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National Agriculture Financial Services Strategy (NAFSS) 2024-2028

Why this strategy matters

"I asked for a loan of 10,000,000 Rwf from a bank and it was difficult. They told me that they cannot trust that they will get the money back because I worked in agriculture, so I decided to stop applying for the loan."

Livestock, Kayonza district, mixed FGD respondent #2

"The reason why farmers are discouraged to reach to the banks to access loans is because to access the bank loan requires a long and complicated procedure."

Irish Potatoes, Musanze district, FGD Participant # 2

"When they give us loans, they demand payment before we harvest. It is very difficult for farmers…… when the bank gives it to you, you start paying immediately. It's a problem because you don't have another source of income, you have to wait for your harvest."

Coffee, Rutsiro district, mixed FGD, participant #4

"We hear about BDF, but it is not clear how it works"

Gasabo district, Trader's FGD, respondent #5

"Banks only want to lend for investment capital not working capital."

Key Informant Interview with Agri-business

"………a lot of our rice deteriorated due to a bad seed that we had farmed, and the rice did not perform as per the expectations, and it became harder for the farmer to pay back the loan to the bank…"

Staples, Ngoma district, participant #2

"When a woman has the audacity to take out a loan, she must provide collateral security. From experience only 10% of males agree with a female convincing them to pledge their plot of land as collateral security to the bank…"

Key Informant Interview

"I needed more than 50 million. I did not get the money I requested. And after realizing that the money that they were accepting to give me was insufficient, I refused to take that money then because they were about to give me less than 15 million."

Livestock, FGD participant #1

"Value chain organization is important, currently many value chains are fragmented and subsistence farming still dominating. FSPs look for commercial farmers to ensure profitability and have a better guarantee of repayment."

Commercial Banks and MFIs – Supply-side

"A farmer invests in order to get profit from their farm yield. When insurance covers investment alone, they are unable to generate income," **Review of literature - New Times Article on agriculture insurance (3rd March 2022)**

Acknowledgement

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List of acronyms

Acronym	In Full	Acronym	In Full
AFMS	Agriculture Finance Market System	MINICOM	Ministry Of Trade and Industry
AFR	Access to Finance Rwanda	MNO	Mobile network operators
AFSSWG	Agriculture Finance Sub-Sector Working Group	MS	Market System
AMIR	Association of Microfinance Institutions in Rwanda	MSME	Micro, Small and Medium Enterprises
ASSAR	Rwanda Association of Insurers	NAEB	National Agricultural Export Development Board
ASWG	Agriculture Sector Working Group	NAFFS	National Agriculture Financial Services Strategy
ATM	Automated Teller Machine	NAIS	National Agriculture Insurance Scheme
BDF	Business Development Fund	NISR	National Institute Of Statistics Of Rwanda.
BDS	Business Development Services	NPL	Non-Performing Loans
BNR	National Bank of Rwanda	NST	National Strategy for Transformation
BRD	Development Bank of Rwanda	OECD	Organization for Economic Co-operation and Development
CAGR	Compound Annual Growth Rate	PSP	Payment Services Providers
DAC	Development Assistance Committee	PSTA	Strategic Plan for Agriculture Transformation
DFS	Digital Financial Services	PWD	People With Disability
EAX	East Africa Exchange	RBA	Rwanda Bankers Association
EGF	Export Growth Fund	RDB	Rwanda Development Board
EICV	Integrated Household Living Conditions Survey	RIPPS	Rwanda Integrated Payments Processing System
FGD	Focus Group Discussion	RLMUA	Rwanda Land Management and Use Authority
FRW	Rwandan Francs	RNPS	Rwanda National Payment System
FSDSP	Financial Sector Development Strategic Plan	RSSB	Rwanda Social Security Board
FSP	Financial Service Providers	RWF	Rwandan Francs
GDP	Gross Domestic Product	SACCO	Saving and Credit Cooperative Society
GOR	Government of Rwanda	SG	Saving Groups
ICT	Information Communication Technology	SHF	Small Holder Farmers
IDI	In Depth Interview	SME	Small and Medium Enterprises
IRPV	Institute for Real Property Valuers	SSWG	Sub-Sector Working Group
KIFC	Kigali International Financial Center	SWG	Sector Working Group
KII	Key Informant Interview	TBC	To Be Confirmed
KYC	Know Your Customer	TOC	Theory of Change
LCR	Liquidity Coverage Ratio	UK	United Kingdom
LFS	Labor Force Survey	USD	United States Dollars
MEL	Monitoring, Evaluation, and Learning	USSD	Unstructured Supplementary Service Data
MFI	Micro Finance Institutions	VC	Value Chains
MINAGRI	Ministry of Agriculture and Animal Resources	VSLA	Village Savings and Loan Association
MINECOFIN	Ministry Of Finance and Economic Planning	eWR	Electronic Warehouse Receipt
SIDA	Swedish International Development Cooperation Agency	KfW	Kreditanstalt für Wiederaufbau

1 Executive summary

1.1 Background

Agriculture remains important to Rwanda's economic development and the livelihoods of its population. The sector contributes nearly one third of the national gross domestic product (24% of GDP in 2021), employs nearly 75% of population (in 2021) and generates more than half of the export revenue (USD 640.9 million of foreign exchange was generated from the exports of all agricultural products, during 2021-2022 fiscal year)[1]. The sector is also vital in helping the country meet its food security and poverty reduction targets as outlined in Vision 2050 and the National Strategy for Transformation (NST1). Over the last 10 years significant reforms have been implemented under the 4th Strategic Plan for Agriculture Transformation 2018 - 2024 (PSTA 4) aimed at unlocking the potential of the sector through its commercialization. In both the NST1 and the PSTA 4, there is a recognition that efficient and effective flow of finance to agriculture is critical for transformation of the Rwandan economy and millions of its people involved in agriculture. The reality is that the sector continues to be underserved attracting less than 1% of new loans in 2021[2] and overall, only 1.5% of credit flowing to the economic sector. For a sector that is vital to Rwanda's balanced growth and development this situation is untenable and needs to be addressed.

1.2 The objective of the NAFSS

Consequently, the Ministry of Agriculture has sought to develop a strategy to guide viable interventions that would facilitate increased access, uptake and use of financial services within Rwanda's agriculture sector. The strategy has two key objectives;(i) identify critical enablers (policy and infrastructure) for priority sub-sectors and how the Government of Rwanda (GoR) can develop these and (ii) map the GoR institutional roles and responsibilities required, including capacity building, and learning mechanisms.

1.3 Approach to elaboration and analysis

The elaboration of this strategy involved a robust market system and situational analysis of Rwanda agriculture finance. This analysis required extensive primary data collection from all actors in the AFMS. Primary data was collected through the following mechanisms:

- Demand side analysis – 10 focus group discussions (FGDs) with small holder farmers (SHF) and Cooperatives across the country; 5 In-depth Interviews (IDIs) with agribusiness and farmer's unions
- Supply side analysis – 2 in-depth stakeholder workshops with (I) members of VSLAs and (ii) key players in the financial sector – Rwanda National Bank (BNR), SACCOs; MFIs, Commercial banks; Insurance companies; Donors; development banks (Rwandan and international); fintech service providers, and government departments and agencies.
- Rules and supporting functions - 15 key informant interviews (KIIs) with regulators, policy makers and development partners.
- Overall – 2 workshops were conducted as a process of validating the findings in this strategy as well as proposed interventions. Stakeholders from both demand and supply sides participated as well as those on the regulatory environment and supporting functions side.

Additionally, a trove of documents covering the sector and the challenges it faces in accessing more finance were reviewed. In addition, secondary data that was available was mined and

[1] ANNUAL NAEB 2021-2022 AGRICULTURE EXPORTS PERFORMANCE

[2] BNR, Annual report 2022

analysed to understand trends and policy interventions, to generate data that would substantiate the findings presented in this strategy.

Using the market systems development approach, the strategy identifies the root causes preventing the effective and efficient flow of finance to the agriculture sector. Based on in-depth primary data collected and analysis of secondary data, a series of systemic constraints were identified on the demand, supply, supporting functions, and rules components of the AFMS. Several interventions were proposed to help address the system constraints. It should be noted that MINAGRI alone cannot address the market failures in the AFMS but would need to work closely with key stakeholders to ensure sustainable and long-lasting behavioral change through the introduction of appropriate incentive structures and by driving reforms that unlock the flow of finance to agriculture. The analysis, conclusions, and recommended interventions outlined in this strategy have undergone validation by stakeholders in the AFMS.

1.4 Key strategic interventions

In the market system, situational analysis and intervention report, several direct and indirect interventions were outlined. Following a validation of the proposed interventions with stakeholders the following emerged as the most relevant strategic interventions for the NAFSS to consider. It's worth noting that direct interventions refer to those reforms that are within MINAGRIs mandate to deliver while the indirect interventions would require MINAGRI to coordinate and work with other AFMS actors to facilitate their effective and efficient implementation. The interventions are also further categorised into a matrix of six pillars as outlined below:

1.4.1 Pillar 1 - Addressing information asymmetry gaps and constraints.

Under this pillar, several interventions that address information asymmetry gaps and constraints across the AFMS will be addressed. These focus on the following:

- Finalise and implement and awareness and education campaign on the National Financial Education Strategy.
- MINAGRI to develop a communication strategy/campaign focusing on agriculture finance success stories to address perceptions of the risk associated with the sector.

1.4.2 Pillar 2 - Creating awareness and strengthening education and capacity on financial services.

Interventions under this pillar are aimed at addressing capacity gaps in all areas of the AFMS. These focus on the following:

- Increase famer education and awareness of the negative impact of cultural norms and practices.
- Introduce agri- finance BDS at sector level to enhance skills and capacities of borrowers (example – Sector land officers in the land tenure system)
- Capacity building of FSPs to improve understanding of Agri- finance models and investment cycles.
- MINAGRI to review the performance of the NAIS to develop ways to improve uptake of agriculture insurance.
- MINAGRI to invest in a communication campaign that would increase awareness, understanding, and use of risk mitigation products.
- MINAGRI to work with RSSB to champion Ejo Heza in return for RSSB to avail patient capital to agriculture. Ejo Heza is a repository of long-term savings that could be deployed into investments products that unlock patient capital for agriculture.
- BNR and ASSAR to review innovative regulatory regimes within the region that have delivered a vibrant and innovating agri-insurance sector

- Engaging FSPs and MNOs on carrying out awareness campaigns on the services available on USSD and scaling up these services to meet user needs.
- FSPs to understand the seasonality of agriculture and develop products that reflects that.
- Educate both demand and supply side actors on the availability and utility of movable collateral registration system.

1.4.3 Pillar 3 - Building farmer profiles and transaction history

One of the key barriers to the limited flow of finance to agriculture is the lack of data on farmers and their respective activities and the viability of their investments. In sectors like tea and coffee, where farmers have been extensively profiled this has facilitated their access to finance. Key interventions focus on the following:

- Fast track the farmer profiling/registry and pilot in a few priority value chains.
- BNR to fast tract the implementation of the interoperability of payments systems as outlined in the RNDPS. FSPs should be given controlled access to the database which can then be used to provide line of sight on SHF financial transactions.
- Develop alternative collateral instruments that would widen access to finance.

1.4.4 Pillar 4 - Strengthening governance and coordination of Agri finance reforms.

Reforms under this pillar are aimed at addressing coordinating market failures in the AFMS. Implementing reforms in the financial sector requires close coordination of key stakeholders – regulators, suppliers of finance and those demanding finance. To effectively deliver the NAFSS, MINAGRI will need to have an effective coordination mechanism in place. The proposed interventions focus around:

- MINAGRI to coordinator and monitor NAFSS the implementation
- MINAGRI to work RLMUA (Rwanda Land Management and Use Authority) to extend land valuation and referencing beyond urban areas and provide FSPs access.
- Engage MINECOFIN and development partners on rolling out supporting infrastructure for FSPs to rural areas.

1.4.5 Pillar 5 - Incentivizing the development of tailored and innovative Agri finance products.

Transforming agriculture finance will require innovative approaches to incentivizing key stakeholders in the market system to implement reforms to develop new products and services that address the identified market failures. Proposed interventions under this pillar include:

- Undertake a mapping of financing models in those value chains (VCs) that are currently well financed to document learning for other VCs.
- MINAGRI working with partners to generate evidence on innovative financing approaches/practices that have unlocked agriculture finance in other countries.
- BDF work with MINAGRI to develop specific agriculture guarantee products that address agriculture financing risk.
- MINAGRI to work with KIFC to attract institutional and other investors able to deploy patient capital or with long-term financing products.
- MINAGRI to work with AFR and FSPs on new de-risking facilities being developed by donor partners like SIDA and KfW
- MINAGRI to engage MNOs on what enabling environment reforms will be required to improve the access to financial services using MNO platforms.
- MINAGRI with AFR to develop investment products in which the patient capital investors can finance.
- MINAGRI to work with BNR to introduce and incentive mechanism that would incentivize lending to agriculture: This could be in the form of those who actively participate being able to source finance from BNR at lower cost.

1.4.6 Pillar 6 - Supporting and influencing regulatory reform to unlock flow of finance.

An effective and efficient market system requires optimal regulatory environment that encourages innovation but also safeguards the interest of all stakeholders. Under this pillar the following interventions are proposed to address regulatory constraints.

- RDB to improve the mobile collateral registration system by including other sorts of assets like warehouse receipts and make it accessible to farmers and FSPs
- BNR to extend the reporting of agriculture loans to cover activities beyond production.
- BNR to develop the insurance sector masterplan that would deliver effective and relevant reforms to create a vibrant sustainable sector.
- BNR to work with FSPs to agree acceptable loan processing timeframes that would improve the speed and quality of services delivered in the industry. Examples include the approach taken in the assessment and disbursement of loan under the ERF programme.
- BNR to work with AFR and MINECOFIN to diversify providers of agricultural guarantees in Rwanda)

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2 Purpose and scope of the strategy

2.1 Purpose of the NAFSS

In 2011, MINAGRI, with the support of the UK Department for International Development Rwanda, developed the Rural and Agricultural Financial Services Strategy for the period 2011-2014, with the aim of improving access to and use of financial services in rural areas in Rwanda. MINAGRI plans to develop a National Agriculture Financial Services Strategy that will provide a strategic operational framework for agriculture finance in Rwanda. The need for this strategy has been felt by agriculture operators in Rwanda given that the country's adult population is largely rural based, with 88% of farmers residing in rural areas and depending heavily on agriculture for their livelihoods. Published data from a Fin Scope 2020 survey illustrates the disadvantages faced by small-scale farmers when compared to their urban counterparts in terms of access and use of financial services.

The Strategy will support the Government of Rwanda (GoR) in its efforts:

- To attract private market-oriented investment in the agriculture sector.
- To establish de-risking mechanisms in agriculture sector with a value chain development focus
- To promote financial inclusion by increasing access and use of financial services by various actors in different value chains with the inclusion particularly of small holder farmers.

2.2 Objectives of the NAFSS

The overall objective of the NAFSS is to provide clear guidance on impactful interventions for MINAGRI and stakeholders/partners to facilitate increased access, uptake, and use of financial services within Rwanda's agriculture sector.

2.3 Scope of the strategy

- **The market system & situation analysis report** - to understand the best practices, opportunities, and constraints at different levels of the value chains, formal and informal financing, de-risking mechanisms (irrigation, mechanisation), etc.
- **Interventions report -** To identify and advise on suitable interventions for MINAGRI and stakeholders/partners to effectively facilitate an expansion of Rwanda’s agriculture financing.
- **Development of the NAFSS -** to elaborate the strategic interventions with the ToC and MEL framework.

3 Vision and Mission for the NAFSS

3.1 The vision of the strategy

To provide the basis for MINAGRI working with all stakeholders in the agriculture finance space to create the appropriate enabling environment and reforms that would unlock the flow of finance to the agriculture sector.

3.2 Situating the NAFSS withing the Rwanda's development agenda

3.2.1 Vision 2050

Vision 2050 as the critical planning and policy blueprint to guide the efforts of Rwanda's development, in its five pillars depicts agriculture as a current and future driver of both economic growth and poverty reduction. This is because it has important implications for food security, nutrition, exports, and has backward and forward linkages to both industry and services sectors. Going into 2050, agriculture is expected to be transformed with professional farmers and commercialized value chains. Vision 2050 envisions broader access to agricultural financing and risk-sharing facilities as a means of achieving this vision.

The vision recognizes that one reason for low funding levels in Rwanda's agriculture sector today is a lack of understanding of the sector by banks and private sector players, perceived high risks, and high transaction costs. By 2050, Rwanda will have a multi-million public-private risk-sharing fund/facility to connect affordable financing to all players along entire agricultural value chains, working with Rwandan banks, farmers, and value chain actors and achieving lower risk, and higher repayment of agriculture loans.

3.2.2 National Strategy for Transformation (NST 1)

Modernizing and increasing the productivity of agriculture and livestock is a priority in the National Strategy for Transformation under its economic transformation pillar. Agriculture is also considered as one of the main opportunities of the strategy with significant potential for productivity gains from structural transformation and industrialization. To achieve that, the strategy aims to put in place mechanisms to increase access to finance for farmers.

A comprehensive agricultural ecosystem financing program including lease financing and insurance with a focus on priority value chains is to be established. As a result, Credit to Agriculture sector (primary farming and agro processing in agriculture, fisheries & livestock) as percentage of total loans (all sectors) is expected to double from 5.2% (2017) to 10.4% in 2024.

3.2.3 Rwanda Strategic Plan for Agriculture Transformation 2018–2024 (PSTA4)

To increase access to financing and productive capital to increase productivity and surplus value, the Rwanda Strategic Plan for Agriculture Transformation 2018–2024 aims to strengthen inclusive agricultural financial services and products as well as mitigate market and production risks. To achieve this, it sets out interventions around:

- Providing technical and financial capacity to SACOOs and MFIs to develop appropriate agricultural financial products targeting SHFs and MSME in agribusinesses.
- Develops a National Insurance Scheme and scales up the existing Agricultural Guarantee Scheme, under the Agricultural Development Fund

- Successful financing models and services are promoted, including warehouse receipt systems, structured trade finance, leasing schemes, agent banking (to facilitate outreach to rural areas), cash flow-based financing and scaling up embedded value chain financing (both by input providers and buyers). Savings groups for vulnerable farmers are promoted to complement asset building initiatives.
- Risk transfer through the development and promotion of micro insurance products and services. These relate to both production and market risks, recognizing the need for initial subsidies to promote insurance products.
- Other public interventions include enhanced availability of weather and climate information (see priority area 2), capacity-building and awareness-raising of benefits and use of micro insurance products and services, etc.

3.2.4 Financial Sector Development Strategic Plan 2018-2024 (FSDSP)

The Financial Sector Development Strategic Plan 2018-2024, under its priority area 2: Private sector financing, aims to increase agriculture financing through the following:

- BNR to report outstanding loans and new loans by subsector on a quarterly basis to better capture seasonality and should publish the agricultural lending breakdown by subcategory which is already reported to them by the banks.
- MINECOFIN in collaboration with MINAGRI to pursue actions related to agriculture lending as follows: i) enacting a Warehouse Receipts Act and Regulations; ii) conducting a rural and agricultural services cost study designed to guide MINAGRI interventions relating to financing associated with specific crops; and iii) Target agricultural production cooperatives in financial education/literacy iv) Develop index-based crop yield insurance tracking system to facilitate eventual rural crop insurance.
- MINICOM to facilitate commercial bank lending programs for financing new coffee production including BDF guarantees.
- Facilitation of private sector to access finance and services to increase domestic production for exports.
- Build on established programs and other technical assistance to improve SME management and creditworthiness.
- There is need of strategies for insuring agricultural activities and the greater use of crop insurance.
- There is need of strategies for availing appropriate loans and appropriate guarantees to farmers through agriculture bank and/or contracting farming with agro processing companies.

