REPUBLIC OF RWANDA

MINISTRY OF TRADE AND INDUSTRY

NATIONAL MEAT VALUE CHAIN STRATEGY 2022-2027

Final Report

October 2022

FOREWORD

Rwanda aspires to reach Middle Income Country (MIC) and High-Income Country (HIC) status by 2035 and 2050 respectively. The Vision is to be realized through a series of seven-year National Strategies for Transformation (NST1), underpinned by detailed sectoral strategies that are aimed toward achievement of the SDGs. The NST1 came after the implementation of two Strategy Objective strategies; the five-year Economic Development and Poverty Reduction Strategies-EDPRS-1 (2008-12) and EDPRS-2 (2013-18), under which Rwanda experienced robust economic and social performances. Furthermore, several frameworks are expected to sustainably address food/nutrition security, a competitive food supply and trade and overall social and economic uplifting. They include; the Rwanda Vision 2050, National Agricultural Policy of Rwanda, Strategic Plan for the Transformation of Agriculture in Rwanda, the Made in Rwanda (MIR) Policy.

As an integral part of Rwandan agriculture, livestock sub-sector stands in 3rd position in Agricultural GDP contribution after food crops and forestry, accounting for 9.36%. The sub-sector is a key economic driver, in providing food, nutrition and income security; either directly through production for consumption or marketing or through creation of off-farm employment opportunities as processing and related services. A growing number of evidences, the country's strong case for meat production has potential and opportunities to slaughter and process the available livestock that would hardly affect the country's food supply and trading. This strategy will contribute to the Government' s vision of equipping its supply chain with effective tools to improve food production quality and marketing, safety, and promote traceability to enable trade. The purpose of this National Meat Value Chain Development Strategy, hence, is to document the strong case and options to reverse the livestock export trend, by increased conversion into quality meat production and trade for both domestic market and exports.

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LIST OF ABBREVIATIONS

ADECOR	Association pour la defence des Droits des Consommateurs au Rwanda
AfDB	African Development Bank
AfTRA	Africa Trade Fund
AGRs	Animal Genetic Resources
ARSO	African Organization for Standardization
ASF	African Swine Fever
AU	African Union
AU-IBAR	AU-Inter African Bureau for Animal Resources
AUC	African Union Commission
CAADP	Comprehensive Africa Agriculture Development Programme
CAC	Codex Alimentarius Commission
CAHW	Community Animal Health Workers
CAVM	College of Agriculture, Animal Sciences and Veterinary Medicine
CBT	Cross Border Trade
CHROR	Consumer's Human Right Organization in Rwanda
DRC	Democratic Republic of Congo
EAC	Easter African Community
EDPRS	Economic Development and Poverty Reduction Strategies
FAO	Food and Agriculture Organization of the United Nations
FMD	Foot and Mouth Disease
FSMS	Food Safety Management System
GHP	Good Hygienic Practices
HACCP	Hazard Analysis and Critical Control Points
ISO	International Organization for Standardization
MINAGRI	Ministry of Agriculture and Animal Resources
MINICOM	Ministry of Trade and Industry
MIR	Made in Rwanda
MOH	Ministry of Health
MT	Metric Tons
MVC	Meat Value Chain
NAEB	National Agricultural Export Development Board
NES	National Export Strategy
PPR	Peste des Petits Ruminants
PSDS	Private Sector Development Strategy
PSF	Private Sector Federation
PSTA4	Sector Strategic Plan for Agriculture
QMS	Quality management system
RAB	Rwanda Agriculture and Animal Resources Board
RBC	Rwanda Biomedical centre
RCA	Rwanda Cooperative Agency
RICA	Rwanda Inspectorate, Competition and Consumer Protection Authority
RSB	Rwanda Standards Board
RW-FDA	Rwanda Food and Drugs Authority
TOR	Terms of Reference
UN-SGGs	United Nations Sustainable Development Goals

EXECUTIVE SUMMARY

Rwanda has recorded a steady economic growth over the last decade, and reports are highlighting a GDP increase of 8.0% in 2020, while a projection for 2021 was likely to raise to 8.2%. This rapid growth, coupled with a focus on the business environment, is believed to stimulate a growth in private investment (standing at 13% of GDP). The last 10 years has witnessed a growing body of evidences suggesting the country's strong case for livestock production potential and opportunities to prospect local and regional meat markets (Republic of Rwanda, 2012; Republic of Rwanda, Ministry of Agriculture and Animal Resources, 2012; MINICOM, 2016; Rwanda Livestock Master Plan-ILRI, 2017).

- The livestock sector produces about 174. 904 thousand Metric Tons (MT) of meat per year:
    - Red meat: 58,580 metric tons (2016/2017),
    - Wherein 74 % is beef and the remaining 26% came from sheep and goats,
    - However, per capita consumption of meat is still very low (13 kg of meat/person/annum), as compared to the WHO/FAO standards of 50 kg of meat annually.
- In addition, the herd provides about 891.326 thousand MT of milk, and 8. 272 million eggs, 6.8 million MT of organic fertiliser and an estimated production of 6. 305 MT of hikes and skins per annuum (MINAGRI, 2021).

The advent of the coronavirus pandemic (COVID-19) in late December 2019-to date, has hardly affected the country's food supply and trading. The Government imperative to review the meat value chain (among promising sectors) would imply equipping its supply chain with effective tools to improve food production quality and marketing, safety, and promote traceability to enable trade (AfDBank, 2020).

The purpose of this National Meat Value Chain Development Strategy, hence, is to guide the economy in the effective and efficient management of the Meat Value Chain throughout the agricultural value chains and trading in Rwanda. This MVC strategy documents the strong case and options to reverse the livestock export trend, by increased conversion into meat production and trade for both domestic market and exports.

- **The vision** (ultimate outcome and impact) of this Meat Value Chain Development Strategy is to contribute to Rwanda's economic growth, prosperity and high quality and standards of life of Rwandans. This is to be achieved by positioning the country as a regional competitive quality meat producer and exporter, through a nurtured strategic linkage of key MVC stakeholders to ensure sustainable production practices, reinforced regulation and compliance for quality and safety of meat and meat products.

- **Strategy goal** (intermediate outcome) is to enhance food and nutritional security, and to contribute to the national economic transformation by unlocking new economic opportunities with increased exports revenues, reduced critical skills gaps and creation of gender-sensitive jobs for a more competitive and sustainable MVC.
- **Overall strategic objective** (immediate outcome) of this strategy is to improve meat production, expand the value chain, improve market and cross-border trade in the sector and increase the contribution of the meat value chain in Rwanda's economy. The competitive MVC strategy will integrate a strong governance and regulatory framework, to cater for critical cross- cutting issues; 1) Gender and Youth, 2) Environment and Climate.

To realize its vision, this strategy is aligned to existing key programs, policies and strategies, including (but not limited to);

- Global/International level:
  A. UN Sustainable Development Goals (**UN SDGs**; SDGs 1-5, 8-10, and SDG 13),
  B. The FAO/WHO Codex Alimentarius Commission (**CAC**) or "Food Code"1,
  C. The World Organization for Animal Health (**OIE**)-a World Trade Organization (**WTO**) reference to animal health and zoonoses,
  D. International Organization for Standardization (ISO): ISO 22000 Food Safety Management Standards and other ISO management standards, such as ISO 9001,
- Continental and regional level:
  A. The African Union (AU) agenda 63 (AU Commission, 2015; UN SDGs, 2016),
  B. AU Malabo Declaration (CAADP)-NEPAD (African Union Commission, 2003),
  C. East African Community food security framework,
  D. EAC Food and Nutrition Security Action Plan (FNSAP) 2019-2023, etc.

At national level, this strategy is to be aligned with key programs/policies, expected to support a rapid and sustainable meat value chain development and governance. Those include;

- Rwanda Vision 2050: The two overarching goals for Vision 2050 (Economic Growth and Prosperity; High Quality and Standards of Life for Rwandans),
- National Strategies for Transformation (NST1): 2017-2024: The NST 1 is to pick up from where the EDPRS 2 left off, and focus on developing and transforming Rwandans into a capable and skilled people ready to compete in a global environment (MINICOM, 2017).
- Rwanda's Strategic Plan for Agriculture Transformation 2018-2024, phase 4 (PSTA 4): The strategy provides youth and women with provisions to access specialized training and assistance to address issues such as meeting local

and international food safety standards and developing appropriate, low-cost packaging and labelling.

- National Agricultural Policy of Rwanda (NAP): addresses the challenges and take advantage of the global market opportunities, including positioning Rwanda as a food and nutrition secure nation, the NAP was adopted in 2004.
- Made in Rwanda (MIR) policy-linkage to the AfDB Country Strategy Paper (AfDB CSP): The Made in Rwanda (MIR) Policy has a strong linkage to Government of Rwanda Vision 2020, National Export Strategy (NES) II, the Private Sector Development Strategy (PSDS) and the Domestic Market Recapturing Strategy (DMRS).
- Private Sector Development Strategy (PSDS): aims to redress the imbalance in Private Sector development and unleash Rwandan entrepreneurship.

Methodology:

The strategy was developed in tandem and supported by the Mapping of Meat Value Chain and Gap Analysis of The Meat Sub-Sector (MINICOM, 2022), which was earlier informed by a series of consultative meetings with meat value chain operators and potential stakeholders. It further proposes stakeholder's views and strategy interventions to guide and support closing the gaps identified in the Rwanda meat value chain.

The scope of the assignment was refined to include a holistic methodology approach to execute the following important tasks:

A. Mapping the meat value chain, Stakeholder's and Gap Analysis,
   - Mapping the meat value chain/Stakeholder's Analysis,
   - Key Informant's Interview,
   - Gap Analysis
B. Drafting the National Meat Value Chain Strategy,
C. Conducting consultative stakeholder's workshops.

Situational analysis of the meat sector (Global):

Several assumptions drive the results of the analysis of the medium to longer term outlook for meat markets;

- Impact of diseases on meat markets;
  A. COVID-19 clearly affected meat markets in 2020 and will have implications for the medium term, as the decrease in consumer demand is expected to put downward pressure on agricultural prices and production,
  B. At the same time, the impact of the pandemic on meat demand as countries recover will be important in so far as the extent to which it has affected the restaurant/hotel and tourism sectors,
  C. Animal diseases such as ASF, highly pathogenic avian influenza (HPAI), foot and mouth disease (FMD) always pose significant risks for meat

markets. Outbreaks can occur quickly and shock markets, which may take years to recover.

- Segmentation of existing markets for beef and pigmeat
  A. The segmentation of markets was originally caused by the division of countries between those free of FMD and those which were not; as such, trade was partitioned accordingly and countries affected by FMD could not trade with countries free of FMD,
  B. However, once the World Organization for Animal Health (OIE) was able to facilitate the zoning of FMD-free areas within countries without resorting to vaccinations, the trade risk of an FMD outbreak is being minimized.
- Productivity versus climate change
  A. As meat is a significant user of resources – of land, feed and water – lower demand along with productivity improvements imply lower demand for these resources,
  B. Lower production would also imply lower GHG emissions from meat production compared to past decades,
- Meat production systems-Traceability
  A. Consumers are expressing concerns about meat production systems, including traceability and the use of antimicrobials in feeds,
  B. While the technical benefits of antimicrobial use in animal production are well documented, there is a growing preference for antimicrobial-free meat due to the global risks associated with antimicrobial resistance,
  C. The extent to which consumers are willing to pay a premium for such meat remains unclear. Nevertheless, as consumer preferences for such diets increase more quickly than in past years, meat demand may contract, reducing in turn meat production and import demand.

Meat production trend in the Easter African Region:

The Easter African Region has seen its meat production increasing by 324% since 1961, from 1.26 million t to 5.35 million t, making a considerable continental share of 26.52% in 2018;

- Rwanda has performed well, seeing its meat production growth reaching an unprecedented growth in poultry sector (+4.622%) and relative increase for other meat types. Sheep and goat meat registered a production growth of +636%, while beef and pigmeat indicated relative growth rates of +706% and +753% respectively.
- Meat consumption in Rwanda seems, unfortunately, to be among the lowest in the region, with an average of 9.08 Kg meat/person/year as per 2017 estimates, with however an increase of +5.11 Kg meat/person/year, during the last 50 years.

Meat sector achievements and challenges:

- Major achievements in terms of strategies and assessments have suggested evidence of the country's strong case for meat production potential and opportunities to prospect local and regional markets (Republic of Rwanda, 2012; Republic of Rwanda, Ministry of Agriculture and Animal Resources, 2012; MINICOM, 2016; Rwanda Livestock Master Plan-ILRI, 2017).
- Additionally, key regulations and policies addressing meat value chains (quality and safety) in Rwanda have been reviewed, with focus on relevant section addressing food safety as well as their implementation mechanism, during the last 10 years (2010-2020).

Main challenges hindering the meat value chain

However, the recent Mapping of Meat Value Chain and Gap Analysis of The Meat Sub-Sector (MINICOM, 2022) has pointed out a number of crucial challenges hindering the meat sector to become competitive on both local and international markets;

1. Low capacity for quality meat production and supply,
2. Skill's gaps in key meat value chain clusters,
3. Low level of abattoir's compliance to meat quality and safety standards,
4. Difficult for local meat value chain actors to meet international certification requirements,
5. Low level of value addition by local abattoirs due to their underutilization of installed capacity (as they mainly operate as slaughtering "service providers"),
6. Luck of reliable records at various levels of MVC,
7. Luck of meat traceability, etc.

Meat value chain strategy development:

This strategy is articulated around 7 main strategy outputs (**Strategy Objectives; SOs**), identified on the basis of the key focus area's gaps/challenges (s), and later assigned **34** strategy interventions (mitigation measures) to achieve the set outputs.

Strategy Objectives:

1. **Strategy Objective 1**: Quality meat production capacity and sustained supply, trough modern farming practices, improved breeding and feeding, as well as organized veterinary services and slaughtering facilities,
2. **Strategy Objective 2**: Capacity for meat processing and transport, by means of modernized abattoir linkage to various MVC operators, as well as their compliance to quality and safety standards,
3. **Strategy Objective 3**: Value addition and market competitiveness, by promoting meat cutting, chilling, freezing, packaging, valorization of meat by-products, increased Cross-Border Trade (CBT) trades and import substitution,

4. **Strategy Objective 4**: Capacity development of the meat value chain actors, through effective information sharing, development of training manuals and engaging meat value chain platforms and PPP frameworks,
5. **Strategy Objective 5**: Research and innovation, by means of effective Research and Development (R&D), and linkage of higher learning education and extension services,
6. **Strategy Objective 6**: Meat value chain governance and regulatory framework
7. **Strategy Objective 7**: Cross-cutting issues (Gender equality, Youth empowerment, Environmental Management).

The estimated costing of the strategy interventions:

The strategy implementation is to require an estimated total budget of seventeen billion and two hundred and seventy million Rwandan Francs (**FRW 17.270 billion**), approximately **USD 17.27 million**. The strategy costing and financing stream among key stakeholders are distributed as follow:

1. Public investment: FRW 5.814 billion (33.7%),
2. Private investment: FRW 7.229 billion (41.9%),
3. Development partners contribution: FRW 4.227 billion (24.5%)

GENERAL INTRODUCTION

1.1. PURPOSE AND RATIONALE OF THE MEAT VALUE CHAIN STRATEGY

Rwanda, a landlocked and low-income country situated in East Africa (with a population of about 12.5 million people), aspires to reach Middle Income Country (MIC) and High-Income Country (HIC) status by 2035 and 2050, respectively (AfDBank, 2020). A growing body of evidences have suggested the country's strong case for livestock production potential and opportunities to prospect local and regional meat markets (Republic of Rwanda, 2012; Republic of Rwanda, Ministry of Agriculture and Animal Resources, 2012; MINICOM, 2016; Rwanda Livestock Master Plan-ILRI, 2017).

- The livestock sub-sector (representing an estimated 3.099% growing share of the national agriculture sector; Rwanda Statistical Yearbook, 2015) is a key economic driver, in providing food, nutrition and income security; either directly through production for consumption or marketing or through creation of off-farm employment opportunities.
- The actual figures (MINAGRI Annual Report, 2019-2020) indicate an estimated livestock populations as follow:
    - Cattle population at 1.450 million,
    - goat at 2.844 million,
    - sheep at 0.602 million,
    - pigs at 1.441 million,
    - while poultry (layers, broilers and indigenous chicken) and rabbit populations are believed to rise up to 5.442 and 0.801 million, respectively.
- The livestock sector produces about 174. 904 thousand Metric Tons (MT) of meat:
    - Red meat: 58,580 metric tons (2016/2017),
    - Wherein 74 % is beef and the remaining 26% came from sheep and goats,
    - However, per capita consumption of meat is still very low (13 kg of meat/person/annum), as compared to the WHO/FAO standards of 50 kg of meat annually.
- In addition, the herd provides about 891.326 thousand MT of milk, and 8. 272 million eggs, 6.8 million MT of organic fertiliser and an estimated production of 6. 305 MT of hikes and skins per annuum (MINAGRI, 2021).

The advent of the coronavirus pandemic (COVID-19) in late December 2019-to date, has hardly affected the country's food supply and trading. The Government imperative to review the meat value chain (among promising sectors), would

imply equipping its supply chain with effective tools to improve food production quality and marketing, safety, and promote traceability to enable trade (AfDBank, 2020). Furthermore, the Rwanda Abattoirs Assessment Report (MINICOM, 2016) indicated the country's capacity to slaughter and process the available livestock on the local market. However, the recent Mapping of Meat Value Chain and Gap Analysis of The Meat Sub-Sector (MINICOM, 2022) has pointed out a number of crucial gaps hindering the meat sector to become competitive on both local and international markets.
The purpose of this National Meat Value Chain Development Strategy, hence, is to guide the economy in the effective and efficient management of the Meat Value Chain throughout the agricultural value chains and trading in Rwanda.

This MVC strategy documents the strong case and options to reverse the livestock export trend, by increased conversion into meat production and trade for both domestic market and exports.

The strategy was developed in tandem and supported by the Mapping of Meat Value Chain and Gap Analysis of The Meat Sub-Sector (MINICOM, 2022), which was earlier informed by a series of consultative meetings with meat value chain operators and potential stakeholders. It further proposes stakeholder's views and strategy interventions to guide and support closing the gaps identified in the Rwanda meat value chain.

1.2. VISION, GOAL, OBJECTIVES

- **The vision** (ultimate outcome and impact) of this Meat Value Chain Development Strategy is to contribute to Rwanda's economic growth, by positioning the country as a regional competitive producer and exporter of quality and safe meat products.

- To achieve this vision, the **strategy goal** (intermediate outcome) is to enhance food and nutritional security, and to contribute to the national economic transformation by unlocking new economic opportunities with increased exports revenues, reduced critical skills gaps and creation of gender-sensitive jobs for a more competitive and sustainable MVC.

- To achieve the above goal, the **overall strategic objective** (immediate outcome) of this strategy is to improve meat production, expand the value chain, improve market and cross-border trade in the sector and increase the contribution of the meat value chain in Rwanda's economy.

- The competitive MVC strategy will integrate a strong governance and regulatory framework, to cater for critical cross- cutting issues; 1) Gender and Youth, 2) Environment and Climate Change.

1.3. OVERVIEW OF THE MEAT SECTOR

1.3.1. LINKAGE WITH KEY PROGRAMS, POLICIES AND STRATEGIES

To realize its vision, this strategy will be aligned to existing key programs, policies and strategies (Summary is provided in the **Figure 1**). They include (but not limited to);

1.3.1.1. Global/International level:

E. UN Sustainable Development Goals (**UN SDGs**; SDGs 1-5, 8-10, and SDG 13),
F. The FAO/WHO Codex Alimentarius Commission (**CAC**) or "Food Code"1,
G. The World Organization for Animal Health (**OIE**)-a World Trade Organization (**WTO**) reference to animal health and zoonoses,
H. International Organization for Standardization (ISO): ISO 22000 Food Safety Management Standards and other ISO management standards, such as ISO 9001.

1.3.1.2. Continental and regional level:

E. The African Union (AU) agenda 63 (AU Commission, 2015; UN SDGs, 2016),
F. AU Malabo Declaration (CAADP)-NEPAD (African Union Commission, 2003),
G. East African Community food security framework,
H. EAC Food and Nutrition Security Action Plan (FNSAP) 2019-2023, etc.

1.3.1.3. National level alignment framework

Rwanda aspires to reach Middle Income Country (MIC) and High-Income Country (HIC) status by 2035 and 2050, respectively (AfDBank, 2020). The Vision is to be realized through a series of seven-year National Strategies for Transformation (NST1), underpinned by detailed sectoral strategies that are aimed toward achievement of the SDGs. The NST1 came after the implementation of two Strategy Objective strategies; the five-year Economic Development and Poverty Reduction Strategies-EDPRS-1 (2008-12) and EDPRS-2 (2013-18), under which Rwanda experienced robust economic and social performances (MINICOM, 2017).

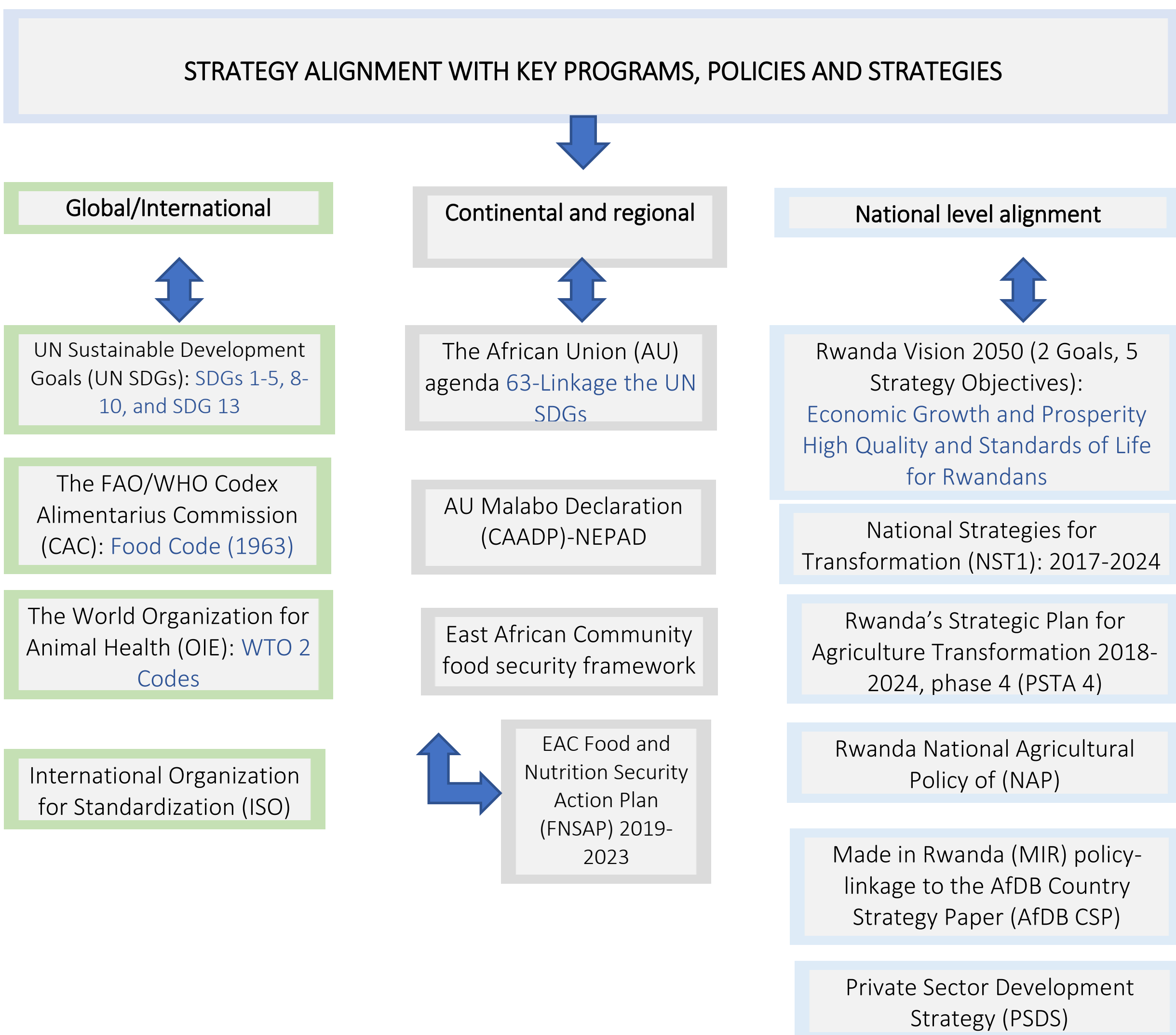
Furthermore, this strategy is to be aligned with key programs/policies, expected to support a rapid and sustainable meat value chain development and governance. Those include;

- Rwanda Vision 2050: The two overarching goals for Vision 2050 (Economic Growth and Prosperity; High Quality and Standards of Life for Rwandans),
- Rwanda's Strategic Plan for Agriculture Transformation 2018-2024, phase 4 (PSTA 4): The strategy provides youth and women with provisions to access specialized training and assistance to address issues such as meeting local and international food safety standards and developing appropriate, low-cost packaging and labelling.

