sectors of the food system.

### **Actionable Insights**

Based on the analysis of these indicators, it is evident that Rwanda's food system requires targeted interventions to address instability in agricultural yields and food availability. **Priority interventions** should focus on sectors where the volatility of food production is most pronounced. This includes:

- **Investing in climate-smart agriculture:** Given the fluctuations in cereal and vegetable yields, scaling up the use of climate-smart agricultural practices, such as drought-resistant crop varieties and improved irrigation systems, will be critical. Investments in these areas will help mitigate the impacts of climate variability and enhance agricultural productivity.
- **Improving supply chain infrastructure:** To address the fluctuations in food availability, especially for fruits and vegetables, Rwanda needs to strengthen its food supply chains. This includes investments in storage facilities to reduce postharvest losses and improving market access for smallholder farmers. Reducing food losses and stabilizing supply chains will enhance food security, especially in rural areas.
- **Addressing the double burden of malnutrition:** Rwanda's food and health systems need to tackle both undernutrition and the rising burden of noncommunicable diseases. Nutrition programs that focus on anemia prevention, obesity reduction, and diabetes management should be prioritized, particularly in urban areas, where these challenges are most prevalent.

In conclusion, Rwanda has made progress in several areas, but volatility in food production and persistent challenges in nutrition highlight the need for targeted and data-driven interventions. Stabilizing agricultural yields, improving food availability, and addressing the double burden of malnutrition are critical steps toward ensuring long-term food security for all Rwandans.



## 4. Policy Review

The policy review aimed to assess the relevance, efficiency, and coherence of Rwanda's existing food policies and determine whether they align with the goals of a sustainable and secure food system. Effective policies must address the key challenges facing the food system while ensuring that food security, nutrition, and agricultural sustainability are achieved. This review identifies the current gaps in Rwanda's policy framework and provides recommendations to improve policy design and implementation, ensuring that resources are used efficiently and that policies are in sync across sectors.

### **Current Gaps**

Rwanda's policies for agricultural transformation have demonstrated ambition, particularly in terms of increasing productivity, enhancing food security, and promoting economic development. Programs such as the Crop Intensification Program (CIP) have focused on improving yields by increasing the use of modern inputs like fertilizers and improved seeds. While these policies have contributed to agricultural productivity gains, there are still critical gaps that hinder their effectiveness.

One of the main challenges has been the **overestimation of agricultural output**. Rwanda has, in some cases, set ambitious productivity targets but may not have fully considered the capacity of smallholder farmers and the constraints they face, such as limited access to water, modern farming techniques, and stable markets. This has resulted in uneven benefits. While national food production has increased and urban and peri-urban areas have seen improvements in food security, many rural areas still struggle with persistent food insecurity and malnutrition rates in some rural districts remain high. This mismatch between policy objectives and outcomes indicates that policies focused on boosting productivity have not fully addressed the needs of rural communities, particularly in terms of food distribution and accessibility.

Additionally, current policies tend to **focus on short-term agricultural gains** with less focus on adequately addressing long-term sustainability. Environmental sustainability remains a critical issue in Rwanda, where soil degradation, deforestation, and vulnerability to climate change threaten future agricultural productivity. The focus on maximizing short-term yields has often come at the expense of adopting climate-smart agricultural practices that could promote sustainable growth and resilience against climate variability. This creates a gap between Rwanda's agricultural goals and the country's ability to sustainably maintain and build on these gains in the future.

Finally, **policy fragmentation** across sectors is another significant gap. Rwanda's food system involves multiple stakeholders, including ministries related to agriculture, health, environment, and finance. The lack of strong coordination among these sectors has resulted in overlapping initiatives, inconsistent implementation, and inefficiencies in resource allocation. For instance, while the Ministry of Agriculture may focus on increasing production, the Ministry of Health's efforts to address malnutrition may not be fully integrated, leading to gaps in addressing the broader determinants of food security, such as income disparities and access to diverse diets.