In summary, the NAFSS aligns with Vision 2050 which sees agriculture as a key driver of economic growth and poverty reduction, with a need for broader access to financing and risk-sharing facilities. The NST-1 and PSTA4 also prioritize increasing access to finance for farmers and improving the productivity of the sector. The FSDSP 2018-2024 focuses on increasing agriculture financing through reporting, collaborations, private sector involvement, capacity building, and insurance programs. Overall, the NAFSS provides a comprehensive approach to addressing the financial challenges in Rwanda's agriculture sector and achieving its goals for growth and development.

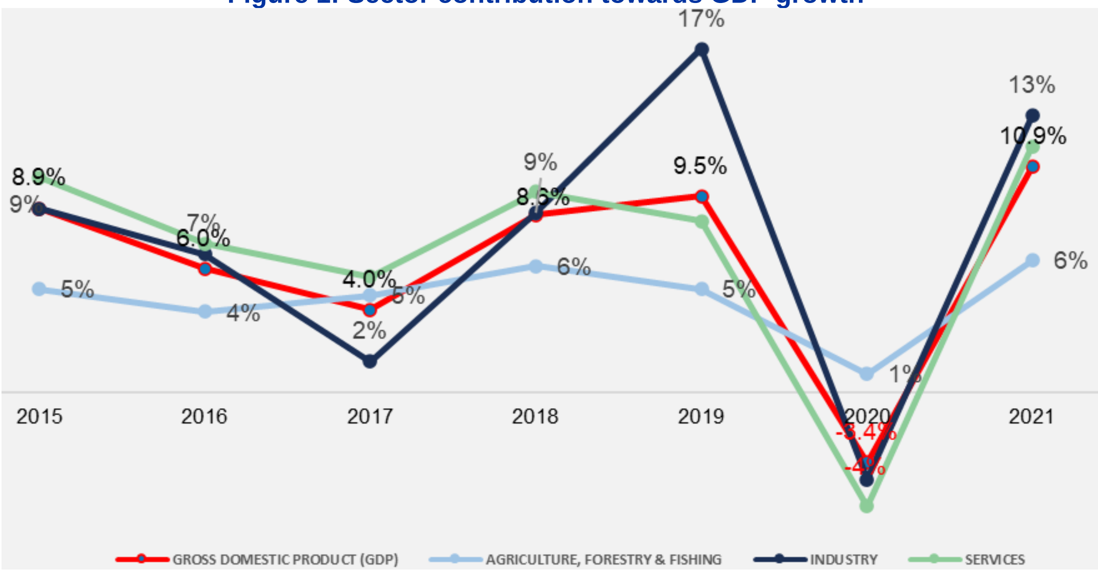
4 Context

4.1 Contribution of agriculture sector to the economy

4.1.1 Output

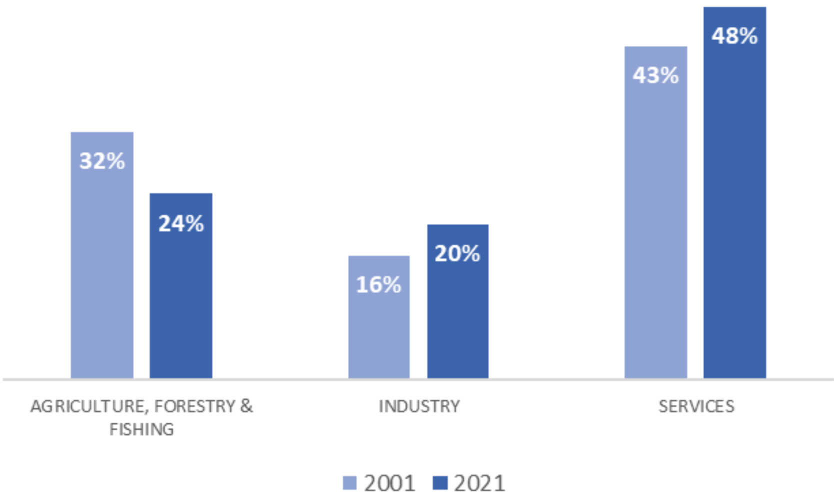
Rwandan economic growth rate has been sustainably high and consistent, averaging around 8% per year over the last two decades. Rwanda is still largely an agrarian based economy even though the government is looking to transition quickly into a service and manufacturing-based economy[3]. The agricultural sector accounts for about 24% of the national GDP and has been a major driver of economic growth and poverty reduction in Rwanda[4]. However, the growth of agriculture's contribution has stagnated over the last ten years - See figure 1. The driver for growth in the last five years has been services closely followed by industry – see figure 2.

Figure 1: Sector contribution towards GDP growth[5]



Source: BNR, National Accounts,2021

Figure 2:Sector Growth (2001-2020)



Source: NISR, National Accounts,2021

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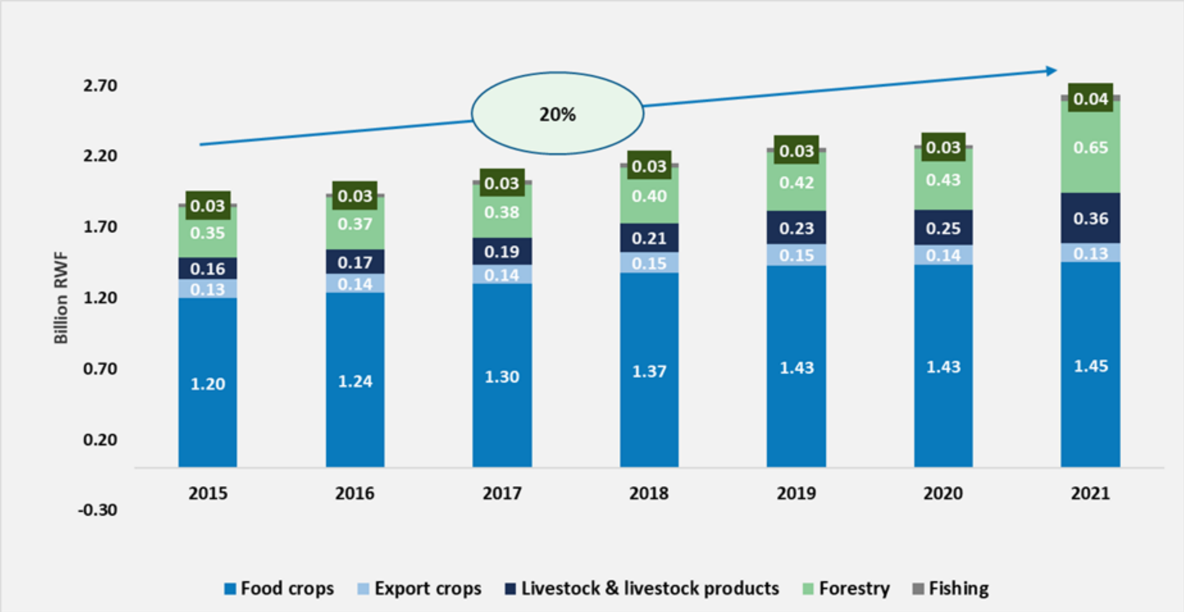
[3] *As outlined in both the agricultural strategy (PSTA4 2018 – 2024) and the National strategy for transformation (NST 2018 – 2024)*

[4] *NISR, GDP National Accounts, 2021*

[5] *Ibid*

Whilst the agricultural sector is becoming less significant than it was in the past, as a sector it has seen marked increases in growth (over 20% compound annual growth rate (CAGR) between 2015-2021. The bulk of agricultural GDP is derived from food crops (64%), 19% from forestry,10% from livestock, and livestock products, 7% from export crops, and 1% from fishing (highlighted in figure 3 below)

Figure 3:Sub-sectoral composition of Agricultural GDP

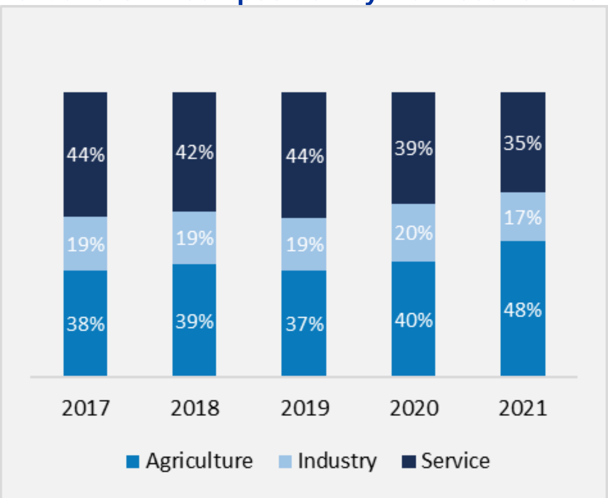


Source: NISR, National Accounts 2021

4.1.2 Employment

Employment in agriculture contributes 48%percent of total employment in Rwanda, occupying 57% percent of all females employed and 41% percent of males[6].

Figure 4: Employment and GDP composition by main economic activity (2017-2021)



Source: NISR, LFS 2021 & National Accounts 2021

[6] *Labor force survey 2021*

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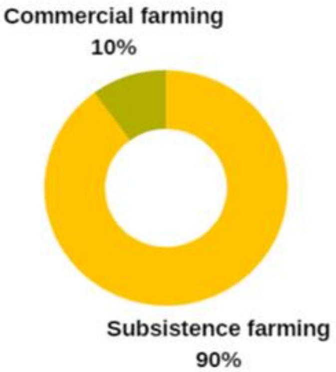
4.1.3 Income and livelihoods

Agriculture provides a living for 80% of all people in rural areas[7]. This main economic activity is subsistence-based rather than market-driven (See figure 5), which contributes to the generally low income levels registered within the sector. The average income from employment in rural areas (26,000 RWF) is almost three times lower than in urban areas.[8]

Figure 5: Types of Farming activities

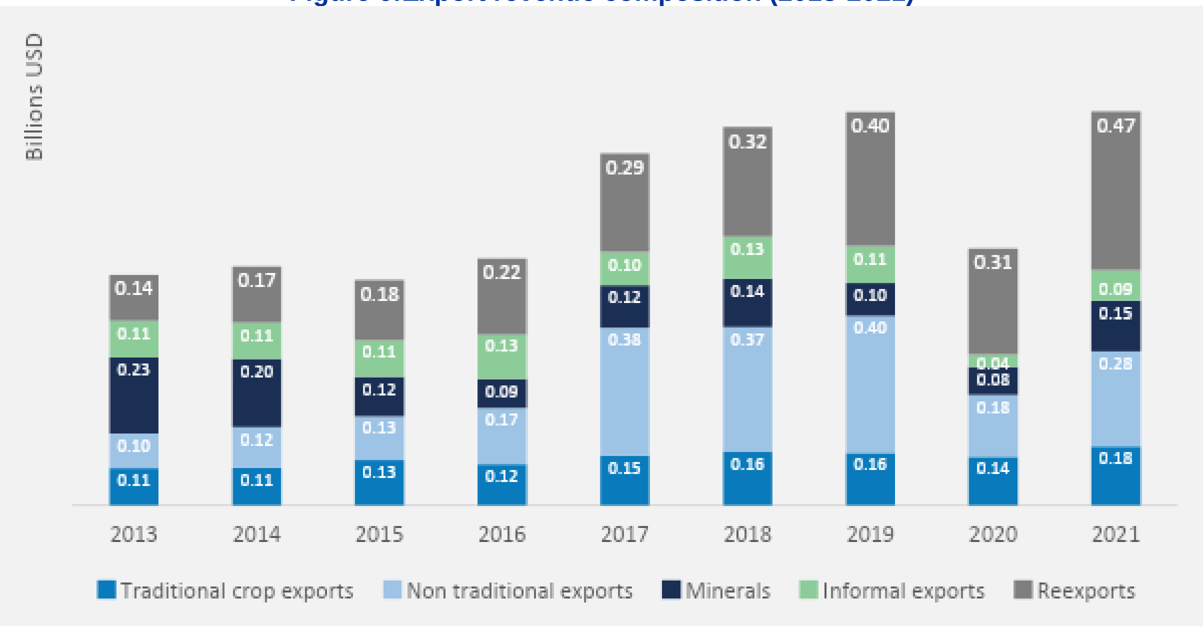


Source: NISR, LFS 2021

4.1.4 Export

Between 2013-2021, Rwanda's exports grew by 17% and have been growing at a compound annual rate of 2%. [9]Despite the significant increase in export value over last decade, exports still contribute relatively little to Rwanda's GDP. Agricultural exports have been growing at a slower rate mainly driven by the growth in exports of products such as horticulture. The principal agricultural exports remain coffee, and tea, although some value-added agricultural products such as canned tomatoes, honey, French beans, passion fruit, macadamia nuts, and mushrooms are beginning to emerge. Figure 6 shows export revenues composition.

Figure 6:Export revenue composition (2013-2021)



Source: External sector statistics, BNR 2021

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[7] NISR, EICV 5

[8] Ibid

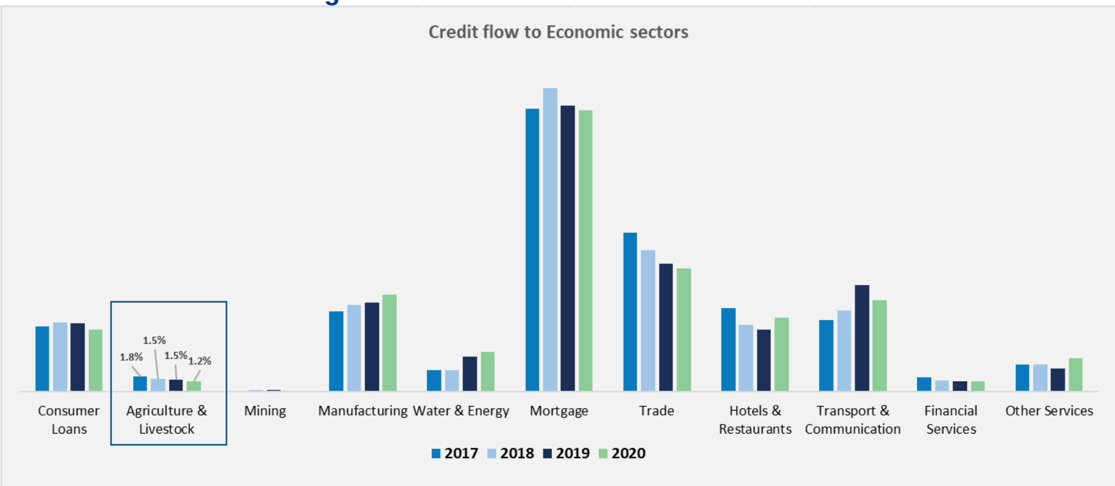
[9] MNR, Monthly Export Reference Document

4.2 Agriculture financing landscape

4.2.1 The flow of finance to agriculture

Despite the sector's contribution to GDP and employment, the flow of finance and access to financial services within the sector is still a major challenge and one that needs to be bridged if smallholder farmers (SHFs) are to increase their productivity and incomes. Between 2017-2020, the agriculture sector has consistently received less than 2% of formal credit - as shown in the figure below.

Figure 7:Credit flow to economic sectors



Source: BNR, Financial stability report 2021

4.2.2 Uptake and use of risk mitigation facilities

Farmers uptake of agriculture insurance is still very low, with just 11% of farmers having used formal insurance schemes. It can be assumed that with the introduction of NAIS, this number has increased to some extent. As of September 2021, the NAIS scheme covers crops such as maize, rice, chili, and French beans and additionally, livestock such as cattle, piggeries, and poultry.

4.2.3 Which subsectors are attracting finance

Export crops often attract finance based on reliable and well established international markets, coupled with government and private sector facilities that have been in existence for a number of year to aide their growth. However, outside a limited number of these crops, finance is sparse driven by a lack of reliable data or understanding of of the markets / value chains they operate within. To encourage private sector investment in export-oriented agricultural production, several export finance facilities were established. Some of those are:1) BRD's matching grant and working capital through EGF, 2) BDF's performance-based matching grants, 3) and NAEB's guarantee fund. Food crops that are primarily cultivated for subsistence attracts limited to no finance and there are no reliable data around them.

4.2.4 Types of agriculture finance products that are available.

Different suppliers offer different financial products to the whole agriculture value chain. These includes inputs, farm production, post-harvest, agro-processing, and agriculture assets finance.

4.2.5 Risks in agriculture financing

Financing agriculture is perceived as high risk basically because the sector's cycles do not match loan reporting system and the short-term nature of available funds. The sector returns the investment on a seasonal basis which is not favourable to the financial sector quarterly reporting system. In addition to that, the supply side of the finance have limited to no access to long term funds such as pension funds that would allow them to finance long term projects.

4.3 International Best Practices

In sub-Saharan Africa, there is an estimated gap of USD 74 billion for financing by ~130,000 agri-SMEs, with an estimated demand of USD 90 billion (only 17% satisfied)[10]. Commercial banks cover 60% of the entire supply. The main reasons for these gaps are: (i) Investment readiness is limited, (ii) Limited financial products available and (iii) limited volume of capital from lenders.

Key best practices from around the world are explored below:

4.3.1 India National Bank for Agriculture and Rural Development (NABARD)

NABARD is the Indian state whole owned bank whose mandate is to promote sustainable and equitable agriculture and rural development projects through participative financial and non-financial interventions, innovations, technology and institutional development for securing prosperity. The bank was established in 1982 to support agricultural businesses as well as other rural projects including infrastructure and other economic projects. It also plays a supervisory role of the participating financial institutions.

NABARD provides the following financing facilities:

- ✓ Refinance to Cooperative Banks, Rural Banks and MFIs for production, marketing and procurement activities; This facility was instrumental to maintain the production during the Covid - 19
- ✓ Short Term Loans and Long-Term Loans to farmers for crop production through financial institutions;
- ✓ Credit facilities to Farmers' Federations for all kind of agricultural activities;
- ✓ Special facilities for targeted value chains including fisheries, Dairy and Food Processing

In addition to the financial support it provides to financial institutions, NABARD also offers Skills development and supports marketing initiatives to rural producers in the farm and off-farm sectors to market their produce effectively. More, it invests in Agri Business Incubation activities in order to develop a supportive ecosystem for agri- businesses as well as in the subsidy schemes for technology up gradation of MSMEs.

NABARD is one the successful models in agriculture and rural financial worldwide as up to $144 billion worth of loans have been extended to the sector for the period 2020 – 2021 only.

4.3.2 Tanzania Agricultural Development Bank (TADB)

TADB was established by the government of Tanzania to lead capacity-building strategies and programmes to strengthen the agriculture financing value chain and to support the Government of Tanzania initiatives to shape and implement policies and initiatives for agricultural and rural lending. Its key role is to catalyse the delivery of short, medium and long-term credit facilities for development of agriculture in Tanzania effectively since lending in 2015. In addition, it provides advisory services and capacity building to participating financial institutions as well as affordable resource mobilization for investment in the sector.

The TADB main goals are to:

[10] ISF, The state of the agri-SME sector – Bridging the finance gap, 2022

i. Facilitating attainment of sustainable food self-sufficiency and food security in Tanzania

ii. Promoting and supporting transformation of agriculture from subsistence to commercial undertaking to effectively and sustainably contribute to economic growth and poverty reduction.