- National Agricultural Policy of Rwanda (NAP): addresses the challenges and take advantage of the global market opportunities, including positioning Rwanda as a food and nutrition secure nation, the NAP was adopted in 2004.
- Made in Rwanda (MIR) policy-linkage to the AfDB Country Strategy Paper (AfDB CSP): The Made in Rwanda (MIR) Policy has a strong linkage to Government of Rwanda Vision 2020, National Export Strategy (NES) II, the Private Sector Development Strategy (PSDS) and the Domestic Market Recapturing Strategy (DMRS).
- Private Sector Development Strategy (PSDS): aims to redress the imbalance in Private Sector development and unleash Rwandan entrepreneurship.

The **Figure 1** summarizes linkages between this MVC strategy and key programs, policies and strategies, at different levels (Global, continental, regional and national).

Figure 1:MVC strategy alignment to key programs, policies and strategies



1.3.2. MEAT SECTOR ACHIEVEMENTS AND CHALLENGES

1.3.2.1. Early assessment of the country's meat sector

A good body of achievements in terms of strategies and assessments have suggested evidence of the country's strong case for meat production potential and opportunities to prospect local and regional markets (Republic of Rwanda, 2012; Republic of Rwanda, Ministry of Agriculture and Animal Resources, 2012; MINICOM, 2016; Rwanda Livestock Master Plan-ILRI, 2017). The main highlights are indicated in the **Annex 6**.

1.3.2.2. Regulatory landscape

Key legislations and policies addressing meat (food) quality and safety as well as their implementation mechanisms, during the last 10 years (2010-2020), were reviewed. A detailed review is inserted as **Annex 1**. Amid important changes, the following are worth consideration.

MINICOM:

- The publication of the Law N° 50/2013 of 28/06/2013 (Republic of Rwanda, 2013), establishing Rwanda Standards Board (RSB) came shortly after the Law N° 61/2013 of 23/08/2013 establishing the National Standards Inspectorate, competition, and Consumer Protection Authority (NICA; Republic of Rwanda, 2013b. This new law (NICA) was later reviewed, resulting in the Law N° 31/2017 of 25/07/2017 establishing the Rwanda Inspectorate, Competition and Consumer Protection Authority (RICA).
- To support the process of compliance with standards, RSB has introduced a Food Safety Maturity Model referred to as "Zamukana Ubuziranenge Programme", supporting SMEs growth with a particular emphasis on "Made-In-Rwanda" products and services, food safety and the protection of consumers. The Made in Rwanda (MIR) policy was subsequently launched in 2016, to increase the country's economic competitiveness by enhancing domestic markets through key government policy interventions and addressing supply-side bottlenecks in targeted high-potential value chains. At a more practical level, and aiming to reduce Rwanda's persistent trade deficit, GoR developed the National Export Strategy (NES) II, the Private Sector Development Strategy (PSDS) and the Domestic Market Recapturing Strategy (DMRS).

MINAGRI:

- The publication of the Ministerial Order N° 012/11.30 of 18/11/2010 on Animal Slaughtering and Meat Inspection came into force alongside the Ministerial Order N° 013/11.30 of 18/11/2010 on Transport and Trade of Meat. Other major changes in MINAGRI have been effective in the last 5 years, with the new Law N°14/2017 of 14/04/2017 and Law N° 13/2017 of 14/04/2017, respectively establishing the Rwanda Agriculture and animal resources Development

Board (RAB) and the National Agricultural Export Development Board (NAEB), both being the Implementation bodies of MINAGRI legislations, policies and strategies.

- Rwanda's Strategic Plan for Agriculture Transformation 2018-2024, phase 4 (PSTA 4; MINAGRI, 2018b) came into force alongside the National Agriculture Policy (MINAGRI, 2018a). The 2 guiding tools are respectively geared towards creation of opportunities for export and domestic strategies for high-quality niche products, skills development in agriculture value chains (offering special perspectives for gender and youth), and Inclusive markets and off-farm opportunities.
- To support the full implementation of the PSTA 4, 2 important policies were put in place; 1) Gender and Youth Mainstreaming Strategy (MINAGRI, 2019) and 2) Leveraging Private Sector Strategy (MINAGRI, 2019b).

Ministry of Health (MoH):

- Important laws, with regard to public health (MOH), have been promulgated and subjected to reviews and repealing in some cases. The Law N° 74/2013 OF 11/09/2013 (RFMA Law) establishing Rwanda Food and Medicine Authority (RFMA) was reviewed, resulting in the establishment of Rwanda Food and Drug Authority (RW FDA).

1.3.2.3. Main challenges hindering the meat value chain

The recent Mapping of Meat Value Chain and Gap Analysis of The Meat Sub-Sector (MINICOM, 2022) has pointed out a number of crucial challenges hindering the meat sector to become competitive on both local and international markets;

1. Low capacity for quality meat production and supply,
2. Skill's gaps in key meat value chain clusters,
3. Low level of abattoir's compliance to meat quality and safety standards,
4. Difficult for local meat value chain actors to meet international certification requirements,
5. Low level of value addition by local abattoirs due to their underutilization of installed capacity (as they mainly operate as slaughtering "service providers") [1]:
6. Luck of reliable records at various levels of MVC,
7. Luck of meat traceability, etc.

Details on MVC challenges and gaps are discussed in the following **Section 3** (Meat sector situational analysis)

1.3.3. METHODOLOGY FOR MVC STRATEGY DEVELOPMENT

The scope of the assignment was refined to include a holistic methodology approach to execute the following important tasks:

- Mapping the meat value chain, Stakeholder's and Gap Analysis,
    - Mapping the meat value chain/Stakeholder's Analysis,
    - Key Informant's Interview,
    - Gap Analysis
- Drafting the National Meat Value Chain Strategy,

A. Conducting consultative stakeholder's workshops.A. Identification of key Informants in the national value chain

After an intensive desk work (Literature review, telephone consultations with various offices), a preliminary list of **73 key stakeholders** was already established (**Annex 3**). The list and contacts include the following.

- 18 Key Government Institutions/Offices,
- 9 Key Private Sector Operators (Producers, Processors, Exporters-Importers),
- 12 Key operational abattoirs (with a capacity of slaughtering 1,000 cattle per month),
- 4 Key development partners (International Organizations, NGOs, etc.),
- 4 Representative of the Local Administration from the targeted zone-Rwanda Meat Value Chain Trade Competitiveness Project (Rusizi, Rubavu, Nyagatare, Bugesera).
- 26 Representative of other Districts (Office of the Mayor/DAROs), for a national-wide mapping of the MVC.

Considering the consistency of information used to establish this list of 73 Key Stakeholders (at national level), all of them have been considered as the Core List, to be considered for the KIs Interview. However, due to various reasons including COVID-19 mitigation measures, a few of them could be reached out for face-to-face interview, and those willing to "virtually" meet could only accord a limited time to the consulting team.

B. Identification of key operators for a complete mapping of national MVC

In addition to key stakeholder's analysis, an extended mapping of the national meat value chain was done, by field visits to a maximum of operators, to extend the stakeholder's analysis to their physical/operational location, their role in the MVC and the areas where they need support. This activity was extended to the intervention zone targeted by the Rwanda Meat Value Chain Trade Competitiveness Project (RMVCTCP), comprising the Districts of Rubavu and Rusizi in the Western Province, as well as Nyagatare and Bugesera (Gako) of the Eastern Province.

C. *Assessment of slaughterhouse's operational capacity and compliance*

In addition to data collected through field visits and KIs Interviews, particular attention was put on the assessment of slaughterhouse's status, their operational capacity and level of compliance to meat processing and safety standards. This activity faced an important challenge of limited/filtered information, as abattoir managers and workers were obviously unwilling to provide details regarding the real abattoir's status and operations.

2. MEAT SECTOR SITUATION ANALYSIS

2.1. GLOBAL TRENDS IN MEAT PRODUCTION, CONSUMPTION AND TRADE

Global meat production has increased rapidly over the past 50 years. The total production has more than quadrupled since 1961, and it is projected to expand by nearly 44 Mt by 2030, reaching 373 Mt on the basis of higher profitability (OECD/FAO, 2021).

- Herd and flock expansion, especially in the Americas and China, combined with increased per animal productivity (average slaughter weight, improved breeding, and better feed formulations) will support the meat market.
- China is projected to account for most of the total increase in meat production, followed by Brazil and the United States.

Meat consumption has been shifting towards poultry. In lower income developing countries this reflects the lower price of poultry as compared to other meats, while in high-income countries this indicates an increased preference for white meats which are more convenient to prepare and perceived as a healthier food choice.

- Globally, poultry meat is expected to represent 41% of all the protein from meat sources in 2030, an increase of 2 percentage points when compared to the base period,
- The global shares of other meat products are lower: beef (20%), pigmeat (34%), and sheep meat (5%),
- Per capita meat consumption in China is projected to return to its longer-term trend by 2023, as the ASF impact on domestic pigmeat prices abates. As a result, one-third of the overall increase in meat consumption over the projection period is attributed to pigmeat.

2.2. GLOBAL MEAT PRICES FORECASTS (2021-2030)

Meat prices are anticipated to rebound from COVID-19 induced lows in 2020, and to rise moderately over the medium term as demand recovers and higher feed costs are passed through; yet, they are expected to remain well below their peaks of ten years ago;

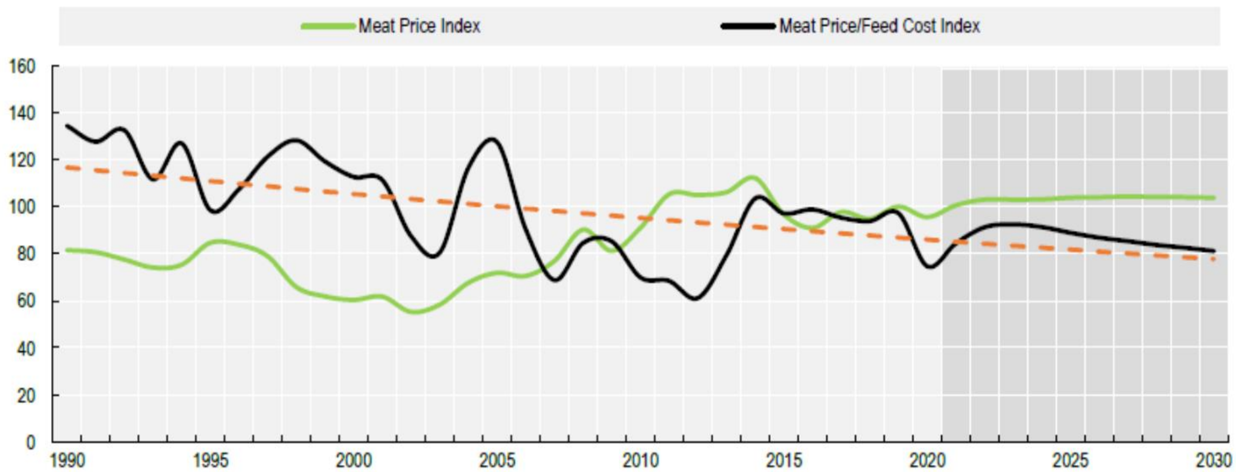
- o The projected rise in nominal meat prices is expected for all meats, although each sub-sector has different dynamics given their respective biological supply responses to recent shocks,
- o However, the ratio of nominal meat prices over feed prices is projected to decline, albeit at a slower pace compared to recent years (**Figure 2**). The downward trend in this ratio reflects ongoing feed productivity gains within the sector, whereby less feed is required to produce a unit of meat output,

- Nevertheless, higher feed costs are further hampering the profitability of meat production at the start of the projection period.

All meat prices are projected to fall from the base period levels of 2018-20, and back to longer term real trends as costs of meat production decline in real terms;

- The exception is sheep meat, the prices of which have displayed an increasing trend as exports from New Zealand have been constrained in view of the rising opportunity costs of pasture land induced by rising long-term real prices of dairy products.

Figure 2:FAO Food Price Index for meat and its ratio to feed prices



Note: Index: average 2014-2016=100. Meat price Index: computed from average prices of four types of meat.
Source: OECD/FAO (2021), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), http://dx.doi.org/10.1787/agr-outl-dataen.

2.3. MAIN ISSUES AND UNCERTAINTIES TOWARDS GLOBAL MEAT PRODUCTION AND TRADE

Several assumptions drive the results of the analysis of the medium to longer term outlook for meat markets.

2.3.1. Impact of diseases on meat markets

D. COVID-19 clearly affected meat markets in 2020 and will have implications for the medium term, as the decrease in consumer demand is expected to put downward pressure on agricultural prices and production,
E. At the same time, the impact of the pandemic on meat demand as countries recover will be important in so far as the extent to which it has affected the restaurant/hotel and tourism sectors,
F. Animal diseases such as ASF, highly pathogenic avian influenza (HPAI), foot and mouth disease (FMD) always pose significant risks for meat markets. Outbreaks can occur quickly and shock markets, which may take years to recover.

2.3.2. Segmentation of existing markets for beef and pigmeat

Existing markets for beef and pigmeat are segmented, i.e. into "Pacific" and "Atlantic" markets;

C. The segmentation of markets was originally caused by the division of countries between those free of FMD and those which were not; as such, trade was partitioned accordingly and countries affected by FMD could not trade with countries free of FMD,
D. However, once the World Organization for Animal Health (OIE) was able to facilitate the zoning of FMD-free areas within countries without resorting to vaccinations, the trade risk of an FMD outbreak is being minimized.

2.3.3. Productivity versus climate change

Assumptions regarding productivity improvements and climate change policies will affect analysis of the meat sectors contribution to climate change;

C. As meat is a significant user of resources – of land, feed and water – lower demand along with productivity improvements imply lower demand for these resources,
D. Lower production would also imply lower GHG emissions from meat production compared to past decades,

2.3.4. Meat production systems-Traceability

D. Consumers are expressing concerns about meat production systems, including traceability and the use of antimicrobials in feeds,
E. While the technical benefits of antimicrobial use in animal production are well documented, there is a growing preference for antimicrobial-free meat due to the global risks associated with antimicrobial resistance,
F. The extent to which consumers are willing to pay a premium for such meat remains unclear. Nevertheless, as consumer preferences for such diets increase more quickly than in past years, meat demand may contract, reducing in turn meat production and import demand.

2.4. REGIONAL TRENDS IN MEAT PRODUCTION AND MARKET SHARES

2.4.1. Meat production trend in the Easter African Region

As depicted in the **Table 1**, the Easter African Region has seen its meat production increasing by 324% since 1961, from 1.26 million t to 5.35 million t, making a considerable continental share of 26.52% in 2018;

- On country accounts, Kenya emerges as the dominant shareholder, with an estimated meat production fetching 879,126.00 t/annum (2018), followed by Tanzania, Uganda and South Soudan with respectively 536,904.00 t, 519,318.00 t, 433,800.00 t,

- Rwanda's meat production and share remains modest (95,278.00 t/ 2018), between Burundi and DRC,
- However, the country registered a spectacular meat sector growth since 1961, with the highest relative change (+701%) compared to all EAC country and Africa in general. This tremendous Rwanda's meat production trend would indicate a positive forecast and opportunity to enter the timid regional market,
- Rwanda has performed well, seeing its meat production growth reaching an unprecedented growth in poultry sector (+4.622%) and relative increase for other meat types. Sheep and goat meat registered a production growth of +636%, while beef and pigmeat indicated relative growth rates of +706% and +753% respectively.

Table 1:Regional meat production trend (FAO, 2020)

Country	1961	2018	Absolute Change	Relative Change
Africa	3.91 million t	20.17 million t	+16.26 million t	+416%
Eastern Africa	1.26 million t	5.35 million t	+4.09 million t	+324%
Burundi	9,018.00 t	28,914.00 t	+19,896.00 t	+221%
Democratic Republic of Congo	166,850.00 t	246,984.00 t	+80,134.00 t	+48%
Kenya	167,407.00 t	879,126.00 t	+711,719.00 t	+425%
Rwanda	11,896.00 t	95,278.00 t	+83,382.00 t	+701%
South Sudan	385,800.00 t	433,800.00 t	+48,000.00 t	+12%
Tanzania	113,328.00 t	536,904.00 t	+423,576.00 t	+374%
Uganda	92,123.00 t	519,318.00 t	+427,195.00 t	+464%

Source: UN Food and Agriculture Organization (FAO, 2020)
Note: Total meat production includes both commercial and farm slaughter. Data are given in terms of dressed carcass weight, excluding offal and slaughter fats.

2.4.2. Meat consumption trend in the Eastern African region

Meat consumption is highest across high-income countries (with the largest meat-eaters in Australia), consuming around 116 kilograms per person per year (FAO, 2013). The average European and North American consumes nearly 80 kilograms and more than 110 kilograms, respectively. Consumption trends across Africa are varied; some countries consume as low as 10 kilograms per person. Higher-income nations such as South Africa consume between 60-70 kilograms per person.
As indicated in the **Table 2**;

- The Eastern part of Africa is ranked among the least meat consumer regions, with an average annual consumption of 10.81 kg/person, with however a slightly higher stake for Kenya with 15.94 Kg/person/year on average,
- Meat consumption in Rwanda seems, unfortunately, to be among the lowest in the region, with an average of 9.08 Kg meat/person/year as per 2017 estimates, with however an increase of +5.11 Kg meat/person/year, during the last 50 years.

Table 2:Regional trend in per capita meat consumption (kg/person/year; FAO, 2020)

Country	1961	2017	Absolute change	Relative change
Africa	13.44 kg	19.01 kg	+5.57 kg	+41%
Eastern Africa	14.54 kg	10.81 kg	-3.73 kg	-26%
Kenya	18.99 kg	15.94 kg	-3.05 kg	-16%
Rwanda	3.97 kg	9.08 kg	+5.11 kg	+129%
Tanzania	9.84 kg	9.22 kg	-0.62 kg	-6%
Uganda	13.14 kg	9.69 kg	-3.45 kg	-26%

One of the strongest determinants of how much meat people eat is how rich they are. This is at least true when we make cross-country comparisons. The following **Table 3** highlights the relationship between per capita meat supply and average GDP per capita of 3 EAC countries (Kenya, Rwanda, Tanzania and Uganda).

Table 3:Regional average meat consumption per capita versus Country's GDP

Country	Meat supply/Person/Year	GDP per capita international-$	Estimated population
Kenya	15.94 kg	$4,046	50.22 million
Rwanda	9.08 kg	$1,975	11.98 million
Tanzania	9.22 kg	$2,531	54.66 million
Uganda	9.69 kg	$2,075	41.17 million

Note: Average meat consumption per capita, measured in kilograms per year versus gross domestic product (GDP) per capita measured in constant international-$. International-$ corrects for price differences across countries. Figures do not include fish or seafood. **Source:** FAO (2020).

2.5. SITUATIONAL ANALYSIS OF RWANDA MEAT VALUE CHAIN

2.5.1. Mapping MVC key stakeholders and operators, by December 2021

2.5.1.1. Key MVC stakeholders

An inventory of key MVC stakeholders, their affiliation and their respective operational mechanisms was suggested in this report (**Annex 2**).

The available information was limited to the last 10 years (2009-2021) and are pertaining to aspects of MVC and safety roles within various food value chains and supply, regulation, inspection and licensing, sanction, surveillance, etc. Data are presented by category; Government institutions/mechanisms, private sector, regional and international organizations.

In accordance with the gender mainstreaming strategy for the private sector 2020-2024, Meant to serve as the strategic framework for advancing gender equality and enhancing gender accountability in the private sector, the following are believed to be the key gender-sensitive gaps in lenses among the meat value chain stakeholder's cluster;

a. Private Sector and Youth development

Gender stereotypes are still predominant in some economic activities, mostly dominated by males. The Meat Value Chain was scrutinized and this report indicates considerable gaps in terms of Key Stakeholder's representation as well as MVC operators at various stages. There was a low level of women and youth employment in off-farm activities, with women being more involved in subsistence farming. Additionally, women in cross-border trading are likely to face challenges associated with low capital, insufficiency of financial literacy skills and harmful social norms that renders them vulnerable to Gender Based Violence (GBV), and in most of cases resulting in a limited representation into leadership and decision-making instances.

b. Governance and Decentralization

Gender parity gap due to misinterpretation of constitutional minimum quota of at least 30% as the optimum target, resulting in a low proportion of women representation within decision-making Offices (e.g., DGs/CEO, Head of Public Institutions, etc.). Sex desegregation was considered in MVC operators cluster, which however was not done for the Key Stakeholders of the National Meat Value Chain, as most of Officials are relatively appointed on a rather irregular basis and the turnover rate could not be determined by the time of our data collection/report.

2.5.1.2. Key MVC Operators

The Key Stakeholder's analysis was completed by an extended identification and mapping of the national meat value chain main actors, by field visits to a Local Authority Offices (Districts and Sector Animal Resources Offices; **DAROs**, **SAROs**). In many cases, visits to premises (e.g.; Farms, Veterinary Pharmacies and Clinics, Livestock Markets, Abattoirs, etc.) have been done to collected the required information. The collected information focused on their physical/operational location, their role in the MVC, the estimated activity size, organization/affiliation level, sex, age, etc.

In total, 20 different categories of MVC operators have been identified, ranging from meat producers/Farmers (covering the most prominent value chains in the country; cattle, goat, sheep, pig, poultry-broiler, rabbit), through livestock/meat traders and abattoirs, to livestock/meat exporters.
The **Figure 3** below represents the rough distribution of MVC operators across the country. Available information (by November, 2021) suggests a total of 3250 key operators and their relative stake (number, %), highlighting an important number of cattle farmers (654, 20%), pig farmers (517, 15.9%), livestock service providers (435, 13.4%), Butchers (400, 12.3%), poultry farmers (393, 12.1%), and "Abatenezi" estimated to be 217 (6.7%).