## Recommendations

- **Strengthen nutrition security policies:** While Rwanda has made progress in improving food security through increased agricultural production, **nutrition security** requires further emphasis. Current policies must go beyond increasing calorie availability and focus on ensuring that all Rwandans, especially vulnerable populations in rural areas, have access to nutritionally adequate food. This includes addressing micronutrient deficiencies like anemia and ensuring diverse, balanced diets that prevent both undernutrition and the rise of diet-related noncommunicable diseases. To achieve this, Rwanda should enhance its nutrition-specific policies and interventions by incorporating them into its broader food security strategy. Programs that focus on increasing access to fruits, vegetables, and animal-source foods should be prioritized alongside staple crop production. Additionally, **nutrition education** and public health campaigns targeting both urban and rural areas can help improve dietary habits and reduce the burden of malnutrition.
- **Integrate climate-smart agriculture for sustainable productivity:** To address the challenge of environmental sustainability, Rwanda must integrate **climate-smart agriculture (CSA)** into its food systems transformation policies. CSA practices, such as soil conservation, water-efficient irrigation systems, and the adoption of drought-resistant crop varieties, can help ensure that Rwanda's agriculture sector remains productive in the face of climate change. By promoting these practices, the government can safeguard the country's food security while simultaneously protecting its natural resources for future generations. Investment in CSA also aligns with Rwanda's long-term sustainability goals. For example, Rwanda could enhance its policies by offering incentives to smallholder farmers who adopt sustainable practices, such as providing subsidies for CSA inputs or offering technical support for implementing conservation agriculture methods. This would not only boost yields in the short term but also ensure that agricultural productivity is maintained over the long term, particularly in climate-vulnerable regions.
- **Evaluate policy coherence across sectors:** One of the key challenges identified is the lack of **policy coherence** among sectors involved in food systems management. Given that food security is influenced by factors beyond just agricultural production—such as health, education, infrastructure, and environmental management—Rwanda needs a more integrated policy framework that brings together stakeholders from across these sectors. To achieve this, the government should undertake a comprehensive review of existing policies to ensure that they are aligned and mutually reinforcing. For example, agricultural policies focused on increasing production should be coordinated with health policies aimed at improving nutrition, as well as environmental policies that promote sustainable resource use. Creating an interministerial task force or coordination body could help streamline efforts, reduce redundancies, and ensure that resources are efficiently allocated across different sectors involved in the food system.

Additionally, policy coherence can be enhanced by improving data-sharing mechanisms between ministries and agencies. This would allow for more informed decision-making and help policymakers





understand how changes in one sector (for example, agriculture) impact other areas (for example, health and environment). A more integrated and coordinated approach would lead to better-targeted interventions and improved outcomes across the food system.

Addressing the gaps in Rwanda's food policies will require a concerted effort to strengthen nutrition security, promote sustainable agricultural practices, and improve coherence across sectors. By doing so, Rwanda can ensure that its food system policies are not only relevant and efficient but also aligned with the long-term goals of achieving food security, improving nutrition, and sustaining agricultural productivity in the face of climate change.





## 5. Institutional Review

The objective of this institutional review is to assess the capacity of the institutions involved in Rwanda's food systems governance. This includes evaluating their ability to implement and enforce policies aimed at improving food security, nutrition, and agricultural sustainability. Strong institutional capacity is critical for ensuring that food system policies translate into tangible outcomes. This review identifies key gaps in institutional performance and offers recommendations for strengthening local institutions to enhance their ability to manage food system interventions effectively.

### **Key Areas of Concern**

One of the most significant challenges facing Rwanda's food system governance is the **capacity gaps within local institutions**. These institutions, including agricultural extension services, local government bodies, and community organizations, are often tasked with the implementation and monitoring of food security policies. However, many of these organizations struggle with limited human resources, insufficient technical expertise, and inadequate infrastructure, all of which hinder their ability to carry out their mandates effectively.

For example, while the Rwandan government has invested heavily in national agricultural programs such as the CIP, local institutions responsible for implementing these programs often lack the resources and training needed to ensure consistent execution at the grassroots level. This has led to uneven policy outcomes, with rural and remote areas frequently lagging behind in terms of food security improvements. Furthermore, the limited capacity of local institutions also affects their ability to adapt policies to specific local conditions, leading to a one-size-fits-all approach that may not be effective in addressing the diverse challenges faced by different regions in Rwanda.