The bank uses the Value Chain Financing approach by focusing on inclusive value chain projects, as a more effective, risk adept approach of financing agriculture – bringing together various actors to play active roles in financed projects.

By 2019, TADB has disbursed close to $74 million worth of loans both directly as well as through guarantee covers to more than 1.8 million farmers, and up to $11 million direct financing to agri-processors. Following its impressive performance, the bank was able to mobilize more than $44 million funding from donors for its investment activities.

TADB portfolio grew by 43% and 22% revenue growth in only five years, supporting 17 value chains for over 140 projects through guarantee schemes to 8 participating institutions. The NPL rate stood at only 1.79%.[11]

TADB is viewed as the best practice in the region for a government agricultural financing initiative.

[11] TADB Annual Report, 2019

5 Mapping the agriculture finance Market system

This section of the strategy provides a brief description of the agriculture finance market system in Rwanda. Taking a market systems approach will enable MINIGRI to better understand and address the root causes of why financial markets in Rwanda often fail in efficiently allocating resources to support agriculture from farm to fork. Understanding what the root causes are at each level or component of the market system is critical in guiding the interventions developed to address the market failures. In reviewing the Rwanda agriculture market system, we have sought to focus on interventions that modify the incentives and behavior of key players in the system – public, private, formal, and informal – to ensure lasting and large-scale beneficial change. Figure 8 below provides an illustration of the Rwanda Agriculture Finance Market System (AFMS).

5.1 Key players of the AFMS and their roles

There are several actors that make up the agriculture finance market system. This section of the strategy provides a brief description of the actors and their role in the market system.

5.1.1 Demand side actors

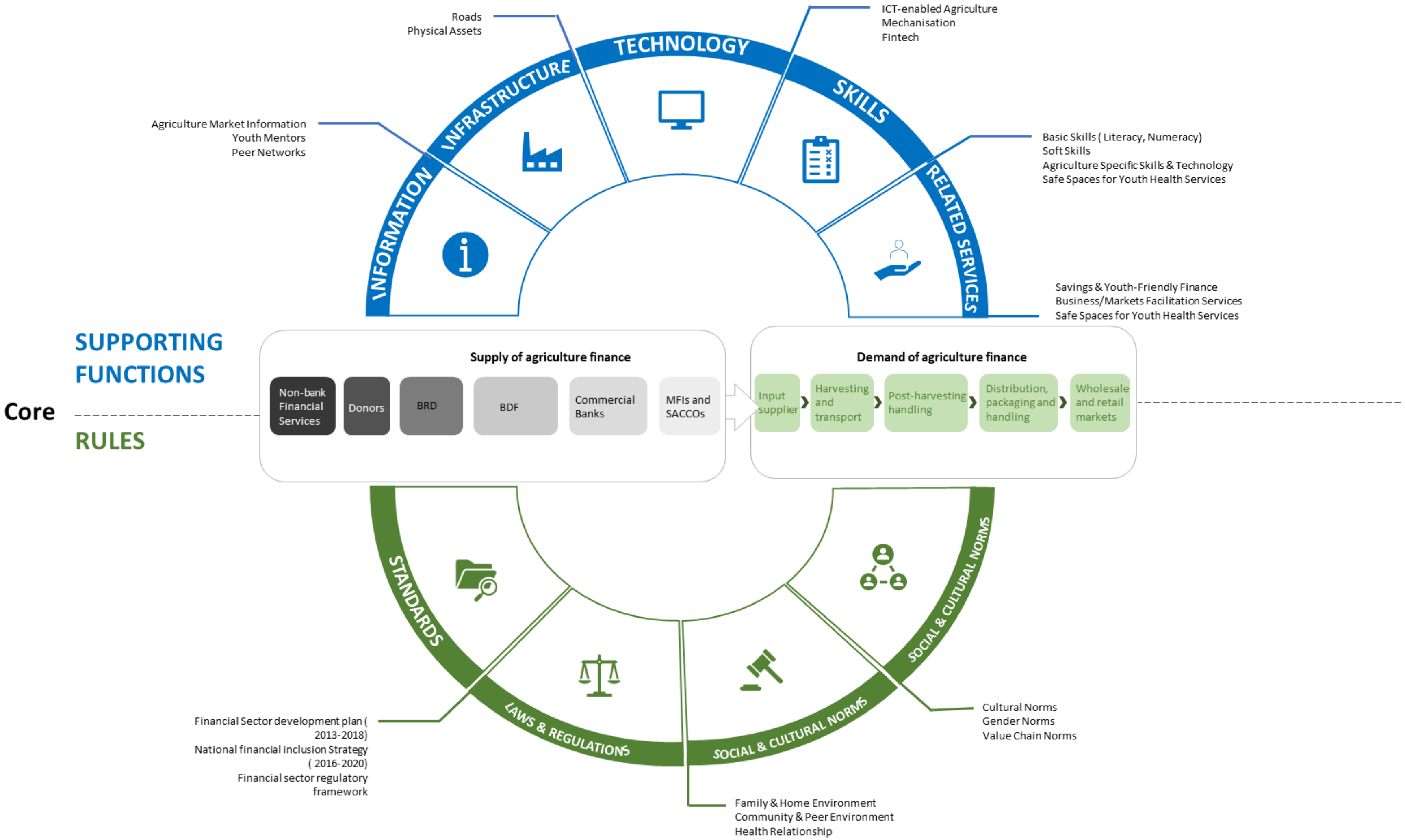
There are several actors / entities that make up the demand side of the AFMS. These include the following.

- **Input suppliers** - Agricultural productivity depends on the affordability and accessibility of agriculture inputs including seeds, pesticides, and fertilizers that are essential for improving yield and raising incomes. In Rwanda, the government has supported the establishment of agro-dealer network at wholesale and retail level to ensure the provision of inputs is near the small holder farmer. Inputs suppliers are mainly seeking (i) working capital that allows them to purchase stock and (ii) asset finance to facilitate the acquisition of storage and distribution assets.
- **Smallholder farmers** – Rwandan agriculture is mainly subsistence and made up of millions of farmers cultivating small plots of land with an average size of 0.34ha. Most farmers rely on informal sources (savings groups, friends, family) to fund these investments. Data from Finscope 2020 indicates, that only 14% of subsistence farmers have access to formal credit[12]. These farmers are mainly seeking (i) inputs finance, (ii) working capital, and in some cases (iii) asset financing – those that are seeking to professionalise their operations through mechanization, irrigation, and storage facilities.
- **Cooperatives -** In Rwanda, as part of the government's Crop Intensification Program, farmers are organized into cooperatives. The country has 4,971 agricultural cooperatives with nearly 1,130,539 members (634,545 male & 495,994 female members)[13]. Many of these cooperatives farm collectively on government-owned land. Production based cooperatives need (i) input finance, (ii) working capital, and (iii) assets financing to facilitate the acquisition of mechanization, storage, and distribution assets. The main source of finance are SACCOs, MFIs, Commercial Banks and in some cases the Rwanda Development Bank.

[12] AFR, FinScope 2020

[13] Cooperatives statistics in Rwanda, Rwanda Cooperative Agency 2022

Figure 8:Rwanda Agriculture Finance Market System



Source: Adapted by Nathan- Vanguard Economics for this strategy.

Commercial farmers – Commercial farming operations only make up a small component of the Rwandan farming landscape. FinScope survey classifies 10% (536,000)[14] of Rwanda's adult population as commercial farmers who see their farm as a business and produce a regular surplus for sale in the market and earn income from other farm-related activities (e.g., trading or sale of inputs). The bulk of commercial farming activity in Rwanda takes place in the tea, coffee, and horticulture value chains. Nevertheless, even in these sectors, these farming operations are still dependent smallholder farmers to access and consolidate land or the aggregation of their agricultural output. Depending on the type of commercial activity, these commercial operations require a range of financial services and products that include the following: input financing, working capital, asset financing, export finance etc.

- **Post-harvest storage actors –** This segment includes aggregators, transporters, storage facility operators who provide a vital link between the farm and those that add value and or take the produce to the market (domestic or export). Current post harvest losses for key commodities amount to about 30% of seasonal production. Farmers report high losses due to inadequate equipment, lack of post-harvest storage, poor roads, lack of information on how to reduce post-harvest loses etc. Players in this sector indicate that they need (i) assets financing to acquire post-harvest infrastructure and (ii) working capital to support purchase and aggregation of produce. Depending on where these actors are in the agriculture value chain, key sources of funding include VSLA, SACCOs, MFIs, and Commercial banks.
- **Processors and distributors** – over the years, Rwanda has built capacity to process a significant amount of its agriculture produce. Nevertheless, 30% of seasonal production is still lost due to lack of processing capacity or challenges affecting the ability for actors in this space to access finance to aggregate and stockpile the production. Agro-processors and distributers face challenges in accessing financial credit for the purchase of equipment in addition to working capital to secure produce that would keep their processing activities viable such as cold chain facilities, animal feed for livestock agriculture etc. Leasing finance is still in its infancy in Rwanda and hence has not been viable alternative when considering asset financing.
- **Wholesalers and Retailers** - In the agricultural value chain, wholesaler and retailers typically act as an intermediary between producers and consumers in a distribution system. This is particularly evident for small individual producers who do not have a direct access to retail chains. Each of these actors described above has unique needs and requirements for finance, which are largely unmet by the formal financial sector. Actors in this segment mainly demand working capital to finance their ongoing trading operations such as logistics and warehousing. The key sources of credit are the SACCOs, MFIs and in the case of SMEs and large-scale enterprises – the commercial banking sector.
- **Last mile delivery entities –** pre-covid 19 pandemic last mile delivery was mainly focused on meeting the needs of the hospitality sector by aggregating and processing fresh farm produce before it is delivered to hotels and restaurants. Firms like Get It have helped structure and professionalise this sector. The covid 19 pandemic highlighted the need to shorten supply chains between the farm and the consumer. As a result, a number of last mile delivery businesses have emerged mainly focused on addressing the demands for quick and efficient supply of produce to households. Firms in this segment have indicated that they need (i) working capital finance; (ii) asset finance or leasing finance for their distribution and storage infrastructure.
- **Exporters** – exports are critical and important to the Rwandan agriculture sector. Key agricultural exports include tea, coffee, and horticulture. A key problem facing many

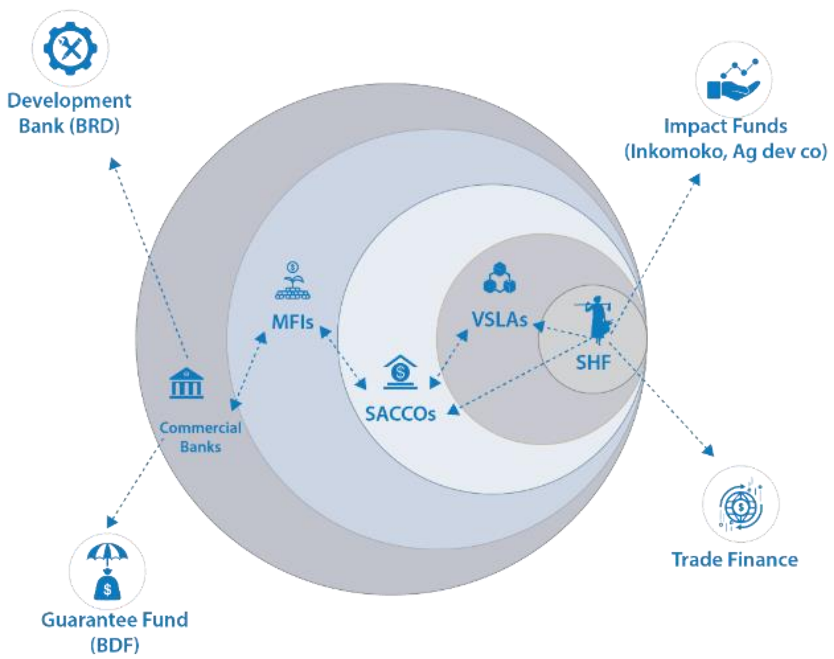
[14] *AFR, FinScope 2020*

exporters is cashflow to finance growth. Export finance involves the extension of medium- or long-term financing to the importers of capital goods and services. Key financial products demanded include; (i) pre-shipment finance (working capital); (ii) post-shipment finance (facilitated through export guarantees/insurance); (iii) export marketing finance (inclusive of a wide variety of components). GoR has established the exports growth facility to help address some of these concerns, however, more still needs to be done to ensure the facility rapidly responds to the needs of the sector.

5.1.2 Supply side actors

There are several actors / entities that make up the supply-side of the AFMS serving different segments of the demand for agriculture finance in Rwanda – see figure x below. These include the following.

Figure 9: Mapping of the supply of agriculture finance



Source: Nathan – Vanguard Economics 2023

- **Village Savings and Loan Associations (VSLAs) –** This is the lowest tier of the financial system. There are 32,959 VSLAs in Rwanda with a total of 908,899 members and 75% of them are women (682,940 women members)[15]. Among those saving groups, there are two categories: 25,409 Supervised Groups (SGs that are still being monitored on a regular basis) and 21,960 Graduated Groups (SGs that are independently carrying out their activities). The total SGs membership was estimated at 1,169,732 members with an average of 25.3 members per Saving Group. VSLAs provide the first tier of finance suppliers at the farm / SHF level. The VSLA model is the preferred finance provider for small holder farmers, who dominate the sector - 19% of farmers rely only on informal financial services to borrow or save money[16]. The 2020 NISR Agricultural Household Survey revealed that 68.5% of agricultural households belong to an informal savings group[17]**.** Key constraints facing VSLAs include (i) limited

[15] *Care, VSLAs report, 2022*

[16] *AFR, Agriculture finance thematic report, 2020*

[17] *NISR, Agricultural Household Survey, 2020*

funds to on-lend; (ii) little or no record of financial transaction history; (iii) non transferability of credit history; (iv) inability to tailor products to meet client needs.

- **SACCOs** - consist of a group of people who have a common bond, live in the same community or society, and save money together and lend it to one another at an agreed interest rate, time, and conditions. SACCOs are a legal entity established by voluntary membership of private or public for the purpose of depositing their savings and providing credit to its members. There are two types of SACCOs, Umurenge and non-Umurenge SACCOs (there 23 country wide). Umurenge SACCOs (in all 416 sectors in Rwanda) were established in 2008 with the aim of boosting rural savings and providing Rwandans with loans to improve their earnings and enhance their livelihoods. The 2020 Agriculture Household Survey revealed that 16% of agricultural households save their money with SACCOs[18]. There is an ongoing programme to digitise all 416 Umurenge SACCOs which would facilitate interoperability and improved linkages into the financial system. Challenges identified include (i) the slow pace and cost of digitisation of SACCOs; (ii) limited integration and interoperability with the financial system; (iii) challenges in implementing KYC regulatory requirements given the customer base they deal with; (iv) lack of technical capacity to effectively assess agricultural risk.
- **MFIs** - MFIs are characterized by their commitment to assisting small enterprises in gaining access to financial services who are underserved by the larger financial institutions. BNR categorises MFIs as including Savings and Credit Cooperatives (SACCOs) and some limited companies that operate microfinance activities. In this section we are referring only to the limited companies that make up the MFIs in Rwanda. These entities are further categorized into MFI banks and institutions of which 3 are microfinance banks, and 19 are limited liability companies. Consultations with MFIs indicated that key constrains they face include: (i) liquidity; (ii) access and cost of refinancing; (iii) inadequate agribusiness lending skills (insufficient knowledge of agricultural value chain actors' needs which results in low capacity for effective loan appraisal, monitoring and supervision.
- **Input / Trade finance** – several players across agriculture value chains provide finance to various players in their respective value chains to secure supply or influence productivity. In value chains such as coffee, tea, and horticulture, off takers often provide finance to SHFs either through the provision of inputs or working capital to support activities from production to postharvest. This type of finance is more prevalent in vertically integrated and well-structured value chains.
- **Commercial banks** - These are the main providers of credit to large agribusinesses as well as exporters. Commercial banks serve clients that can provide collateral as well as clients that are part of well-structured value chains which pose less risk. Financing provided by commercial banks is considered expensive by the agricultural sector - interest rates range from 12% to as high as 18% - beyond the reach of actors within the agricultural sector. The financial sector remains liquid with the banking industry aggregate Liquidity Coverage Ratio (LCR) at 269% which is higher than the 100 percent minimum requirement[19], despite this, the central Bank shows that only 4% of formal credit flows to the Agricultural sector.[20]
- **Development banks** – BRD is Rwanda's flagship development bank. Agriculture is listed as one of the priority sectors of the bank. BRD is the provision of financing for the development and modernization of agriculture sector. However, development

[18] *NISR, Agricultural Household Survey. 2020.*

[19] BNR, Financial Stability Report 2021

[20] BNR Annual Report, 2021.

banks portfolio to the sector accounts for 21%. The Bank has developed various products for businesses in the sector. Over a period of 5 years, the Export Growth Fund which is a $13.5 Million fund through which the Bank can directly lend to borrowers at 10% or on-lend to FSPs at 4% and the FSPs lend to borrowers at 12% which is below the typical market rate of approximately 18%.

- **Mobile Network Operators (MNOs)** – There over 10.7 million mobile phone subscribers in Rwanda in 2022[21]. About 87% (6.2 million adults) in Rwanda have access to a mobile phone with females (84%) having lower access compared to men (90%). Around 3 in 5 (61%) adults use mobile money and more males (68%) have mobile money accounts as compared to women (56%). Key barriers to the uptake of mobile money relate to lack of product knowledge and due to this a lack of interest in the product[22]. MNOs are facilitating payments and providing microloans to their clients (i) using the subscriber transaction data and (ii) providing non secured loans through partners financial institutions.
- **Guarantee funds** – The Business Development Fund (BDF) has the objective of assisting SMEs to access to finance, in the form of credit, particularly those without sufficient collateral to obtain credit from traditional financial institutions at reasonable rates. One of the Agriculture products that are offered by BDF is a cover that provides supplementary collateral for the borrower to fulfil the lender's required collateral coverage ratio between 50% and 70% of collateral required by the FSP. The maximum guaranteed amount is 500 million FRW for agriculture. In addition to this, there are currently 416 Business Development Advisors present in each sector offering extension services to entrepreneurs which, among other things, includes the development of bankable projects.
- **Bilateral and Multilateral development finance** - Various international development financial institutions provide different instruments to support the agricultural sector. Most of the support provided is in the form of grants either administered through the government's budget or directly through projects they are implementing. There are also development finance institutions like KfW that support specific sectors (exports) through a guarantee facility implemented by BRD.
- **Impact funds and social enterprises** - Actors like One Acre Fund, AgDevCo and Inkomoko, to mention a few, have come into the market to fill the gap around input provision and extension services respectively. One Acre Fund is a social enterprise that supplies smallholder farmers with asset-based financing and agriculture training services to reduce hunger and poverty. The asset-based financing loan includes: 1) distribution of seeds and fertilizer; 2) financing for farm inputs; 3) training on agriculture techniques; and 4) market facilitation to maximize profits. **AgDev Co** is a social impact investor and project developer working in the African Agriculture Sector. The company supports small and medium sized enterprises involved in farming agro-processing and logistics with the aim of creating jobs and income-earning opportunities for African farmers.