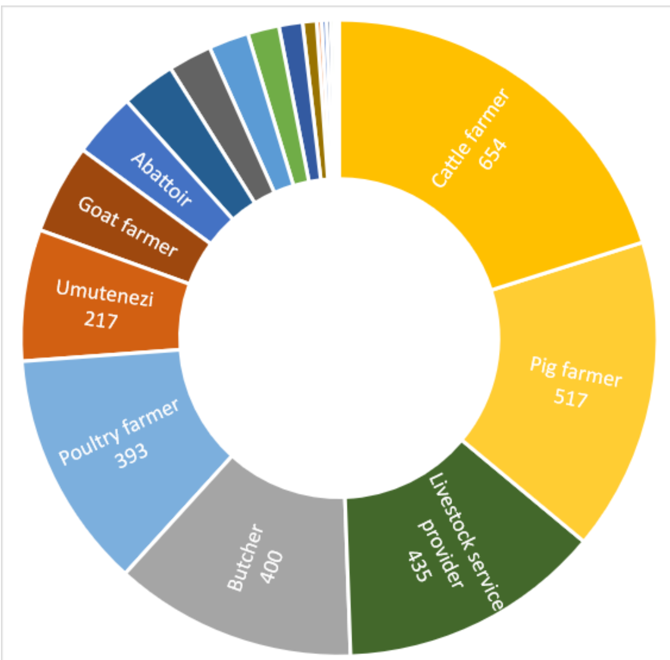


Figure 3: Rough distribution of MVC stakeholders[1] by category in Rwanda (by number and %)
[1]Available data collected from Districts (official records from DAROs[2] and SAROs[3], Field Visits to premises) in November 2021,
[2] District Animal Resources Officers,
[3] Sector Animal Resources Officers.

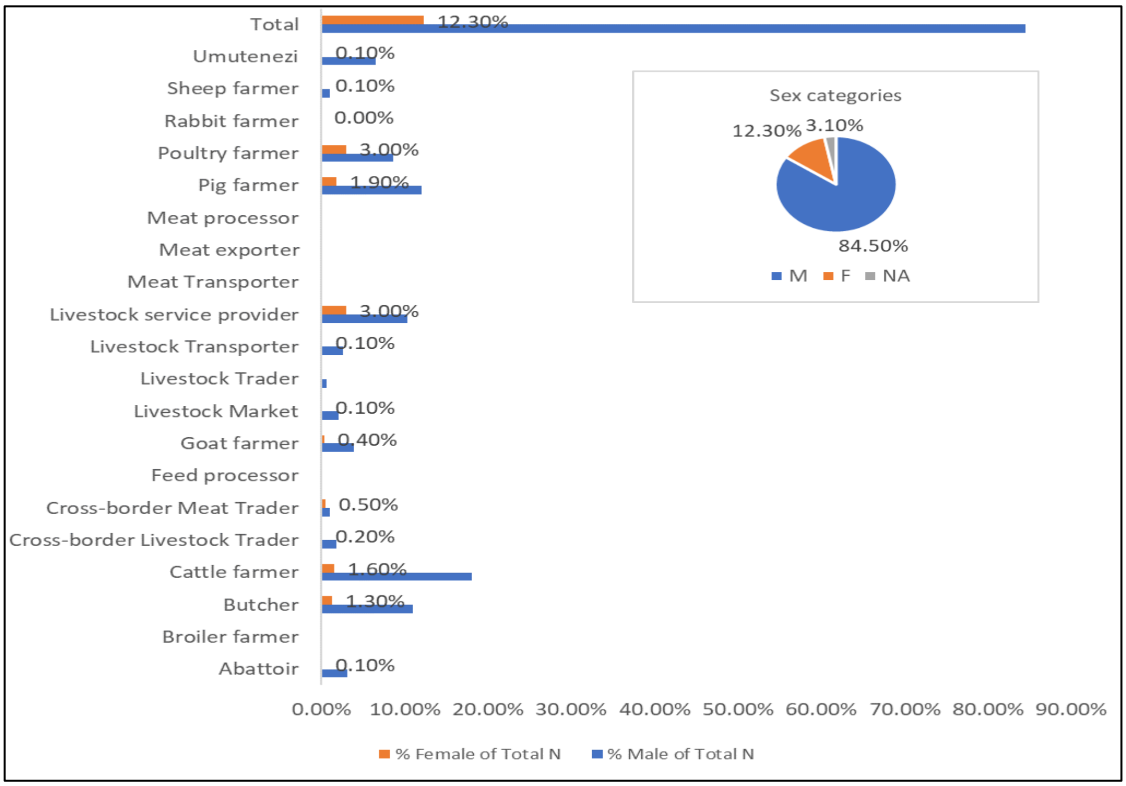
MVC Stakeholder	Number	%
Cattle farmer	654	20.1
Pig farmer	517	15.9
Livestock service provider	435	13.4
Butcher	400	12.3
Poultry farmer	393	12.1
Umutenezi	217	6.7
Goat farmer	148	4.6
Abattoir	107	3.3
Livestock Transporter	89	2.7
Livestock Market	72	2.2
Cross-border Livestock Trader	66	2
Cross-border Meat Trader	52	1.6
Sheep farmer	39	1.2
Livestock Trader	23	0.7
Meat Transporter	8	0.2
Meat exporter	8	0.2
Feed processor	7	0.2
Rabbit farmer	6	0.2
Meat processor	5	0.2
Broiler farmer	3	0.1
Total	**3250**	**100**

Detailed data (**Annex 7**) indicate a relatively balanced distribution of MVC operator's clusters across the country, with however an important number (32.60%) being located in the Eastern and Northern Provinces, due to estimated higher number of cattle farmers in the East (12.70%) and pig farmers (7.80%) located in the Northern Province.

2.5.1.3. Gender and youth consideration for MVC operators

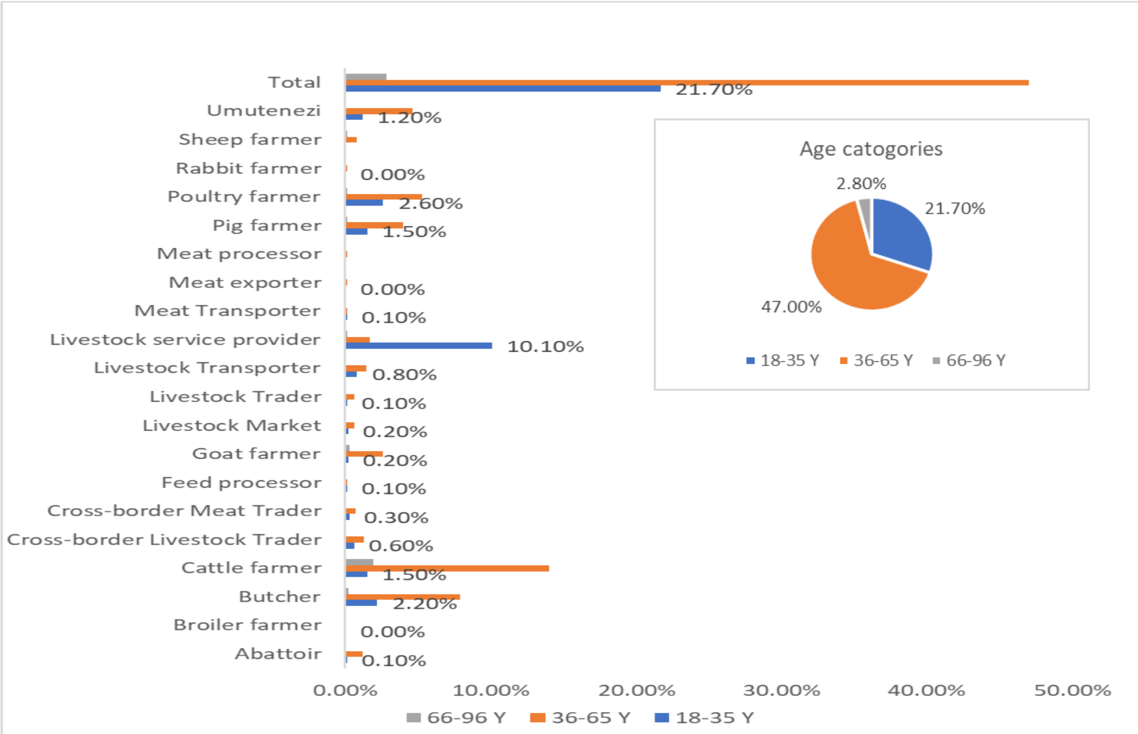
As highlighted in the **Figure 4** bellow, the role of women in the current national meat value chain remains timid, with a total participation estimated at 12.30%, as men dominate the sector an all clusters. Some key domains; meat processing, export, transport and broiler production, it was not easy to determine the real role being played by either females or males, as information on the company ownership was not complete/not provided during the data collection exercise. The information gap is estimated at 3.10% of the total observations (N=3250), which remains insignificant for a possible raise in figures of females involved in the MVC. It is however interesting to observe a relatively timid to moderate stake of women in pig and poultry farming, with respectively 1.90% and 3.00% of the total MVC, and a considerable proportion (3.00%) of them being involved in the livestock services, especially in veterinary pharmacy. This represents 22.76% of women (N=99) out of 435 known operators.

Figure 3:Proportion of female operators into the national MVC



The dimension of youth involvement in the growing meat value chain was also investigated in this study and results are suggested in the following **Figure 5**.

Figure 4:Proportion of young operators into the national MVC



Available data have pointed to an estimated important involvement of youth in the country's MVC landscape, with a total stake estimated at 21.70%. Similarly, to women participation features, a moderate proportion of youth is observed in the businesses of pig and poultry farming (1.50 and 2.60% respectively), as well as in butchering (2.20% of the total MVC). Interestingly, a considerable percentage of young professionals are being present in the livestock service providing. This category is mainly composed of veterinary pharmacies, meat inspection and veterinary clinic services. The average age in this sector is estimated at 30.6 years, pointing to youth competitiveness in this professional cluster.

2.5.2. Significance of key MVC operator's activities across the country (Provinces)

2.5.2.1. The Eastern Province

There is a consistent opinion suggesting the Eastern Province as the most promising meat production hub in the country;

- A considerable number of cattle farmers, butchers, pig farmers, "abatenezi" and goat farmers are operating in the Eastern Province, suggesting an important flow of production and trade of red meat from this area of the country.
- The area is also harboring 3 feed processing plants; LFL RWANDA and WAF (Bugesera District) and Tunga Feeds/ PRODEV Rwanda Ltd located in Rwamagana District, as well as the only reported 3 big broilers farms (PEARL

LTD, Fidele MUKANDORA Farm and Emmanuel NDUWIMANA Farm) all located in Bugesera District.

2.5.2.2. The Northern Province

There is a prominence of pig and poultry value chains active in the Northern Province of the Country;

- With a relatively a high number of prominent farmers (>rearing more than 10 heads/farm);
    - Approximately 254 pig farmers (>10 heads) and,
    - 174 poultry farmers (with >50 birds),
- The Northern Province registers 1 modern meet processing unit (KIGALI FOOD PRODUCTION) in Rurindo District and,
- 2 feed processing plants (SOTIRU and Zamura Feed Campany Ltd), located in Musanze District, being able to serve other surrounding production areas.

2.5.2.3. The Southern Province

The Southern Province is suitable for small stock production, where potential for pig and poultry industry would be worth exploring;

- Approximately 230 livestock services providers are operating in the areas of breeding (Including pig AI),
- A considerable number of Butchers, pig and poultry farmers,
- A new feed processing plant was also reported being operating in Huye District (Huye Animal Feeds plant), which represents a considerable boost to the growing pig industry being seen in the Districts of Kamonyi (105 pigs/farm on average), Gisagara (30 pigs/farm) and Nyaruguru (28 pigs/farm),

2.5.2.4. The Western Province

- This region, despite being an important hub for cross-border meat trade (highest number of registered livestock and meat traders (N=42 and 34), 24 organized livestock markets) and 2 modern units of RUGARI Meat Processing Ltd located in Rubavu and Rusizi Districts, data suggest the West being expressing a relatively high priority need to strengthen the existing clusters and facilities.
- The province reports approximately 101 livestock service providers, representing a national stake of 3.10%, with however a relatively low number of meat producers (cattle, pigs and poultry) compared to other regions.

2.5.2.5. Kigali City

Available date has suggested a limited MVC actors being registered in Kigali City (57 promising operators), with however a relatively important production and consumption stakes;

- The main 3 modern abattoirs (Rugano Meat Supply Limited, Rugari Meat processors Limited (Pork) and SABAN Nyabugogo) are operating in Kigali,
- 2 important meat exporting Companies (ENAS and Iceberg Ltd) and a various modern butcher able to compete for quality meat trading and retail,
- The city also has an important feed processing plant, Gollora Feeds Co. Ltd, located in Kicukiro District.

2.5.3. Potential for meat production and technology

The number of households engaged in livestock production is estimated at 62.6% of the agricultural households (estimated at 2.1 million; 80.2% of the country's households; https://unhabitat.org/rwanda; 2018).

- Assuming that the vas stake of meat produced in the rural areas, mostly made up by more than 80% of small holder's farmers (subsistence food and/or sold through local market),
- A few livestock "Medium" and "Big" size farms (with at least >10 heads), are likely to contribute and benefit from the meat value chain development, by means of capacity building, investment, support to SMEs, etc.
- As indicated in the **Table 4**, such selected farms are representing a considerable percentage (**54.2%)** of the total number of key MVC stakeholders, with however a very tiny proportion of reared animals (**11.60%**) compared to the estimated total livestock population (MINAGRI Annual Report, 2019-2020).
- Available data indicate that livestock sector has become increasingly productive over the past years and the aim is to sustain this growth under PSTA 4, where;
    - A. Cows are to be promoted for milk,
    - B. While small-stock, poultry, and aquaculture will be reared mostly for meat production due to lower feed requirements,
    - C. Small livestock also contributes to farm income, resilience, and enhanced nutritional status of farming families (MINAGRI, 2021).

Table 4:Statistical representation of selected medium and big size farms

Group of farmers	Female (N)	Male (N)	N/A (N)	Total Number	% Of N sum of key MVC stakeholders	Estimated number of animals reared	Total country estimates[1]	% (Animals)
Cattle farmer (>10 heads)	53	588	13	654.0	20.1	25664	1,449,888	1.77
Goat farmer (>10 heads)	62	390	65	148.0	4.6	5219	2,844,001	0.18
Sheep farmer (>10 heads)	96	281	16	39.0	1.2	860	601,836	0.14
Pig farmer (>10 heads)	13	130	5	517.0	15.9	26982	1,441,077	1.87
Poultry farmer (>30 birds)	2	36	1	393.0	12.1	412486	5,442,152	7.58
Broiler farmers (>30 birds)	1	5		3.0	0.1			
Rabbit farmer (>30 heads)	2	1		6.0	0.2	422	801,490	0.05
Total number farmers	**229**	**1431**	**100** [2]	**1760**	**54.2**			**11.60**

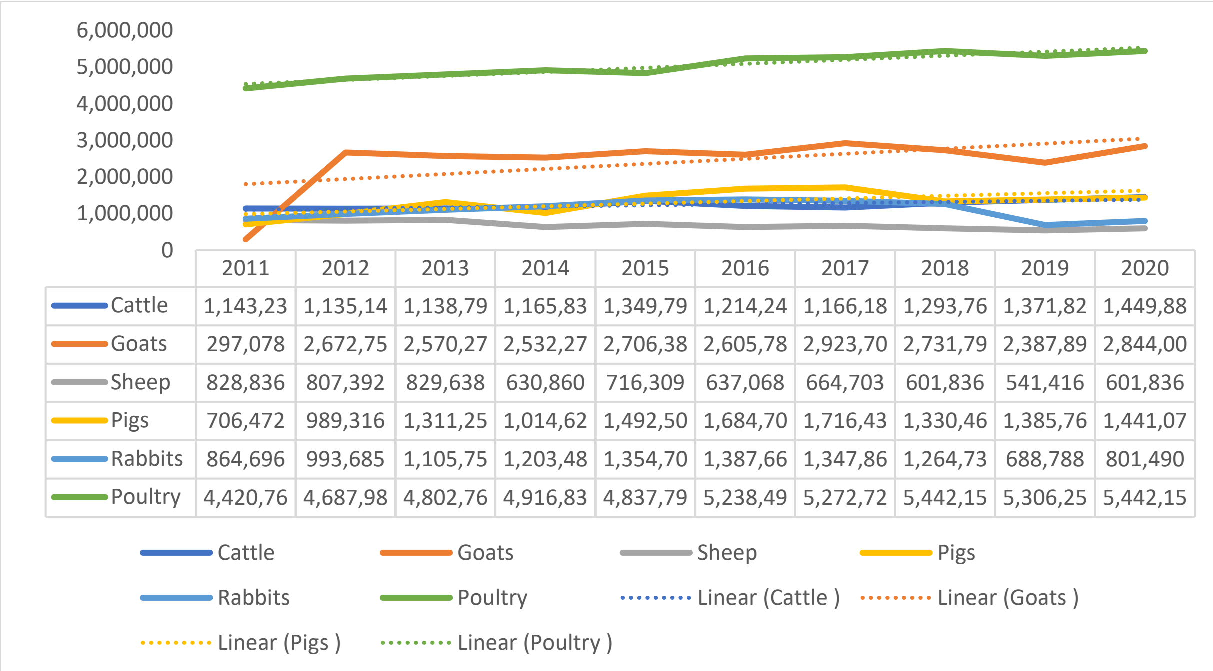
[1] MINAGRI Annual Report (2020-2021).
[2] N/A: undetermined sex of the Owner/Manager, e.g., Cooperative, Firm, etc.

2.5.3.1. Current trend in livestock population growth

- During the 2020/21 FY, the cattle population was reported to be increased by 5.6% compared to the last fiscal year 2019/20,
- Small stock population also increased by 16% for rabbits, 11 % for sheep, 2% for goats and 2.5% for poultry,
- The increase of cattle and pig numbers is due to efforts deployed by the GoR to support vulnerable families and other interventions initiated by NGOs, Civil societies to assist poor families. In that context, 26,614 cows, 2,366 pigs and 41,691 poultry were distributed to 31,764 poor families in 2020/21. Since the Girinka program initiation, 406,776 cows were distributed to poor families.

The **Figure 6** indicates a steady growth of the country's livestock population counts, for all key species (poultry, cattle, pig, sheep and goat), except rabbit population, which seems to be declining. Efforts to reestablish a competitive rabbit production are recommended, especially in areas predominantly active in this sector; e.g., Southern Province, Peri-urban areas, etc.

Figure 5:Livestock population trend in the last 10 years (MINAGRI, 2021)



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Cattle	1,143,23	1,135,14	1,138,79	1,165,83	1,349,79	1,214,24	1,166,18	1,293,76	1,371,82	1,449,88
Goats	297,078	2,672,75	2,570,27	2,532,27	2,706,38	2,605,78	2,923,70	2,731,79	2,387,89	2,844,00
Sheep	828,836	807,392	829,638	630,860	716,309	637,068	664,703	601,836	541,416	601,836
Pigs	706,472	989,316	1,311,25	1,014,62	1,492,50	1,684,70	1,716,43	1,330,46	1,385,76	1,441,07
Rabbits	864,696	993,685	1,105,75	1,203,48	1,354,70	1,387,66	1,347,86	1,264,73	688,788	801,490
Poultry	4,420,76	4,687,98	4,802,76	4,916,83	4,837,79	5,238,49	5,272,72	5,442,15	5,306,25	5,442,15

2.5.3.2. Major constraints to the country's quality meat production and supply

Despite the high GDP growth, the country's economic and trade capacity transformation remains slow. Particularly, the country potential for quality meat production and supply is mainly being limited by a number of significant setbacks, including (but not limited to);

A. The gap in Recommended Level of Investment (RLI) for increased production of meat, to meet the demand remains high;
B. The country lacks key strategies to consider a relatively competitive advantage of livestock and meat production to be adopted at country level, to maximize the utilization of limited resources (land, water, etc.),
C. Inadequate stock of quality breeds, especially for beef cattle, pigs and poultry, which compels the country to source from imports to respond to the demand for premium quality meat (Hotels, Air carriers, etc.),
D. Absence of a consistent regulation (Policy) and strategies for sound livestock breeding to match with adequate choice of animal genetic resources and competitive production systems, for quality meat production and supply. **Annex 1** suggests an indicative list of suitable breeds as per recommended breeding and production systems in Rwanda.
E. Inadequate production and supply of quality feeds (Normally accounting for 70% of costs in livestock production);

F. Absence of "Disease-Free Zone" in the country (e.g., FMD, PPR, ASF, etc.) considerably hampers productivity, quality and access to regional and international markets (Trade barrier for meat export),

2.5.4. Abattoirs technology and their level of compliance to quality and safety standards

2.5.4.1. Mapping of available abattoir facilities in the country

- Out of reported 107 slaughering facilities across the country, official sources indicated that only 48 of them are recognized as **slaughterhouses by the regulatory authority (RICA)**. The remaining facilities, mostly managed by Districts and/or cooperatives, are labelled as "Tueries" and mainly serve the local market.
- Of these abattoirs, 48 are multiple species and only 4 are monospecies;
  - Poultry East Africa Ltd (PEAL)-Broiler Slaughter (Bugesera; specialised in broilers meat), and,
  - RUKUBANA Abattoir (Rusizi; slaughtering pigs),
  - MEAT WORLD (Bugesera, slaughtering pigs),
  - MUSANZE PIG SLAUGHTERHOUSE (Musanze District, slaughtering pigs).

- Available modern abattoirs (15 in the country, with 13 being operated by the Private Sector) and District formal abattoirs are all equipped with chilling/cooling facilities (the transit is rather very quick, e.g., <10 h).
- At local (District) level, 446 Inspectors are regularly involved in meat inspection. Those include 30 District Animal Resources Officers (DAROs), as well as 416 Veterinary and Animal Resources Technicians at Sector Level.

2.5.4.2. Major constraints to abattoir productivity

As indicated in the recent MVC Mapping and Gap Analysis (MINICOM, 2022), local abattoirs are facing a number of crucial challenges hindering the meat sector to become competitive on both local and international markets;

A. Inadequate Abattoir Business Model (ABM);
B. Inadequate cold chain mechanism;
C. Issues of compliance to safety and quality standards of meat and meat products;
   - No compliance or, inappropriate/lack of good slaughtering practices:
   - Food/Meat safety system that is not always effective in protecting the public health against outbreaks of infectious and foodborne diseases;
   - Absence of a food traceability system operational at national level, to enhance compliance to GAPs, GHPs and food safety standards, etc.;
   - Issue of abattoir certification:

The needed meat sector transformation requires country's abattoirs to embrace a sound business model, hence moving away from slaughter services to production of value-added meat and meat products.

In the **Table 5** bellow, 13 modern abattoirs have been identified and mapped across the country.

Table 5:List of modern abattoirs across the country

S/N	NAME OF SLAUGHTERHOUSE	SPECIALIZATION	DISTRICT	SECTOR	AFFILIATION
1.	RUGARI MEAT PROCESSORS LTD	Beef, goat& sheep	Kicukiro	Kanombe	Private
2.	RUGARI MEAT PROCESSORS LTD	Beef, goat& sheep	Bugesera	Mayange	Private
3.	POULTRY EAST AFRICA (PEAL) LTD	Broiler	Bugesera	Mayange	Private
4.	MUHABURA TWO MEAT PROCESSING LTD	Beef, goat& sheep	Bugesera	Ruhuha	Private
5.	RUGANO MEAT SUPPLY LIMITED	Beef, goat& sheep	Gasabo	Rusororo	Private
6.	SABAN -NYABUGOGO LTD	Beef, goat& sheep	Nyarugenge	Gitega	Private
7.	KAYITANA FARM LTD	Beef, goat& sheep	Gakenke	Gakenke	Private
8.	YAK FAIR TRADE LTD	Beef, goat& sheep	Ruhango	Ruhango	Private
9.	CAMR COPERATIVE	Beef, goat& sheep	Rubavu	Gisenyi	Private
10.	KOADU COPERATIVE	Beef, goat& sheep	Rubavu	Gisenyi	Private
11.	GATETE MODERN SLAUGHTERHOUSE	Beef, goat& sheep	Ngoma	Kibungo	Private
12.	MISIZI ABATTOIR	Beef, goat& sheep	Muhanga	Shyogwe	Public
13.	GICUMBI MODERN ABATTOIR	Beef, goat& sheep	Gicumbi	Byumba	Public
14.	MEAT WORLD	Pig	Bugesera	Mayange	Private
15.	MUSANZE PIG SLAUGHTERHOUSE	Pig	Musanze	Muko	Private

Source: Report of Sanitary Inspection of meat value chain actors (RICA, 2021).

