



RWANDA BANKERS' ASSOCIATION

*"Together for a better banking environment"*

# Maize Financing in Eastern Africa



# 1. Highlights

The agriculture sector plays a critical role in supporting livelihoods of Rwandans and sustaining the country's economy. It contributes roughly one-third to the national GDP. Beyond GDP it covers 90% of food needs, generates 50% of the country's export revenues, employs around 70% of the population. Small holder farmers account for 75% of Rwanda's agricultural production, about 30% of whom cultivate less than 0.2 hectares. About 68% of all households raise livestock, with the supplementary income arising therefrom being an important source of support to the farmers facing uncertainties of crop production. (Source: MINAGRI, n.d.).

While maize is a staple crop and cornerstone of food security in Rwanda, it faces a myriad of challenge, one of which being limited access to financing. This hinders their ability to invest in inputs, improve yields, and achieve sustainable production. While the agricultural sector contributes significantly to Rwanda's GDP, employing a large portion of the population, import reliance poses a risk to food security and economic stability.

This report explores the current landscape of maize financing in Eastern Africa, focusing on Rwanda. It sheds light on the challenges faced by farmers, existing initiatives, and potential solutions to improve access to finance and empower them to contribute effectively to the region's food security and economic growth.

Improving access to finance for maize farmers is crucial for achieving sustainable agricultural development and food security. But that can only be possible if the existing challenges as highlighted in this report are addressed. By addressing existing challenges, promoting innovative solutions, and fostering collaboration among stakeholders, significant progress can be made towards empowering farmers and strengthening the region's maize value chain.

## 2. Challenges

Rwandan farmers are increasingly vulnerable to climate change, facing growing risks from droughts, landslides, floods, and windstorms. These hazards can collectively inflict significant economic losses, with estimates suggesting they could cost the country USD 132 million (The National Atlas Report 2015). Rwanda's agricultural sector is particularly susceptible to these weather-related risks due to its high dependence on rain-fed agriculture and limited access to irrigation and mechanization.

- **LIMITED ACCESS TO FORMAL CREDIT:** Smallholder farmers often lack the collateral and credit history required by formal financial institutions (Banks and microfinance), leading them to rely on informal lenders with exorbitant interest rates.
- **LACK OF AWARENESS AND FINANCIAL LITERACY:** Many farmers lack knowledge about available financing options and the skills to manage their finances effectively.
- **LIMITED INSURANCE AVAILABILITY:** Scarcity of affordable and accessible maize insurance products exposes farmers to financial risks associated with weather events and other unforeseen circumstances.
- **BUMPER HARVESTS AND MARKET FLUCTUATIONS:** Unpredictable yields, particularly during bumper harvest seasons, can lead to market saturation and price drops, making it challenging for farmers to repay loans and impacting their overall income. This creates a cycle of risk and difficulty for farmers when seeking formal financing.

## 3. Commercial Institutions Agri-lending

While commercial banks play a crucial role in financing various sectors, agri-lending in Eastern Africa remains a complex and challenging landscape for both financial institutions and farmers.

### Challenges for Commercial Banks:

- **Perceived high risk:** Factors like climate variability, limited collateral from smallholder farmers, and information asymmetry (difficult in assessing creditworthiness) contribute to the perception of agriculture as a risky sector by banks.
- **High transaction costs:** serving geographically dispersed rural populations and processing smaller loan amounts can be expensive for banks, making agri-lending less commercially attractive.

### Despite these challenges, opportunities exist to engage commercial banks in agri-lending:

- **Technological advancements:** Mobile banking and other digital financial services can reduce transaction cost and improve access to farmers in remote areas.
- **Risk-sharing mechanisms:** Development of weather index insurance and other de-risking instruments can mitigate risks and encourage banks to participate in agri-lending.
- **Public-private partnerships:** Collaboration between governments, financial institutions, and development agencies can create enabling environments and design targeted financing programs for the agricultural sector.