5.1.3 Supporting functions in the market system

For the market system to operate efficiently there are several supporting functions that need to be in place. These include the following:

- **Physical Infrastructure** - Financial services in Rwanda are distributed through both physical and electronic channels. As of 31st December 2019, there were 309 bank branches, 12 sub-branches and 186 counters or outlets in the country. Most Umurenge

[21] RURA statistics 2022

[22] Finscope 2020

SACCOs have no branches, but a few have outlets, while public limited microfinance institutions usually have branches especially in urban areas. Rwanda has a modern payments system - the Rwanda Integrated Payments Processing System (RIPPS) – which allows the real time clearing and settlement of all interbank electronic payments.

- **Non - Physical Infrastructure** - Digital finance, particularly mobile money infrastructure, has grown rapidly with the expansion in the number and coverage of the mobile money agent network. Mobile money is the most accessible financial service for farmers, with half of them managing to reach an agent in less than 15 minutes and another 29% being less than 30 minutes away. Indeed, 59% of farmers live more than an hour away from the nearest bank branch and 56% from the nearest ATM, making it particularly difficult for them to make use of the services offered. SACCOs are slightly more easily accessible with 30% of farmers managing to reach the nearest one in less than 30 minutes. However, digital services have barriers of their own, mainly in the rural area where access to internet is still scarce and costly with most farmers having low levels of digital literacy so it remains crucial to facilitate access to physical financial service points.
- **Related services** - There are currently 44 companies operating in the Rwandan fintech industry. Like other African markets, the fintech landscape in Rwanda is evolving. the fintech industry in Rwanda has experienced a rapid growth rate, almost tripled in size over the last decade. The change in the fintech start-up landscape is positively correlated with regulatory reforms in the payment sector and the launch of ICT-focused government policies. For instance, BNR issued regulatory instruments governing the oversight and regulation of payment services providers (PSPs) in 2010. These instruments created an open, level playing field for non-bank providers, including fintech companies, to enter the market and offer payment services.
- **Skills** - The market for the provision of capacity building and training services to the financial sector in Rwanda is underdeveloped. In most cases, development partners projects have filled this gap by providing training to local financial institutions on agri-financing. A 2016 review of existing skills within the financial sector of Rwanda by AFR highlighted serious skills deficits, particularly in areas such as loan appraisals, risk management and evaluations, where deficiencies in analysis and discretionary judgment have constrained good lending practises and decreased agriculture loan disbursements.

5.1.4 Rules and norms in the system

The formal rules, policies, and regulations, shaping the market are generally very conducive to the development of agricultural finance in Rwanda. To achieve transformation of the agriculture sector, and greater financial inclusion has been and remains a national priority. There are number of national and sector specific strategies that influence the regulatory environment. These include;

- National Strategy for Transformation 2017–2024, which includes priorities related to the acceleration of innovation and the growth of digital solutions.
- National Financial Inclusion Strategy 2019–2024, which aims to leverage the potential of the fintech sector to expand digital financial services.
- Payment Services Providers Regulation No. 05/2018, which expands BNR oversight of the activities of providers of payment initiation services and aggregators, thereby enabling a wider range of market participants to access the national payment system.
- Rwanda Payment System Strategy 2018–2024, which contains several strategic objectives, including fostering an enabling environment for innovation in the payment system through collaboration between the public and private sectors.

- SMART Rwanda Master Plan 2015–2020, which aims to expand financial infrastructure to increase access to financial services and support innovation in information and communication technology.

5.2 Constraints - Rwanda's Agricultural Finance Market System (AFMS)

5.2.1 Structural constraints

There are number of structural constraints that are limiting the flow and access to finance in Rwandan agriculture. These include the following:

- **Small land holdings** – the average land holding is 0.58 ha which makes it difficult to achieve economies of scale or consolidate lands cost effectively to commence commercial agriculture. Of the total population of farmers, only 10% are commercial farmers, remaining 90% mainly produces to sustain themselves and / or act as custodians of land, and hence have limited surplus for the market. Consequently, FSPs find it difficult to finance these non-commercial activities.
- **Topology of the land –** the topology in Rwanda (hilly) makes it difficult to consolidate productive land to leverage economies of scale. In addition, the topology creates additional challenges in accessing markets for inputs or farm produce. The costs of getting agricultural produce to the market (transport and storage costs) undermines the viability of many small farm operations and hence limits their access to affordable finance.
- **Climate shocks –** Rwandan agriculture is heavily dependent on seasonal rains, with limited use of irrigation. Any changes in rainfall patterns will affect the ability of farmers to maximise their productivity and yields. This reliance of rain-fed agriculture generates significant financing risk and is a key factor in limiting access and the flow of finance to the sector.

5.2.2 Non-structural constraints

- **Intersectoral linkages** - Weak forward and backward linkages between the agriculture sectors and other sectors of the economy. As the Rwanda economy has grown, there has been a decoupling of intersectoral growth particularly in relation to agriculture. The rapid growth of the service sector (tourism in particular) has not generated the significant demand in agricultural production simply because of the weak linkages between the sectors. The weak alignment of demand and supply means that farmers are not producing for the markets and hence have limited access to both domestic and export markets.
- **Weak value chain linkages** - result in farmers struggling to access formal high-value markets while off-takers struggle to get consistent supplies of quality raw materials. On the off-taker side, the consequence is lower profits and export revenues for traders, while processors have lower capacity utilisation.
- **Underutilization of labour** - Key segments of the sector's population such as women and youth, are left out or are not participating to their full potential. More inclusive and meaningful participation will help unlock underutilized labor, increase outputs and productivity, raise incomes, and improve livelihoods of the most at-risk groups in Rwandan society.
- **Literacy levels in rural areas** - Literacy levels have improved over the last 10 years; however, low levels of educational attainment continue to limit access to and the use of financial services. Specifically for women farmers, 92% of female workers with no formal education work in agriculture compared to 77% of males with the same educational level, this manifests itself by the number of women are still overwhelmingly engaged in producing lower-value subsistence crops while men tend towards cash crops. This results in FSPs unwillingness to loan funds to women in the sector.

5.2.3 Demand side constraints

Following primary and secondary data analysis, the following constraints were identified on the demand side of the AFMS. This list is not conclusive but an illustration of what has been deemed to be most prevalent market failures that the NAFSS strategy needs to address.

- **Limited flow of finance to Agriculture** – This constraint is mainly driven by the lack of information about those demanding finance in the market system. Given that Rwandan agriculture is primarily subsistence farming, very little data is available on farmers, their activities and productivity. Equally, most agriculture value chains are unstructured and underdeveloped and hence don't offer viable bankable propositions for FSPs. Additionally, given the current classification and reporting of agriculture loans, only production related loans are reported in the published figures as the share of lending. This truncated definition of agricultural activities does not offer the true picture of funding the sectors has received.
- **Cost of agriculture finance –** the cost of finance is not only limited to the interest rate charged but needs to consider all other related fees and charges one must incur in accessing the credit facility. One of the challenges identified in accessing micro loans is the cost of collateral registration and valuation. Currently a flat registration fee of RWF 20,000 for new registration and RWF 10,000 for any registration of amendment and transfer of security interests[23]. These fees don't take into account the size of the loan and the cost as a percentage of the overall value of the loan. Additionally, cost of collateral valuation remains a challenge given flat fees are charged irrespective of the size of the loan one is seeking. For example, the Institute for Real Property Valuers in Rwanda (IRPV) lists charges of Rwf 60,000 for land (farms for agriculture of livestock) less than 1ha and Rwf 6 per sqm for land above 1ha[24]. In both cases, these fees will significantly impact those looking for micro loans and may deter interest in formal credit facilities.
- **Equitable access to finance** – data from Finscope 2020 suggests that the gender access to finance gap has been reduced but remains an issue of concern. The biggest gender gap can be seen in terms of formal savings. Only 19% of women save in banks (compared to 25% of men). More women than men mentioned that they do not save because of monetary reasons: they do not have money to save/invest (69% of women compared to 73% of men), they do not have a job (31% of women compared to 25% of men), they find it too expensive (16% compared to 14%, respectively). Overall sentiments towards borrowing between men and women are aligned with no gap; 76% of men reported that they have borrowed, relative to 77% of women. Men are more likely than women to borrow money for developmental reasons (such as business, building/improving dwelling, living expenses, farming equipment/expenses, livestock) at 60% and 36%, respectively[25]. There are several root causes driving these inequalities; (i) lack of knowledge driven by differences in literacy rates; (ii) cultural perceptions and norms in relation to credit worthiness; (iii) lack of access to collateral instruments and (iv) household power dynamics.
- **Valuation of agribusiness investment plans –** feedback from those seeking finance in the sector suggests that there is a significant challenge in relation to FSPs understanding of their agriculture investments proposal and by extension how these investments plans are valued and assessed. These differences are driven by; (i) poor quality investment proposals; (ii) lack of understanding of agri-business models by

[23] https://rdb.rw/wp-content/uploads/2018/02/Booklet-Movable-Property.pdf

[24] https://irpv.rw/downloads/Fee_structureng.pdf

[25] https://afr.rw/wp-content/uploads/2021/03/FinScope-2020-Gender-Report.pdf

FSPs; (iii) insufficient data on farmers business activities and performance; (iv) limited access to BDS to support investment proposals.

- **Seasonality of financing and lengthy approval processes** – Farmers seeking finance have expressed frustration with the way credit facilities are structured with repayments not being aligned with the seasonal cycles in agriculture production. As such, farmers are expected to repay loans on a quarterly basis while income from their crop would only materialise in 6months or longer depending on the type of crop. Similarly, loan approval processes in some cases take too long and, in some cases, miss the key agriculture investment milestones e.g., planting, weeding, and harvesting. These markets failures are attributed to; (i) FSP not understanding the seasonality of the agriculture financing; (ii) how delays in approval of loans impact farmer investment cycles and (ii) regulatory regime with reference to provisioning of NPLs does not consider the seasonality of agriculture.

5.2.4 Supply side constraints

The following constraints were identified on the supply side of the AFMS. This list is not conclusive but an illustration of what has been deemed to be most prevalent market failures that the NAFSS strategy needs to address.

- **Ability and capacity to assess risk** – FSPs have indicated that the lack of data on famers farming activities makes it difficult to adequately understand their financing needs or asses their credit worthiness. The lack of data on farmers leads to high perceptions of risk in the agriculture sector, which exacerbates the finance challenge in the sector. Additionally, there is insufficient competence by FSPs in the sector to adequately to assess and manage risks. Increased perceived risk in the agriculture sector needs to be demystified by providing timely data to financing institutions and building the capacity of lenders to align financing products to the agricultural cycles and the unique nature of agriculture. In cases where data on farmers activities, understanding drivers of returns and productivity, and market dynamics are available (such as in Tea and Coffee), FSPs have been able to finance these value chains.
- **Lack of diversified and tailored Agric-financing products** - most financial products for the agriculture sector are tailored to the Small and Medium Enterprises (SMEs) microfinance models which do not necessarily correspond to the seasonal nature and unique needs of Rwandan agriculture. Key factors driving this lack of innovation include (i) lack of data on demand side actors and their economic and financial activities; (ii) costly product development and lengthy regulatory approval processes; (iii) lack of understanding of agriculture business models within FSPs.
- **Limited availability of longer term, patient capital** - In Rwanda there are few sources of patient capital (cost, tenure, and grace period). Most of the funding that available to FSPs is short term hence they are limited in the type of products they develop. While Rwanda has made progress in financial intermediation (agri-finance through BRD and BDF, development of the stock market and financial sector reforms) these efforts are yet to deliver or attract the type of long-term patient capital need to meet the needs of the agriculture sector. Other root causes include (i) institutional investors in Rwanda have no specific investment focus on agriculture; (ii) lack of development of angel investors supporting agricultural businesses; and (iii) limited penetration of impact investors into the Rwandan market.
- **Low uptake and use of risk mitigation products like guarantees, insurance etc** - Agriculture is fraught with risk. The type and severity of these risks varies by crop, market, agroecology, and institutional context. PSTA 4 also prioritizes innovation in financial services as a strategy for risk mitigation aimed at farmers and other value

chain actors in the agriculture sector. To deliver on this commitment, MINAGRI launched the National Agriculture Insurance Scheme (NAIS) in April 2019 aimed at managing risks and losses in crops and livestock. Nevertheless, results from the Finscope 2020 survey suggest that uptake and use of agriculture insurance is still low (less than 2%) which in turn will affect the ability to address and mitigate financial risks vital in unlocking the flow of finance. Similarly, while a number of guarantee schemes[26] have been developed and implemented their use and uptake are still low. Other products such as the uptake and use of Electronic Warehouse Receipt (eWR) products is still low and hindered by (i) availability of warehouse infrastructure and (ii) farmers education and awareness of their utility. The failure for these types of product to develop can also be attributed to : (i) Stringent access requirements coupled with long and costly claims processes; (ii) lack of quality data and market research (especially on the demand side of the market) and hence products not tailored to specifically address agricultural risk; (iii) existing regulatory regimes do not incentivise the development of innovative risk mitigation products; (iv) lack of innovation due to limited resources for research & development (R&D) because of weak balance sheets; (v) current approach is to cover investment cost only with no cover for production costs.

- **Limited capacity within FSPs to assess agri-investment projects and loans** –In some institutions, there are no targets for agriculture lending nor are credit officers trained on how to assess agriculture loans proposals. In other cases, there is a perception of risk attached to agriculture investments which then translates in institutions and credit officers taking a very conservative approach to agriculture lending. Some of these failures are attributed to; (i) a lack of information about viable and successful agricultural business models; (ii) FSPs continuing to compare agriculture with other sectors; (iii) the lack of a strategic approach to agriculture finance in some FSPs.
- **Limited opportunities to scale** – FSPs highlighted that in some value chains land consolidation remains a challenge and hence limited the potential to scale production to levels that would deliver financial viability. Without land consolidation, many small-scale agriculture production operations are not viable and hence would struggle to attract financing.

5.2.5 Supporting functions constraints

The following constraints were identified on the supporting functions of the AFMS. This list is not conclusive but an illustration of what has been deemed to be most prevalent market failures that the NAFSS strategy needs to address.

- **Low level of technology adoption to unlock agriculture finance** – while other sectors of the Rwanda economy have been quick to adopt technology to unlock financing; the agriculture sector is still lagging behind. At all levels in the value chain actors and their activities are yet to be digitized to generate that data that would be needed to understand its viability and return on investment. Finscope 2020 highlights the recent increase in DFS use however uptake in the agriculture sector is still low. Very few agriculture value chains have been fully digitized to generate the data required to assess viability and risk. Reasons for the current status quo include (i) lack of data on farmers and their activities; (ii) cost models for value chain digitization; (iii)

[26] BDF agriculture guarantee facility; BRD export guarantee facility;

limitation of DFS enabling infrastructure – internet[27], electricity, cost of data[28] etc; (v) challenge in finding viable and affordable DFS solutions.

- **Availability and affordable capacity development models** – Rwanda has implemented several initiatives aimed at building the capacity of farmers both to improve on farm productivity[29] in addition to financial and business literacy[30]. Nevertheless, there is still a significant ratio of farmers who lack proximity to access these services. Additionally, feedback from FSPs suggests the quality of loan applications and supporting business proposals is still poor and hence the high rejection rates. To date there are no viable commercial capacity building business models that are not funded either by grants of subsidies. Similarly, many farmers are not able to pay for the true cost of delivering theses services and hence their long-term sustainability is questionable.
- **Market information asymmetries** – various types of information asymmetries continue to affect access to information within the AFMS. Given that agricultural systems entail a series of linked activities including input provision, training and extension services, marketing and post-harvest activities, information between the different actors who serve farmers needs to flow freely and actions need to be aligned. Obtaining quality information to inform decision making on agricultural financing is often difficult particularly when it comes to individual farmers and small-scale agri-businesses that often lack detailed farm/business records and credit histories. Players in the system encounter limited access to structured and regularly updated market information. While MINAGRI has developed agricultural information systems like e-soko, more still needs to be done to (i) generate relevant information and data; (ii) share existing data gathered on farmer productivity; (iii) enable and simply access to national agriculture databases; (iv) incentivize the development of viable and affordable market information platforms.

5.2.6 Regulatory environment

The following constraints were identified in the regulatory environment of the AFMS. This list is not conclusive but an illustration of what has been deemed to be most prevalent market failures that the NAFSS strategy needs to address.

- **More regulatory reform is required to unlock agri-finance potential** – Rwanda has made significant strides in addressing some of the most important regulatory reforms that would unlock the flow of finance to agriculture. The most important of these reforms is the land tenure reform process that resulted in over 97% of all land being titled and hence enhanced land rights and formalized land collateral. Similarly, reforms that have seen the liberalization of input markets have helped deliver more efficient agriculture markets. Nevertheless, agriculture transformation cannot be achieved without innovative finance tailored to the sector’s needs. Consultations with stakeholders (demand, supply, and regulatory) have indicated that the following need to be addressed; (i) costs associated with the registration and valuation of collateral; (ii) regulatory definition, classification, and

[27]Rural internet penetration rates limit access and the types of financial products that can be delivered to SHFs. E.g.: Provision of real time market information, use of digitized loan application systems, etc.

[28]The cost of accessing internet data is beyond SHF affordability.

[29] Twigire Muhinzi extension model is a ‘home-grown solution’ to ensure that all farmers in Rwanda have access to advisory services.

[30] BDF District Kora Wigire Centers provide specialized advisory business development services and partner with Participating Financial Institutions to deliver access to finance products. Additionally, BDF also provides Start-up SMES Coaching and Promotion through proximity business advisory services (BDAs, 2 persons per Sector) facilitated by a subsidized voucher scheme up to 70%.

reporting of agriculture finance flows; (iii) transparency on de-risking tools such as guarantees; (iv) reforms that incentive the innovation and adoption of agricultural insurance and guarantee products.

- **Cultural norms and practices enhance access disparities** – While Rwanda has made significant efforts to empower women and maximize their participation both in economic and social life, societal norms, and family dynamics continue to affect their equitable access to finance. These negative mindsets tend to limit the trust and opportunity of women exploiting their own potential including access to finance for development. Regarding cultural barriers, the study identified several factors hindering women farmers' access to finance including little access and control over land that mostly constitutes the collateral in rural areas and other productive resources.

6 NAFSS - Theory of Change

The dynamics of implementing the National Agriculture Finance and Services Strategy (NAFFS) and the proposed policy and strategy recommendations requires an understanding of the systemic market failures that have limited the flow of finance to the sector. The AFMS constraints discussed above have been informed by the primary and secondary data collected and analysed using the markets systems development methodology. The ToC presented in figure 10 attempts to explain how these market system constraints can be addressed to deliver the type of agriculture financing landscape that would transform the Rwandan economy and millions of its population that rely on agriculture as a key source of their livelihoods. The elements of the ToC are discussed below.

6.1 Proposed strategic interventions.

In the market system, situational analysis and intervention report, a number of direct and indirect interventions were outlined. Following a validation of the proposed interventions with stakeholders, a prioritised list of most relevant strategic interventions for the NAFSS to consider emerged. It's worth noting that direct interventions refer to those reforms that are within MINAGRIs mandate to deliver while the indirect interventions would require MINGRI to coordinate and work with other actors to facilitate their effective and efficient implementation. The interventions are also further categorised into a matrix of six pillars as outlined below:

6.1.1 Pillar 1 - Addressing information asymmetry gaps and constraints.

Under this pillar, several interventions that address information asymmetry gaps and constraints across the AFMS will be addressed. These include the following:

- Finalise and implement and awareness and education campaign on the National Financial Education Strategy.
- MINAGRI to develop a communication strategy/campaign focusing on agriculture finance success stories to address perceptions of the risk associated with the sector.
- Educate both demand and supply side actors on the availability and utility of movable collateral registration system.