2.5.5. Meat processing and transport

Available data from Districts and other key informants highlight an important stake of slaughters and meat trading into the national MVC, where at least 580 operators are active across the country. This sub-sector includes the following clusters of operators; 107 slaughtering facilities (**abattoirs** and **"tueries"**), 400 butchers, 52 cross-border meat traders, 8 meat transporters, 8 meat exporters and 5 meat processors

While butchers and abattoirs seem to be distributed across all provinces, it was remarked a scarse distribution of meat processors and exporters (N=16 in total), on one hand. On the other hand, most of cross-border meat traders (N=42) are reported being active in the Western Province, while other 10 are reported in the Southern Province.

This cluster is seriously challenged by a relatively low capacity in the post-harvest of meat (post slaughter), mainly due to backyard slaughtering practices. The sector needs specific interventions, to modernize the existing slaughtering facilities and establish the very needed specilized slaugherhouses for pigs and poultry.

2.5.6. Meat value addition and market linkages

The MVC is still characterized by a low level of meat processing. The industry doesn't take advantage of the added value offered by modern distribution channels and high-end markets, where the slaughtering process only delivers the whole or semi and quarter carcass outputs.

A. The following additional constraints are hindering the development of the Meat Industry:

- Predominance of "backyard slaughterhouses", resulting into a considerable and unwanted illegal competition to regular abattoirs,
- Semi-modern slaughterhouses only located in urban and peri-urban areas,
- Slaughterhouses are near residential areas,
- Hygienic conditions are precarious,
- No ante mortem inspection,
- Slaughter processes are outdated,
- There is no system of re wiping after slaughtering,
- Pollution of the environment by cutting waste and waste water is not taken into account,
- Management of seizures slaughter doesn't guarantee the preservation of Public Health (no incineration system, no safety insurance risk of soil-borne diseases with the current method by chlorination),
- Slaughter of pigs is rather a domestic activity like poultry,
- The infrastructure which includes abattoirs, slaughter slabs are in most cases in poor condition and rehabilitation costs are usually relatively high.

- Low value of slaughtering by-products:The hides and skins sector, which is the second export livestock product ((NAB estimated US $ 7.4 million generated between July 2015 and June 2016), is hindered by some constraints;
- Low recovery of skins;

B. Constraints towards access to new markets: although export markets already exist (Congo, DRC, Kenya, U.S and Asia), the growing of livestock exports are dependent on quantitative and qualitative improvements,

C. Socioeconomic constraints are:

- Lack of entrepreneurship skills and culture: livestock husbandry is still largely considered as subsistence activity,

- Food taboos: sheep and rabbit meats,
- Inaccessibility of credit to small scale farmers,
- Weak farmers' organizations/ weak farmers associations in the rural areas,
- Poor investment in livestock industry: Livestock farming especially is usually done with minimum inputs,
- Lack of coordination within the Institutional framework involving all stakeholders, etc.

2.5.7. Capaity development

Important skills development gaps withing clusters of MVC operators: (Situational analysis + Background) have been identified as follow;
Key identified categories of actors to benefit capacity building packages;

- Training farmers/producers in Good (livestock) Agricultural and Hygienic Practices (GAPs and GHPs),
- Training abattoir operators and meat processors (at least 100) on Food Safety Management System (FSMS), Hazard Analysis Critical Control Point (HACCP),
- Training Veterinary doctors and lab analysts (at least 100) in meat quality and safety,
- Training cross-border market traders in Rubavu and Rusizi (at least 250) in GHPs,
- Training +Registration of public and private meat Inspectors (at least 446),
- Training of Community Animal Health Workers (CAHWs; at least 1560) on GHPs, Animal welfare principles, etc.

2.5.8. Governance and regulation

Policies and legislation addressing food safety of Meat value chains in Rwanda have been reviewed, with focus on relevant section addressing food safety as well as their implementation mechanism, during the last 10 years (2010-2020). A comprehensive brief on governance and regulation with regards to MVC development was highlighted in the **Section 2.3.2.** (Meat sector achievements and challenges) and details are compiled in the **Annex 3**.

2.5.8.1. Specific brief on gender mainstreaming for the meat value chain strategy

The Government of Rwanda have made tremendous efforts to position Gender Equality within national priorities of the Country to ensure equitable and Gender Responsive Development. The 2003 Constitution of the Republic of Rwanda amended in 2015 stresses on Gender Equality by conferring at least 30% of positions to women in decision-making organs and puts in place mechanisms to ensure that the family is protected by the state and flourishes;

1. Currently, National Gender Policy has been also revised in February 2021 to accelerate the effectiveness of accountability for Gender Mainstreaming and National Transformation. The Policy emphasizes on effective engagement of men and boys and accelerating gender mainstreaming across sectors at all levels,

2. According to the **GMO assessment (2018) conducted on GIRINKA and VUP programs**, several gender issues have been raised and they can be considered to ensure equal contribution of both men and women in Meat Value Chain Process:

    2.1. Limited consideration of gender aspect at project design level has been identified as gender issue- the *target is to distribute cows to poor beneficiary households without consideration of special needs of poor male and female headed households*. The target is to distribute cows to poor beneficiary households without consideration of special needs of poor male and female headed households especially considering women headed households under poverty line,

    2.2. Limited support and skills provided to more vulnerable beneficiaries especially women in terms of helping them get cow- sheds, medical care and to manage cows;

    2.3. Limited capacity to cover the cost related to afford veterinary services such as artificial insemination especially for heifers and treatment leading to poor management and high mortality rate for program cows.

A considerable body of regulations/policies on gender related matters have been passed during the last decade and are framing a considerable regulatory reference and tools to support the meat sector and meat value chain governance (http://gmo.gov.rw/index.php?id=570). Among them, the most relevant to the development of MVC are highlighted in the **Annex 2** and **Annex 3**.

2.5.8.2. Specific brief on environmental management for the meat value chain strategy

The article 4 of the Law No N°48/2018 of 13/08/2018 On Environment (T. R. of Rwanda, 2018), tackle on principle of environmental sustainability, as a way to makes sure that present and future generations enjoy equal opportunities. The right to development must be achieved in consideration of the needs of present and future generations.

Specifically, a number of regulations, policies and guidelines have been promulgated in the last decades, and will make an additional rampart to this MVC Strategy. They include (but not limited to);

1. Law N° 17/2019 of 10/08/2019; relating to the prohibition of manufacturing, importation, use and sale of plastic carry bags and single-use plastic items (O. G. The Republic of Rwanda, 2019):
   - This Law prohibits the manufacturing, importation, use and sale of plastic carry bags and single-use plastic items,
   - The law provides, however, for an exceptional authorization (Article 4); which can allow meat and meat products packaging as required by quality and safety standards: The manufacturing, importation, use or sale of home compostable plastic items or woven polypropylene is allowed subject to prior authorisation from the competent authority,
   - Article 5: Environmental levy: Imported goods packaged in plastic material or single-use plastic items are subject to an environmental levy in accordance with relevant laws.

2. National Environment and Climate change policy (MINIRENA, 2019):
   - The National Environment and Climate Change Policy provides strategic direction and responses to the emerging issues and critical challenges in environmental management and climate change adaptation and mitigation,
   - The key issues and challenges identified include high population density, water, air and soil pollution, land degradation, fossil-fuel dependency, high-carbon transport systems, irrational exploitation of natural ecosystems, lack of low-carbon materials for housing and green infrastructure development, inadequate waste treatment for both solid and liquid waste, increase of electronic, hazardous chemicals and materials waste, among others.

3. The EIA Guidelines for slaughterhouse projects in Rwanda (REMA, 2014):
   - Intended to facilitate the preparation of Environmental Assessments for slaughterhouse projects in line with the Government of Rwanda environmental requirements.
   - In addition, they serve as a reference tool for assessing biophysical, social, health and cultural impacts of meat related projects on the environment thereby ensuring integrated approach to sustainable production of meat related projects.
   - In implementing these Guidelines, REMA works closely with stakeholder institutions such as Ministry of Agriculture and Animal Industry (MINAGRI), Rwanda Agriculture Board (RAB), Rwanda Bureau of Standards (RBS), relevant urban and local authorities, as well as market management

agencies whose mandates involve use and operations of slaughterhouse facilities.

2.5.9. Meat Value Chain Gap Analysis

A summary of the most reported setbacks/challenges has been documented and further incorporated into the Gap Analysis, which was performed by considering 3 main Thematic Contents, versus the 2022 milestone (Objectives of the Rwanda Meat Value Chain Trade Competitiveness Project/MINICOM and Target of the Rwanda Livestock Masterplan 2017/2022).

The Gap Analysis outcome has informed and being complemented by a SWOT Analysis for a more consistent and robust strategic planning framework. Details of the SWOT Analysis are highlighted in the following **Table 6.**

Table 6:SWOT Analysis matrix of the national MVC[1]

Positive		**Negative**
Internal	**A. STRENGTHS:** ***A.1. Framework for quality meat production:*** A.1.1. Key assessment and input tools availed in the last 10 years to modernize MVC: • Strategy and Investment to Strengthen the Poultry Industry in Rwanda (MINAGRI, 2012), • Strategy and Investment Plan for Small Animal Industry in Rwanda (MINAGRI, 2012) • Strategic and investment plan to strengthen meat industry in Rwanda (MINAGRI, 2012), • Rwanda Strategy for Meat Export to DRC (MINICOM, 2016), A.1.2. Key regulatory and policy reforms have given to Rwanda a framework favoring the development of livestock and meat industry; • Rwanda's Strategic Plan for Agriculture Transformation 2018-2024, phase 4 (PSTA 4/MINAGRI, 2018), • National Agriculture Policy (MINAGRI, 2018) • The Revised National Decentralization Policy (M. Republic of Rwanda, 2012): adopted by the government of Rwanda to bring	**C. WEAKNESSES/CONSTRAINTS** ***C.1. Framework for quality meat production and technology*** C.1.1. Despite the high GDP growth, Rwanda's economic and trade capacity transformation remains slow. The gap in Recommended Level of Investment (RLI) for increased production of meat, to meet the demand remains high; • Red meat: 102,91 MT to 150,00 MT (45.76%), • Pigmeat: 24,06 MT to 67,1 MT (178.89%), • Poultry: 38,85 MT to 70,00 MT (80.18%), • Rabbit: 9,62 MT to 25,00 MT (159.88%) • Low productivity of indigenous breeds, due to the poor quality of genetic stock; • Poor performing local breeds (Small animal industry strategy and investment plan/MINAGRI, 2012). C.1.2. The country lacks key strategies to consider a relatively competitive advantage of livestock and meat production to be adopted at country level, to maximize the utilization of limited resources (land, water, etc.), e.g., Investment in intensive production of small stock (Pig, poultry, small ruminants, rabbits, etc.), as recommended by PSTA-4, C.1.3. Rwanda's economy remains largely informal and dominated by owner-operated SMEs in trade and agriculture [4]: • Low GDP per employed person: $3.863 compared to $13.387 (EAC), or 246.5% of gap, • Low labor productivity: Youth employed in the MVC: 21.7 compared to 25.0% recommended for EAC, • Low women employed in the MVC: 12.3% instead of 30.0% (Rwanda Gender Policy), • Low level of empowerment for SMEs in the MVC , etc.

	services close to populations, making «Umurenge» the focal unit for development; • The National Land Policy (MINITERE, 2004): the aim is to secure land tenure to encourage investments in farming; • The review of laws related to Animal Health: Law N° 54/2008 of 10/09/2008, determining the prevention and fight against contagious diseases for domestic animals in Rwanda; • Strengthening of the veterinary profession: Law N° 56/2013 of 09/08/2013, establishing Rwanda Council of Veterinary Doctors and determining its mission, organization and functioning, • Made in Rwanda (MIR) policy (MINICOM, 2016), • Establishment and support of key MVC Stakeholders: RAB, NAEB, RICA, Rwanda FDA, REMA, etc. ***A.2. The potential for a large supply of animals and meat:*** A.1.2.1. There is a growing evidence of the country's strong case for meat production potential and opportunities to prospect local and regional markets: • Rwanda Livestock Master Plan-ILRI, 2017,	C.1.4. Constraints towards access to new markets: although export markets already exist (Congo, DRC, Kenya, U.S and Asia), the growing of livestock exports are dependent on quantitative and qualitative improvements, C.1.5. Socioeconomic constraints are: • Lack of entrepreneurship skills and culture: livestock husbandry is still largely considered as subsistence activity, • Food taboos: sheep and rabbit meats, • Inaccessibility of credit to small scale farmers, • Weak farmers' organizations/ weak farmers associations in the rural areas, • Poor investment in livestock industry: Livestock farming especially is usually done with minimum inputs, • Lack of coordination within the Institutional framework involving all stakeholders, etc. ***A.2. Major constraints in the Meat Value Chain and supply:*** C.2.1. Inadequate stock of quality breeds, especially for beef cattle, pigs and poultry, which compels the country to source from imports to respond to the demand for premium quality meat (Hotels, Air carriers, etc.), • Low productivity of indigenous breeds, due to the poor quality of genetic stock; • Poor performing local breeds (Small animal industry strategy and investment plan/MINAGRI, 2012). C.2.2. Absence of a consistent regulation (Policy) and strategies for sound livestock breeding to match with adequate choice of animal genetic resources and competitive production systems, for quality meat production and supply, C.2.3. Inadequate production and supply of quality feeds (Normally accounting for 70% of costs in livestock production); • Poor animal nutrition, both quantity and quality due to shortage of farming lands, insufficient and no controlled commercial feeds, limited use of agricultural by-products and/or alternative sources of key nutrients; e.g.; proteins, minerals, vitamins, etc., • Detailed nutritional constraints are well described in the Strategic Plan for Animal Nutrition Improvement Programme for Rwanda/MINAGRI (2009).

	• Mapping of Meat Value Chain (MVC) and Gap Analysis (MINICOM, 2022) A.1.2.2. Growing trend in livestock species population during the past decade, especially for the small livestock notably poultry, pigs and rabbits. The meat sector expects to count on availability of the following species to launch its development: • Cattle: 1.450 million heads[3], • Goat: 2.844 million heads, • Sheep: 0.602 million heads, • Pigs: 1.441 million heads, • Poultry (layers, broilers and indigenous chicken: 5.442 million heads, • Rabbits: 0.801 million heads. A.1.2.3. The Rwanda Abattoirs Assessment Report (MINICOM, 2016) indicated the country's capacity to slaughter and process the available livestock on the local market: • Total of 107 slaughering facilities across the country, • 50 Abattoirs, • 57 local "Tuerries", • The livestock sector produces about 174. 904 thousand Metric Tons (MT) of meat per year, • In addition, the herd provides about 6. 305 MT of hikes and skins per annuum (MINAGRI, 2021). A.1.2.4. climate favorable to animal husbandry: • Having a long rainy season is an advantage. Indeed, livestock development in many African	C.2.4. Absence of "Disease-Free Zone" in the country (e.g., FMD, PPR, ASF, etc.) considerably hampers productivity, quality and access to regional and international markets (Trade barrier for meat export), C.2.5. Inadequate Abattoir Business Model (ABM): The present business model of all abattoirs in the country hinges on providing slaughter services at a fee, instead of production of value added chilled and frozen meat and meat products. The abattoirs are uncompetitive and lack exposure to the value-added meat and meat products market, where premium prices are fetched, C.2.6. Inadequate cold chain mechanism, leading to the lack of chilled or frozen meat products for transportation and export to regional markets, as the meat from local abattoirs is mainly transported as hot carcasses, being only supplied to limited distance ranges (< 1.000 km). Therefore, more livestock (about 70% of local supply) are exported (mainly to DRC) to be slaughtered outside the country, which represents a huge value-addition loss to local stakeholders (e.g., slaughtering services, meat processing, transport, abattoir byproducts, etc.), C.2.7. High cost of transport + logistics system (Transport, storage, cooling, shipping, etc.), which stand at 30-40% of the total production cost, compared to EAC average (20-30%), C.2.8. Lack of organized/structured meat value chain, resulting in insufficient linkages between livestock markets, transport and abattoirs (Operators); ***C.3. Issues of compliance to safety and quality standards of meat and meat products:*** C.3.1. No compliance or, inappropriate/lack of good slaughtering practices: • Inappropriate transportation of livestock, • No proper animal reception and lairage of before slaughter, • No proper isolation of sick/suspicious animals and/or seized carcasses, • No compliance to animal welfare practices (Ad-libitum distribution of drinking water, avoiding over-stocking/excess of noise, proper stunning),

	countries is burdened by the consequences of a long dry season: drought, lack of roughages and watering points. ***A.3. Key actions on cross-cutting issues:*** • Prime Minister's Order N°001/03of 11/01/2012 determining modalities in which Government Institutions Prevent and Respond to Gender Based Violence, • Law N° 66/2018 of 30/08/2018 regulating labour in Rwanda, • Standards published (RSB, 2016), • Revised National Gender Policy (Ministry of Gender and Family Promotion, 2021), • Gender mainstreaming strategy for the private sector 2020-2024 (Private Sector Federation, 2020), • The completed Mapping of Meat Value Chain (MVC) and Gap Analysis (MINICOM, 2022), to establish the location and role of various stakeholders and actors, key infrastructure, etc. • Important participation of private organizations (to be supported towards becoming Small and Medium Enterprises-SMEs) in the national MVC (77.00%), • Guidelines for Slaughterhouse project in Rwanda (REMA, 2012), etc.	• No chilling of meat for 24 hours before dispatch, etc., C.3.2. Food/Meat safety system that is not always effective in protecting the public health against outbreaks of infectious and foodborne diseases; • Crucial need for least 1 Accredited Reference Laboratory, to champion a coherent food safety and quality standards, for local market and export, • Need to check the quality (hygienic, organoleptic) of meat for high-end markets, Import/Export purposes, etc. C.3.4. Absence of a food traceability system operational at national level, to enhance compliance to GAPs, GHPs and food safety standards, etc.; • Incapacity to predict, prevent, monitor and effectively control outbreaks of diseases in livestock, • Incapacity to prevent, control the accumulation of veterinary drugs, hormones, antibiotics and other food hazards in meat, C.3.5. Issue of abattoir certification: • All the abattoirs visited had local certificates such as EMS issued by REMA, provisional authorization issued by RICA and registration certificate issued by RDB, • However, other international certifications (HACCP, BRC, QMS, ISO) were absent in the abattoirs visited. ***C.4. Important skills development gaps withing clusters of MVC operators: (Situational analysis + Background)*** Key identified categories of actors to benefit capacity building packages; • Training farmers/producers in Good (livestock) Agricultural and Hygienic Practices (GAPs and GHPs), • Training abattoir operators and meat processors (at least 100) on Food Safety Management System (FSMS), Hazard Analysis Critical Control Point (HACCP), • Training Veterinary doctors and lab analysts (at least 100) in meat quality and safety, • Training cross-border market traders in Rubavu and Rusizi (at least 250) in GHPs, • Training +Registration of public and private meat Inspectors (at least 446),

		• Training of Community Animal Health Workers (CAHWs; at least 1560) on GHPs, Animal welfare principles, etc. ***C.5. Gaps in meat processing and value addition:*** C.5.1. Low level of meat processing. The value chain is still characterized by the low level of meat processing. The industry doesn't take advantage of the added value offered by modern distribution channels and high-end markets, C.5.2. The slaughtering process only delivers the following outputs: whole or semi and quarter carcasses: • Cutting and transformation (ham, sausage, etc…) does not really exist, • Chicken is sold live or "Ready to Cook", • Preparation of poultry, pigs and sheep is usually done in the "backyard slaughterhouses", C.5.3. The following additional constraints are hindering the development of the Meat Industry: • Predominance of "backyard slaughterhouses", resulting into a considerable and unwanted illegal competition to regular abattoirs, • Semi-modern slaughterhouses only located in urban and peri-urban areas, • Slaughterhouses are near residential areas, • Hygienic conditions are precarious, • No ante mortem inspection, • Slaughter processes are outdated, • There is no system of re wiping after slaughtering, • Pollution of the environment by cutting waste and waste water is not taken into account, • Management of seizures slaughter doesn't guarantee the preservation of Public Health (no incineration system, no safety insurance risk of soil-borne diseases with the current method by chlorination), • Slaughter of pigs is rather a domestic activity like poultry, • The infrastructure which includes abattoirs, slaughter slabs are in most cases in poor condition and rehabilitation costs are usually relatively high.

		C.6. Low value of slaughtering by-products: C.6.1. The hides and skins sector, which is the second export livestock product ((NAB estimated US $ 7.4 million generated between July 2015 and June 2016), is hindered by some constraints; • The exports opportunities in foreign markets are not fully exploited due to poor added value for exports products, • Exclusively live bovine and small ruminants are exported in the neighboring countries, • 63% of hides and skins are exported in raw stage. Thus, 37% are tanned or crusted, depriving the national economy of additional resources, • Poor quality skins, attributed to poor animal husbandry practices, lack of appropriate slaughter facilities and tools, poor storage and preservation techniques, lack of incentives to producers to improve quality, price setting that does not encourage quality, lack of grading of raw hides and skins, outdated law on hides and skins and cultural patterns and social styles of traditional livestock keepers, C.6.2. Low recovery of skins • This is attributed to poor quality leading to rejection, low awareness especially among primary producers on the economic value, low prices of hides and skins, • Low utilization capacity of tanneries, due to worn out machinery and equipment and outdated technology, as well as a low investment capacity, • Most of the tanneries in Rwanda lack proper effluent treatment plants; as a result, they contribute to environmental pollution.
External	**B. OPPORTUNITIES:** The main opportunities are: • Rwanda has recorded a steady economic growth over the last decade, and reports are highlighting a GDP increase of 8.0% in 2020, while a projection for 2021 was likely to raise to 8.2%.	

	• This rapid growth, coupled with a focus on the business environment, is believed to stimulate a growth in private investment (standing at 13% of GDP), • Rwanda registered the highest trend in per-capita meat supply in the last 50 years, compared to other regional countries, with an astonishing change of +129%, from an average of 3.97 Kg/person in 1961 to 9.08 kg/person in 2017, • Positive livestock population trend, • Decrease of meat imports; • Getting currencies in value markets; • Increased valorization of hides and skins, • The projected rise in nominal meat prices is expected for all meats, for 2022-2030, Forecasted global feed productivity growth, projecting the ratio of nominal meat prices over feed prices to decline, etc.	
		D. THREATS: • The main threats are the competition of imported products from bordering countries (Uganda, Tanzania, Kenya, European Union, etc.). • The 2020 World Bank Doing Business report ranks Rwanda second in Africa for ease of doing business. However, the foreign direct investment remains modest, compared with the average for other low-income countries, • The high cost of transport and energy, due to Rwanda's landlocked position and poor logistics system, constrain its ability to attract investments and keep its private sector from expanding in job-intensive industries,

		• An increasing intensity of feed insecurity: "70% of costs in livestock production is the animal feed, which typically rely on a high-quality maize and soja", • Climat change issues, environnemental dégradation/pollution, • **Impact of diseases on meat markets:** o COVID-19 clearly affected meat markets in 2020 and will have implications for the medium term, as the decrease in consumer demand is expected to put downward pressure on agricultural prices and production, o Other animal diseases such as ASF, highly pathogenic avian influenza (HPAI), foot and mouth disease (FMD) always pose significant risks for meat markets. Outbreaks can occur quickly and shock markets, which may take years to recover. • Etc.