### Examples of Existing Initiatives:

- **Standard Chartered Bank:** offers loan products tailored to agribusinesses, including working capital financing and pre-harvest finance.
- **Equity Bank:** Equity Bank provides loan products for farmers, including asset finance for equipment and inputs. It launched new Agri-lending Products, targeting thousands of smallholder farmers and agribusinesses. This was targeting agribusinesses and farmers in Rwanda in eight value chains: Maize, Irish Potatoes, rice, coffee, tea, dairy, beans, and horticulture. As part of its vision for the next five years, Equity Bank Rwanda plans to grow its agriculture portfolio and dedicate at least 30% of its entire portfolio to agri-lending (Equity Bank, 2021).
- **KCB Group and Mastercard Foundation:** Offers loan products for different segments of the agricultural value chain, from smallholder farmers to large-scale agribusinesses (Bsd\_Admin, 2019)

Efforts are needed to create a more conducive environment for commercial institutions to engage in agri-lending in Eastern Africa. These includes;

Firstly, **Strengthening the legal and regulatory framework** by streamlining land titling processes and improving contract enforcement mechanism, which can enhance bank confidence in lending to farmers.

Secondly, **building capacity** by providing financial literacy training and business development services to farmers can improve their creditworthiness and loan management skills.

Lastly, **promoting innovative financial products**, like developing loan products tailored to the specific needs and risks of different agricultural activities can attract more farmers to formal financing channels.

By addressing these challenges and fostering collaboration, commercial institutions can play a more significant role in unlocking the potential of the agricultural sector in Easter Africa, contributing to increase food security, economic growth, and rural development.

## 4. Maize Insurance

Insurance is one of the effective and efficient risk transfer mechanisms for farmers and herders. However, maize insurance availability in Eastern Africa is limited, with:

- **RWANDA:** Pilot programs are being tested, but widespread availability is not yet established. Rwanda has introduced “**Tekana Urishingiwe Muhinzi Mworoz**” targeting farmers. The agriculture (crop) insurance scheme will help to soften the inevitable economic blow of natural disasters. (Source: *World Bank Study on Rwanda’s Agricultural Sector Risk Assessment Report*). The launch of the National Agriculture Insurance Scheme (NAIS), termed (Tekana Urishingiwe Muhinzi Mworoz), which was subsidized up to 40% by the Government of Rwanda in 2019 (AFR & MINAGRI, 2019). Crops covered under this insurance scheme includes Maize among others. The premium Rates often fallen in the range of 7% - 8.5%.

Sum of amount insured for any crop is based on the value of inputs (production costs); which includes input costs (e.g.; cost of seeds, chemicals and fertilizer) and some standard cost of hiring agricultural equipment/machinery used for ploughing, tilling, dishing, harrowing, planting and similar tasks which remains same based on the crop and the locations. The amount is determined by the Ministry of Agriculture and Animal Resources at the begging of every season.

Crop/value-chain	Sum Insured per Ha (Amount in RWF)
Rice	652,000
Maize	429,250
Maize Seed Multiplication	878,500
French Beans	2,018,250
Chilli	2,151,500
Bush Beans	285,000
Climbing Beans	517,000
Irish Potatoes	2,394,500
Soyabean	295,000
Cassava	544,000

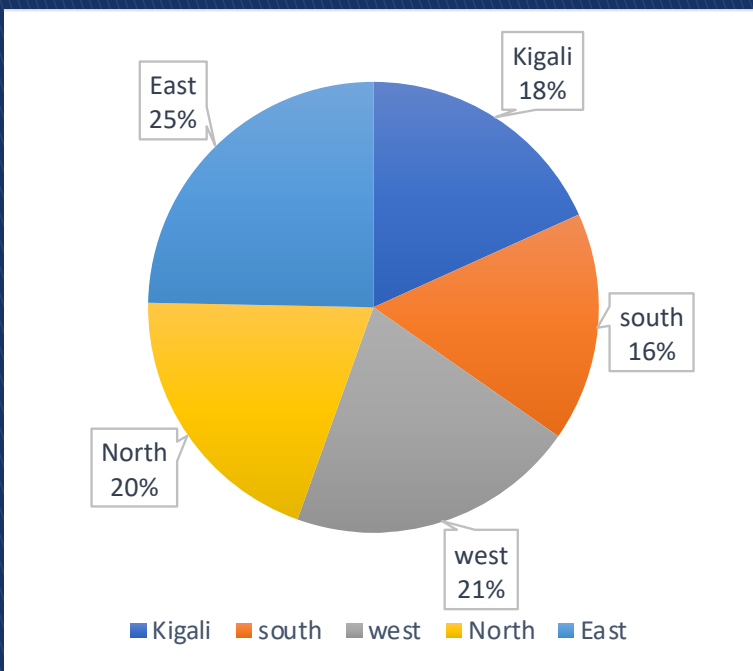
- **OTHER COUNTRIES:** Insurance options are scarce, often focusing on larger commercial farms.