6.1.2 Pillar 2 - Creating awareness and strengthening education and capacity on financial services.

Interventions under this pillar are aimed at addressing capacity gaps in all areas of the AFMS. These include the following:

- Increase famer education and awareness of the negative impact of cultural norms and practices, particularly on gender-based access to financial services.
- Introduce agri- finance BDS services at sector level to enhance skills and capacities of borrowers (example – Sector land officers in the land tenure system)
- Capacity building of FSPs to improve understanding of Agri- finance models and investment cycles.

- MINAGRI to review the performance of the NAIS to develop ways to improve uptake of agriculture insurance.
- MINAGRI to invest in a communication campaign that would increase awareness, understanding, and use of risk mitigation products.
- MINAGRI to work with RSSB to champion Ejo Heza in return for RSSB to avail patient capital to agriculture. Ejo Heza is a repository of long-term savings that could be deployed into investments products that unlock patient capital for agriculture.
- BNR and ASSAR to review innovative regulatory regimes within the region that have delivered vibrant and innovating agri-insurance sector.
- Engaging FSPs and MNOs on carrying out awareness campaigns on the services available on USSD and scaling up these services to meet user needs.
- FSPs to understand the seasonality of agriculture and develop products that reflects that.

6.1.3 Pillar 3 - Building farmer profiles and transaction history

One of the key barriers to the limited flow of finance to agriculture is the lack of data on farmers and their respective activities and the viability of their investments. In sectors like tea and coffee, where farmers have been extensively profiled this has facilitated their access to finance. Key interventions include the following:

- Fast track the farmer profiling/registry and pilot in a few priority value chains.
- BNR to fast track the implementation of the interoperability of payments systems as outlined in the RNPS. FSPs should be given controlled access to the database which can then be used to provide line of sight on SHF financial transactions.
- Develop alternative collateral instruments that would widen access to finance.

6.1.4 Pillar 4 - Strengthening governance and coordination of Agri finance reforms.

Reforms under this pillar are aimed at aimed at addressing coordination market failures in the AFMS. Implementing reforms in the financial sector requires close coordination of key stakeholders – regulators, suppliers of finance and those demanding finance. To effectively deliver the NAFSS, MINAGRI will need to have an effective coordination mechanism in place. The proposed interventions here include:

- MINAGRI to coordinate and monitor NAFSS
- MINAGRI to engage MINECOFIN on establishing a Agri-Finance sector working group and use this group to share information and best practices on information sharing.
- MINAGRI to work RLMUA (Rwanda Land Management and Use Authority) to extend land valuation and referencing beyond urban areas and provide FSPs access.
- Engage MINECOFIN and development partners on rolling out supporting infrastructure for FSPs to rural areas.

6.1.5 Pillar 5 - Incentivizing the development of tailored and innovative Agri finance products.

Transforming agriculture finance will require innovative approaches to incentivizing key stakeholders to implement reforms of develop new products and services that address the identified market failures. Proposed interventions under this pillar include:

- Undertake a mapping of financing models in those VCs that are currently well financed to document learning for other VCs.

- MINAGRI working with partners to generate evidence on innovative financing approaches/practices that have unlocked agriculture finance in other countries.
- BDF work with MINAGRI to develop specific agriculture guarantee products that address Agriculture financing risk.
- MINAGRI to work with KIFC to attract institutional and other investors able to deploy patient capital or with long-term financing products.
- MINAGRI to work with AFR and FSPs on new de-risking facilities being developed by donor partners such as SIDA and KfW.
- MINGARI to engage MNOs on what enabling environment reforms will be required to improve the access to financial services using MNO platforms.
- MINAGRI with AFR to develop investment products in which the patient capital investors can finance.
- MINAGRI to work with BNR to introduce and incentive mechanism that would incentivize lending to agriculture: This could be in the form of those who actively participate being able to source finance from BNR at lower cost.

6.1.6 Pillar 6 - Supporting and influencing regulatory reform to unlock flow of finance.

An effective and efficient market system requires optimal regulatory environment that encourages innovation but also safeguards the interest of all stakeholders. Under this pillar the following interventions are proposed to address regulatory market failures.

- RDB to improve the mobile collateral registration system by including other sorts of assets like warehouse receipts and make it accessible to farmers and FSPs
- BNR to extend the reporting of agriculture loans to cover activities beyond production.
- BNR to develop the insurance sector masterplan that would deliver effective and relevant reforms to create a vibrant sustainable sector.
- BNR to work with FSPs to agree acceptable loan processing timeframes that would improve the speed and quality of services delivered in the industry. Examples include the approach taken in the assessment and disbursement of loan under the ERF programme.
- BNR to work with AFR and MINECOFIN to diversify providers of agricultural guarantees in Rwanda)

6.2 Impact of proposed interventions

The NAFSS theory of change articulates how the identified constraints if addressed would results in a series of changes in the market system that would culminate into macro level impacts that highlight the impact of the strategy implementation. The impact indicators proposed for this strategy are linked to the PSTA 4 results framework and the expected impact of the NAFSS will help MINAGRI achieve the commitments. PSTA 4 Priority area 3 - inclusive markets and value addition highlights the importance of agriculture finance services as national priority to achieve greater financial inclusion.

6.3 Outcomes of proposed interventions

The NAFSS outcome statements and their relevant indicators are aligned and are expected to help deliver the outcomes outlined in PSTA4. Specifically, Outcome 3.2 of PSTA4 speaks of the need *"to strengthen demand-driven inclusive agricultural financial services and products, and mitigate market and production risks, thereby increasing access to finance and productive capital to improve productivity and surplus value"*. Outcome 3.2.1 speaks of the need to ensure agriculture finance is inclusive. Outcome 3.2.2 of PSTA 4 articulates the need to develop risk mitigation products tailored to the specific needs of the sector and the various players active in agriculture.

6.4 How impacts and outcomes of the NAFSS are measured

This section of the report provides a description / justification for the proposed outcome indicator and how each will be measured.

Impact 1 – Increased contribution to wealth

The agriculture sector development requires investment in skills, information and technology and infrastructure as well as a vibrant finance market for improved productivity and increased access to markets. Increasing access to financing with appropriate use of financial solutions by value chain actors including smallholder farmers will increase investments which impact improved profitability and commercialization leading to more products being competitive for export markets. The related outcomes linked to the achievement of this impact are:

- **Outcome 1.1 Increased flow of finance to agriculture** – as we have highlighted in the context section of this strategy, the Rwandan agriculture sector continues to receive a small amount of the credit compared to other sectors of the economy and its contribution to GDP. For example, in 2021, the sector only received 1% of new loans. This situation is untenable and if not addressed would continue to impact the sector's development; Rwanda balanced development and the ability of millions of Rwandans to transition from their current level of livelihoods as outlined in Vision 2050. The indicator to measure the increased flow of finance to the sector because of the successful implementation of the NAFSS is – **the percentage of credit flow to the agriculture sector at a macro level.** The related outcomes linked to the achievement of this impact are;
- **Outcome 1.2 – Usage of agriculture insurance** – as indicated in the situational analysis report, the insurance adoption rates has stagnated at 1% despite the new insurance schemes that the GOR has recently implemented. As such to assess the success of the NAFSS related reforms, we propose to measure the impacts at outcome level as – **increase in the agriculture insurance penetration rate**.
- **Outcome 1.3 – Usage of agriculture guarantee instruments** – as is the case with insurance, the use of agriculture guarantees is still low and yet there is still a significant need for these types of de-risking instruments. The success of the NAFSS can therefore be measured by **– the value of agricultural credit that has been backed by guarantees.**
- **Outcome 1.4 – Reduced cost of fees and charges on collateral registration and valuation** – the analysis in this strategy and the consultations with stakeholders has highlighted the impacts these collateral registration and valuation fees have on the cost of accessing credit. The proposed interventions in the NAFSS are aimed at implementing a fees structure that considers the cost vis a vis the size of the credit facility in order not to create a negative impact on the demand for micro loans. The proposed indicator is **– costs, fees and charges as a percentage of the loan value.**
- **Outcome 1.5 - Increased access to credit by SHF** – from the primary data collection and analysis, it's clear that SHF still face significant constraints in accessing finance for their farming activities. Effective implementation of the NAFSS is expected to unlock the flow of finance to farm level. The proposed indicated to measure this outcome is - **number of farmers accessing agriculture related finance.**
- **Outcome 1.6 – value of FSP loans portfolio allocated to agriculture** – several FSP have indicated their targets for agriculture lending but from consultations and the available data, very few have met these targets. There are several reforms outlined in the NAFSS that are expected to incentivise FSPs to allocate and develop innovative products that would lead to increase lending to the agricultural sector. The proposed indicator to measure this outcome performance is **– percentage of agriculture loans in FSP portfolio.**

- **Outcome 1.7 – Diversity of agriculture finance instruments** – from the market and situational analysis, the feedback from demand side of the market system suggest that there are limited number of finance products / services designed to meet the needs of the agriculture sector. The proposed interventions in the NAFSS are expected to incentivise the FSPs to develop and or expand their menu of agriculture finance products to address the market failures identified in the strategy. The proposed indicator to measure the outcome of this change is **– number and types of tailored agriculture finance products developed**.

Impact 2 – Increased resilience and sustainability

A key challenge facing Rwanda agriculture is the informal and subsistence level of production. For the sectors to be transformed, activities and operations within the sector need to be moved to a commercial footing. Commercialisation doesn't mean large scale production but rather a focus on leveraging and shifting the way business is done from farm level to access to markets. Implementing and introducing commercial ideas and thinking will require access to finance to pay for activities such as mechanisation, irrigation, extension services, post-harvest storage and value addition. The indicator to measure the increased level of commercialisation is – **percentage of Rwanda farmers earning Rwf 600,000 annually**. The related outcomes linked to the achievement of this impact are:

- **Outcome 2.1 – Improved access to extension and BDS services** – access to finance is critical to enabling the SHF to improve their access to quality extension and business development services. Feedback from the SHF suggest that there is a willingness to pay for these services however they lack the access to credit to facilitate their access. The proposed outcome indicator to measure change on this outcome is – **ratio of extension or BDS workers to farmers.**
- **Outcome 2.2 – Reduced level of postharvest loses** - post-harvest losses account for a 15-30 percent decrease in Rwandan agriculture productivity. These losses vary by crop or value chain however the impact on the country and individual livelihoods is significant a root causes of the loses is the lack of finance to access storage and value addition infrastructure. The effective of the interventions outlined in this strategy should trigger more funding to be made available to finance investments that reduce the loses the agriculture sector faces. The outcome indicator proposed to measure the success of these interventions is – **percentage of post-harvest loses in agriculture.**
- **Outcome 2.3 – Increased level of agriculture productivity** – there is a wealth of literature that provides sound evidence that access to finance has a positive impact on farmer productivity. For example, a study in Benin of SHF found access to credit has a positive impact on the productivity of smallholder farmers, with a gain of 15%.[31]. If the reforms proposed in this strategy are effectively implemented, then finance is expected to flow to those that need it and in return we should expect to see increases in productivity at all levels of the agriculture system. The indicator to measure this outcome is – **percentage increase in national agriculture output or average yield per ha for key food and export crops.**
- **Outcome 2.4 – Increased level and value of finance flowing to post harvest value addition –** the consultations with key stakeholders in the post-harvest and value addition space indicates that they continue to face challenges in accessing finance to support their investments. As indicated earlier, post-harvest loses are a significant drain on national agriculture production and the productivity of the sector. As such implementation of interventions that unlock the flow of finance to this component of the agriculture system. The proposed indicator for measuring this outcome is - **value of loans to non-production related agriculture.**

[31] Houensou et al (2021) Access to finance and difference in family farm productivity in Benin: Evidence from small farms Scientific African Volume 13, September 2021, e00940

Impact 3 – Economic opportunities and prosperity – Jobs and poverty alleviation

Market opportunities for farmers are expected to lead to higher incomes and livelihood opportunities. Household incomes are expected to be fuelled through increasing the value of production at the farm-level, which leads to higher value added per agricultural worker. Household incomes are also expected to increase by strengthening value chains, leading to off-farm job-creation. In combination, higher incomes, increased resilience to market and production shocks at the household level, and targeted interventions and asset building for vulnerable households will contribute to poverty reduction. By providing them with skills and access to finance, women will be empowered to engage in productive income generating activities.

Outcome 3.1: Increased contribution of agriculture to national GDP– Effective implementation of the NAFSS should facilitate and increase in agricultural production and by extension the sectors contribution to GDP. The proposed indicator to measure this impact is – **percentage of agriculture contribution to national GDP.**

- **Outcome 3.2 – jobs created in the agriculture sector** – agriculture is still the main source of employment and livelihoods for millions of Rwandans. Unlocking the flow of finance to the sector is expected to drive production, productivity and by extension the creation of new agro-enterprises and jobs in the sector. The proposed measure of this outcome is - **number of new agriculture related businesses and jobs created**. **Outcome 3.3 – contribution of agriculture to export revenue (% and value)** – agriculture exports remain a key source of forex revenue. While progress has been made in de-risking export finance, more still needs to be done to expand the flow of finance to this key agriculture subsector. Implementation of the NAFSS is expected to result in new types of export finance products being made available to those that need them. The outcome is expected to be measured as follows - **percentage of agriculture exports against total exports.**
- **Outcome 3.4 – new investment attracted to agriculture** – the GOR is actively seeking to attract investors to the agriculture sector. Many of these investors would need to source finance locally and in local currency to ensure the viability of their business investment models. The effective implementation of reforms and interventions outlined in the NAFSS should provide the enabling environment to attract more investment into agriculture. This outcome can be measure as follows - **agriculture investment as a percentage of GDP.**

6.5 Assumptions at Impact and outcome levels

The assumptions explain the logic behind the strategy and the causal links attributed to the impacts and outputs that the NAFSS is expected to deliver for MINAGRI and Rwanda. There several assumptions underlying the achievement of the impact and outcomes outlined above. These include the following.

- There is active engagement and buy in by all stakeholders in the AFSSWG as the coordination mechanism for driving the implementation of the strategy.
- MINAGRI in conjunction with MINECOFIN allocates funding to implement gaps in the interventions outlined in the strategy.
- All stakeholders are open to implementing radical reforms and innovative ideas that would unlock the flow of finance.
- MINAGRI provides strong stewardship and cross stakeholder coordination.
- Effective monitoring and lesson learning throughout the strategy's implementation

6.6 NAFSS Intervention matrix

The table x below provides a matrix of the market failures mapped against proposed interventions and related pillar of intervention. A critical component of the table is an indication of the proposed lead entity to drive the implementation of the proposed strategic intervention and the proposed timeline for implementation. The proposed agriculture finance subsector working group would provide the ideal platform for the coordination and monitoring of the progress being made in the implementation of the NAFSS.

Table 1:NAFFS interventions, roles and responsibilities and implementation timeframes

Market failure	Validated strategic interventions	Intervention Pillar	Lead entity	Supporting entity	Timeframe
		Demand side interventions			
Limited flow of finance to Agriculture	- Fast track the farmer profiling/registry and pilot in a few priority value chains.	Pillar 3 - Building farmer profiles and transaction history	MINAGRI	MINECOFIN	Pilot – short term – (12 months) Full registry (48 months)
	- Fast tract the implementation of the interoperability of payments systems as outlined in the RNPS. FSPs should be given controlled access to the database which can then be used to provide line of sight on SHF financial transactions	Pillar 3 - Building farmer profiles and transaction history	BNR	MINECOFIN	Medium term – 36 months
	- Undertake a mapping of financing models in those VCs that are currently well financed to document learning for other VCs	Pillar 5 – Incentivizing the development of tailored and innovative Agri finance products	MINAGRI	AFR	Short-term – 12 months
	- Extend the reporting of agriculture loans to cover activities beyond production.	Pillar 6 - Supporting and influencing regulatory reform to unlock flow of finance	BNR	-	Short-term – 12 months
Cost of agriculture finance	- Improve the mobile collateral registration system by including other sorts of assets like warehouse receipts and makes it accessible to farmers and FSPs	Pillar 6 - Supporting and influencing regulatory reform to unlock flow of finance	RDB	-	Short-term – 12 months

	- Educate both demand and supply side actors on the availability and utility of movable collateral registration system.	Pillar 2 - Creating awareness and strengthening education and capacity on financial services	MINAGRI	AFR	Medium term – 24 months
	- Review collateral registration fees – tiered them to loan size.	Pillar 6 - Supporting and influencing regulatory reform to unlock flow of finance	RDB	-	Short-term – 12 months
	- Extend land valuation and referencing beyond urban areas and provide FSPs access.	Pillar 4 - Strengthening governance and coordination of Agri finance reforms	RLMUA ((Rwanda Land Management and Use Authority))	MINAGRI	Pilot – short term – (12 months) Full rural referencing (48 months)
Equitable access to finance	- Finalise and implement awareness and education campaign on the National Financial Education Strategy.	Pillar 1 - Addressing information asymmetry gaps and constraints	MINECOFIN	MINAGRI	Medium term – 36 months
	- Improve access to collateral (land tenure – access to land titles)	Pillar 4 - Strengthening governance and coordination of Agri finance reforms	RLMUA	-	Medium term – 36 months
	- Develop alternative collateral instruments that would widen access to finance.	Pillar 3 – Building famer profiles and transaction history	FSPs	Regulators	Medium term – 36 months
	- Increase famer education and awareness of the negative impact of cultural norms and practices	Pillar 2 - Creating awareness and strengthening education and capacity on financial services	MINAGRI	-	Medium term – 36 months
Valuation of agribusiness investment plans	- Develop a communication strategy/campaign focusing on agriculture finance success stories to address perceptions of the risk associated with the sector.	Pillar 1 - Addressing information asymmetry gaps and constraints	MINAGRI	Relevant donors	Short-term – 12 months

	- Introduce agri- finance BDS services at sector level to enhance skills and capacities of borrowers (example – Sector land officers in the land tenure system)	Pillar 2 - Creating awareness and strengthening education and capacity on financial services	BDF	MINAGRI	Medium term – 36 months
Seasonality of financing and lengthy approval processes	- FSPs to understand the seasonality of agriculture and develop products that reflects that.	Pillar 2 - Creating awareness and strengthening education and capacity on financial services	AFR	-	Short-term – 12 months
	- Capacity building of FSPs to improve understanding of Agri- finance models and investment cycles	Pillar 2 - Creating awareness and strengthening education and capacity on financial services	AFR	FSPs	Short-term – 12 months
	- Agree acceptable loan processing timeframes that would improve the speed and quality of services delivered in the industry. Examples include the approach taken in the assessment and disbursement of loan under the ERF programme.	Pillar 6 - Supporting and influencing regulatory reform to unlock flow of finance	BNR	FSPs	Medium term – 36 months
Supply side interventions					
Unable to develop credit scoring models that can assess risk associated with Agric lending	- Working with partners to generate evidence on innovative financing approaches/practices that have unlocked agriculture finance in other countries.	Pillar 5 – Incentivizing the development of tailored and innovative Agri finance products	MINAGRI	AFR	Short-term – 12 months
Lack of diversified and tailored Agric financing products	- Work with FSPs to create awareness, acceptance, and use of warehouse receipting	Pillar 2 - Creating awareness and strengthening education and capacity on financial services	MINAGRI	EAX	Medium term – 24 months
Limited availability of patient capital	- Attract institutional and other investors able to deploy patient capital or with long-term financing products.	Pillar 5 – Incentivizing the development of	KIFC	MINAGRI	Medium term – 36 months