Another concern is the lack of coordination between national and local institutions, which often results in **fragmented policy implementation**. While national-level institutions may set broad policy objectives, local-level institutions, which are responsible for operationalizing these objectives, often do not have the mechanisms or authority to adapt policies to local needs or realities. This disconnect between policy formulation and execution weakens the overall effectiveness of food system governance in Rwanda, especially in terms of addressing regional disparities in food security and agricultural productivity.

In addition, monitoring and evaluation (M&E) mechanisms are often underdeveloped at the local level, making it difficult to assess the progress of food system interventions or to identify areas where additional support is needed. Without effective M&E systems, local institutions cannot accurately measure the impact of policies, leading to challenges in scaling successful interventions and adjusting underperforming ones.

### **Institutional Strengthening**

To address these capacity gaps, it is essential to support the development of local institutions through technical capacity-building initiatives. Strengthening the technical capabilities of institutions at the local level will enable them to manage food system interventions more effectively and ensure that national policies are implemented with greater consistency and success.





- **Capacity building programs:** Local institutions need training in areas such as agricultural extension services, climate-smart agriculture, and nutrition-sensitive policy implementation. For example, agricultural extension officers, who play a key role in supporting smallholder farmers, require ongoing education on modern farming techniques, sustainable agricultural practices, and data collection methods to ensure they can provide up-to-date advice and assistance. By equipping these officers with the knowledge and tools they need, local institutions will be better positioned to address the specific needs of farmers, thus improving productivity and food security outcomes. Furthermore, local institutions must be trained to develop localized solutions that can adapt national policies to specific regional contexts. Technical assistance programs should focus on empowering local government and community leaders to tailor interventions based on local conditions, such as climate variability, land use constraints, and market access. This will help bridge the gap between national objectives and local realities, ensuring that policies are more effective at addressing the unique challenges faced by different communities.
- **Improving infrastructure and resources:** In addition to technical training, local institutions require improved infrastructure and access to resources. This includes investment in basic infrastructure such as transportation, storage facilities, and information technology, which are essential for the efficient delivery of services to rural areas. Many local institutions face logistical challenges that prevent them from reaching remote communities, limiting the impact of food security interventions. By enhancing infrastructure, local institutions will be better equipped to manage and monitor agricultural programs, distribute inputs to farmers, and ensure that food system policies are executed effectively across all regions of the country. Moreover, local institutions should be provided with greater access to financial resources to support their operations. Budget constraints are a common issue at the local level, leading to gaps in service delivery and program implementation. Increasing funding allocations for local institutions, particularly those focused on food security and agricultural development, would enable them to carry out their mandates more effectively. This can be achieved through both direct government support and partnerships with international development organizations, which can provide financial and technical assistance to bolster local capacity.
- **Strengthening M& E systems:** Effective M& E systems are critical for assessing the progress of food system interventions and ensuring that resources are being used efficiently. Currently, many local institutions lack robust M& E frameworks, making it difficult to track the success of policies or identify areas that require improvement. Strengthening these systems would enable local institutions to gather real-time data on food security outcomes, agricultural productivity, and nutrition indicators, allowing for more responsive and adaptive policy implementation. To improve M& E capacity, local institutions should receive training in data collection, analysis, and reporting. This includes equipping local staff with the skills needed to use digital tools and technologies that can streamline the M& E process and provide more accurate insights into policy impacts. Enhanced M& E systems will also facilitate better coordination between national





and local institutions, as data collected at the local level can inform national decision-making and help ensure that policies are adjusted based on real-time evidence.

Addressing the capacity gaps in Rwanda's local institutions is essential for ensuring the effective implementation of food system policies and interventions. By investing in technical capacity-building initiatives, improving infrastructure and resources, and strengthening monitoring and evaluation systems, Rwanda can empower its local institutions to play a more active and effective role in managing food security and agricultural development. Institutional strengthening is key to ensuring that national policies translate into positive, sustainable outcomes at the grassroots level, particularly in rural and vulnerable communities.