Source: Table 6: SWOT Analysis matrix of the national MVC1

[1]SWOT analysis done in reference to Gap Analysis Thematic Contents, versus the 2022 milestone (Objectives of the Rwanda Meat Value Chain Trade Competitiveness Project/MINICOM and Target of the Rwanda Livestock Masterplan 2017/2022), **[2]**Average GDP per employed person for Africa (AfDP, 2020),

[2] Rwanda Livestock Masterplan 2017/2022)

[3] Source: Annual Report MINAGRI,19/20,

[4] Average GDP per employed person for Africa (AfDP, 2020),

[5] Rwanda Strategic Plan for Agriculture Transformation-2018-2024 (PSTA-4)

3. STRATEGIC CONCEPTUAL FRAMEWORK

3.1. PURPOSE OF THE STRATEGY

The purpose of this National Meat Value Chain Development Strategy, hence, is to guide the economy in the effective and efficient management of the Meat Value Chain throughout the agricultural value chains and trading in Rwanda. The Strategy is being conducted on the account of the Government of Rwanda, through the Ministry of Trade and Industry (MINICOM) in partnership with Rwanda Standards Board (RSB) and Rwanda Agriculture and Animal Resource development Board (RAB), in support to the achievement of the Rwanda Meat Value Chain Trade Competitiveness Project (https://www.minicom.gov.rw/1-1/meat-value-chain-trade-competitiveness-project). The project was funded by the African Development Bank (AfDB), and ultimately aims to improve meat production, expand the value chain, improve market and cross-border trade in the sector and increase the contribution of the meat value chain in Rwanda's economy.

3.2. VISION

The vision (ultimate outcome and impact) of this Meat Value Chain Development Strategy is to contribute to Rwanda's economic growth, by positioning the country as a regional competitive producer and exporter of quality and safe meat products.

3.3. GOAL

To achieve this vision, the strategy goal (intermediate outcome) is to enhance food and nutritional security, and to contribute to the national economic transformation by unlocking new economic opportunities with increased exports revenues, reduced critical skills gaps and creation of gender-sensitive jobs for a more competitive and sustainable MVC.

3.4. STRATEGIC OBJECTIVE

To achieve the above goal, the overall strategic objective (immediate outcome) of this strategy is to improve meat production, expand the value chain, improve market and cross-border trade in the sector and increase the contribution of the meat value chain in Rwanda's economy. The competitive MVC strategy will integrate a strong governance and regulatory framework, to cater for critical cross- cutting issues; 1) Gender and Youth, 2) Environment and Climate Change.

3.5. SPECIFIC OBJECTIVES

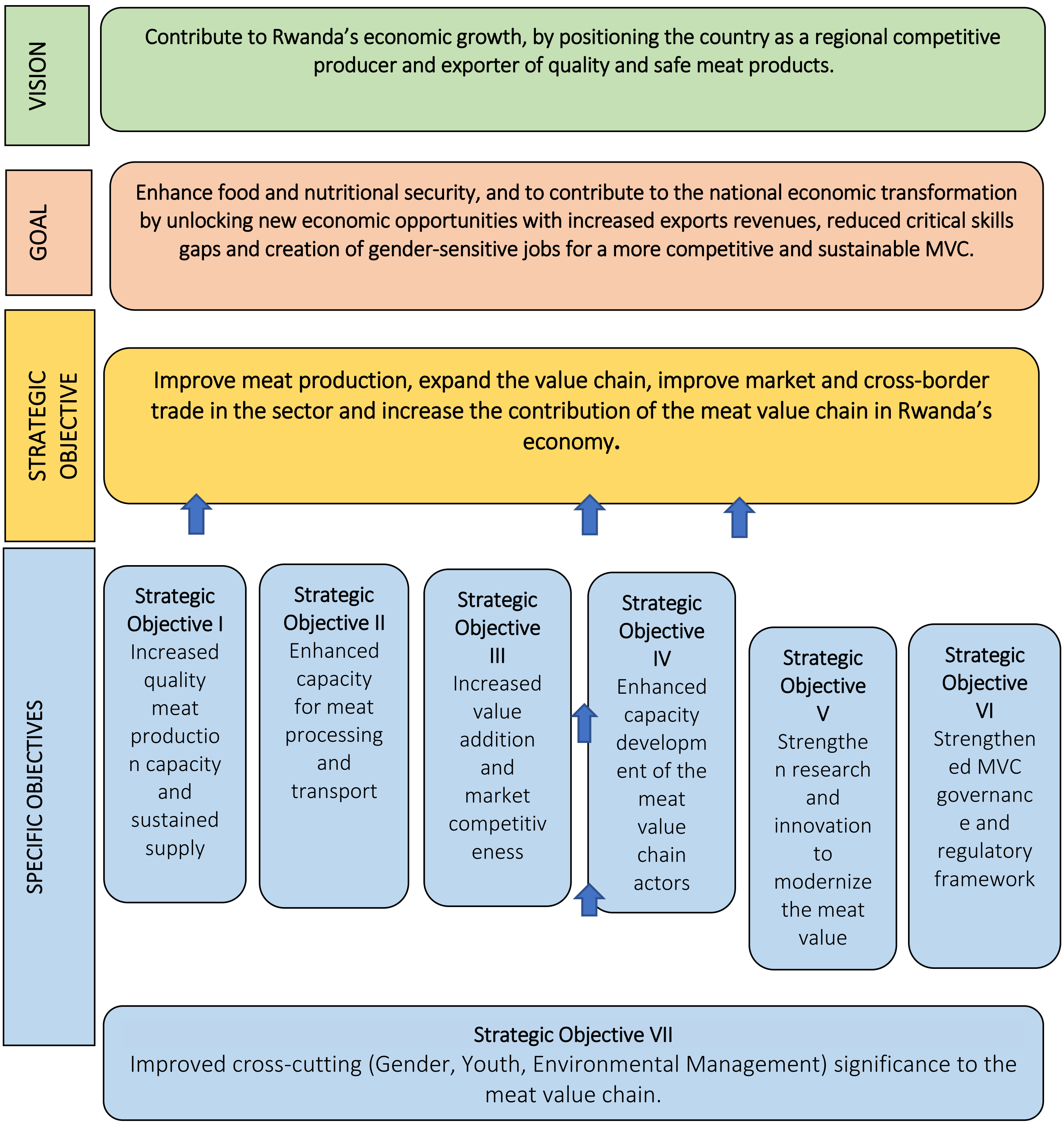
The following specific objectives (outputs) were identified as priority to effectively support the development of a competitive meat value chain, sustainable meat supply and cross-border trade;

1. Increased (*From 6% to at least 10% of the livestock contribution*) quality meat production capacity and sustained supply, trough modern farming practices, improved breeding and feeding, as well as organized veterinary services and slaughtering facilities,
2. Enhance the capacity for meat processing and transport, by means of modernized abattoir linkage to various MVC operators, as well as their compliance to quality and safety standards,
3. Increase the value addition and market competitiveness, by promoting meat cutting, chilling, freezing, packaging, valorization of meat by-products, increased Cross-Border Trade (CBT) trades and import substitution,
4. Enhance the capacity development of the meat value chain actors, through effective information sharing, development of training manuals and engaging meat value chain platforms and PPP frameworks,
5. Strengthen research and innovation, by means of effective Research and Development (R&D), and linkage of higher learning education and extension services,
6. Strengthen the MVC governance and regulatory framework for increased value-addition and competitiveness on local and regional markets,
7. Improve cross-cutting issues of significance to meat value chain; especially gender, youth and environmental management. They will be mainstreamed in all interventions undertaken towards the implementation of the other 4 strategic objectives.

3.6. OVERALL STRATEGIC FRAMEWORK

The overall strategic framework for the Meat Value Chain (**MVC**) Development Strategy is summarized in the **Figure 7**.

Figure 6:Overall Strategic Framework of the MVC Development Strategy in Rwanda



3.7. STRATEGIC INTERVENTIONS

This section will be elaborated in line with the Meat Value Chain Strategic Framework. It is meant to provide the following highlights;

- Identify the main strategy output (Strategic Objective; **SO**) and provide a brief outline of the key focus area's gaps/challenges (s) for each; and
- Identify for each SO's focus area interventions or measures to achieve the outputs.

The identified interventions will be considered to suggest costing of the strategy as will be discussed in this section 4, dedicated to the MVC strategy implementation and investment plans.
The summary of strategy focus area's gaps and proposed interventions is provided in the **Table 7,** while the expected targets (Indicators) to be achieved by 2027 are proposed in the **Table 8**

Table 7:Strategy intervention matrix

Strategic Objective	Identified challenge and Gaps (Source: Table 6 (SWOT Analysis matrix of the national MVC)[1]	Strategic interventions
1. Increased (*From 6% to at least 10% of the livestock contribution*) quality meat production capacity and sustained supply, trough modern farming practices, improved breeding and feeding, as well as organized veterinary services and slaughtering facilities,	1. Low production of livestock for quality meat and meat products. The gap in Recommended Level of Investment (RLI) for increased production of meat, to meet the demand by 2027 remains high (Rwanda Livestock Master Plan, 2017-2022; MINAGRI/Annual Report, 2020-2021); 2. The lack of key strategic interventions to consider a relatively competitive advantage of livestock and meat production, to maximize the utilization of limited resources; e.g., Substitution of surplus chicken and pig meat for domestic red meat consumption would also reduce domestic meat prices and enable an increase in meat export. Taking advantage of the potential of poultry and pig sectors would require substantial investments in promotional activities to change consumer preferences (PSTA-4), 3. Rwanda's economy remains largely informal and dominated by owner-operated SMEs in trade and agriculture, limiting the production capacity; • Low GDP per employed person: $3.863 compared to $13.387 (EAC), or 246.5% of gap, • Low labour productivity: Youth employed in the MVC:21.7 compared to 25.0% recommended for EAC,	1. Develop a National Livestock Breeding and Production plan, in a view to optimizing the utilization of limited resources and reduction of production costs, by promoting an intensive production of small stack (Pigs, poultry, small ruminants and fish). Ideally, this would be part of broad-line strategy documents being developed by MINAGRI/RAB. 2. Encourage/incentivise private operators; SMEs and Firms, to invest in specialized medium and large-size commercial farms for quality meat production and creation of employment opportunities; • Establish 30 new commercial specialized pig and poultry farms for commercial pig production, • Supporting modern beef production farms for high-end markets; e.g., Gako Beef Project, Feedlots farms, Beef growers (fatteners), etc., • Raising youth employment rate in the MVC from 21.7% to at least 25.5% (EAC Average), • Raising women employment in the MVC from 12.3% to ate least 30% (Rwanda Gender Policy), 3. Conduct research to provide active Pilot Farms (With a special consideration to Private Farms, SMEs) with renewed and competitive quality breed stock, with a special consideration for pigs and poultry.

	• Low women employed in the MVC: 12.3% instead of 30.0% (Rwanda Gender Policy), • Low level of empowerment for SMEs in the MVC , etc. 4. Inadequate production and supply of quality feeds (Normally accounting for 70% of costs in livestock production); 5. Absence of "Disease-Free Zone" in the country (e.g., FMD, PPR, ASF, etc.)-Which is one of key requirements to access export markets (Trade barrier for meat export).	4. Develop/update a National Feed Security and Safety contingency plan to ensure a competitive supply of feed ingredients, alternative sources of feed additives; e.g., affordable sources of proteins + micro-nutrients, improving animal feed practices and optimizing on-farm crop-livestock integration. etc. 5. Develop/update a National Strategy and Contingency Plan against Transboundary Animal Diseases (TADs) and Zoonoses, with a view of securing a "Disease-Free-Zone" for premium end-markets and exports. 6. Creating awareness on standards and guidelines (From farm to folk) on GHPs, HACCP, ISO 22000 to key stakeholders involved in meat production and capacity building for quality meat production and safety, including self-regulation.
2. **Capacity for meat processing and transport, by means of modernized abattoir linkage to various MVC operators, as well as their compliance to quality and safety standards,**	1. Inadequate Abattoir Business Model (ABM): The present business model of all abattoirs in the country hinges on providing slaughter services at a fee, instead of production of value added chilled and frozen meat and meat products. The abattoirs are uncompetitive and lack exposure to the value-added meat and meat products market, where premium prices are fetched, 2. Inadequate cold chain mechanism, leading to the lack of chilled or frozen meat products for transportation and export to regional markets, as the meat from local abattoirs is mainly transported as hot carcasses, being only supplied to limited distance ranges (< 1.000 km). 3. High cost of transport + logistics system (Transport, storage, cooling, shipping, etc.), which stand at 30-40% of the total production cost, compared to EAC average (20-30%),	7. Establish a modern Abattoir Business Model (ABM), linking producers, traders, abattoirs and meat market, by the mean of continuum business model from production to processing or sub-contracting meat producers (Pilot farms), traders, 8. Construct 30 pig marketing centres with slaughter facilities and modern butchers, to meet consumer's needs both in quality and quantity, 9. Construct at least 1 mechanized pig slaughterhouse + processing plant, with cold-storage for marketing of chilled pig meat to domestic and exports markets, 10. Construct at least 1 mechanized poultry slaughterhouse + processing plant, of a total annual capacity of slaughtering 10 million broilers along with modern chicken cutting and processing facilities and cold storage, 11. Establish 15 private mini chicken slaughtering houses and butchers, to meet consumer's needs both in quality and quantity,

	4. Lack of organized/structured meat value chain, resulting in insufficient linkages between livestock markets, transport and abattoirs (Operators);	12. Enforce regulation and regular monitoring of abattoir inspection; including transport and ante mortem inspection to detect signs of animal welfare concerns (e.g., stress, fatigue, thirst, wounds and other physical traumatisms, etc.), to prevent the transmission of zoonotic diseases, monitor skin and hide malformations, etc., 13. Promote Public and private investment to increase capacity cold chain for meat products storage and transportation,
3. Value addition and market competitiveness, by promoting meat cutting, chilling, freezing, packaging, valorisation of meat by-products, increased Cross-Border Trade (CBT) trades and import substitution,	1. Low compliance to meat quality and safety standards, 2. Limited awareness 3. Limited value addition of animal products, due to lack of capacity and awareness of the market needs, including high-end markets, 4. Low value of slaughtering by-products, • Poor quality skins, attributed to poor animal husbandry practices, lack of appropriate slaughter facilities and tools, poor storage and preservation techniques, • Lack of innovations to produce value addition to skins and hides, • Lack of grading of raw hides and skins, to reward producers for quality skins and hides, in addition • Low utilization capacity of tanneries, due to worn out machinery and equipment and outdated technology, as well as a low investment capacity, • Most of the tanneries in Rwanda lack proper effluent treatment plants; as a result, they contribute to environmental pollution, • Lack of innovative techniques to add value to other by-products, including blood, horns, guts, hairs, fats, etc.	14. Increase the number and capacity of modern chilling/cooling facilities and promote small scale rural based meat-processing and value addition businesses in the designated bordering areas (Nyagatare, Bugesera, Rusizi and Rubavu Districts), 15. Harmonize meat packaging guidelines and promote investment in the local manufacturing of standard and affordable packaging material, 16. Conduct study tours and B2B and assess market-linkage opportunities for meat, and meat products, including by-products, which are expected to boost exports of livestock products, 17. Promotion of a "Premium Price" concept, for meat complying with quality and safety standards, based on international certification scheme, including Bio-Products, 18. Modernize tanneries, with updated equipment and technology to curb environmental pollution. 19. Promote and support the E-commerce of meat products in order to explore profit- markets and diversify meat-trading destinations (National E-commerce strategy in agriculture value chain).
4. Capacity development of	1. Socioeconomic constraints are:	20. Train abattoir operators, meat processors, traders and laboratory Technicians on FSMS, HACCP,

the meat value chain actors, through effective information sharing, development of training manuals and engaging meat value chain platforms and PPP frameworks,	• Insufficient of entrepreneurship skills and culture: livestock husbandry is still largely considered as subsistence activity, • Food taboos: sheep and rabbit meats, • Limited financial literacy, and highly risky investment, • Weak farmers' organizations/ weak farmers associations in the rural areas, • Insufficient investment in livestock industry: Livestock farming especially is usually done with minimum inputs, 2. Important skills development gaps withing clusters of MVC operators: • Training farmers/producers in Good (livestock) Agricultural and Hygienic Practices (GAPs and GHPs), • Training abattoir operators and meat processors (at least 100) on Food Safety Management System (FSMS), Hazard Analysis Critical Control Point (HACCP), • Training Veterinary doctors and lab analysts (at least 100) in meat quality and safety, • Training cross-border market traders in Rubavu and Rusizi (at least 250) in GHPs, • Training +Registration of public and private meat Inspectors (at least 446), • Training of Community Animal Health Workers (CAHWs; at least 1560) on GHPs, Animal welfare principles, etc.	21. Train public and private meat Inspectors on GHPS, HACCP, ISO 22000, and encourage them to register with RICA, 22. Train cross-border market traders in Nyagatare, Bugesera, Rubavu and Rusizi on GHPs, Sanitary and quality standards, 23. Train Community Animal Health Workers on GHPs and Animal welfare principles, 24. Provide a substantial budget support to existing mechanisms/programs; "Zamukana Ubuziranenge Programme"-RSB and "Made-In-Rwanda; MIR"-MINICOM, to systematically prepare and supports the private sector, especially SMEs, towards the desired quality and safety performance, while building a standardization culture in the industries, 25. Review the curriculum of the Rwanda TVET, to include training for meat processing skills such as cuttings, washing and cleaning, packaging, etc.
5. **Research and innovation, by means of effective Research and Development (R&D), and linkage of higher learning**	1. Lack of collaboration between academia and livestock industry, • Collaboration framework for education, research, • Enhanced support to innovation-incubation services, • Extension services (Breeding, Livestock farmer-field school facilitators (FFS), farmer Promoters-Li,	26. Strengthening existing platforms linking meat value chain stakeholders and academia, e.g., Rwanda Meat Society, 27. Establish link between incubation centres (e.g., UR-CAVM, IPRC Huye) and meat stakeholders and operators, to provide for viable industrial attachment opportunities and to sell out realized technologies, processes

education and extension services,		
6. Meat value chain governance and regulatory framework	1. No compliance or, inappropriate/lack of good slaughtering practices; 2. Food/Meat safety system that is not always effective in protecting the public health against outbreaks of infectious and foodborne diseases; • Crucial need for least 1 Accredited Reference Laboratory, to champion a coherent food safety and quality standards, for local market and export, 3. Absence of a food traceability system operational at national level, to enhance compliance to GAPs, GHPs and food safety standards, etc.; • Incapacity to predict, prevent, monitor and effectively control outbreaks of diseases in livestock, • Incapacity to prevent, control the accumulation of veterinary drugs, hormones, antibiotics and other food hazards in meat, 4. Issue of abattoir certification, etc.	28. Establish and operationalize a National Meat Traceability Scheme, 29. Support and/or establish Accredited Reference Laboratories, to test meat safety and quality standards, 30. Establishing a private meat inspection scheme, mandated and monitored by a competent authority, 31. Establishing a digital platform for information sharing and coordination of national regulatory, quality control, inspection and certification offices/bodies, 32. Establishing a governance framework for meat value chain stakeholders and operators, including the Consumer's Rights Watchdogs (ADECOR, CHROR), for advocacy and mindset change towards quality and safety of meat products on the market.
7. Cross-cutting issues	**Main gaps**	**Strategy interventions**
7.1. Gender equality and youth empowerment	1. High rate of stunting (33%) due to lack of decision-making power and limited control over resources also influence household nutrition, as women are primarily responsible for providing for the nutritional needs of their families and resulted into less access to nutrient rich animal source foods, 2. Negative cultural barriers and mind-set (patriarchal system) and practices are still hindering women and young girls in socio-economic activities especially Meat Value Chain processes,	33. Create database for women and youth engaged in the MVC SMEs, entrepreneur's role models to stimulate others to engage in the MVC, 34. Create career incentives and opportunities (Tax exemption, access to financial services) for new SMEs, women, and youth to be actively engaged in meat value chain segments including commercialization, 35. Build capacities of women and young entrepreneurs in the MVC, by providing them with practical skills at each level of /segment of meat

	3. Limited capacity building for both men and women to the cow treatment/management, meat production among other value chain segments, 4. Low level of youth employment in production/farm activities, 5. Youth involved in cross-border trading are likely to face challenges associated with low capital, insufficiency of financial literacy skills which renders them less competitive and limited representation into leadership and decision-making instances,	value chain through mentorship and internship programs, 36. Supporting women headed households in rearing small domestic animals (goats, sheep, pigs and hens) based on the HH capacities to afford them, 37. Apply a special consideration to youth to stimulate profitable engagement in agriculture and agribusinesses, through developing skills and promotion of entrepreneurship.
7.2. Environmental Management	1. Low level of MVC compliance to the Guidelines to prevent MVC facilities from pollution.	38. Enforcement of regulations related to environmental protection including: 1) Law No 48/2018 of 13/08/2018, 2) National Environment and Climate change policy, 3) General Procedures for conducting Environmental Impact Assessment (EIA) in Rwanda, 4) Sector Specific Environmental Impact Assessment guidelines for slaughterhouse projects in Rwanda, etc.

[1]SWOT analysis done in reference to Gap Analysis Thematic Contents, versus the 2022 milestone (Objectives of the Rwanda Meat Value Chain Trade Competitiveness Project/MINICOM and Target of the Rwanda Livestock Masterplan 2017/2022), [2]Average GDP per employed person for Africa (AfDP, 2020),

[2] Rwanda Livestock Masterplan 2017/2022)

[3] Source: Annual Report MINAGRI,19/20,

[4] Average GDP per employed person for Africa (AfDP, 2020).