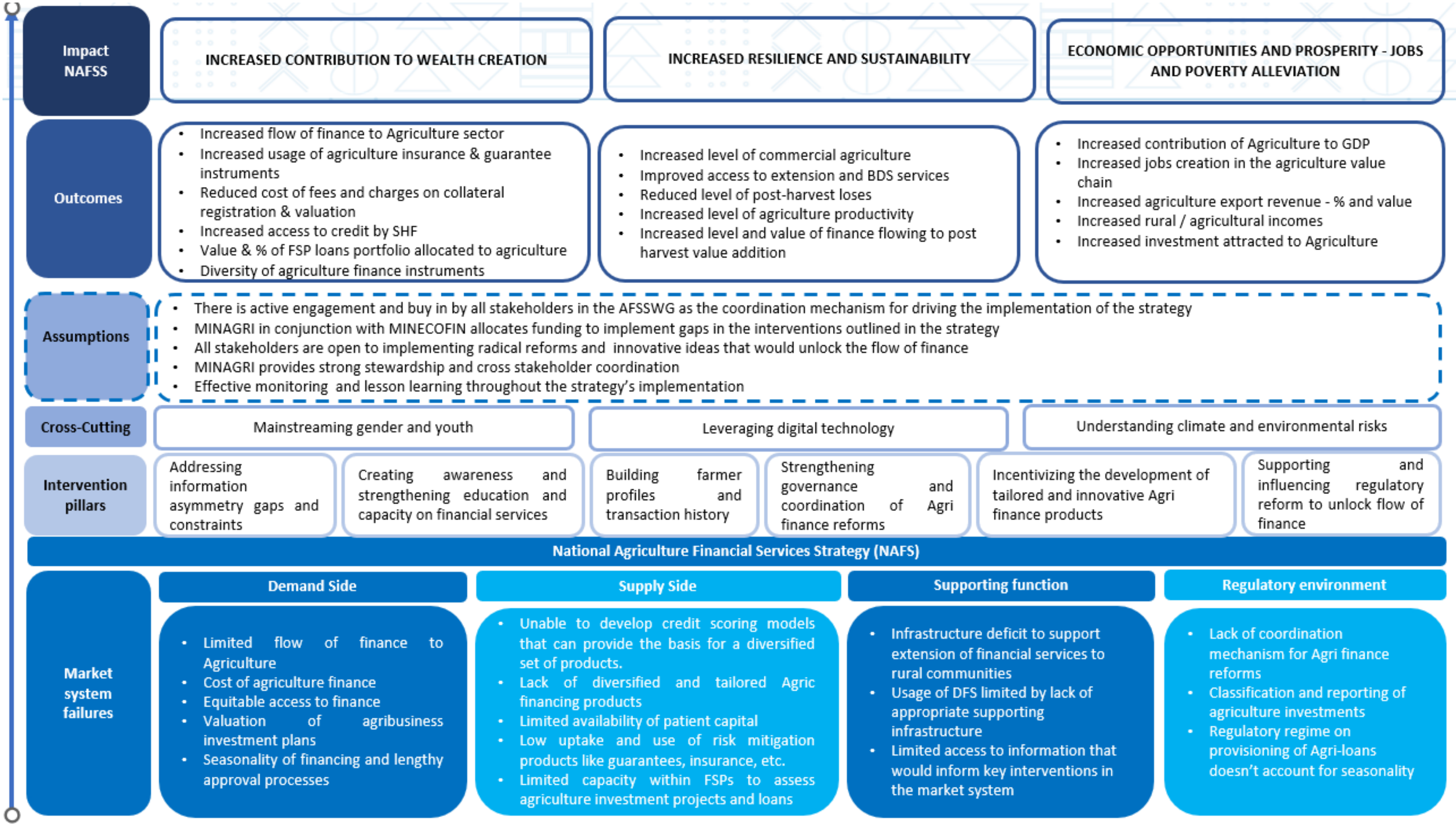
		tailored and innovative Agri finance products			
	- Develop investment products in which the patient capital investors can finance	Pillar 5 – Incentivizing the development of tailored and innovative Agri finance products	AFR	MINAGRI	Long-term implementation – 60 months
Low uptake and use of risk mitigation products like guarantees, insurance etc	- Review the performance of the NAIS to develop ways to improve uptake of agriculture insurance.	5 – Incentivizing the development of tailored and innovative Agri finance products 2- Creating awareness and strengthening education and capacity on financial services 6 - Supporting and influencing regulatory reform to unlock flow of finance	MINAGRI	ASSAR	Short-term – 12 months
	- Invest in a communication campaign that would increase awareness, understanding, and use of risk mitigation products.	Pillar 2 - Creating awareness and strengthening education and capacity on financial services	MINAGRI	FSPs	Medium term – 24 months
	- Champion Ejo Heza in return for RSSB to avail patient capital to agriculture. Ejo Heza is a repository of long-term savings that could be deployed into investments products that unlock patient capital for agriculture	Pillar 2 - Creating awareness and strengthening education and capacity on financial services	RSSB	MINAGRI	Medium term – 24 months

	- Review innovative regulatory regimes within the region that have delivered vibrant and innovating agri-insurance sector	Pillar 2 - Creating awareness and strengthening education and capacity on financial services	ASSAR	BNR	Short-term – 12 months
	- Develop specific agriculture guarantee products that address Agriculture financing risk	Pillar 5 – Incentivizing the development of tailored and innovative Agri finance products	BDF	FSPs	Medium term – 24 months
	- Diversify providers of agricultural guarantees in Rwanda	Pillar 6 - Supporting and influencing regulatory reform to unlock flow of finance	BNR	AFR and MINECOFIN	Long-term – implementation – 60 months
Limited capacity within FSPs to assess agriculture investment projects and loans	- Create awareness of successful agriculture projects that illustrate the returns on investments that would incentivise FSPs to prioritise and increase portfolio allocation to agriculture lending	Pillar 2 - Creating awareness and strengthening education and capacity on financial services	MINAGRI	Donors	Medium term – 24 months
	- Work on new de-risking facilities being developed by donor partners like SIDA and KfW	Pillar 5 – Incentivizing the development of tailored and innovative Agri finance products	MINAGRI	AFR and FSPs	Short-term – 12 months
Supporting functions interventions					
Infrastructure deficit to support extension of financial services to rural communities	- Engage development partners on rolling out supporting infrastructure for FSPs to rural areas.	Pillar 4 - Strengthening governance and coordination of Agri finance reforms	MINECOFIN	-	Long-term – 60 months
	- Engaging FSPs and MNOs on carrying out awareness campaigns on the services available on USSD and scaling up these services to meet user needs.	Pillar 2 - Creating awareness and strengthening education and capacity on financial services	MNOs	MINAGRI	Medium term – 24 months

Usage of DFS limited by lack of appropriate supporting infrastructure	- Engage MNOs on what enabling environment reforms will be required to improve the access to financial services using MNO platforms.	Pillar 5 – Incentivizing the development of tailored and innovative Agri finance products	BNR	MNOs	Medium term – 24 months
Regulatory environment interventions					
Lack of coordination mechanism for Agri finance reforms	- Introduce and incentive mechanism that would incentivize lending to agriculture: This could be in the form of those who actively participate being able to source finance from BNR at lower cost			- -	
		- Pillar 5 – Incentivizing the development of tailored and innovative Agri finance products	- MINAGRI	- BNR	- Medium term – 36 months

Source: Nathan-Vanguard Economics 2023

Figure 10: Rwanda Agriculture Finance – Theory of Change



Source: Nathan-Vanguard Economics 2023

6.7 Logical framework

The logical framework attached in the annex 4 of the strategy will guide the implementation, monitoring, and evaluation of the strategy. It provides a structured framework to clearly articulate the strategy's objectives, outcomes, outputs, activities, and indicators, ensuring a systematic and results-oriented approach to achieving the desired impact. It will serve as a roadmap, outlining the logical linkages between different elements of the strategy and establishing a framework for measuring progress and assessing the effectiveness of interventions.

7 Results framework

Success of the NAFSS can be measured through a set of indicators at output, outcome, and impact levels. These indicators can be monitored and evaluated regularly to assess the progress and effectiveness of the NAFSS, and to make necessary adjustments to ensure its success. The table below provides a suggestion of potential indicators that can be used in the results framework for this strategy.

Table 2: Result framework matrix

Impact level	*How it will be measured*	*Current state of play*	*Data sources*
Increased contribution to wealth creation	%of farmers investing in farming business as results of agricultural loans	- TBC	BNR &FSPs
Outcome level			
1.1. Increased flow of finance to Agriculture sector	*% of credit flow to Agriculture sector at macro level*	*2% going to agriculture and livestock*	*BNR data*
1.2. Usage of agriculture insurance	*Increase in agriculture insurance penetration rate (crops and livestock)*	*- Less than 1 % adoption rate*	*MINAGRI data ASSAR data FINSCOPE 2024*
1.3. Usage of agriculture guarantee instruments	*Value of agriculture credit that has been guaranteed*	*- No specific data is being collected at the macro level on indicator*	*MINAGRI and FSPs survey to collect the data BDF data*
1.4. Reduced cost of fees and charges on collateral registration	*Cost of fees and charges as a % of the loan value*	*- Currently flat fees are charged irrespective of the size of the loan – negatively impacts demand for micro loans*	*FSPs reporting on cost of collateral registration*
1.5. Increased access to credit by SHF	*Number of farmers accessing Agriculture related loans*	*- Finscope 2020 indicates that only 5% of farmers have borrowed for farming activities from formal or informal sources*	*Finscope 2024*
1.6. Value of FSP loans portfolio allocated to agriculture	*% of agriculture loans in FSPs portfolio*	*- TBC*	*- BNR reports - AMIR and RBA data*

1.7. Diversity of agriculture finance instruments	*No and types of tailored agriculture finance products developed*	- *Limited number of tailored agri-finance instruments*	- *AMIR and RBA data*
Impact level	*How it will be measured*	- *Current state of play*	*Data sources*
Increased resilience and sustainability	Household income and export diversification; insurance and other risk management and transfer mechanisms,	- No specific data available	NISR NAEB MINAGRI ASSAR
Outcome level			
2.1 Increased level of commercial agriculture	*% of Rwandan farmers earning more than 600,000 RWF per annum*	*Farmers in rural area earn 312,000 Rwf a year*	*NISR LFS/EICV6* *MINGRI Seasonal Agriculture survey*
2.2. Improved access to extension and BDS	*Ratio of extension worker to farmers*	- *The current numbers of extension service providers are grossly inadequate to effectively-serve the farming community with the current ration of farmer to extension agent at approximately 1:840.*[32]	
2.3. Reduced level of post-harvest loses	- *% of post-harvest loses in agriculture*	- *Post-harvest losses account for a 15-30 percent decrease in Rwandan agriculture productivity.*	- *MINAGRI data*
2.4. Increased level of agriculture productivity	- *% Increase in national agriculture output* - *Average yield per ha for key food and export crops*	- *In 2021, total agricultural sector production 2,633 trillion RWF*[33]	- *MINAGRI data* - *NISR, National accounts*
2.5. Increased level and value of finance flowing to post harvest value addition	- *Value of loans to non-production related agriculture*	- *Need to reclassify loans to non-production related agriculture activities*	*BNR data* *FSP data*
Impact level	*How it will be measured*	*Current state of play*	*Data sources*
Economic opportunities and prosperity - jobs and poverty alleviation	*Number of decent and productive jobs created within the agricultural sector*	*No specific data on the jobs created in agriculture sector is being captured*	*NISR Agriculture household and labour force survey*
Outcome level			
3.1. Increased contribution of Agriculture to national GDP	*% of agriculture contribution to GDP*	*24% in 2021*	*NISR national Accounts* *BNR data*
3.2. Jobs created in the agriculture sector	- *Number of new agriculture - related business and jobs created*	- *No specific data on the jobs created in agriculture sector is being captured*	*NISR Agriculture household and labour force survey*

[32] Musabyimana I., Ranganathan (2019). Management framework of ongoing self-sustaining agricultural extension system and training of farmer promoters and farmers in Rwanda, Rwanda Journal of Agricultural Sciences Vol. 1 No.1

[33] NISR, National Accounts 2021

3.3. Contribution of agriculture to export revenue - % and value	- *% of agriculture exports revenue in total export*	- *Agriculture constitutes 50% of exports revenue*	*NISR data* *BNR data*
3.4. Growth in rural / agriculture incomes	- *% Increase in rural incomes*	- *Currently, on average, a farmer in rural area earns around 26,000 Rwf a month*[34]	*NISR EICV6* *NISR Census 2022*
3.5. New investment attracted to Agriculture	- *Level and value of new investment attracted to Agriculture* - *agriculture investment as a % of GDP*		*National Accounts* *BNR statistics*

Source: Nathan-Vanguard Economics 2023

[34] NISR, EICV 5 Economic Activity Report

8 Implementation Plan

This strategy will be guided by an implementation plan that includes main interventions, activities, and indication of how those activities will be measured and key assumptions associated. See Annex 1. In addition to the plan, a Gantt chart is also attached in the annex 2 with activities prioritised as short (coloured in red), medium (yellow), and long term (green). It involves stakeholder engagement, assessments, product development, capacity building, pilot testing, scaling up, and monitoring and evaluation to ensure the successful implementation of the strategy.

9 MEL framework

The Monitoring, Evaluation, and Learning (MEL) framework for the NAFSS will be managed by the Agri-Finance Sub-Sector Working Group (SSWG) with support from AFR. The composition of the SSWG will be agreed upon in consultation with key stakeholders to ensure representation from all relevant organizations.

The results framework above has provided several proposed indicators that can be used to measure the impact of the implementation of the strategy. The list of indicators is not conclusive but provides guidance on a practical and tangible way of measuring the progress that will have been achieved. The strategy is expected to be implemented over a 5-year period starting in 2023. We propose the following approach to monitoring, evaluation, and learning.

- **Monitoring the progress in implementation –** The implementation of the NAFSS will be monitored by the SSWG on a bi-monthly basis using the results framework provided above. This can be converted into a log frame which then provides annual targets / milestones to be achieved. This should start from initial design through to evaluation. An annual assessment should be undertaken, and a report written to outline the progress made against the indicators. The reports can then be used to inform and guide the ongoing implementation of the strategy.
- **Evaluation of the strategy** – this should be done at the mid and end term of the strategy. The evaluation will mainly focus on whether the implementation of the strategy is delivering on the outcome and impact statements outlined in the results framework. The overall approach adopted in measuring impact at the intervention level should focus on the OECD-DAC evaluation criteria: Relevance, Effectiveness, Efficiency, Impact and Sustainability. Approaches to evaluation should be participatory in terms of target stakeholders and beneficiaries of Agriculture finance to understand the full impact of the implementation of the NAFSS.
- **Lessons and impact stories** – this would be an important way of tangibly demonstrating the impact of the strategy to stakeholders. The results of evaluations and lessons learned will be disseminated through regular reports, workshops, and other relevant forums. These will be designed to facilitate open discussion and sharing of best practices, and to encourage stakeholder engagement in the NAFSS.

9.1 Sustainability

The sustainability plan for the strategy includes the following key elements:

- **Institutional capacity building -** The strategy aims to build the capacity of stakeholders to sustain the interventions proposed in the NAFSS.
- **Private sector engagement -** The strategy recognizes the critical role of the private sector in sustaining the interventions proposed in the NAFSS.
- **Knowledge management** - The strategy emphasizes the importance of knowledge management for sustaining the interventions proposed in the NAFSS. This includes capturing and sharing lesson learnt.
- **Monitoring and evaluation** - The strategy recognizes the importance of monitoring and evaluation for sustaining the interventions proposed in the NAFSS. This includes the MEL framework to track progress towards the strategy's goals, assess the effectiveness of interventions, and identify areas for improvement.
- **Resource mobilization** - The strategy acknowledges the importance of aligning the interventions with the existing set aside resources – at MINAGRI and other government bodies as well as leveraging the donor community in case there is a gap - to sustain its implementations.

Overall, the sustainability plan for the strategy aims to build institutional capacity, engage the private sector, promote knowledge management, establish effective monitoring and evaluation systems, and mobilize resources to ensure the sustainability of the interventions proposed in the NAFSS.

10 Communication and visibility framework

Consultations with stakeholders and beneficiaries have showed a gap in understanding of agriculture sector withing supply side and of financial services withing demand side. There is a need to develop a revamped and effective approach to communicating the NAFSS to its key stakeholders. An effective communications plan will be required to not only build knowledge and awareness but also to educate those involved in advancing agriculture financing on their roles and responsibilities in making these important interventions function effectively. In creating a communication and visibility strategy the following will need to be considered.

1. **Establish and maintain open communication channels with key stakeholders,** including farmers, financial institutions, government agencies, and development partners. This will ensure that the NAFSS remains relevant and responsive to the needs of all stakeholders.
2. **Develop and implement an awareness-raising campaign to promote the NAFSS** and increase understanding of agriculture sector to FSPs as well as the financial services available to the demand side.
3. **Develop a comprehensive communication plan** that outlines the target audience, key messages, channels of communication, and frequency of engagement. This plan will ensure that communication is consistent, effective, and impactful.
4. **Organize and participate in events and workshops to promote the NAFSS and encourage stakeholder engagement.** These events will provide opportunities to share information, discuss challenges, and identify solutions.
5. **Share the lessons learned and what could have been done better**. Need to ensure a robust M&E structure that helps understand what has been achieved. This will help to build the credibility that drives the reform process.

11 Risk management framework

Implementation of the NAFSS has and will continue face several challenges that the MINAGRI and stakeholders will need to address if the strategy is to deliver the expected goals.

1. **Identify and assess the key risks that may impact the successful implementation of the NAFSS**, including but not limited to: lack of access to finance, low uptake of financial services, lack of awareness, and insufficient capacity of stakeholders.
2. **Develop and implement strategies to mitigate identified risks**, including partnering with financial institutions and providing capacity building, as well as supporting the demand side by increasing awareness of the benefits of accessing financial services.
3. **Monitor and manage risks using a risk register**, which will be linked to the NAFSS strategy. This will ensure that risks are regularly reviewed, assessed, and managed effectively.
4. **Develop and implement a risk response plan for each identified risk**, including contingency plans for addressing unexpected events. This will ensure that the NAFSS remains on track and is able to respond to changing circumstances in a timely and effective manner.
5. **Ensure that the risk management framework is integrated into the communication and visibility plan**, and that stakeholders are kept informed of any risks and the strategies in place to manage them.

The table below shows the types of potential risks and proposes an approach to mitigation.

Table 3: Risk matrix

Type of risk	Description	Approach to mitigation
Strategic	Stakeholders may not demonstrate the level of commitment needed to ensure the success of the NAFSS	Continuous communication and visibility, advocacy, and engagement with key stakeholders during the implementation of the strategy to secure and maintain political buy in.
		Consulting fully with the stakeholders so that the strategy remains relevant to their needs.
		Networking and establishing meaningful partnerships in support of delivery of the strategy
Developmental	Some segments of the beneficiaries are left out of the beneficiation of the NAFSS – youth, women, and PWDs.	MINAGRI to mainstream youth, gender and PWDs in the implementation of the strategy.
Operational	MINAGRI is unable to raise enough funding to implement the strategy	MINAGRI need to draw up a funding strategy that will help raise financial support and commitment to support implementation of the NAFSS
	Poor visibility of the impacts and benefits of the strategy	Follow Proactive, timely and planned communication and visibility actions throughout the duration of the strategy

12 Budget framework

12.1 Approach to funding the strategy.

The approach to funding the strategy involves two main steps:

Aligning the interventions with the existing budget framework within the Ministry of Agriculture (MINAGRI): As the strategy falls under the PSTA4 program, it should be part of the budget set aside to deliver PSTA4. This will ensure that the strategy is sustainably funded and delivered.