## 6. Review of Actors in the Political Economy

This review aims to analyze the political economy of Rwanda's food system, with a focus on the key actors who influence the system's functioning. By understanding the roles, interests, and power dynamics of these actors, we can identify the factors that shape policy implementation, investment flows, and overall system efficiency. This analysis will provide insight into how these different actors contribute to or hinder progress toward a more secure, resilient, and sustainable food system.

### Governmental Bodies

The Rwandan government plays a central role in the design and implementation of food system policies. Key ministries, such as the Ministry of Agriculture and Animal Resources, the Ministry of Health, and the Ministry of Environment, are responsible for overseeing various aspects of food security, agricultural productivity, and sustainability. These governmental bodies are instrumental in shaping policy frameworks and driving national initiatives aimed at enhancing food production, improving nutrition, and ensuring environmental conservation.

However, one of the main challenges facing governmental bodies in Rwanda is **coordination across different sectors**. While the government has been proactive in setting ambitious goals for food security and agricultural transformation, there is often a lack of alignment among the ministries involved in these efforts. For example, policies developed by the Ministry of Agriculture to increase productivity may not fully consider health and environmental outcomes, resulting in fragmented and sometimes contradictory approaches to food system governance. Furthermore, implementation at the local level can be inconsistent, as local government bodies often lack the resources or authority to adapt national policies to local contexts.

### Private Sector

The private sector is critical to the development of Rwanda's food system, particularly in terms of agricultural production, processing, and distribution. However, **investments from the private sector remain low and fragmented**, limiting its impact on national food security. While there are some success stories of private investment in agribusiness, particularly in export-oriented crops such as coffee and tea, the domestic food production sector has not attracted the same level of investment.

Private sector actors face several barriers, including limited access to finance, weak infrastructure, and market inefficiencies. Small and medium enterprises (SMEs), which make up a large part of Rwanda's agriculture sector, often struggle to scale up due to these constraints. Moreover, private investments are typically concentrated in higher-profit areas, leaving staple crop production and smallholder farmers underfunded. This fragmentation reduces the sector's overall contribution to food security and highlights the need for more coordinated efforts to attract investment into critical areas such as local food production, value chain development, and agricultural technology.

### Civil Society and International Organizations

**Civil society organizations (CSOs)** and **international organizations** have played a significant role in shaping Rwanda's food system policies. These actors often focus on areas where government and



private sector efforts fall short, particularly in addressing issues of rural food insecurity, malnutrition, and environmental sustainability. International donors such as the World Food Programme (WFP) and the Food and Agriculture Organization of the United Nations (FAO) have contributed to key programs that aim to improve food security, agricultural productivity, and nutrition.

Despite their contributions, these organizations face **barriers to scaling up impact**, particularly due to limited integration with national policies and local governance structures. CSOs often struggle to scale up successful pilot projects due to a lack of long-term funding and insufficient engagement with government bodies. Similarly, international organizations may find their efforts diluted if they are not fully aligned with national priorities or if they lack the support needed for policy adoption and enforcement. This fragmentation reduces the potential for these actors to bring about systemic change, even when they have demonstrated effective interventions at the local level.

## Political Economy Analysis

The **power dynamics and political incentives** that shape policy implementation and investment flows in Rwanda's food system are complex and multi-layered. At the core, governmental bodies hold the most power in terms of setting national priorities, developing policy frameworks, and allocating resources. However, the effectiveness of these efforts often depends on the ability of these bodies to engage with the private sector, civil society, and international donors.

Political incentives in Rwanda tend to focus on **economic growth and poverty reduction**, with a particular emphasis on increasing agricultural productivity. While this has led to significant gains in some areas, such as export crops, it has also resulted in certain sectors of the food system—particularly those related to local food production and nutrition—being under-prioritized. The political drive to demonstrate success in international development rankings and meet ambitious growth targets can sometimes overshadow more nuanced, long-term goals related to food security and sustainability.

Power dynamics also influence investment flows. For example, private sector actors with close ties to the government or international markets are more likely to benefit from favorable policies or access to resources, while smallholder farmers and local food producers may struggle to compete for investment. This can create a feedback loop where certain areas of the food system—such as export-oriented agriculture—receive disproportionate attention and funding, leaving critical areas like local staple crop production underfunded.