The challenge faced includes high premiums that can be unaffordable for smallholder farmers, limited product availability tailored for smallholder maize production, and low awareness and trust of insurance options and system.

## 5. Rwanda Maize Production at Glance

Maize, also known as corn, plays a central role in Rwanda’s agricultural story. It serves as a critical source of food security for millions, forming the foundation of many Rwandan diets. Beyond its nutritional importance, maize significantly contributes to the national economy, employing a large portion of the population and influencing the agricultural sector, a key driver of *Rwanda’s GDP* (Source: *National Institute of Statistics, n.d.*).

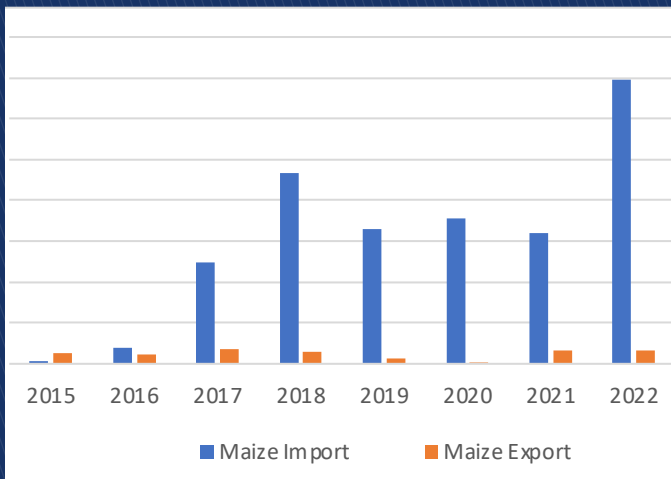
% of HH producing maize 2019/2020



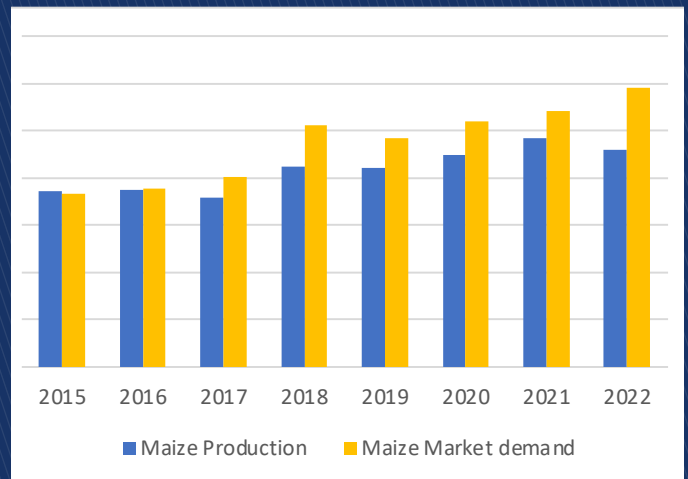
While maize is a vital staple crop in Rwanda, the country’s domestic production doesn’t always meet the population’s demand. This necessitates a balancing act between imports and exports.