Table 8:Estimated MVC Strategy targets by 2027

Priority areas	Detailed Breakdown	Baseline Current information	Targets (Five years)	Source of information
		2020/2021	2026/2027[1]	
Livestock population	Cattle	1,449,888	1,668,369	MINAGRI/ Annual Report 2020/2021 (Baseline), [1]MINAGRI/Rwanda Livestock Masterplan (2017-2022)
	Goat	2,844,001	3,832,858	
	Sheep	601,836	828,254	
	Pig	1,441,077	2,449,830	
	Poultry	5,442,152	9,589,573	
	Rabbits	801,490	1,572,071	
Volume of meat production	Estimated total meat production (	Meat production:174,904	Meat production:255,989 MT	MINAGRI/ Annual Report 2020/2021 (Baseline), [1]MINAGRI/Rwanda Livestock Masterplan (2017-2022)
		Domestic:170,524.6 MT	Domestic:902,623 TM	
		Exports (Kg): 4,379,461 (4,379.4 MT)	Exports:23,897 MT	
		Export value (USD): 11,094,593	Export value (USD): 60,539,683.2	
	Beef	51,000 MT	60,000 MT	MINAGRI/Rwanda Strategic Plan for Agriculture Transformation (PSTA-4)
	Goat	17,000 MT	20,000 MT	
	Sheep	3,000 MT	4,000 MT	
	Poultry	30,000 MT	42,000 MT	
	Pigmeat	37,000 MT	79,000 MT	
	Rabbit	8,000 MT	10,000 MT	
Investment (disaggregated data, gender)	Farmers/Investors (Private + SMEs)	• 654 Cattle Farmers:53 Female, 601 Males, • 517Pig Farmers:62 Female, 455 Males, • 393 Poultry Farmers: 96 Female, 297Males, • 148 Goat Farmers:135 Males, 13Female, • 39 Sheep Farmers: 37 males, 2 females	• 674 Cattle Farmers:59 Female, 615 Males, • 610 Pig Farmers:92 Female, 525 Males, • 402 Poultry Farmers:99 Female, 303 Males, 188 Goat Farmers:165 Males, 23Female, • 59 Sheep Farmers: 52 males, 7 females)	MINICOM/ MVC Mapping and Gap Analysis Report, Feb 2022

	Meat exporters	• Meat exporters:8 Male, 0 Female	• Meat exporters:16 (12 Male, 4 Female)	
	Slaughterhouses	• Slaughterhouses:107: 103 males, 4 Females (Manager/Owner), • Only 15 Modern slaughterhouses (Managed by 15 males)	• Refurbished 107 slaughterhouses (103 males, 4 females), • 30 pig marketing centres with slaughter facilities, across Districts, • At least 1 mechanized pig slaughterhouse + processing plant, with cold-storage for marketing of chilled pig meat to domestic and exports markets, • At least 1 mechanized poultry slaughterhouse + processing plant, of a total annual capacity of slaughtering 10 million broilers along with modern chicken cutting and processing facilities and cold storage, • 15 private mini chicken slaughtering houses,	MINICOM/ MVC Mapping and Gap Analysis Report, Feb 2022, [1]MINAGRI/Rwanda Livestock Masterplan (2017-2022)
	Meat processing	Meat processing: 5 Male, 0 Female	Meat processing: 10 (7 Male, 3 Female	MINICOM/ MVC Mapping and Gap Analysis Report, Feb 2022, [1]MINAGRI/Rwanda Livestock Masterplan (2017-2022)
	Meat transporter	Meat Transportators:8 Male, 0 Female	Meat Transporters: 12 (9 Male, 3 Female)	
	Cold chain storage:	Cold chain storage: 10	• Establish and equip Cold chain storage facilities to cross border points • Establish and or equip with the infrastructures the cold chain storage facilities to each abattoir	

	Meat quality and safety Laboratories	• Meat safety and quality Laboratories: 0	Establish and equip with infrastructures laboratories for safety and quality meat to the main exit/entries of the country	
	Packaging: TBD	• Packaging: TBD	Enforce standards and regulations to enhance packaging of meat	

Professionals (disaggregated data, gender)	• Farmers/Investors
	• Livestock service providers
	• Butcheries
	• Meat processors
	• Meat inspectors
	• Transporters
	• Regulators
		• Targeted segments/beneficiaries to be trained:
		  • Farmers/Investors
		  • Livestock service providers
		  • Butcheries
		  • Meat processors
		  • Meat inspectors
		  • Transporters
		  • Regulators
			The following are the modules to train various segments to increase their professionalism in meat value chain
			  • Farmers/investors will be trained in Good (livestock) Agricultural and Hygienic Practices (GAPs and GHPs),
			  • Abattoir operators, butchers, and meat processors need to be trained on Food Safety Management System (FSMS), Hazard Analysis Critical Control Point (HACCP),
			  • Conduct training and registration of the public and private meat Inspectors (at least 446) in FSMS and HACCP,
			  • Conduct training of transporters and Community Animal Health Workers (CAHWs; at least 1560) on GHPs, Animal welfare principles, etc.
			• Provide practical or hands on training regulators on
				MINICOM/ MVC Mapping and Gap Analysis Report, Feb 2022,

			FSMS, HACCP, GHPs and Animal Welfare Principles.	
Certification and standards	• HACCP Certification • ISO 22000 Standard • Other local and international standards	• HACCP Certification available • ISO 22000 Standard available • ISO 17020 for inspection bodies available (RICA& FDA implement these standards) • ISO 9001 for QMS • ISO 19011 for audit management • Other local and international standards	• Develop and/ or review existing standards and regulations to ensure safety and quality meat in Rwanda • RICA& Rwanda FDA enforce standards and regulations of meat	MINICOM/ MVC Mapping and Gap Analysis Report, Feb 2022,
Enforcement of standards and regulations	• Food safety law and by laws • Animal production and health law and by laws • Other regulations	• Food safety law and bylaws • Animal production and health law and by laws • Other regulations	Regulatory bodies both RICA and Rwanda FDA to enforce the following: • Food safety law and by laws • Animal production and health law and bylaws • Other regulations	Laws establishing RICA and Rwanda FDA enacted and both regulatory bodies are under enforcement
Other animal sources of proteins (fish, seafood)	• Fish • Seafood • Others	• Fish: 39,269 MT • Seafood:2,395 MT • Others	• Fish:112,000 MT • Seafood:14,370 MT • Others	MINAGRI/ Annual Report 2020/2021 (Baseline), MINAGRI/Rwanda Strategic Plan for Agriculture Transformation (PSTA-4)

4. IMPLEMENTATION, INSTITUTIONAL AND MONITORING AND EVALUATION FRAMEWORKS

4.1. GUIDING PRINCIPLES AND/OR PREREQUISITES FOR A SUCCESSFUL IMPLEMENTATION

The following are some of the key guiding principles and/or prerequisites for the successful implementation of this strategy:

1. Strong political will and financial budgetary commitment to the Strategy;
2. Institutional ownership and accountability,
3. Gender equality, youth support and engagement into the MVC development efforts,
4. Sound and well-regulated environmental protection for a sustainable MVC development,
5. The establishment of a strong monitoring and evaluation system involving all key stakeholders;
6. The building of confidence in the financial sector to support the highly-risky livestock sector in particular, etc.

4.2. PHASED IMPLEMENTATION PLAN

To effectively operationalise this 5-year Strategy the following are the required sections/tools;

a. **A Results Framework**: It leads to the identification of performance indicators at each stage in this chain (ultimate outcome, intermediate outcome, immediate outcome, and outputs) as well as risks which might impede the attainment of the objectives.
b. **An Implementation Plan-Logical Framework:** Outlines the requisite steps for the execution of this strategy, the resources required, and the roles and responsibilities of institutions and or actors involved in the implementation of the strategy.
c. **A Monitoring and Evaluation Matrix:** Ordinarily serves a dual purpose, first to monitor progress towards the attainment of overall indicators and strategy targets and second, to monitor the Implementation Plan itself.

4.2.1. Results Framework

A Results Framework (RF) is a key planning, monitoring and evaluation tool. It reflects the "results chain"[1] of the Strategy and it allows for the identification of

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[1] ***Results*** are those changes that can be attributed to a development measure or intervention. The mere fact that a change occurs is not enough to merit its designation as a result of the development measure or intervention, even if the change was planned and intended. The observed change can only be taken up as a result of the intervention if a causal or at least plausible link

criteria (indicators and targets) to monitor and assess progress being made towards the expected outputs, outcomes and impacts. The RF was inserted as **Annex 4.**

4.2.2. Implementation plan

In linkage to **Section 4.7** and **5.2.1** (Strategy Interventions; **Table 7** and Strategy Results Framework**; Annex 4**), **Table 9** presents the Logical Framework for the strategy. It constitutes costed prioritised programmes and sub-programs, for each of the identified main strategy activities (Interventions), to be implemented in five years.

To the large extent, **MINICOM** will overall lead the MVC Strategy implementation. To this end, it will play the role of coordinator and high-level policy supervisor. The Strategy Implementation and Investment Plan (**Table 10**) will articulate the implementation mechanisms including the specific institutional, organisational and governance structures to be employed in implementing the Strategy. In addition, this section provides budget estimates for the strategy.

Contributions from relevant stakeholders would include other Ministries such as MINICOM, MINAGRI, Ministry of Health (MoH), MINERENA, MINEDUC, MINALOC, MIGEPROF, MINIYOUTH, RDB, and their respective affiliate Implementing Agencies; including RICA, RSB, NIRDA, RCA, RAB, NAEB, Rwanda FDA, REMA, UR, RP, RISA, GMO, Districts, as well as key stakeholders from the private sector (PSF) and Development Partners (Donors).

This part will comprise;

4.2.2.1. The MVC Strategy Logical Framework (2022/2023-2026/2027)-Table 9
4.2.2.2. Strategy Implementation Plan-Table 10,

N.B:
The Strategy Cost and Financing Stream will be separately inserted in the Section **5.2.2.3-Table 11, Table 12**

can be established. We refer to changes that can be causally or plausibly attributed as the results of a development measure. These may be intended or unintended, expected or unexpected, positive or negative.

Table 9:The MVC Strategy Logical Framework (2022/2023-2026/2027)

<table>
<tr><td colspan="11">Impact (Ultimate Outcome): Contribute to Rwanda's economic growth, by positioning the country as a regional competitive producer and exporter of quality and safe meat products</td></tr>
<tr><td colspan="11">Intermediate Outcomes: Enhance food and nutritional security, and to contribute to the national economic transformation by unlocking new economic opportunities with increased exports revenues, reduced critical skills gaps and creation of gender-sensitive jobs for a more competitive and sustainable MVC
Immediate Outcomes: Improve meat production, expand the value chain, improve market and cross-border trade in the sector and increase the contribution of the meat value chain in Rwanda's econ</td></tr>
<tr><th rowspan="2">OUTPUT</th><th rowspan="2">GENDER SENSITIVE INDICATORS</th><th rowspan="2">BASELINE</th><th colspan="5">ANNUAL TARGET</th><th>STRATEGIC ACTION</th><th>BUDGET</th><th>STAKEHOLDERS</th></tr>
<tr><th>2022/23</th><th>2023/24</th><th>2024/25</th><th>2025/26</th><th>2026/27</th><th></th><th>FRW</th><th></th></tr>
<tr><td colspan="11">Strategy Objective 1: Increased (From 6% to > 10% of the livestock contribution) quality meat production capacity and sustained supply, trough modern farming practices, improved breeding and feeding, as well as organized veterinary services and slaughtering facilities,
Outcome indicator: Increased quality meat production, sustained supply to domestic and export markets and improved cross-border trade economy (Contribution to the National GDP)</td></tr>
<tr><td colspan="8">Output 1.1: Upscaled Recommended Level of Investment (RLI) for increased production of quality meat, to meet local and international demand</td><td></td><td>0.2 Billion</td><td></td></tr>
<tr><td>Output indicator: National Livestock Breeding and Production plan in place, to optimizing the utilization of limited resources and reduction of production costs</td><td>Approved and implemented inclusive and gender sensitive livestock development /breeding policy</td><td>MINAGRI/Rwanda Livestock Masterplan (2017-2022)</td><td>Planning, Tender process (ToR for Consultancy), Resource mobilisation</td><td>70 % developed</td><td>100% Approved</td><td>Implementation</td><td>Implementation</td><td>1.1.1. Develop a National Livestock Breeding and Production plan, in a view to optimizing the utilization of limited resources and reduction of production costs, by promoting an intensive production of small stack (Pigs, poultry, small ruminants and fish).</td><td>50 million</td><td>RAB (Lead) MINAGRI, PSF, DPs</td></tr>
<tr><td>National Feed Security and Safety contingency plan in place, to ensure a competitive feed manufacturing, supply and feeding</td><td>Approved and implemented inclusive and gender sensitive feed security and safety contingence plan</td><td>MINAGRI/Rwanda Livestock Masterplan (2017-2022)</td><td>Planning, Tender process (ToR for Consultancy), Resource mobilisation</td><td>70 % developed</td><td>100% Approved</td><td>Implementation</td><td>Implementation</td><td>1.1.2. Develop/update a National Feed Security and Safety contingency plan to ensure a competitive supply of feed ingredients, alternative sources of feed additives; e.g., affordable sources of proteins + micro-nutrients, improving animal feed practices and optimizing on-farm crop-livestock integration. etc.</td><td>50 million</td><td>RAB (Lead) MINAGRI, MINICOM PSF, DPs</td></tr>
</table>

National Strategy and Contingency Plan against Transboundary Animal Diseases (TADs) and Zoonoses in place	Approved and implemented inclusive and gender sensitive National Strategy and Contingency Plan against TADs	MINAGRI/Rwanda Livestock Masterplan (2017-2022)	Planning, Tender process (ToR for Consultancy), Resource mobilisation	70 % developed	100% Approved	Process to secure a "Disease-Free-Zone" initiated	At least 1 Secured "Disease-Free-Zone"	1.1.3. Develop/update a National Strategy and Contingency Plan against Transboundary Animal Diseases (TADs) and Zoonoses, with a view of securing a "Disease-Free-Zone" for premium end-markets and exports,	50 million	**RAB (Lead)** MINAGRI, OIE-FAO, PSF, DPs
Quantity of meat production for domestic	MT (% women and Youth Share)	170,524.6 MT	190,291	210,058	229,825	249,592	269,359	1.1.4. Creating awareness on standards and guidelines (From farm to folk) on GHPs, HACCP, ISO 22000 to key stakeholders involved in meat production and capacity building for quality meat production and safety, including self-regulation	50 million	**RAB (Lead)** MINAGRI, RSB, NAEB, PSF, DPs
Meat production exported	MT (% women and Youth Share)	4,379.4 MT	5879.4	6,789	7,879	8,879.4	9,879.4			
Export value of Meat (USD) cumulatively	USD (% women and Youth Share)	11,094,593	12,107,937	24,215,873	36,323,810	48,431,747	60,539,683			
Output 1.2: Established and piloted key strategic interventions to consider a relatively competitive advantage of livestock production and access to market									**6.8 Billion**	
Output Indicator: Number of specialized pig and poultry farms for commercial production and breeding	(% youth and women involved)	517Pig Farmers (12% F); 393 Poultry Farmers (24.4% F)	550Pig Farmers (18% F); 393 Poultry Farmers (24.4% F)	580Pig Farmers (20% F); 400 Poultry Farmers (25% F)	600Pig Farmers (25% F); 400 Poultry Farmers (30% F)	610Pig Farmers (30% F); 400 Poultry Farmers (30% F)	610Pig Farmers (30% F); 402 Poultry Farmers (30%)	1.1.1. Encourage/incentivise private operators; SMEs and Firms, to invest in specialized medium and large-size commercial farms for quality meat production and creation of employment opportunities;		**RAB (Lead)** RAB-SPIU/PRISM PROJECT, MINAGRI, PSF, Development Partners (DPs), RDB
Employment rate (%) increment	(% women and youth participating in modern farming activities)	21.27% young, 12.3% women	21.27% young, 12.3% women	22% young, 15% women	24% young, 20% women	24.5% young, 25% women	25% young, 30% women	1.1.2. Establish 30 new commercial specialized pig and poultry farms for commercial pig production,		

Number of competitive modern beef and small ruminant production farms for high-end markets	Number of motivated Farmers/Investors (Private + SMEs; % Women) supported	654 Cattle Farmers (8.75% F), 148 Goat Farmers (12% F), 39 Sheep Farmers (11.9% F)	654 Cattle Farmers (8.75% F), 148 Goat Farmers (12% F), 39 Sheep Farmers (11.9% F)	660 Cattle Farmers (8.75% F), 150 Goat Farmers (12% F), 45 Sheep Farmers (11.9% F)	665 Cattle Farmers (15% F), 158 Goat Farmers (20% F), 50 Sheep Farmers (20% F)	674 Cattle Farmers (25% F), 188 Goat Farmers (25% F), 59 Sheep Farmers (25% F)	674 Cattle Farmers (30% F), 188 Goat Farmers (30% F), 59 Sheep Farmers (30% F)	1.1.3. Supporting modern beef and small ruminant production farms for high-end markets; e.g., Gako Beef Project, Feedlots farms, Beef growers (fatteners), etc., 1.1.4. Raising youth employment rate in the MVC from 21.7% to at least 25.5% (EAC Average), 1.1.5. Raising women employment in the MVC from 12.3% to ate least 30% (Rwanda Gender Policy), 1.1.6. Conduct research to provide active Pilot Farms (With a special consideration to Private Farms, SMEs) with renewed and competitive quality breed stock, with a special consideration for pigs and poultry.		
Number of research projects and outputs	(Number of SMEs supported, involving women and youth)	100	450	650	800	1012	1500			
Strategy Objective 2: Enhanced capacity for meat processing and transport, by means of modernized abattoir linkage to various MVC operators, as well as their compliance to quality and safety standards **Outcome indicator: Established competitive Abattoir Business Model, for increased value-addition, compliance to meat quality standards and linkage to market**										
Output 2.1. Establish a working framework linking pilot farmers (motivated and supported medium and big-size farms) with specialized abattoirs for a consistent monitoring and support									**5 Billion**	
Output Indicator: Established Abattoir Business Model (ABM), linking producers, traders, abattoirs and meat market	Level of organization and (%) of women + Youth involvement in the ABM	Consultation among MVC stakeholders	Concept note development, ToRs and hiring Consultancy	Validation of the ABM concept Report	Operationalization of the ABM concept; Building stakeholders networks, consortium, singing contracts, et.	Operational ABM concept	Operational ABM concept	2.1.1. Establish a modern Abattoir Business Model (ABM), linking producers, traders, abattoirs and meat market, by the mean of continuum business model from production to processing or sub-contracting meat producers (Pilot farms), traders,	100 million	**MINICOM (Lead)**, RICA, RAB, MINAGRI, RSB, RDB, PSF, DPs

Level of investment (disaggregated data, gender) in slaughtering services and meat processing	Number of modern slaughterhouses operational across Districts (Managed by increased % of women)	15 Modern slaughterhouses (Managed by 15 males)	20 modern slaughterhouses; including 5 pig marketing centres with slaughter facilities (10% F)	25 modern slaughterhouses; including 10 pig marketing centres with slaughter facilities (15% F)	30 modern slaughterhouses; including 15 pig marketing centres with slaughter facilities (20% F)	45 modern slaughter houses; including 30 pig marketing centres with slaughter facilities (30% F)	45 modern slaughter houses; including 30 pig marketing centres with slaughter facilities (30% F)	2.1.2. Construct 30 pig marketing centres with slaughter facilities and modern butchers, to meet consumer's needs both in quality and quantity, 2.1.3. Establish 15 private mini chicken slaughtering houses and butchers, to meet consumer's needs both in quality and quantity.	2.900 million	**MINICOM (Lead)**, RAB-SPIU/PRISM PROJECT RICA, RAB, MINAGRI, RSB, RDB, PSF, DPs
Established capacity for specialised pig and poultry slaughtering and processing, with at least 30 % of women and 25% of youth involved in the investment/management	Operational mechanized pig (1) and poultry (1) slaughterhouse + processing plant, with cold-storage for marketing of chilled pig meat to domestic and exports markets	Absence of modern and mechanized pig and/or poultry slaughtering and processing facility.	Feasibility study	Resource mobilization	1	1	2	2.1.4. Construct at least 1 mechanized pig slaughterhouse + processing plant, with cold-storage for marketing of chilled pig meat to domestic and exports markets, 2.1.5. Construct at least 1 mechanized poultry slaughterhouse + processing plant, of a total annual capacity of slaughtering 10 million broilers along with modern chicken cutting and processing facilities and cold storage,	2.000 million	**MINICOM (Lead)**, RAB-SPIU/PRISM PROJECT RICA, RAB, MINAGRI, RSB, RDB, PSF, DPs
Output 2.2. Establishing an organized cold chain +logistics mechanism, for an effective handling (storage, transport, export etc.) of chilled or frozen meat products.									**0.05 Billion**	

Output Indicator: Number of joint meat inspections conducted to enforce regulation at various steps of meat production, transport-trade, slaughtering, processing and trade (retailer, export)	% of MVC operators (with at least 30 % women and 25% youth) demonstrating a satisfactory level of minimum compliance to meat quality and safety standards (70% compliance for pre-determined level of GHPs and Sanitary standards)	Only 27.3% of abattoirs inspected by RIC in 2021 have indicated a relatively satisfying minimum level of compliance	30%	40%	50%	60%	70%	2.2.1. Enforce regulation and regular monitoring of abattoir inspection; including transport and ante mortem inspection to detect signs of animal welfare concerns (e.g., stress, fatigue, thirst, wounds and other physical traumatisms, etc.), to prevent the transmission of zoonotic diseases, monitor skin and hide malformations, etc., 2.2.2. Promote Public and private investment to increase capacity cold chain for meat products storage and transportation,	50 million	**MINICOM (Lead)**, RICA, RAB, MINAGRI, RSB, RDB, PSF, DPs
Strategy Objective 3: Increased value addition and market competitiveness **Outcome indicator: Compliance to meat quality and safety standards, for the creation of value- addition of animal products and by-products, aiming high-end markets and exports**										
Output 3.1. Enhanced awareness and compliance to meat quality and safety standards									**0.05 Billion**	
Output Indicator: Number of study tours and B2B conducted regionally and/or internationally, to increase the level of awareness and knowledge towards high-ends and export meat market requirements	Number of inclusive and gender sensitive organization of study tours and B2B activities	N/A	1	1	2	2	2	3..1.1. Conduct study tours and B2B and assess market-linkage opportunities for meat, and meat products, including by-products, which are expected to boost exports of livestock products, 3..1.2. Promotion of a "Premium Price" concept, for meat complying with quality and safety standards, based on international	50 million	**MINICOM (Lead)**, RICA, MINAGRI, NAEB, RDB, PSF, DPs

								certification scheme, including Bio-Products,		
Number of international meat trade shows attended by key MVC operators (farmers, traders, processors, Inspectors)	Number of inclusive and gender sensitive meat trade shows attended	N/A	1	1	2	2	2			
Output 3.2. Create and increase the value addition of animal products, and by-products.									**2 Billion**	
Number of chilling/cooling facilities and small scale rural based meat-processing businesses operational in the designated bordering areas (Nyagatare, Bugesera, Rusizi and Rubavu Districts),	Number of chilling/cooling facilities and small scale rural based meat-processing businesses established with involvement of women (30%) and youth (25%) operators	Only 10 modern and high-through put cold chain facilities are operating across the country	Feasibility study + resource mobilisation	20	40	60	100 + Enforced standards and regulations to enhance packaging of meat	2.1.6. Increase the number and capacity of modern chilling/cooling facilities and promote small scale rural based meat-processing and value addition businesses in the designated bordering areas (Nyagatare, Bugesera, Rusizi and Rubavu Districts), 2.1.7. Harmonize meat packaging guidelines and promote investment in the local manufacturing of standard and affordable packaging material,	1.000 million	**MINICOM (Lead)**, RICA, MINAGRI, NAEB, RDB, PSF, DPs
Number of modern tanneries, with updated equipment and technology to curb environmental pollution.	Inclusive and gender sensitive management of modern tanneries across districts	N/A	Feasibility study + resource mobilisation	5	10	40	50	2.1.8. Modernize tanneries, with updated equipment and technology to curb environmental pollution.	980 million	**MINICOM (Lead)**, NIRDA, MINAGRI, RDB, PSF, DPs
Number of MVC operators trained on E-Commerce to	At least 30% women and 25% youth benefiting	Approved National E-	200	250	300	350	400	2.1.9. Promote and support the E-commerce of meat products in order to explore profit- markets	20 million	**MINICOM (Lead)**, NAEB, RDB,

explore profit-markets and diversify meat-trading destinations	from E-Commerce access and added value	commerce strategy in agriculture value chain						and diversify meat-trading destinations (National E-commerce strategy in agriculture value chain).		PSF, DPs
Strategy Objective 4: Enhanced capacity development of the meat value chain actors **Outcome indicator: Reversed socio-economic paradigms by developing required skills withing clusters of MVC operators**										
Output 4.1. Reduced impact of socio-economic norms and stigma resulting in meat consumption and marketing gaps									**0.05 Billion**	
Output Indicator: Number of Community Animal Health Workers on GHPs, Animal welfare principles and basic meat quality and safety standards	At least 1560, with 30% women and 25% youth representatives trained	N/A	100	200	500	500	500	2.1.1. Train Community Animal Health Workers on GHPs and Animal welfare principles,	50 million	**RICA (Lead)**, RSB, RAB, MINAGRI, PSF, DPs
Output 4.2. Developed required skills among MVC operators, for a competitive meat value chain and cross-border trading, for augmented value-addition and economic returns.									**0.2 Billion**	
Output Indicator: Number of MVC operators trained on FSMS, HACCP, GHPS, ISO22000 + Number of Private Meat Inspectors registered with RICA	At least 30% women and 25% youth representatives trained	N/A	At least targeting 100 farmers, 20 abattoir operators, Vet Doctors (Lab analysts), 50 cross-border market traders, 100 public and private meat Inspectors trained and registered	At least targeting 200 farmers, 40 abattoir operators, Vet Doctors (Lab analysts), 250 cross-border market traders, 250 public and private meat	At least targeting 700 farmers, 100 abattoir operators, Vet Doctors (Lab analysts), 250 cross-border market traders, 300 public and private	At least targeting 700 farmers, 100 abattoir operators, Vet Doctors (Lab analysts), 250 cross-border market traders, 446 public and	At least targeting 700 farmers, 100 abattoir operators, Vet Doctors (Lab analysts), 250 cross-border market traders, 446 public and	2.1.1. Train abattoir operators, meat processors, traders and laboratory Technicians on FSMS, HACCP, 2.1.2. Train public and private meat Inspectors on GHPS, HACCP, ISO 22000, and encourage them to register with RICA, 2.1.3. Train cross-border market traders in Nyagatare, Bugesera, Rubavu and Rusizi on GHPs, Sanitary and quality standards, 2.1.4. Provide a substantial budget support to existing mechanisms/programs; "Zamukana Ubuziranenge	180 million	**RICA (Lead)**, RSB, RAB, MINAGRI, PSF, DPs