Seeking alternative sources of financing: If there are gaps in the budget for the strategy, MINAGRI should look for other government bodies that can deliver the missing components. It should also consider leveraging the donor community and private sector investment to close the funding gaps. This approach will ensure that the strategy is fully funded and can be successfully implemented.

Budget has been developed based on estimated costs of delivering relevant activities. See annex 3. Given that some might be within existing budgets of relevant government ministries and agencies it is important for all stakeholders to identify the relevant interventions of interest and within their portfolio which they are best place to implement.

13 Governance and partnership framework

The success of the Agri finance strategy will depend on the active involvement and collaboration of various stakeholders. While there is an existing Agricultural Sector Working Group (ASWG), an Agri-Finance subsector working group, composed of key stakeholders should be established focus on Agri-finance policy dialogues and to monitor the implementation of the NAFSS and ensure that it remains aligned with its objectives. AFR should provide the secretariat for the groups and provide other required support needed. The group should monitor the implementation of the NAFSS bi-monthly.

Sector Working Groups (SWGs) are technical working forums through which the GOR and stakeholders meet to discuss sector and cross-sector planning and prioritization according to strategic plans and development programs. SWGs are co-chaired by the Permanent Secretary of the relevant line ministry and a representative from the lead donor agency.

14 Annex

14.1 Annex 1: Implementation Plan

Activities	Sub activities	Outputs	Outcomes	Impact	Assumptions
Pillar 1 - Addressing information asymmetry gaps and constraints.					
• Finalise and implement an awareness and education campaign on the National Financial Education Strategy.	Develop specific agriculture finance awareness campaign concept Validate and train MINAGRI staff on campaign concept Develop awareness campaign programme covering all districts Roll out awareness campaign	• Campaign concept note developed. • Training undertaken. • Campaign programme budget agreed and secured	Will contribute to the following outcomes: • OL 1.1 • OL 1.2 • OL 1.3 • OL 1.5 • OL 1.7	IL 1 –Increased contribution to wealth creation	• MINAGRI secures sufficient budget to undertake training and roll out the campaign
• MINAGRI to develop a communication strategy/campaign focusing on agriculture finance success stories to address perceptions of the risk associated with the sector.	Compile success stories of a range of businesses covering key sub sectors Publish the success stories using all forms of relevant media that can reach the farmers and stakeholders in the sector	• Compendium of success stories • Number of people reached through different media platforms.	Will contribute to the following outcomes: • OL 1.1 • OL 1.2 • OL 1.3 • OL 1.5 • OL 1.7		• MINAGRI has the capacity to implement the communication strategy
• Educate both demand and supply side actors on the availability and utility of movable collateral registration system	Assess current awareness, understanding, and constraints, of the collateral registration system (CRS) Propose reforms that would improve the working of the collateral registration system Implement training of demand and supply side actors on the new CRS MINAGRI to advocate with BNR and RDB to implement reforms to the CRS	• CRS status report finalized and validated. • Roadmap for the implementation of reforms agreed/. • Training undertaken	Will contribute to the following outcomes: • OL 1.1 • OL 1.4 • OL 1.5 • OL 1.6		• Regulator is open to reforming the system
• MINAGRI to work with BRD and FSPs to create awareness around the availability and functionality of existing export finance instruments	-Develop awareness concept on availability and functionality on existing export financing export	• Concept developed. • Increased number of agricultural exporters accessing export finance	Will contribute to the following outcomes: • OL 1.1 • OL 3.3	IL 3 – Economic opportunities and prosperity - Jobs and poverty alleviation	-
Pillar 2 - Creating awareness and strengthening education and capacity on financial services.					
• Increase farmer education and awareness of the negative impact of cultural norms and practices, particularly on gender-based access to financial services for SHF.	Develop guidelines for credit officers at all FSPs highlighting the impact of cultural norms on women, youth, and PWD access to finance Develop awareness campaign to educate SHF (women, youth, and PWD) on their rights to access finance	• Guide is developed and approved by the regulator. • Awareness campaign programme	Will contribute to the following outcomes: • OL 1.1 • OL 1.5 • OL 1.7	IL 1 – Increased contribution to wealth creation	• Funding of the awareness campaign secured

	Roll out implementation of the guidelines and awareness campaign	approved and validated. • Implementation of guide and awareness campaign			
• Introduce agri- finance BDS at sector level to enhance skills and capacities of borrowers (example – Sector land officers in the land tenure system)	Develop a business case for MINAGRI to introduce agri-finance expertise at sector level Secure donor funding for the recruitment and piloting of agri-finance capacity at sector level Secure budget to hire fully staff 416 with agri-finance specialist Develop sustainable model for agri-finance charging for their service	• Business case developed and validated by AFSSWG. • Donor funding for the pilot is secured. • Sustainable model is approved and rolled out	Will contribute to the following outcomes: • OL 2.1 • OL 2.2 • OL 2.4 • OL 3.2 • Ol 3.4	IL 2 – Increased resilience and sustainability	• Funding of pilot secured (5 districts)
• Capacity building of FSPs to improve understanding of Agri- finance models and investment cycles.	Develop agriculture finance training module for FSPs Validate training module with the regulator and FSPs Roll out training at diverse levels (VSLAs, SACOOs, MFIs, NDFIs and commercial banks) Launch a bi-weekly agri-finance awareness workshops for each of agriculture sub-sector	• Training module developed and approved. • Number of FSP that have participated in the training programme. • Number of sub-sector specific workshops conducted	Will contribute to the following outcomes: • OL 1.1 • OL 1.5 • OL 1.6 • OL 2.1 • OL 2.5	IL 1 – Increased contribution to wealth creation	• Funding for the FSPs capacity building is secured
• MINAGRI to review the performance of the NAIS to develop ways to improve uptake of agriculture insurance.	Conduct performance impact evaluation of NAIS Validate recommendations and proposed reforms to the NAIS Implementation of reforms	• Performance Impact report and reforms • Reform action plan implemented	Will contribute to the following outcomes: • OL 1.2		• Regulator and FSPs open to reforming the system
• MINAGRI to invest in a communication campaign that would increase awareness, understanding, and use of risk mitigation products.	MINAGRI to work with ASSAR to develop agriculture insurance awareness campaign Roll out agriculture insurance awareness campaign Evaluate impact of the campaign	• Level of awareness of agriculture insurance has increased	Will contribute to the following outcomes: • OL 1.1 • OL 1.2 • OL 1.5		• Insurance players are willing to participate
• MINAGRI to work with RSSB to champion Ejo Heza in return for RSSB to avail patient capital to agriculture. Ejo Heza is a repository of long-term savings that could be deployed into investments products that unlock patient capital for agriculture.	Develop concept note for Agriculture Patient Capital Fund (APCF) Validate APCF concept note with MINECOFIN, BRD and RSSB Design framework and guidelines for APCF Secure RSSB and donor funding for APCF Technical Assistance to RSSB for APC implementation	• Concept note developed and validated. • Guidelines developed and APCF running.	Will contribute to the following outcomes: • OL 1.1 • OL 1.5 • OL 1.7 • OL 2.1		• RSSB and donor funding secured. • Buy in from stakeholders

			• OL 3.5		
• BNR and ASSAR to review innovative regulatory regimes within the region that have delivered vibrant and innovating agri-insurance sector	Develop insurance market development roadmap Design insurance reform programme Implement insurance market development roadmap	• Insurance market development roadmap developed and implemented	Will contribute to the following outcomes: • OL 1.1 • OL 1.2		• Regulator's buy in • ASSAR members willing to participate
• Engaging FSPs and MNOs on carrying out awareness campaigns on the services available on USSD and scaling up these services to meet user needs.	FSPs and MNOs to work with MINAGRI to develop a viable USSD agriculture finance awareness campaign Develop business model for the awareness campaign Execute awareness campaign Evaluate effectiveness of the awareness campaign	• Awareness campaign and its business model developed. • Campaign rolled out.	Will contribute to the following outcomes: • OL 1.7 • OL 2.1	IL 2 – Increased resilience and sustainability	• FSPs and MNOs willing to upgrade USSD services for agriculture finance. • Funding for the campaign secured
• FSPs to understand the seasonality of agriculture and develop products that reflects that.	Launch a bi-weekly agri-finance awareness workshops for each of agriculture sub-sector FSPs develop appropriate financial products addressing farmers' needs	• Bi-weekly Agri-finance awareness workshops implemented. • Appropriate financial products developed	Will contribute to the following outcomes: • OL 1.1 • OL 1.2 • OL 1.5 • OL 1.6 • OL 2.5	IL 1 – Increased contribution to wealth creation	Funding for the workshops secured
Pillar 3 - Building farmer profiles and transaction history					
• Fast track the farmer profiling/registry and pilot in a few priority value chains.	Develop farmer profiling pilot to be implemented on 3 agriculture value chains (Crops, livestock, and fisheries) Assess and validate the pilot data collected and how it can be utilized to de-risk access to finance Propose changes to the farmer profile system before it is rolled out across agriculture value chains	• Pilot for the farmer profiling for 3 agriculture VCs developed and implemented. • Recommendations from the pilot approved. • Farmer profiling scaled up across other agriculture value chains.	Will contribute to the following outcomes: • OL 2.2 • OL 2.3	IL 2 – Increased resilience and sustainability	• Pilot has been successful. • Funding for the farmers profiling secured.
• BNR to fast track the implementation of the interoperability of payments systems as outlined in the RNDPS. FSPs should be given controlled access to the database which can then be used to provide line of sight on SHF financial transactions.	Undertake a study on interoperability (payment) in agriculture. Creating awareness about interoperability reforms targeted at stakeholders in the agriculture	• study on interoperability in agriculture is undertaken. • Stakeholders are aware of interoperability reforms	Will contribute to the following outcomes: • OL 1.6 • OL 2.3 • OL 3.5	IL 3 – Economic opportunities and prosperity - Jobs and poverty alleviation	• Buy in from stakeholders
• Develop alternative collateral instruments that would widen access to finance.	Undertake a review of alternative collateral finance instruments being implemented in comparable economies in Africa	• Pilot of alternative collateral instruments	Will contribute to the following outcomes:	IL 1 – Increased contribution to wealth creation	• Funding secured

	Propose recommendations on potential alternative collateral instruments Validate and pilot alternative collateral instruments	validated and implemented.	• OL 1.4 • OL 1.5 • OL 1.7		
Pillar 4 - Strengthening governance and coordination of Agri finance reforms.					
• MINAGRI to work RLMUA (Rwanda Land Management and Use Authority) to extend land valuation and referencing beyond urban areas and provide FSPs access.	MINAGRI to work with RLMUA to pilot land valuation and referencing to selected rural agricultural districts Assess and validate results of the pilot Develop a rural land valuation referencing programme Secure funding for the rural land valuation referencing programme for implementation	• land valuation and referencing piloted in selected districts. • Pilot assessed and results validated. • land valuation and referencing programme scaled up.	Will contribute to the following outcomes: • OL 1.1 • OL 1.4 • OL 1.5 • OL 2.4	IL 1,2,3 – (Increased contribution to wealth creation, Increased resilience and sustainability Economic opportunities and prosperity - Jobs and poverty alleviation)	• Funding for the land valuation and referencing programme secured
• Engage MINECOFIN and development partners on rolling out supporting infrastructure for FSPs to rural areas.	Assess current state of agro-logistics (Roads, ICT, electricity, etc.) Develop priority Agro- infrastructure plan Validate and implement Agro- infrastructure plan with relevant GoR department and agencies	• Agro-logistics infrastructure assessment report. • Priority Agro-infrastructure plan developed, and validated	Will contribute to the following outcomes: • OL 3.1 • OL 3.2 • OL 3.3 • OL.3.4	IL 3 – Economic opportunities and prosperity - Jobs and poverty alleviation	• Funding is secured for the roll out of the new infrastructure
Pillar 5 - Incentivizing the development of tailored and innovative Agri finance products.					
• Undertake a mapping of financing models in those VCs that are currently well financed to document learning for other VCs.	Develop case studies of value chains that have been successfully financed and those that have struggled to attract finance Validate the case studies with key stakeholders Develop a compendium of recommendations to address specific challenges and opportunities identified	• Case studies developed and validated. • A compendium of recommendations developed	Will contribute to the following outcomes: • OL 1.7	IL 1 – Increased contribution to wealth creation	• Funding secured
• MINAGRI working with partners to generate evidence on innovative financing approaches/practices that have unlocked agriculture finance in other countries.	MINAGRI to commission study on innovative agriculture financing in benchmark countries Validate the study at Develop recommendations to reform agriculture financing in Rwanda Validate the evaluation report with key stakeholders	• Study on innovative agriculture financing in benchmark countries undertaken and findings validated. • Reforms developed and validated			• Funding secured
	MINAGRI and BDF to evaluate the effectiveness of current agriculture finance guarantee products	• Effectiveness of current agriculture			• Stakeholders are willing to

• BDF work with MINAGRI to develop specific agriculture guarantee products that address Agriculture financing risk.	Implement recommendations on agriculture finance guarantee products	finance guarantee products evaluated, and recommendations are validated and implemented.	Will contribute to the following outcomes: • OL 1.1 • OL 1,3 • OL 1.5 • OL 3.2		implement the recommendation
• MINAGRI to work with KIFC to attract institutional and other investors able to deploy patient capital or with long-term financing products.	MINAGRI to work with KIFC to attract investors to the APCF	• Business case approved and developed.	Will contribute to the following outcomes: • OL 1.7 • OL 3.1 • OL 3.5		-
• MINAGRI to work with AFR and FSPs on new de-risking facilities being developed by donor partners such as SIDA and KfW.	MINAGRI to create awareness of new agriculture de-risking facility	• Awareness on new de-risking facility is increased	Will contribute to the following outcomes: • OL 1.3 • OL 1.5		-
• MINGARI to engage MNOs and Fintechs on what enabling environment reforms will be required to improve the access to financial services using MNO and other financial digital platforms.	MINAGRI to conduct a workshop with MNOs and Fintechs on mobile phone/digital financial services in agriculture Develop actions plan to facilitate implementation of proposed reforms and opportunities	• Workshop with MNOs and Fintechs conducted. • Proposed reforms approved and action plan implemented	Will contribute to the following outcomes: • OL 1.7		• Stakeholders are willing to implement the recommendation
• MINAGRI to work with BNR to introduce and incentive mechanism that would incentivize lending to agriculture: This could be in the form of those who actively participate being able to source finance from BNR at lower cost.	MINAGRI to work with BNR to explore potential options for regulatory incentives that would expand FSP agriculture lending. Test potential regulatory incentives in BNR sandbox	• Potential regulatory incentives are identified and tested	Will contribute to the following outcomes: • OL 1.1 • OL 1.5 • OL 1.6		• Stakeholders are open to exploring options
Pillar 6 - Supporting and influencing regulatory reform to unlock flow of finance.					
• RDB to improve the mobile collateral registration system by including other sorts of assets like warehouse receipts and make it accessible to farmers and FSPs	MINAGRI to work with RDB and BNR to expand the mobile collateral registration to include other assets	• Mobile collateral registration system is improved.	Will contribute to the following outcomes: • OL 1.4 • OL 1.5	IL 1 – Increased contribution to wealth creation	
• BNR to extend the reporting of agriculture loans to cover activities beyond production.	BNR working with FSPs to improve definition of Agriculture classification in current loans reporting systems	• New agriculture loans classification is in placed	Will contribute to the following outcomes:		-

	BNR to validate and implement new Agriculture finance classification systems		• OL 1.6 • OL 3.5		
• MINAGRI to review of agriculture household survey questionnaire and propose changes that would improve jobs/work classification	MINAGRI to work with NISR to review current questionnaire and propose changes Updated questionnaire validated Questionnaire piloted and changes to final questionnaire implemented	• New agriculture jobs/work classification is in placed	Will contribute to the following outcomes: • OL 3.1	IL 3 – Economic opportunities and prosperity - Jobs and poverty alleviation	-
• BNR to work with FSPs to agree acceptable loan processing timeframes that would improve the speed and quality of services delivered in the industry.	BNR to work with FSPs to develop loans SLAs that would improve the quality and processing times SLAs to be validated by regulator and all FSPs before being rolled out across the banking sector BNR to evaluate the effectiveness of the new SLAs in improving the loans quality and processing times	• New SLAs developed, validated, and implemented to improve the quality and processing times of loans. • New SLAs evaluated	Will contribute to the following outcomes: • OL 1.1 • OL 1.4 • OL 1.5 • OL 2.4	IL 1 – Increased contribution to wealth creation	-
• BNR to work with AFR and MINECOFIN to diversify providers of agricultural guarantees in Rwanda	BNR and AFR to undertake a study on alternative agriculture guarantee scheme in benchmark market Design and pilot at least one agriculture finance guarantee scheme Evaluate the impact of the agriculture guarantee pilot scheme	• Study on alternative agriculture guarantee scheme in benchmark market conducted. • Pilot of one agriculture finance guarantee scheme implemented and evaluated.	Will contribute to the following outcomes: • OL 1.2 • OL 1.5 • OL 1.7 • OL 2.1		-

14.2 Annex 2: Gantt chart of the activities

Implementation timeframes

Description of activities	Sub-activities	Year 1				Year 2				Year 3				Year 4				Year 5				Responsible
		Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	
Pillar 1 - Addressing information asymmetry gaps and constraints																						
Finalise and implement and awareness and education campaign on the National Financial Education Strategy.	• Develop specific agriculture finance awareness campaign concept																					
	• Validate and train MINAGRI staff on campaign concept																					
	• Develop awareness campaign programme covering all districts																					
	• Roll out awareness campaign																					MINAGRI
MINAGRI to develop a communication strategy/campaign focusing on agriculture finance success stories to address perceptions of the risk associated with the sector	• Compile success stories of a range of businesses covering key sub sectors																					
	• Publish the success stories using all forms of relevant media that can reach the farmers and stakeholders in the sector																					MINAGRI
Educate both demand and supply side actors on the availability and utility of movable collateral registration system	• Assess current awareness, understanding, and constraints, of the collateral registration system (CRS)																					
	• Propose reforms that would improve the working of the collateral registration system																					
	• Implement training of demand and supply side actors on the new CRS																					
	• MINAGRI to advocate with BNR and RDB to implement reforms to the CRS																					AFR
Pillar 2 - Creating awareness and strengthening education and capacity on financial services.																						