Rwanda maize import far way exceeds the exports size. Rwanda imports maize to bridge the gap between domestic production and consumption. The major sources include Uganda, Tanzania, and other East African countries. The importation increases over years because of fluctuations in domestic production where climate variability and other factors generally impact yield, necessitating imports to ensure food security; and increasing demand which outpaces production growth. Hence, this competitions from imported maize can affect prices and income for *Rwandan farmers* (Source: *National Institute of Statistics, n.d.*).

Import and Export Size



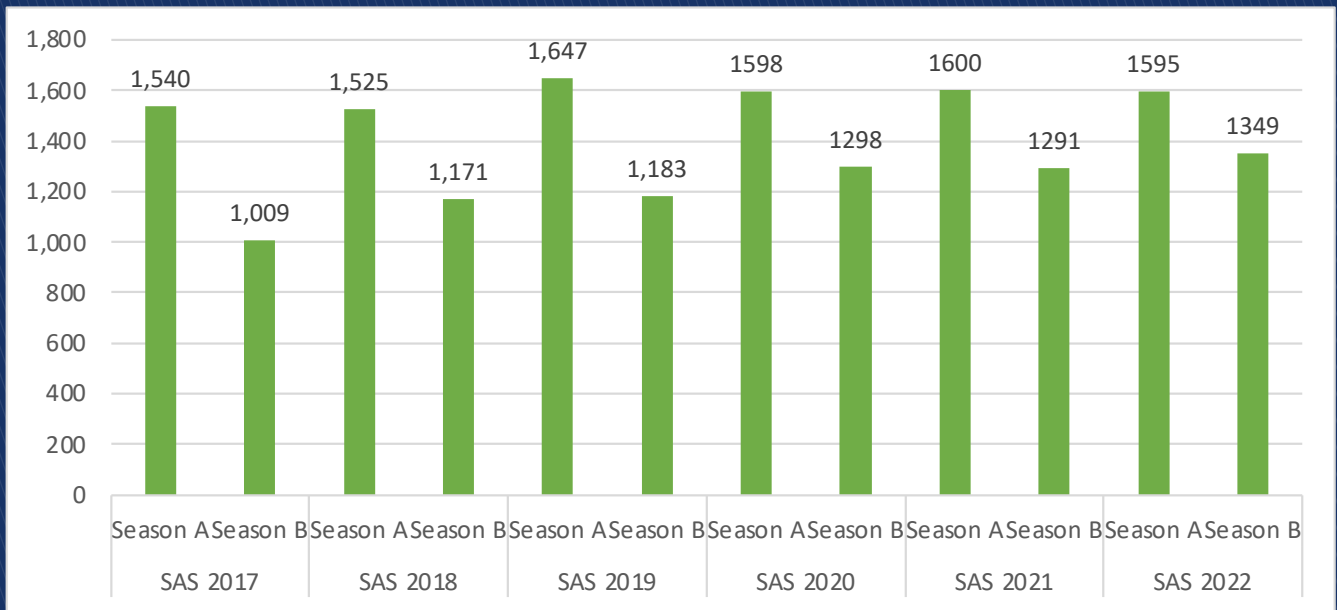
Production vs Market Demand



Rwanda also exports maize, primarily to neighboring countries within the East African region. However, exports are typically limited compared to imports. The country strives to balance its reliance on imports with efforts to increase domestic production and explore export opportunities when possible.

Rwanda’s agricultural landscape experiences distinct seasonal variations that significantly impact maize yield. Understanding these fluctuations is crucial for planning, resource allocation, and ensuring food security throughout the year.