				Inspectors trained and registered	meat Inspectors trained and registered	private meat Inspectors trained and registered	private meat Inspectors trained and registered	Programme"-RSB and "Made-In-Rwanda; MIR"-MINICOM, to systematically prepare and supports the private sector, especially SMEs, towards the desired quality and safety performance, while building a standardization culture in the industries,		
Reviewed curriculum of the Rwanda TVET, to include training for meat processing skills such as cuttings, washing and cleaning, packaging, etc	An inclusive and gender sensitive curriculum of Rwanda TVET Schools reviewed and approved	N/A	Stakeholder's consultations	Review process + approval	Implementation	Implementation	Implementation	2.1.5. Review the curriculum of the Rwanda TVET, to include training for meat processing skills such as cuttings, washing and cleaning, packaging, etc.	20 million	**Rwanda TVET Board (RTB) (Lead)**, UR, RAB, MINAGRI, PSF, DPs
Strategy Objective 5: Strengthened research and innovation to modernize the meat value chain **Outcome indicator: Effective collaboration frameworks between academia and livestock industry is established and supported**										
Output 5.1. Support effective collaboration frameworks between academia and livestock industry									**0.05 Billion**	
Output Indicator: Number of MVC platforms in place and effective linkage between incubation centres and MVC operators (industry)	At least 30% women and 25% youth benefiting from the professional linkages/platform of key MVC operators	Scattered professional organizations; e.g., Famers Associations, Rwanda Meat Society, etc.	At least 1 well-structured MVC platform established and supported	At least 1 well-structured MVC platform established and supported	At least 1 well-structured MVC platform established and supported	At least 1 well-structured MVC platform established and supported	At least 1 well-structured MVC platform established and supported	2.1.1. Strengthening existing platforms linking meat value chain stakeholders and academia, e.g., Rwanda Meat Society, 2.1.2. Establish link between incubation centres (e.g., UR-CAVM, IPRC Huye) and meat stakeholders and operators, to provide for viable industrial attachment opportunities and to sell out realized technologies, processes	50 million	**NIRDA (Lead)**, UR, RAB, MINAGRI, PSF, DPs
Strategy Objective 6: Strengthened MVC governance and regulatory framework **Outcome indicator: Level of compliance to meat quality and safety standards, with a view to slaughtering to establishing and ensuring a meat safety system that is effective in protecting the public health and consumer's confidence**										

Output 6.1. Enhanced compliance to meat quality and safety standards, with a view to slaughtering to establishing and ensuring a meat safety system that									**2.5 Billion**	
Output Indicator: 1 Accredited Reference Laboratories, to test meat safety and quality standards in place	Approved inclusive and gender sensitive SOPs and policies (Recruitment and career development)	Established need for least 1 Accredited Reference Laboratory	Feasibility study and Tender process	Establishing + equipping the lab	Operational	Operational	Operational	2.1.1. Support and/or establish Accredited Reference Laboratories, to test meat safety and quality standards,	2.000 million	**RW FDA (Lead)**, UR, RAB, MINAGRI, PSF, DPs
An effective platform and governance structure of MVC operators in place, for information sharing and promotion of private (SMEs) share	At least 30% women and 25% youth empowered through the mentoring and support program	N/A						2.1.2. Establishing a private meat inspection scheme, mandated and monitored by a competent authority, 2.1.3. Establishing a digital platform for information sharing and coordination of national regulatory, quality control, inspection and certification offices/bodies, 2.1.4. Establishing a governance framework for meat value chain stakeholders and operators, including the Consumer's Rights Watchdogs (ADECOR, CHROR), for advocacy and mindset change towards quality and safety of meat products on the market.	500 million	**MINICOM (Lead)**, RICA, RAB, MINAGRI, PSF, DPs
Output 6.2. Establish a national meat/food traceability system and work towards MVC certification (national + international)									**0.01 Billion**	
Output Indicator: Established and operational National Food Traceability Scheme	At least 30% women and 25% youth served and benefit the meat	Absence of a food traceability system	Feasibility study and Tender process	Building and piloting the food traceability system	Operational	Operational	Operational	6.2.1. Establish and operationalize a National Meat Traceability Scheme,	100 million	**MINICOM (Lead)**, RICA, MINALOC, RW FDA, RSB,

	traceability scheme in place	(including meat)								RAB, MINAGRI, PSF, DPs
Strategy Objective 7: Improved cross-cutting (Gender, Youth, Environmental Management) significance to the meat value chain **Outcome indicator: Improved cross-cutting (Gender, Youth, Environmental Management) significance to the meat value chain, for more equity, engagement and sustainability of the MVC.**										
Output 7.1. Provide support to women and youth empowering and capacity building, for an increased engagement into MVC SMEs and Cooperatives.									**0.25 Billion**	
Output Indicator: Number of empowered women and youth, through capacity building, for an increased engagement into MVC SMEs and Cooperatives.	Number of women and youth benefiting from the support and mentoring programs	N/A	At least targeting 500 women and 200 youth representatives	At least targeting 700 women and 300 youth representatives	At least targeting 1000 women and 800 youth representatives	At least targeting 2000 women and 1000 youth representatives	At least targeting 2500 women and 1500 youth representatives	2.1.1. Create database for women and youth engaged in the MVC SMEs, entrepreneur's role models to stimulate others to engage in the MVC, 2.1.2. Create career incentives and opportunities (Tax exemption, access to financial services) for new SMEs, women, and youth to be actively engaged in meat value chain segments including commercialization, 2.1.3. Build capacities of women and young entrepreneurs in the MVC, by providing them with practical skills at each level of /segment of meat value chain through mentorship and internship programs,	50 million	**MINICOM (Lead)**, GMO, MIGEPROF, MINALOC, RCA, PSF, DPs
Number of women and youth engaged into profitable businesses in agriculture, through developing skills and promotion	Number of women and youth benefiting from the support programs	N/A	At least targeting 500 women and 200 youth representatives	At least targeting 700 women and 300 youth representatives	At least targeting 1000 women and 800 youth representatives	At least targeting 2000 women and 1000 youth representatives	At least targeting 2500 women and 1500 youth representatives	2.1.4. Supporting women headed households in rearing small domestic animals (goats, sheep, pigs and hens) based on the HH capacities to afford them, 2.1.5. Apply a special consideration to youth to stimulate profitable engagement in agriculture	200 million	**MINICOM (Lead)**, RAB, GMO, MIGEPROF, MINALOC, RCA, PSF, DPs

of entrepreneurship									and agribusinesses, through developing skills and promotion of entrepreneurship.		
Output 7.2. Ensure environmental protection for all MVC projects/Activities for a sustainable development and competitiveness.										**0.02 Billion**	
Output Indicator: Enforced environmental protection for all MVC projects/Activities for a sustainable development and competitiveness.	Inclusive and gender sensitive regulation and procedures in place, to ensure equal engagement of MVC operators towards compliance	N/A	Awareness campaigns	Enforcement of regulations related to environmental protection	Enforcement of regulations related to environmental protection	Enforcement of regulations related to environmental protection	Enforcement of regulations related to environmental protection	7.2.1.	Enforcement of regulations related to environmental protection including: 1) Law No 48/2018 of 13/08/2018, 2) National Environment and Climate change policy, 3) General Procedures for conducting Environmental Impact Assessment (EIA) in Rwanda, 4) Sector Specific Environmental Impact Assessment guidelines for slaughterhouse projects in Rwanda, etc.	20 million	**REMA (Lead)**, RNP, MINALOC, PSF, DPs

Table 10:Strategy Implementation Plan

S/N	Output	Estimated budget (FRW)	Strategic interventions	Responsible institutions	
				Lead (s)	Partner (s)
1.	**Output 1.1: Upscaled Recommended Level of Investment (RLI) for increased production of quality meat, to meet local and international demand**	**0.2 Billion**	1.1.1. Develop a National Livestock Breeding and Production plan, in a view to optimizing the utilization of limited resources and reduction of production costs, by promoting an intensive production of small stack (Pigs, poultry, small ruminants and fish).	**RAB**	MINAGRI, PSF, DPs
			1.1.2. Develop/update a National Feed Security and Safety contingency plan to ensure a competitive supply of feed ingredients, alternative sources of feed additives; e.g., affordable sources of proteins + micro-nutrients, improving animal feed practices and optimizing on-farm crop-livestock integration. etc.	**RAB**	MINAGRI, MINICOM PSF, DPs
			1.1.3. Develop/update a National Strategy and Contingency Plan against Transboundary Animal Diseases (TADs) and Zoonoses, with a view of securing a "Disease-Free-Zone" for premium end-markets and exports,	**RAB**	MINAGRI, OIE-FAO, PSF, DPs
			1.1.4. Creating awareness on standards and guidelines (From farm to folk) on GHPs, HACCP, ISO 22000 to key stakeholders involved in meat production and capacity building for quality meat production and safety, including self-regulation	**RAB**	MINAGRI, RSB, NAEB, PSF, DPs
2.	**Output 1.2: Established and piloted key strategic interventions to consider a relatively competitive advantage of livestock production and access to market**	**6.8 Billion**	1.2.1. Encourage/incentivise private operators; SMEs and Firms, to invest in specialized medium and large-size commercial farms for quality meat production and creation of employment opportunities; 1.2.2. Establish 30 new commercial specialized pig and poultry farms for commercial pig production, 1.2.3. Supporting modern beef and small ruminant production farms for high-end markets; e.g., Gako Beef Project, Feedlots farms, Beef growers (fatteners), etc., 1.2.4. Raising youth employment rate in the MVC from 21.7% to at least 25.5% (EAC Average),	**RAB**	RAB-SPIU/PRISM PROJECT, MINAGRI, PSF, Development Partners (DPs), RDB

			1.2.5. Raising women employment in the MVC from 12.3% to ate least 30% (Rwanda Gender Policy), 1.2.6. Conduct research to provide active Pilot Farms (With a special consideration to Private Farms, SMEs) with renewed and competitive quality breed stock, with a special consideration for pigs and poultry.		
1.2.7.	**Output 2.1. Establish a working framework linking pilot farmers (motivated and supported medium and big-size farms) with specialized abattoirs for a consistent monitoring and support**	**5 Billion**	2.1.1. Establish a modern Abattoir Business Model (ABM), linking producers, traders, abattoirs and meat market, by the mean of continuum business model from production to processing or sub-contracting meat producers (Pilot farms), traders,	**MINICOM**	RICA, RAB, MINAGRI, RSB, RDB, PSF, DPs
			2.1.2. Construct 30 pig marketing centres with slaughter facilities and modern butchers, to meet consumer's needs both in quality and quantity, 2.1.3. Establish 15 private mini chicken slaughtering houses and butchers, to meet consumer's needs both in quality and quantity.	**MINICOM**	RAB-SPIU/PRISM PROJECT, RICA, MINAGRI, RSB, RDB, PSF, DPs
			2.1.4. Construct at least 1 mechanized pig slaughterhouse + processing plant, with cold-storage for marketing of chilled pig meat to domestic and exports markets, 2.1.5. Construct at least 1 mechanized poultry slaughterhouse + processing plant, of a total annual capacity of slaughtering 10 million broilers along with modern chicken cutting and processing facilities and cold storage,	**MINICOM**	RICA, RAB-SPIU/PRISM PROJECT, MINAGRI, RSB, RDB, PSF, DPs
2.	**Output 2.2. Establishing an organized cold chain +logistics mechanism, for an effective handling (storage, transport, export etc.) of chilled or frozen meat products**	**0.05 Billion**	2.2.1. Enforce regulation and regular monitoring of abattoir inspection; including transport and ante mortem inspection to detect signs of animal welfare concerns (e.g., stress, fatigue, thirst, wounds and other physical traumatisms, etc.), to prevent the transmission of zoonotic diseases, monitor skin and hide malformations, etc., 2.2.2. Promote Public and private investment to increase capacity cold chain for meat products storage and transportation,	**MINICOM**	RICA, RAB, MINAGRI, RSB, RDB, PSF, DPs
3.	**Output 3.1. Enhanced awareness and compliance to**	**0.05 Billion**	3.1.1. Conduct study tours and B2B and assess market-linkage opportunities for meat, and meat products, including by-	**MINICOM**	RICA, MINAGRI, NAEB,

	meat quality and safety standards		products, which are expected to boost exports of livestock products, 3.1.2. Promotion of a "Premium Price" concept, for meat complying with quality and safety standards, based on international certification scheme, including Bio-Products,		RDB, PSF, DPs
4.	**Output 3.2. Create and increase the value addition of animal products, and by-products**	**2 Billion**	3.2.1. Increase the number and capacity of modern chilling/cooling facilities and promote small scale rural based meat-processing and value addition businesses in the designated bordering areas (Nyagatare, Bugesera, Rusizi and Rubavu Districts), 3.2.2. Harmonize meat packaging guidelines and promote investment in the local manufacturing of standard and affordable packaging material,	**MINICOM**	RICA, MINAGRI, NAEB, RDB, PSF, DPs
			3.2.3. Modernize tanneries, with updated equipment and technology to curb environmental pollution.	**MINICOM**	NIRDA, MINAGRI, RDB, PSF, DPs
			3.2.4. Promote and support the E-commerce of meat products in order to explore profit- markets and diversify meat-trading destinations (National E-commerce strategy in agriculture value chain).	**MINICOM**	NAEB, RDB, PSF, DPs
5.	**Output 4.1. Reduced impact of socio-economic norms and stigma resulting in meat consumption and marketing gaps**	**0.05 Billion**	4.1.1. Train Community Animal Health Workers on GHPs and Animal welfare principles,	**RICA**	RSB, RAB, MINAGRI, PSF, DPs
6.	**Output 4.2. Developed required skills among MVC operators, for a competitive meat value chain and cross-border trading, for augmented value-addition and economic returns**	**0.2 Billion**	4.2.1. Train abattoir operators, meat processors, traders and laboratory Technicians on FSMS, HACCP, 4.2.2. Train public and private meat Inspectors on GHPS, HACCP, ISO 22000, and encourage them to register with RICA, 4.2.3. Train cross-border market traders in Nyagatare, Bugesera, Rubavu and Rusizi on GHPs, Sanitary and quality standards, 4.2.4. Provide a substantial budget support to existing mechanisms/programs; "Zamukana Ubuziranenge Programme"-RSB and "Made-In-Rwanda; MIR"-MINICOM, to systematically prepare and supports the private sector,	**RICA**	RSB, RAB, MINAGRI, PSF, DPs

			especially SMEs, towards the desired quality and safety performance, while building a standardization culture in the industries,		
			4.2.5. Review the curriculum of the Rwanda TVET, to include training for meat processing skills such as cuttings, washing and cleaning, packaging, etc.	**Rwanda TVET Board (RTB)**	UR, RAB, MINAGRI, PSF, DPs
5.	**Output 5.1. Support effective collaboration frameworks between academia and livestock industry**	**0.05 Billion**	5..1.1. Strengthening existing platforms linking meat value chain stakeholders and academia, e.g., Rwanda Meat Society, 5..1.2. Establish link between incubation centres (e.g., UR-CAVM, IPRC Huye) and meat stakeholders and operators, to provide for viable industrial attachment opportunities and to sell out realized technologies, processes	**NIRDA**	UR, RAB, MINAGRI, PSF, DPs
6.	**Output 6.1. Enhanced compliance to meat quality and safety standards, with a view to slaughtering to establishing and ensuring a meat safety system that**	**2.5 Billion**	6.1.1. Support and/or establish Accredited Reference Laboratories, to test meat safety and quality standards,	**RW FDA**	UR, RAB, MINAGRI, PSF, DPs
			6.1.2. stablishing a private meat inspection scheme, mandated and monitored by a competent authority, 6.1.3. Establishing a digital platform for information sharing and coordination of national regulatory, quality control, inspection and certification offices/bodies, 6.1.4. Establishing a governance framework for meat value chain stakeholders and operators, including the Consumer's Rights Watchdogs (ADECOR, CHROR), for advocacy and mindset change towards quality and safety of meat products on the market.	**MINICOM**	RICA, RAB, MINAGRI, MINALOC PSF, DPs
7.	**Output 6.2. Establish a national meat/food traceability system and work towards MVC certification (national + international)**	**0.01 Billion**	6.2.1. Establish and operationalize a National Meat Traceability Scheme,	**MINICOM**	RICA, RW FDA, PSF, DPs, MINALOC
7.	**Output 7.1. Provide support to women and youth empowering and capacity building, for an**	**0.25 Billion**	7.1.1. Create database for women and youth engaged in the MVC SMEs, entrepreneur's role models to stimulate others to engage in the MVC,	**MINICOM**	GMO, MIGEPROF, RCA, PSF, DPs

	increased engagement into MVC SMEs and Cooperatives		7.1.2. Create career incentives and opportunities (Tax exemption, access to financial services) for new SMEs, women, and youth to be actively engaged in meat value chain segments including commercialization, 7.1.3. Build capacities of women and young entrepreneurs in the MVC, by providing them with practical skills at each level of /segment of meat value chain through mentorship and internship programs,		
			7.1.4. Supporting women headed households in rearing small domestic animals (goats, sheep, pigs and hens) based on the HH capacities to afford them, 7.1.5. Apply a special consideration to youth to stimulate profitable engagement in agriculture and agribusinesses, through developing skills and promotion of entrepreneurship.	**MINICOM**	RAB, GMO, MIGEPROF, RCA, PSF, DPs
8.	**Output 7.2. Ensure environmental protection for all MVC projects/Activities for a sustainable development and competitiveness**	**0.02 Billion**	7.2.1. Enforcement of regulations related to environmental protection including: 1) Law No 48/2018 of 13/08/2018, 2) National Environment and Climate change policy, 3) General Procedures for conducting Environmental Impact Assessment (EIA) in Rwanda, 4) Sector Specific Environmental Impact Assessment guidelines for slaughterhouse projects in Rwanda, etc.	**REMA**	MINALOC, RNP PSF, DPs
Total Budget		**17.270 Billion**			

4.2.2.3. The Strategy Cost and Financing Stream

The total estimated cost for the delivery of the MVC Strategy over the period of 5 years, from the FY 2022/2023 to 2026/2027, is FRW 17.270 billion (Approximately USD 17.3 million). The **Table 11** highlights the strategy costing and financing stream among key stakeholders as follow:

4. Public investment: FRW 5.814 billion (33.7%),
5. Private investment: FRW 7.229 billion (41.9%),
6. Development partners contribution: FRW 4.227 billion (24.5%)

A summary of these costs for each programme (Strategy Objective; SO) and key output is indicated in **Table 12**. The key stakeholder's responsibility centre for the output is shown first in the Stakeholder's column, together with other important partners responsible for the output. Funds will principally come from recurrent and capital expenditure budgets of GoR institutions. But funds may also be sought from the Private Sector, through the use of PPPs, and/or from the contribution of development partner institutions. The summary of the **Table 12** highlights the following figures:

Table 11The Strategy Cost and Financing Stream

Programme (SO)	Key activities/Interventions	Total cost (Billion)	Recurrent (Billion)	Capital (Billion)
Total Program 1	Increased (From 6% to > 10% of the livestock contribution) quality meat production capacity and sustained supply, trough modern farming practices, improved breeding and feeding, as well as organized veterinary services and slaughtering facilities	**7,000**	**0,468**	**6,532**
Total Program 2	Enhanced capacity for meat processing and transport, by means of modernized abattoir linkage to various MVC operators, as well as their compliance to quality and safety standards	**5,050**	**1,110**	**3,941**
Total Program 3	Increased value addition and market competitiveness	**2,050**	**0,025**	**2,025**
Total Program 4	Enhanced capacity development of the meat value chain actors	**0,250**	**0,074**	**0,176**
Total Program 5	Strengthened research and innovation to modernize the meat value chain	**0,050**	**0**	**0,050**
Total Program 6	Strengthened MVC governance and regulatory framework	**2,600**	**1,03.5**	**2,496.5**
Total Program 7	Improved cross-cutting (Gender, Youth, Environmental Management) significance to the meat value chain	**0,270**	**0,145**	**0,125**
Total Budget		**17,270**	**1,925.5**	**15,345.5**
%		**100**	**11.1**	**88.9**

Table 12:The Strategy Costing and Financing Stream

S/N	Output	Estimated budget (FRW Million)	Priority	Public investment (FRW Million)	Private investment (FRW Million)	Development partners contribution (FRW Million)
1.	Output 1.1: Upscaled Recommended Level of Investment (RLI) for increased production of quality meat, to meet local and international demand	200	High	200	800	1000
2.	Output 1.2: Established and piloted key strategic interventions to consider a relatively competitive advantage of livestock production and access to market	6800	High	1500	2500	1000
3.	Output 2.1. Establish a working framework linking pilot farmers (motivated and supported medium and big-size farms) with specialized abattoirs for a consistent monitoring and support	5000	High	1500	2500	1000
4.	Output 2.2. Establishing an organized cold chain +logistics mechanism, for an effective handling (storage, transport, export etc.) of chilled or frozen meat products	50	High	15	25	10
5.	Output 3.1. Enhanced awareness and compliance to meat quality and safety standards	50	High	25	15	10
6.	Output 3.2. Create and increase the value addition of animal products, and by-products	2000	Medium	500	1000	500
7.	Output 4.1. Reduced impact of socio-economic norms and stigma resulting in meat consumption and marketing gaps	50	High	25	15	10
8.	Output 4.2. Developed required skills among MVC operators, for a competitive meat value chain and cross-border trading, for augmented value-addition and economic returns	200	Medium	100	60	40
9.	Output 5.1. Support effective collaboration frameworks between academia and livestock industry	50	High	35	5	10
10.	Output 6.1. Enhanced compliance to meat quality and safety standards, with a view to slaughtering to establishing and ensuring a meat safety system that	2500	High	1750	250	500
11.	Output 6.2. Establish a national meat/food traceability system and work towards MVC certification (national + international)	100	High	50	5	45
12.	Output 7.1. Provide support to women and youth empowering and capacity building, for an increased engagement into MVC SMEs and Cooperatives	250	Medium	100	50	100

13.	Output 7.2. Ensure environmental protection for all MVC projects/Activities for a sustainable development and competitiveness	20	High	14	4	2
	Total	**17270**	**0**	**5814**	**7229**	**4227**
	%	**100 %**		**33.7 %**	**41.9 %**	**24.5 %**