Increase farmer education and awareness of the negative impact of cultural norms and practices, particularly on gender-based access to financial services.	• Develop guidelines for credit officers at all FSPs highlighting the impact of cultural norms on women, youth, and PWD access to finance	
	• Develop awareness campaign to educate SHF (women, youth, and PWD) on their rights to access finance	
	• Roll out implementation of the guidelines and awareness campaign	MINAGRI
Introduce agri-finance BDS services at sector level to enhance skills and capacities of borrowers (example – Sector land officers in the land tenure system)	• Develop a business case for MINAGRI to introduce agri-finance expertise at sector level	
	• Secure donor funding for the recruitment and piloting of agri-finance capacity at sector level	
	• Secure budget to fully staff 416 with agri-finance specialist	
	• Develop sustainable model for agri-finance charging for their service	MINAGRI
Capacity building of FSPs to improve understanding of Agri- finance models and investment cycles.	• Develop agriculture finance training modules for FSPs	
	• Validate training modules with the regulator and FSPs	
	• Roll out training at different levels (VSLAs, SACOOs, MFIs and commercial banks)	
	• Launch a bi-weekly agri-finance awareness workshops for each of agriculture sub-sector	MINAGRI
MINAGRI to review the performance of the NAIS to develop ways to improve uptake of agriculture insurance.	• Conduct a mid-term evaluation of NAIS	
	• Validate recommendations and proposed reforms to the NAIS	
	• Implementation of reforms	MINAGRI
MINAGRI to invest in a communication campaign that would increase awareness, understanding, and	• MINAGRI to work with ASSAR to develop agriculture insurance awareness campaign	
	• Roll out agriculture insurance awareness campaign	ASSAR

use of risk mitigation products.	• Evaluate impact of the campaign	
MINAGRI to work with RSSB to champion Ejo Heza in return for RSSB to avail patient capital to agriculture. Ejo Heza is a repository of long-term savings that could be deployed into investments products that unlock patient capital for agriculture	• Develop concept for Agriculture Patient Capital Fund (APCF)	RSSB
	• Validate APCF concept note with MINECOFIN, BRD, RSSB, and AFSSWG	
	• Design framework and guidelines for APCF	
	• Secure RSSB and donor funding for APCF	
BNR and ASSAR to review innovative regulatory regimes within the region that have delivered vibrant and innovating agri-insurance sector	• Develop insurance market development roadmap	BNR
	• Design insurance reform programme	
	• Implement insurance market development roadmap	
Engaging FSPs and MNOs on carrying out awareness campaigns on the services available on USSD and scaling up these services to meet user needs	• FSPs and MNOs to work with MINAGRI to develop a viable USSD agriculture finance awareness campaign	MNOs
	• Develop business model for the awareness campaign	
	• Execute awareness campaign	
	• Evaluate effectiveness of the awareness campaign	
FSPs to understand the seasonality of agriculture and develop products that reflects that.	• Launch a bi-weekly agri-finance awareness workshops for each of agriculture sub-sector	MINAGRI
Pillar 3 - Building farmer profiles and transaction history		
Fast track the farmer profiling/registry and pilot in a few priority value chains	• Develop farmer profiling pilot to be implemented on 3 agriculture value chains (Crops, livestock, and fisheries)	MINAGRI
	• Assess and validate the pilot data collected and how it can be utilized to de-risk access to finance	

	• Propose changes to the farmer profile system before it is rolled out across agriculture value chains	
BNR to fast tract the implementation of the interoperability of payments systems as outlined in the RNPS. FSPs should be given controlled access to the database which can then be used to provide line of sight on SHF financial transactions	• Undertake a study on interoperability (payment) in the agriculture	BNR
	• Creating awareness about interoperability reforms targed at stakeholders in the agriculture	
Develop alternative collateral instruments that would widen access to finance.	• Undertake a review of alternative collateral finance instruments being implemented in comparable economics in Africa	AFR
	• Propose recommendations on potential alternative collateral instruments	
	• Validate and pilot alternative collateral instruments	
Pillar 4 - Strengthening governance and coordination of Agri finance reforms.		
MINAGRI to work RLMUA (Rwanda Land Management and Use Authority) to extend land valuation and referencing beyond urban areas and provide FSPs access.	• MINAGRI to work with RLMUA to pilot land valuation and referencing to selected rural agricultural districts	RLMUA
	• Assess and validate results of the pilot	
	• Develop a rural land valuation referencing programme	
	• Secure funding for the rural land valuation referencing programme	
Engage MINECOFIN and development partners on rolling out supporting infrastructure for FSPs to rural areas.	• Assess current state of agro-logistics (Roads, ICT, electricity, etc.)	MINECOFIN
	• Develop priority Agro- infrastructure plan	
	• Validate Agro- infrastructure plan with relevant GoR department and agencies	
Pillar 5 - Incentivizing the development of tailored and innovative Agri finance products.		

Undertake a mapping of financing models in those VCs that are currently well financed to document learning for other VCs.	• Develop case studies of value chains that have been successfully financed and those that have struggled to attract finance	
	• Validate business cases with key stakeholders at the AF-SSWG	
	• Develop a compendium of recommendations to address specific challenges and opportunities identified	MINAGRI
MINAGRI working with partners to generate evidence on innovative financing approaches/practices that have unlocked agriculture finance in other countries.	• MINAGRI to commission study on innovative agriculture financing in benchmark countries	
	• Validate the study at AF-SSWG	
	• Develop recommendations for AF-SSWG to reform agroculture financing in Rwanda	
	• Validate the evaluation report at the AF-SSWG	MINAGRI
BDF work with MINAGRI to develop specific agriculture guarantee products that address Agriculture financing risk.	• MINAGRI and BDF to evaluate the effectiveness of current agriculture finance guarantee products	
	• Implement recommendations on agriculture finance guarantee	BDF
MINAGRI to work with KIFC to attract institutional and other investors able to deploy patient capital or with long-term financing products.	• MINAGRI to work with KIFC to attract investors to the APCF	KIFC
MINAGRI to work with AFR and FSPs on new de-risking facilities being developed by donor partners such as SIDA and KfW	• MINAGRI to create awareness of new agriculture de-risking facility	MINAGRI
MINAGRI to engage MNOs on what	• MINAGRI to conduct a workshop with MNOs on mobile phone agriculture financing	MINAGRI

Outcome	Activities	Responsible
enabling environment reforms will be required to improve the access to financial services using MNO platforms	• Develop actions plan to facilitate implementation of proposed reforms and opportunities	
MINAGRI to work with BNR to introduce and incentive mechanism that would incentivize lending to agriculture: This could be in the form of those who actively participate being able to source finance from BNR at lower cost	• MINAGRI to work with BNR to explore potential options for regulatory incentives that would expand FSP agriculture lending. • Test potential regulatory incentives in BNR sandbox	BNR
Pillar 6 - Supporting and influencing regulatory reform to unlock flow of finance.		
RDB to improve the mobile collateral registration system by including other sorts of assets like warehouse receipts and make it accessible to farmers and FSPs	• MINAGRI to work with RDB and BNR to expand the mobile collateral registration to include other assets	RDB
BNR to extend the reporting of agriculture loans to cover activities beyond production	• BNR working with FSPs to improve definition of Agriculture classification in current loans reporting systems • BNR to validate and implement new Agriculture finance classification systems	BNR
BNR to work with FSPs to agree acceptable loan processing timeframes that would improve the	• BNR to work with FSPs to develop loans SLAs that would improve the quality and processing times • SLAs to be validated by regulator and all FSPs before being rolled out across the banking sector	BNR

speed and quality of services delivered in the industry. Examples include the approach taken in the assessment and disbursement of loan under the ERF programme.	• BNR to evaluate the effectiveness of the new SLAs in improving the loans quality and processing times																				
BNR to work with AFR and MINECOFIN to diversify providers of agricultural guarantees in Rwanda)	• BNR and AFR to undertake a study on alternative agriculture guarantee scheme in benchmark market																				AFR
	• Design and pilot at least one agriculture finance guarantee scheme																				
	• Evaluate the impact of the agriculture guarantee pilot scheme																				

MINAGRI

14.3 Annex 3: Budget framework

Activities	Budget Estimates (Million Rwf)					2,285
	2024	2025	2026	2027	2028	Total
Pillar 1 - Addressing information asymmetry gaps and constraints.						***350***
Finalise and implement an awareness and education campaign on the National Financial Education Strategy.	57.50	57.50	115	0	0	230
MINAGRI to develop a communication strategy/campaign focusing on agriculture finance success stories to address perceptions of the risk associated with the sector.	70	0	0	0	0	70
Educate both demand and supply side actors on the availability and utility of movable collateral registration system	25	25	0	0	0	50
Pillar 2 - Creating awareness and strengthening education and capacity on financial services.						**1,205**
Increase farmer education and awareness of the negative impact of cultural norms and practices, particularly on gender-based access to financial services.	43.75	43.75	87.50	0	0	175
Introduce agri- finance BDS services at sector level to enhance skills and capacities of borrowers (example – Sector land officers in the land tenure system)	20	20	20	0	0	60
Capacity building of FSPs to improve understanding of Agri- finance models and investment cycles.	0	170	0	0	0	170
MINAGRI to review the performance of the NAIS to develop ways to improve uptake of agriculture insurance.	0	60	0	0	0	60
MINAGRI to invest in a communication campaign that would increase awareness, understanding, and use of risk mitigation products.	50	100	0	0	0	150
MINAGRI to work with RSSB to champion Ejo Heza in return for RSSB to avail patient capital to agriculture. Ejo Heza is a repository of long-term savings that could be deployed into investments products that unlock patient capital for agriculture.	30	60	0	0	0	90
BNR and ASSAR to review innovative regulatory regimes within the region that have delivered vibrant and innovating agri-insurance sector	0	50	0	0	0	50
Engaging FSPs and MNOs on carrying out awareness campaigns on the services available on USSD and scaling up these services to meet user needs.	75	75	0	0	0	150
FSPs to understand the seasonality of agriculture and develop products that reflects that.	300	0	0	0	0	300
Pillar 3 - Building farmer profiles and transaction history						**155**

Fast track the farmer profiling/registry and pilot in a few priority value chains.	0	0	0	0	0	Project already underway by MINAGRI
BNR to fast track the implementation of the interoperability of payments systems as outlined in the RNPS. FSPs should be given controlled access to the database which can then be used to provide line of sight on SHF financial transactions.	40	40	0	0	0	80
Develop alternative collateral instruments that would widen access to finance.	25	50	0	0	0	75
Pillar 4 - Strengthening governance and coordination of Agri finance reforms.						**250**
MINAGRI to work RLMUA (Rwanda Land Management and Use Authority) to extend land valuation and referencing beyond urban areas and provide FSPs access.	130	0	0	0	0	130
Engage MINECOFIN and development partners on rolling out supporting infrastructure for FSPs to rural areas.						70
Pillar 5 - Incentivizing the development of tailored and innovative Agri finance products.						**240**
Undertake a mapping of financing models in those VCs that are currently well financed to document learning for other VCs.	35	0	0	0	0	35
MINAGRI working with partners to generate evidence on innovative financing approaches/practices that have unlocked agriculture finance in other countries.	55	0	0	0	0	55
BDF work with MINAGRI to develop specific agriculture guarantee products that address Agriculture financing risk.	0	17.50	17.50	0	0	35
MINAGRI to work with KIFC to attract institutional and other investors able to deploy patient capital or with long-term financing products.	0	5	5	5	0	15
MINAGRI to work with AFR and FSPs on new de-risking facilities being developed by donor partners such as SIDA and KfW.	35	0	0	0	0	35
MINGARI to engage MNOs on what enabling environment reforms will be required to improve the access to financial services using MNO platforms.	7.50	7.50	0	0	0	15
MINAGRI to work with BNR to introduce and incentive mechanism that would incentivize lending to agriculture: This could be in the form of those who actively participate being able to source finance from BNR at lower cost.	0	16.67	16.67	16.67	0	50
Pillar 6 - Supporting and influencing regulatory reform to unlock flow of finance.						**85**
RDB to improve the mobile collateral registration system by including other sorts of assets like warehouse receipts and make it accessible to farmers and FSPs	5	0	0	0	0	5

BNR to extend the reporting of agriculture loans to cover activities beyond production.	15	0	0	0	0	15
BNR to work with FSPs to agree acceptable loan processing timeframes that would improve the speed and quality of services delivered in the industry. Examples include the approach taken in the assessment and disbursement of loan under the ERF programme.	0	11.67	11.67	11.67	0	35
BNR to work with AFR and MINECOFIN to diversify providers of agricultural guarantees in Rwanda)	0	30	0	0	0	30

14.4 Annex 4: Logical Framework

Statement	Description	Indicators	Unit of measurement	Means of verification	Source of data	Baseline (2023)	Targets				
							2024	2025	2026	2027	2028
Impact 1: INCREASED CONTRIBUTION TO WEALTH CREATION											
Outcomes 1.1	Increased flow of finance to Agriculture sector	Credit flow to Agriculture sector at macro level	%	BNR annual financial stability report	BNR	2%	3%	4%	5%	7%	10%
Outcome 1.2	*Increased usage of agriculture insurance*	Increase in agriculture insurance penetration rate (crops and livestock)	%	MINAGRI data ASSAR data FINSCOPE 2024	MINAGRI & ASSAR	< 1 %	2%	3%	6%	8%	10%
Output 1.2.1	• Insurance market development roadmap developed and implemented. • BNR and ASSAR to review innovative regulatory regimes within the region that have delivered vibrant and innovating agri-insurance sector	Number of agriculture insurance solutions/recommendations launched	#	ASSAR & MINAGRI reports	MINAGRI & ASSAR	1	0	0	1	0	0
Outcome 1.3	*Usage of agriculture guarantee instruments*	Value of agriculture credit that has been guaranteed	#	MINAGRI and FSPs survey to collect the data BDF data	MINAGRI& BDF	TBD	TBD	TBD	TBD	TBD	TBD
Output 1.3.1	*Develop specific agriculture guarantee products that address agriculture financing risk*	Number of agriculture guarantee products/facilities launched	#	MINAGRI, BDF BNR reports	MINAGRIBDF	TBD	0	2	0	0	0
Outcome 1.4	Reduced cost of fees and charges on collateral registration	Cost of fees and charges as a % of the loan value	%	FSPs reporting on cost of collateral registration	FSPs	Flat fees on whatever size of loan	TBD	TBD	TBD	TBD	TBD
Output 1.4.1	Collateral asset registration system expanded	Number of collateral asset registration systems	#	RDB report	RDB	0	0	0	1	0	0

Outcome 1.5	Increased access to credit by SHF	Number of farmers accessing Agriculture related loans	%	Finscope 2024	BNR	5% (Finscope 2020)	7%	9%	11%	13%	15%
Output 1.5.1	Financial education strategy focusing on Agricultural financing	Number of agricultural financing strategy enacted	#	MINAGRI report	MINAG RI	0	1	0	0	0	0
Output 1.5.2	Communication strategy campaign on agricultural finance	Compendium success stories published	#	MINAGRI reports	MINAG RI	0	1	0	1	0	1
		Number of farmers reached through campaigns	#	MINAGRI report	MINAG RI	0	100,00 0	100,00 0	50,000	50,000	50,000
Output 1.5.3	FSP loan service level agreement developed, agreed and implemented	Number of FSP that have signed SLAs	#	RBA & AMIR reports	RBA &AMIR	0	20	100	200	100	50
Outcome 1.6	Value of FSP loans portfolio allocated to agriculture	% of agriculture loans in FSPs portfolio	%	BNR reports AMIR and RBA data	BNR AMIR and RBA	TBD	TBD	TBD	TBD	TBD	TBD
Output 1.6.1	Training session conducted to FSPs (Bank, MFIs, SACCOs, NDFIs, MNOs, Fintechs, ..)	Number of FSPs staff trained on agricultural financing to understand the seasonality of agriculture	#	MINAGRI FSPs report	MINAG RI FSPs	100	150	150	150	100	100
Output 1.6.2	BNR loan classification reporting template updated	Number of agriculture loans categories recorded	#	BNR reports	BNR	TBD	TBD	TBD	0	0	0
Outcome 1.7	Diversity of agriculture finance instruments	Number and types of tailored agriculture finance instruments products developed	Products	BNR data	BNR	TBD	5	3	2	0	0
Impact 2: INCREASED RESILIENCE AND SUSTAINABLE											
Outcome 2.1	Increased level of commercial agriculture	Rwandan farmers earning more than 600,000 RWF per annum	Rwf	NISR Agriculture Household survey	NISR	312,000 (EICV5)	350,00 0	400,00 0	450,00 0	500,00 0	600,00 0

Output2.2	Improved access to extension and BDS services	Ratio of extension worker to farmers	Ration			1/840	1/750	1/650	1/550	1/450	1/350
Output 2.2.1	Agri- finance BDS services introduced and operational at sector level	Number of agri-finance BDS services providers at sector level	Number	MINAGRI MINICOM Reports	MINAGRI MINICOM	0	50	100	150	100	16
Outcome 2.3	Increased financing of post-harvest infrastructure to reduce post-harvest loses	% of post-harvest loses in agriculture	%	MINAGRI data	MINAGRI	15-30 %	13-28%	10-25%	8-20%	6-15%	5-10%
Output 2.3.1	Innovative financing products to unlock financing for post-harvest infrastructure developed and implemented	Number of Innovative financing products to unlock financing for post-harvest infrastructure launched	Number	MINAGRI Reports	MINAGRI	0	2	2	0	0	0
Outcome 2.4	Increased level of agriculture productivity	1. % Increase in national agriculture output 2. Average yield per ha for key food and export crops	Rwf	MINAGRI data NISR, National accounts	MINAGRI & NISR	2,633 trillion Rwf	TBD	TBD	TBD	TBD	TBD
Output 2.4.1	Farmer profiling for agriculture VCs developed and implemented.	Number of value chains covered	#	MINAGRI data	MINAGRI	0	2	4	6	8	10
Outcome 2.5	Increased level and value of finance flowing to post harvest value addition	Value of loans to non-production related agriculture	Value	BNR data FSP data	BNR	TBD	TBD	TBD	TBD	TBD	TBD
Output 2.5.1	land valuation and referencing extended to rural areas and access granted to FSPs	Number of rural sectors under land valuation and referencing system	Number	RLMUA reports	RLMUA	0	0	50	100	100	100
Impact 3: ECONOMIC OPPORTUNITIES AND PROSPERITY –JOBS AND POVERTY ALLEVIATION											

Outcome 3.1	Increased contribution of Agriculture to GDP	Agriculture contribution to GDP	%	National Accounts	NISR	24%	24%	24%	24%	24%	24%
Outcome 3.2	New jobs created in the agriculture sector	Number of new agriculture -related business and jobs created	Number	LFS	NISR	TBC	TBD	TBD	TBD	TBD	TBD
Output 3.2.1	Improved disaggregation of job roles within the agriculture household survey	Number of agriculture job categories included in revised survey questionnaire	Number	Agriculture Household Survey	NISR	TBD	TBD	TBD	TBD	TBD	TBD
Outcome 3.3	Contribution of agriculture to export revenue - % and value	% of agriculture exports revenue in total export	%	NISR data BNR data	NISR BNR	50%					
Output 3.3.1	Increased number of agricultural exporters accessing export finance	Number of agricultural exporters and value of export	#	BNR, NAEB, & RBA reports	NAEB	TBC	TBC	TBC	TBC	TBC	TBC
Outcome 3.4	Growth in rural / agriculture incomes	% Increase in rural incomes	%	NISR EICV6 NISR Census 2022	NISR	26,000 Rwf/ Months	30,000	35,000	40,000	45,000	50,000
Output 3.4.1	New supporting infrastructure rolled out to rural area	Number of new infrastructures to rural area	#	MININFRA data	MININ FRA	TBD	0	0	0	TBD	TBD
Outcome 3.5	New investment attracted to Agriculture	1. Level and value of new investment attracted to Agriculture 2. agriculture investment as a % of GDP	Million USD	RDB Annual report	RDB	235 million USD	240	250	270	290	300
Output 3.5.1	New long term financing products developed and implemented	Number of new long term financial products developed and implemented	Number	KIFC & MINAGRI data	KIFC &MINA GRI	0	0	2	4	6	8