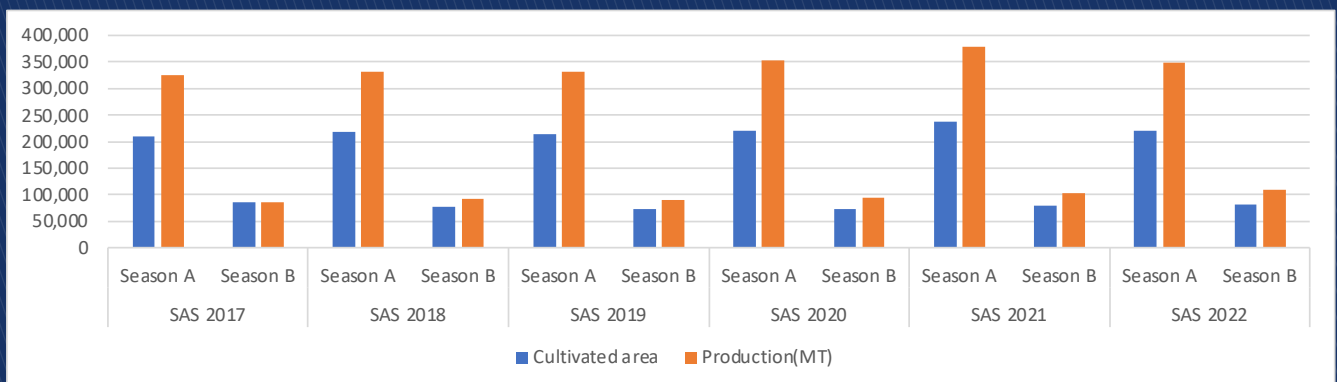
**Maize Yield by Season (Kgs/Ha)**



Season A (September – February) often referred to as the “long rains” season, it receives highest rainfall and generally produces higher maize yields. This season accounts for roughly 60% of the annual maize harvest.

Season B (March – June) known as the “short rains” season, it experiences less precipitation and typically results in lower maize yields. This season contributes approximately 40% of the annual maize harvest.

**Maize Production Area by Season**



The average yield (tons/hectare) in Season A ranges in 1.6 tons – 1.8 tons while the average yield for Season B is 1.3 tons – 1.5 tons. Season A, with its abundant rainfall, provides optimal conditions for maize growth and development. Season B's limited rainfall presents challenges for maize cultivation, often leading to lower yields and potentially impacting food security during the following months.

The average market price of maize in Rwanda dances to a complex rhythm, influenced by various factors that create a dynamic and sometimes unpredictable landscape.

Seasons play a significant role in this price story. During Season A, when harvests are plentiful, prices typically dip due to increased supply. Farmers eager to sell their crops before spoilage can lead to a temporary buyers' market.

However, as Season B unfolds and supplies dwindle, the narrative shifts. Prices tend to rise, reflecting scarcity and increased demand. This can sometimes put a strain on household budgets, particularly for low-income families who rely heavily on maize as a staple food (Source: National Institute of Statistics,



Beyond seasonal fluctuations, external factors also influence the price dance. Regional and global market trends, government interventions like setting minimum prices, and even unexpected events like natural disasters can all contribute to price variations.

For Rwandan farmers, navigating this price landscape requires strategic planning and market awareness.



## 6. Some Analytical Report on Maize Financing

- **Maize Value Chains in East Africa:** The maize value chain in East Africa plays a crucial role in the region's agricultural economy, with a significant focus on production, processing, and distribution. Maize farming is widespread in countries like Rwanda and Uganda, with increasing production and export volumes contributing to their status as key maize exporters in Africa. Government attention to the sector, through initiatives like subsidies for farmers and development plans, underscores the importance of maize in agricultural development. However, challenges such as low-quality maize, lack of farmer liquidity, and small farm sizes hinder the sector's growth potential. Efforts to address these constraints and enhance the value chain could lead to improved market access, higher-quality products, and increased competitiveness in the global maize industry. (Jack Daly, Danny Hamrick, Gary Gereffi, and Andrew Guinn, 2016).
- **Summary of the financing of maize production and price risks in Tanzania:** The financing of maize production and price risks in Tanzania faces significant challenges, as highlighted in the document. Commercial banks perceive the maize business as risky, leading to limited access to credit for farmers and traders. Price volatility, coupled with constraints in storage and credit facilities, hinders the ability of actors in the maize value chain to effectively manage risks and optimize their operations. The study emphasizes the importance of addressing issues related to access to storage and credit facilities to enable forward selling and risk hedging strategies. Furthermore, the document suggests short-term actions at both micro and macro levels, such as public support for small-scale operations, blending rural finance with agricultural insurance, and promoting regional trade integration to enhance market efficiency and resilience in the maize sector in Tanzania. (World Bank Group).
- **Maize markets in Eastern and Southern Africa (ESA) in the context of climate change:** The background paper provides a synthesis of the literature on the impact of climate change on maize production and markets in the Eastern and Southern African (ESA) region. The region relies heavily on rain fed agricultural systems and climate change is expected to have significant impacts on agricultural productivity and food availability. Given the importance of maize for human and animal consumption, the paper reviews the current and potential impacts of climate change on food and nutrition security (FNS) and discusses policy instruments currently in place to deal with FNS and climate change. Finally, the paper examines innovative climate smart approaches and suggests that governments should provide support to smallholder farmers, in particular, on the uptake of such approaches.