To overcome these challenges, it is important to create mechanisms for more **inclusive and balanced policy development**, where the interests of smallholder farmers, local producers, and rural communities are represented alongside those of larger private sector actors. Additionally, aligning the incentives of governmental bodies, private investors, and civil society organizations can help ensure that food system policies are implemented effectively and that investments are directed toward areas where they can have the greatest impact on food security.

The political economy of Rwanda's food system is shaped by a variety of actors, each with their own interests and influence. While the government has played a leading role in policy development, challenges in coordination and implementation remain. The private sector's low and fragmented investment in agriculture limits its contribution to food security, while civil society and international organizations often struggle to scale successful interventions. Understanding the power dynamics and political incentives at play is key to ensuring that policy implementation and investment flows are aligned with the broader goal of building a sustainable and secure food system in Rwanda.





## Conclusion and Policy Recommendations

A comprehensive mapping of Rwanda's food system is critical for addressing the country's pressing food security challenges. This mapping will provide a detailed understanding of the systemic failures within the current food system, highlight the most vulnerable populations, and inform strategic investment plans that can bring about long-term improvements. By leveraging the insights from this comprehensive analysis, Rwanda can better allocate resources, enhance agricultural productivity, improve nutritional outcomes, and ensure sustainability in the face of future challenges, particularly those posed by climate change. The time to act is now—by utilizing research-based evidence to inform investments, Rwanda can make meaningful strides toward securing a resilient, equitable, and sustainable food system.

One of the key findings from the food systems mapping is the vulnerability of Rwanda's agriculture to environmental shocks and climate change. To mitigate these risks and ensure stable yields, it is essential to invest in **climate-smart agriculture (CSA)** practices. This includes adopting drought-resistant crop varieties, improving irrigation systems, and promoting agroforestry and soil conservation techniques. By scaling up these practices, Rwanda can improve agricultural productivity while safeguarding the environment. CSA will also enhance the resilience of smallholder farmers, who are most vulnerable to the impacts of climate variability.

The success of food system policies in Rwanda depends largely on the capacity of local institutions to implement and enforce these policies. Capacity gaps at the local level have been identified as a major barrier to effective policy execution. To overcome these challenges, Rwanda must invest in **institutional capacity-building programs** that equip local institutions with the technical skills, resources, and infrastructure they need to carry out their mandates. This includes training agricultural extension officers, improving infrastructure, and enhancing monitoring and evaluation systems. Strengthening institutional capacity will ensure that food system interventions are implemented more consistently and that the benefits reach the most vulnerable populations, particularly in rural areas.

Despite progress in improving food security, nutrition programs remain underfunded, and rural populations continue to face high levels of malnutrition. Addressing these issues requires increased **financial support for nutrition-specific interventions**, such as micronutrient supplementation programs, school feeding initiatives, and community-based nutrition education. These programs are critical for reducing rates of malnutrition, particularly in children and women, and for addressing the growing burden of noncommunicable diseases. Furthermore, financial resources should be directed toward improving **rural food security**, ensuring that smallholder farmers have access to the inputs, markets, and infrastructure necessary to produce sufficient and nutritious food for local consumption.

Rwanda's food system involves a wide range of stakeholders across multiple sectors, including agriculture, health, environment, and finance. However, a lack of policy coherence and coordination across these sectors has hindered the effectiveness of food system interventions. To maximize the impact of investments and policies, Rwanda must work toward **improving policy coherence**. This includes establishing mechanisms for interministerial collaboration, ensuring that agricultural policies are aligned with health and environmental goals, and promoting a more integrated approach to food security. By improving coordination and ensuring that policies are mutually reinforcing, Rwanda can create a more efficient and effective food system governance framework.





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This brief is drawn from:

1. FS-TIP. *Rwanda Food System Diagnostic and Landscaping Analysis*, August 2021.
2. IFPRI. *Comprehensive Review of Food System Indicators Over Time for Rwanda*, submitted to AGRA, May 2024.





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