## 7. Existing Initiatives

One of the key pillars for sectoral development includes stimulating an increase in investment in agricultural value chains and building resilience in farming communities.

- **GOVERNMENT PROGRAMS:** Some countries offer subsidized loans or input vouchers, but their reach and effectiveness vary. Rwanda has announced plans to double agriculture sector lending from the current 5.2% of the total share of loans from financial institutions to 10.4% by 2024. Reporter (2021)
- **DEVELOPMENT AGENCY INTERVENTIONS:** Organizations like AGRA and IFC provide financing and advisory services to financial institutions and support government initiatives. For example, the past target of AGRA was aiming to leverage \$2 billion in additional financing for smallholder farmers in Africa in 2021. Besides, IFC invested \$2.2 billion in agribusiness in Africa between 2016 and 2020.
- **MICROFINANCE INSTITUTIONS:** These institutions cater to small-scale borrowers, offering tailored loan products and capacity building programs. These institutions offer microloans, savings, and other financial products tailored to the needs of farmers. Unfortunately, it is limited and difficultly accessible.
- **VILLAGE SAVINGS AND LOAN ASSOCIATIONS (VSLAS):** Community-based groups enable members to pool savings and provide loans to each other, fostering financial inclusion. This is the main source of lending for most farmers in Rwandan rural areas but big financial institutions reach require not easy to get requirements. However, in some region, maize farmers often benefit from cooperative financing models where they pool resources and access credit collectively.

## 8. Potential Solutions

- **ENHANCING FINANCIAL INCLUSION:** Expanding access to formal credit through innovative models like mobile banking and group lending.
- **DEVELOPING RISK-SHARING MECHANISMS:** Promoting the availability of affordable and accessible maize insurance products.
- **PROMOTING FINANCIAL LITERACY:** Providing training programs to equip farmers with the knowledge and skills to manage their finances effectively.
- **PUBLIC-PRIVATE PARTNERSHIPS:** Collaboration between governments, financial institutions, and development agencies to design and implement comprehensive financing solutions. Leveraging their expertise and resources for storage, processing, or export opportunities.
- **NATIONAL STRATEGIC RESERVES:** The government could consider building reserves to store excel maize, ensuring food security and potentially stabilizing future market prices.
- **EXPLORING ALTERNATIVE FINANCING OPTIONS:** Investigate non-bank financial institutions, private equity firms, or pre-purchase agreements with regional buyers.

## 9. Conclusion

Improving access to finance for maize farmers is crucial for achieving sustainable agricultural development and food security. But that can only be possible if the existing challenges as highlighted in this report are addressed. By addressing existing challenges, promoting innovative solutions, and fostering collaboration among stakeholders, significant progress can be made towards empowering farmers and strengthening the region's maize value chain. Besides, addressing these challenges requires a multi-pronged approach involving various stakeholders, including governments, financial institutions, development agencies, and the private sector.

Expectations that farmers could access commercial credit at subsidized interest rate is not viable. A partnership between the government and the financial sector where specific public funds are channeled through the banking system is a proposition that can be explored. Even then, the commercial viability of such funding will depend on the assessment of whether the maize farmers will be on a path to sustainable operations without the subsidy element.

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