Table 12: Financing Programme for the MVC Strategy

Programme (SO)	**Output**	**Key activities/Interventions**	**Estimated budget allocation 2022/23-2016/27 (FRW Million)**			**Stakeholder (s)**	**Note**
			Current	**Capital**	**Total**		
Increased (From 6% to > 10% of the livestock contribution) quality meat production capacity and sustained supply, trough modern farming practices, improved breeding and feeding, as well as organized veterinary services and slaughtering facilities	Output 1.1: Upscaled Recommended Level of Investment (RLI) for increased production of quality meat, to meet local and international demand	• Develop a National Livestock Breeding and Production plan, in a view to optimizing the utilization of limited resources and reduction of production costs, by promoting an intensive production of small stack (Pigs, poultry, small ruminants and fish).	5	45	50	**RAB (Lead)** MINAGRI, PSF, DPs	Estimated cost as in-kind contribution based on RAB and other Partnering Government staff time required to draft ToRs and tender documents/Retreat, etc.
		• Develop/update a National Feed Security and Safety contingency plan to ensure a competitive supply of feed ingredients, alternative sources of feed additives; e.g., affordable sources of proteins + micro-nutrients, improving animal feed practices and optimizing on-farm	5	45	50	**RAB (Lead)** MINAGRI, MINICOM PSF, DPs	Estimated cost as in-kind contribution based on RAB and other Partnering Government staff time required to draft ToRs and tender documents/Retreat, etc..

		crop-livestock integration. etc.					
		• Develop/update a National Strategy and Contingency Plan against Transboundary Animal Diseases (TADs) and Zoonoses, with a view of securing a "Disease-Free-Zone" for premium end-markets and exports,	5	45	50	**RAB (Lead)** MINAGRI, OIE-FAO, PSF, DPs	Estimated cost as in-kind contribution based on RAB and other Partnering Government staff time required to draft ToRs and tender documents/Retreat, etc.
		• Creating awareness on standards and guidelines (From farm to folk) on GHPs, HACCP, ISO 22000 to key stakeholders involved in meat production and capacity building for quality meat production and safety, including self-regulation	5	45	50	**RAB (Lead)** MINAGRI, RSB, NAEB, PSF, DPs	Estimated cost as in-kind contribution based on RAB and other Partnering Government staff time required to develop campaigns concept notes, organizing/attending meetings and symposia, etc.
	Output 1.2: Established and piloted key strategic interventions to consider a relatively competitive advantage of livestock production and access to market	• Encourage/incentivise private operators; SMEs and Firms, to invest in specialized medium and large-size commercial farms for quality meat production and creation of employment opportunities; • Establish 30 new commercial specialized pig and poultry farms for commercial pig production, • Supporting modern beef and small ruminant production farms for high-end markets; e.g.,	448	6352	6800	**RAB (Lead)** RAB-SPIU/PRISM PROJECT, MINAGRI, PSF, Development Partners (DPs), RDB	Cost linked with a recurrent budget/grant available in the RAB-SPIU/PRISM PROJECT (IFAD/ Project ID GRIPS 2000002564), for respectively 2022 (364 M) and 2023 (84 M). The funds are designated for "Improve animal health and genetic potential"

		Gako Beef Project, Feedlots farms, Beef growers (fatteners), etc., • Raising youth employment rate in the MVC from 21.7% to at least 25.5% (EAC Average), • Raising women employment in the MVC from 12.3% to ate least 30% (Rwanda Gender Policy), • Conduct research to provide active Pilot Farms (With a special consideration to Private Farms, SMEs) with renewed and competitive quality breed stock, with a special consideration for pigs and poultry.					
Total Program 1		***7000***	**468**	**6532**			
Enhanced capacity for meat processing and transport, by means of modernized abattoir linkage to various MVC operators, as well as their compliance to quality and safety standards	Output 2.1. Establish a working framework linking pilot farmers (motivated and supported medium and big-size farms) with specialized abattoirs for a consistent monitoring and support	• Establish a modern Abattoir Business Model (ABM), linking producers, traders, abattoirs and meat market, by the mean of continuum business model from production to processing or sub-contracting meat producers (Pilot farms), traders,	34.5	66	100	**MINICOM (Lead)**, RICA, RAB, MINAGRI, RSB, RDB, PSF, DPs	This cost is a recurrent budget designated for "Recruitment of a Consultant firm to design and implement strategic business linkages program and capacity building and training of cross border market traders in the meat value chain in Rubavu and Rusizi, integration of courses in meat production/processing with vocational schools", through the Meat Value Chain Competitiveness Project/MINICOM-AfDB (2020) [https://www.afdb.org/en/documents/rwanda-rwanda-meat-value-chain-trade-competitiveness-project-appraisal-report]
		• Construct 30 pig marketing centres with slaughter facilities and modern butchers, to meet consumer's needs	904	1,996	2900	**MINICOM (Lead)**, RICA, RAB-SPIU/PRISM	Cost derived from a recurrent budget/grant available in the RAB-SPIU/PRISM PROJECT (IFAD/ Project ID GRIPS 2000002564), for 2023 (904 M), reserved for "Support to small livestock value chain development/ Productive alliances

		both in quality and quantity, • Establish 15 private mini chicken slaughtering houses and butchers, to meet consumer's needs both in quality and quantity.				PROJECT, MINAGRI, RSB, RDB, PSF, DPs	with input suppliers"
		• Construct at least 1 mechanized pig slaughterhouse + processing plant, with cold-storage for marketing of chilled pig meat to domestic and exports markets, • Construct at least 1 mechanized poultry slaughterhouse + processing plant, of a total annual capacity of slaughtering 10 million broilers along with modern chicken cutting and processing facilities and cold storage,	166	1,834	2000	**MINICOM (Lead)**, RICA, RAB-SPIU/PRISM PROJECT, MINAGRI, RSB, RDB, PSF, DPs	Cost derived from a recurrent budget/grant available in the RAB-SPIU/PRISM PROJECT (IFAD/ Project ID GRIPS 2000002564), for 2023 (166 M), reserved for "Support to small livestock value chain development/ Market facilitation through support to off takers"
	Output 2.2. Establishing an organized cold chain +logistics mechanism, for an effective handling (storage, transport, export etc.) of chilled or frozen meat products	• Enforce regulation and regular monitoring of abattoir inspection; including transport and ante mortem inspection to detect signs of animal welfare concerns (e.g., stress, fatigue, thirst, wounds and other physical traumatisms, etc.), to prevent the transmission of zoonotic diseases, monitor skin and hide malformations, etc., • Promote Public and	5	45	50	**MINICOM (Lead)**, RICA, RAB, MINAGRI, RSB, RDB, PSF, DPs	Estimated cost as in-kind contribution based on MINICOM and other Partnering Government staff time required to develop concept notes, reviewing regulations/policies, organizing/attending inspection, meetings, seminars, workshops, ect.

		private investment to increase capacity cold chain for meat products storage and transportation,					
Total Program 2		**5050**	**1110**	**3941**			
Increased value addition and market competitiveness	Output 3.1. Enhanced awareness and compliance to meat quality and safety standards	• Conduct study tours and B2B and assess market-linkage opportunities for meat, and meat products, including by-products, which are expected to boost exports of livestock products, • Promotion of a "Premium Price" concept, for meat complying with quality and safety standards, based on international certification scheme, including Bio-Products,	5	45	50	**MINICOM (Lead)**, RICA, MINAGRI, NAEB, RDB, PSF, DPs	Estimated cost as in-kind contribution based on MINICOM and other Partnering Government staff time required to develop concept notes, organizing/attending meetings, business/agricultural shows, workshops, ect.
	Output 3.2. Create and increase the value addition of animal products, and by-products	• Increase the number and capacity of modern chilling/cooling facilities and promote small scale rural based meat-processing and value addition businesses in the designated bordering areas (Nyagatare, Bugesera, Rusizi and Rubavu Districts), • Harmonize meat packaging guidelines and promote investment in the local manufacturing of standard and	10	990	1000	**MINICOM (Lead)**, RICA, MINAGRI, NAEB, RDB, PSF, DPs	Estimated cost as in-kind contribution based on MINICOM and other Partnering Government staff time required to develop concept notes, reviewing regulations/policies, drafting tender documents, attending resource mobilization meetings, etc.

		affordable packaging material,					
		• Modernize tanneries, with updated equipment and technology to curb environmental pollution.	5	975	980	**MINICOM (Lead)**, NIRDA, MINAGRI, RDB, PSF, DPs	Estimated cost as in-kind contribution based on MINICOM and other Partnering Government staff time required to develop concept notes, reviewing regulations/policies, drafting tender documents, attending resource mobilization meetings, etc.
		• Promote and support the E-commerce of meat products in order to explore profit-markets and diversify meat-trading destinations (National E-commerce strategy in agriculture value chain).	5	15	20	**MINICOM (Lead)**, NAEB, RDB, PSF, DPs	Estimated cost as in-kind contribution based on MINICOM and other Partnering Government staff time required to develop concept notes, drafting tender documents, attending resource mobilization meetings, etc.
Total Program 3		**2050**	**25**	**2025**			
Enhanced capacity development of the meat value chain actors	Output 4.1. Reduced impact of socio-economic norms and stigma resulting in meat consumption and marketing gaps	• Train Community Animal Health Workers on GHPs and Animal welfare principles,		50	50	**RICA (Lead)**, RSB, RAB, MINAGRI, PSF, DPs	
	Output 4.2. Developed required skills among MVC operators, for a competitive meat value chain and cross-border trading, for augmented value-addition and economic returns	• Train abattoir operators, meat processors, traders and laboratory Technicians on FSMS, HACCP, • Train public and private meat Inspectors on GHPS, HACCP, ISO 22000, and encourage them to register with RICA, • Train cross-border market traders in Nyagatare, Bugesera, Rubavu and Rusizi on	69	111	180	**RICA (Lead)**, RSB, RAB, MINAGRI, PSF, DPs	This cost is a recurrent budget designated for "Capacity building of cattle farmers/producers on good cattle practices, capacity building of abattoir operators on GHPs, FMS, HACCP, technical training to veterinary doctors and lab analysts, technical assistance on HACCP certification for abattoirs", through the Meat Value Chain Competitiveness Project/MINICOM-AfDB (2020) [https://www.afdb.org/en/documents/rwanda-rwanda-meat-value-chain-trade-competitiveness-project-appraisal-report]

		GHPs, Sanitary and quality standards, • Provide a substantial budget support to existing mechanisms/programs; "Zamukana Ubuziranenge Programme"-RSB and "Made-In-Rwanda; MIR"-MINICOM, to systematically prepare and supports the private sector, especially SMEs, towards the desired quality and safety performance, while building a standardization culture in the industries,					
		• Review the curriculum of the Rwanda TVET, to include training for meat processing skills such as cuttings, washing and cleaning, packaging, etc.	5	15	20	**Rwanda TVET Board (RTB) (Lead)**, UR, RAB, MINAGRI, PSF, DPs	Estimated cost as in-kind contribution based on Rwanda TVET Board and other Partnering Government staff time required to develop concept notes, attending stakeholder consultative workshops, reviewing programmes, etc.
Total Program 4		**250**	**74**	**176**			
Strengthened research and innovation to modernize the meat value chain	Output 5.1. Support effective collaboration frameworks between academia and livestock industry	• Strengthening existing platforms linking meat value chain stakeholders and academia, e.g., Rwanda Meat Society, • Establish link between incubation centres (e.g., UR-CAVM, IPRC Huye) and meat stakeholders and operators, to provide for viable industrial attachment opportunities and to sell		50	50	**NIRDA (Lead)**, UR, RAB, MINAGRI, PSF, DPs	Estimated cost as in-kind contribution based on NIRDA and other Partnering Government staff time required to develop concept notes, attending stakeholder consultative workshops, etc.

		out realized technologies, processes					
Total Program 5		**50**	**0**	**50**			
Strengthened MVC governance and regulatory framework	Output 6.1. Enhanced compliance to meat quality and safety standards, with a view to slaughtering to establishing and ensuring a meat safety system that	• Support and/or establish Accredited Reference Laboratories, to test meat safety and quality standards,		2000	2000	**RW FDA (Lead)**, UR, RAB, MINAGRI, PSF, DPs	
		• Establishing a private meat inspection scheme, mandated and monitored by a competent authority, • Establishing a digital platform for information sharing and coordination of national regulatory, quality control, inspection and certification offices/bodies, • Establishing a governance framework for meat value chain stakeholders and operators, including the Consumer's Rights Watchdogs (ADECOR, CHROR), for advocacy and mindset change towards quality and safety of meat products on the market.	75.9	424.1	500	**MINICOM (Lead)**, RICA, RAB, MINAGRI, PSF, DPs	This cost is a recurrent budget designated for "Strengthening the meat VC platform, developing a communication and awareness strategy, capacity building training for the meat sector", through the Meat Value Chain Competitiveness Project/MINICOM-AfDB (2020) [https://www.afdb.org/en/documents/rwanda-rwanda-meat-value-chain-trade-competitiveness-project-appraisal-report]
	Output 6.2. Establish a national meat/food traceability system and work towards MVC certification	• Establish and operationalize a National Meat Traceability Scheme,	27.6	72.4	100	**MINICOM (Lead)**, RICA, MINALOC, RW FDA, RSB, RAB, MINAGRI,	This cost is a recurrent budget designated for "Building a strong tracking and traceability system", through the Meat Value Chain Competitiveness Project/MINICOM-AfDB (2020) [https://www.afdb.org/en/documents/rwanda-rwanda-meat-value-chain-trade-competitiveness-project-appraisal-report]

	(national + international)					PSF, DPs	
Total Program 6		**2600**	**103.5**	**2496.5**			
Improved cross-cutting (Gender, Youth, Environmental Management) significance to the meat value chain	Output 7.1. Provide support to women and youth empowering and capacity building, for an increased engagement into MVC SMEs and Cooperatives	• Create database for women and youth engaged in the MVC SMEs, entrepreneur's role models to stimulate others to engage in the MVC, • Create career incentives and opportunities (Tax exemption, access to financial services) for new SMEs, women, and youth to be actively engaged in meat value chain segments including commercialization, • Build capacities of women and young entrepreneurs in the MVC, by providing them with practical skills at each level of /segment of meat value chain through mentorship and internship programs,		50	50	**MINICOM (Lead)**, GMO, MIGEPROF, MINALOC, RCA, PSF, DPs	Estimated cost as in-kind contribution based on MINICOM and other Partnering Government staff time required to draft concept notes, tender documents, attending consultative meetings, etc.
		• Supporting women headed households in rearing small domestic animals (goats, sheep, pigs and hens) based on the HH capacities to afford them, • Apply a special consideration to youth to stimulate profitable engagement in agriculture and	140	60	200	**MINICOM (Lead)**, RAB, GMO, MIGEPROF, MINALOC, RCA, PSF, DPs	Cost linked with a recurrent budget/grant available in the RAB-SPIU/PRISM PROJECT (IFAD/ Project ID GRIPS 2000002564), for respectively 2022 (125 M) and 2023 (15 M). The funds are designated for "Support to financial institutions"

		agribusinesses, through developing skills and promotion of entrepreneurship.					
	Output 7.2. Ensure environmental protection for all MVC projects/Activities for a sustainable development and competitiveness	• Enforcement of regulations related to environmental protection including: 1) Law No 48/2018 of 13/08/2018, 2) National Environment and Climate change policy, 3) General Procedures for conducting Environmental Impact Assessment (EIA) in Rwanda, 4) Sector Specific Environmental Impact Assessment guidelines for slaughterhouse projects in Rwanda, etc.	5	15	20	**REMA (Lead)**, RNP, MINALOC, PSF, DPs	Estimated cost as in-kind contribution based on REMA and other Partnering Government staff time required to organize inspections of premises, attending awareness campaigns and meetings, etc.
Total Program 7		**270**	**145**	**125**			
Total Budget		**17270**	**1925.5**	**15345.5**			
%		**100%**	**11.1%**	**88.9%**			

4.3. INSTITUTIONAL ARRANGEMENTS FOR EFFECTIVE IMPLEMENTATION

Table 13 summarises the focus areas of the above institutions. It is expected that these institutions will be involved in and play a significant role in the implementation of activities in various Strategy Objectives as aligned to each organisation.

Contributions from relevant stakeholders would include other Ministries such as MINICOM, MINAGRI, Ministry of Health (MoH), MINERENA, MINEDUC, MINALOC, MIGEPROF, MINIYOUTH, RDB, and their respective affiliate Implementing Agencies; including RICA, RSB, NIRDA, RCA, RAB, NAEB, Rwanda FDA, REMA, UR, RP, RISA, GMO, Districts, as well as key stakeholders from the private sector (PSF) and Development Partners (Donors).

Table 13:Institutional Arrangements

Item	Institutional Major Responsibilities / Objectives	Strategy Objective mostly aligned to
Institution	**The Ministry of Trade and Industry (MINICOM)**	
1.	MINICOM will have the responsibility to own, coordinate the implementation of this strategy interventions. Through its decentralized bodies, the Ministry will make the beneficiaries aware of the sustainability of the interventions.	SO I-SO VI
2.	Develop institutional and human resources capacities in the processing and commercialization of quality meat	SO I-SO VI
3.	Mobilize the necessary resources for implementing this strategy,	SO I-SO VI
4.	Conduct bilateral and multilateral trade negotiations aimed at promoting Rwanda's interests and creating opportunities for high-end meat markets	SO I-SO VI
5.	Encourage investors willing to invest into the meat value chain	
6.	Leading the M&E planning and coordination of the meat strategy.	SO I-SO VI, SO VII
Institution	**Rwanda Standards Board (RSB)**	
1.	Regulate MVC Standards, Products, National standards and conformity assessment,	SO I-SO IV, SO VI
2.	Inspect MVC Products and services	SO I-SO IV, SO VI
3.	Support the capacity building and information dissemination for MVC operators and consumers on meat quality and safety standars: The RSB has been designated as the World Trade Organization's focal office.	SO I-SO IV, SO VI
Institution	**Rwanda Inspectorate, Competition and Consumer Protection Authority (RICA)**	
1.	As a regulatory body, RICA will be responsible for regulation and inspection of MVC premises, abattoirs and not manufactured meat products, with focus on quality management system in accordance with regional or international standards,	SO I-SO IV, SO VI
2.	RICA will facilitate and/or support the capacity building for MVC operators, including farmers, traders, meat inspection technicians,	SO I-SO IV, SO VI

Item	Institutional Major Responsibilities / Objectives	Strategy Objective mostly aligned to
	focussing on quality management system in accordance with regional or international standards.	
3.	Additionally, RICA will have the responsibility to consider, inspect, register and issue licenses related to imports, exports and goods in connection with meat products, semen, fertilised eggs, animal food, etc	SO I-SO IV, SO VI
Institution	**National Industrial Research and Development Agency (NIRDA)**	
1.	NIRDA will have an important responsibility to regulate patenting of inventions (Intellectual property) and traditional knowledge related to trade of research products, in the domain of meat quality (production, processing) and safety,	SO II-SO V
2.	Contribute to the proper dissemination of relevant information on good manufacturing practices, quality management systems and other ISO such as ISO 22000 on meat safety,	SO II-SO VII
3.	Building the capacity of small and medium enterprises by providing prototype development, reverse engineering, manufacturing facilities and business incubation, with regard to quality and safety of meat and meat products	SO I-SO VII
Institution	**Rwanda Cooperative Agency (RCA)**	
1.	RCA will have an overall responsibility to regulate, the administration of cooperative organizations including the national cooperative unions, federations and confederations), involved in the MVC at different levels,	SO I-SO VII
2.	RCA will contribute the implementation of Government policies and supervise all matters relating to MVC cooperative organizations, registration, regulation and standards,	SO I-SO VII
3.	RCA will assist cooperative organizations in their capacity building through training and seminars of its members and managers; promoting business entrepreneurship in the cooperative organizations sector.	SO I-SO VII
Institution	**Ministry of Agriculture and Animal Resources (MINAGRI)**	
1.	MINAGRI will have the specific responsibility to develop a National Livestock Breeding policy/strategy, in a view to modernizing livestock breeding and production systems for a sustained quality meat supply	SO I-SO III
2.	Develop institutional and human resources capacities in the sectors of meat production,	SO I-SO III
3.	Participate in bilateral and multilateral trade negotiations aimed at promoting Rwanda's interests and opportunities fohigh-end meat markets	SO I-SO III
Institution	**Rwanda Agriculture and Animal Resources Board (RAB)**	
1.	As a regulatory body, RAB, will have a general responsibility of contributing in establishing, publicizing and enforcing laws and regulations governing animal husbandry, research as well as related meat products. By its extensive networks, RAB will closely work with the Local Administration (Districts) for effective law enforcement, with regard to production, processing and trade of quality meat and meat products,	SO I-SO VI

Item	Institutional Major Responsibilities / Objectives	Strategy Objective mostly aligned to
2.	RAB will have a specific responsibility to lead the development of a National Feed Security and Safety contingency plan to ensure a competitive supply of feed ingredients, alternative sources of feed additives; e.g., affordable source of proteins + micro-nutrients, etc.	SO I-SO VI
3.	RAB will also have a specific responsibility to lead the development a National Strategy and Contingency Plan against Transboundary Animal Diseases (TADs) and Zoonoses, with a view of securing a "Disease-Free-Zone" for premium end-markets and exports.	SO I-SO VI
1.	Strengthen livestock services, including veterinary, pharmacy, breeding, feeding services, etc.	SO I-SO VI
Institution	**Ministry of Health (MOH)**	
1.	The MoH will have an overall responsibility to regulate food/meat supplements (Republic of Rwanda, 2010), social and behaviour change, nutrition and hygiene (National Early Childhood Development Program (NECDP) & RBC, 2018),	SO I-SO VI
Institution	**Rwanda Food and Drugs Authority (RW-FDA)**	
1.	As a regulatory body, RW-FDA will be responsible for regulation and inspection of manufactured meat products, with focus on quality management system in accordance with regional or international standards,	SO I-SO IV, SO VI
2.		
3.	Regulation: With regards to Food Safety, the Institution regulates human and veterinary drugs, processed food for humans and animals, food supplements and fortified foods, poisonous substances.	SO I-SO VI
4.	Supporting the establishment of a modern quality control laboratory (Quality meat), etc.	SO I-SO VI
Institution	**Rwanda Development Board (RDB)**	
1.	RDB will have a responsibility to promote new investments in the meat sector, e.g., Incentivise a mechanism to support the specialization of medium and large-size farm's stake into the national meat production landscape,	SO I-SO VI
2.	Contribute to skills development in key domains of quality meat production, trade and processing,	SO I-SO VI
3.	Manage the One stop Centre Service to support new investments in the meat sector,	SO I-SO VI
Institution	**Gender Monitoring Office**	
1.	Monitoring gender mainstreaming alongside the MVC	SO I-SO VII
2.	Supporting the M&E for gender related issues	SO I-SO VI
3.	Capacity building for MVC operators	SO I-SO VI
Item	**Institutional Major Responsibilities / Objectives PRIVATE SECTOR / CSO / PARTNERS**	**Strategy SOs mostly aligned to**
Institution		
1.	Supporting resource mobilization	SO I-SO VI

Item	Institutional Major Responsibilities / Objectives	Strategy Objective mostly aligned to
2.	Capacity building for MVC operators	SO I-SO VI
3.	Supporting the M&E process	SO I-SO VI

4.4. MONITORING AND EVALUATION (M&E)

In this M&E section, the vision of the strategic plan (Contribute to Rwanda's economic growth, by positioning the country as a regional competitive producer and exporter of quality and safe meat products) represents the impact of the strategy. The goal (Enhance food and nutritional security, and to contribute to the national economic transformation by unlocking new economic opportunities with increased exports revenues, reduced critical skills gaps and creation of gender-sensitive jobs for a more competitive and sustainable MVC) into Intermediate Outcome of the strategy.

Implementation monitoring which basically focuses on inputs, activities and outputs, will be based on the Strategy Implementation and Investment Plan in **Table 10**, and MINICOM will take a lead in M&E planning and coordination. The institutional arrangements provided in **Section 5. 3**. shall be involved in the monitoring and evaluation of the strategy. The roles and responsibilities of different stakeholders will be defined in the M&E Plan.

For clarity in the strategy implementation plan, the M&E Framework is intended to be consulted in tandem with the strategy Result Framework (**Annex 4**), and was therefore inserted as **Annex 5.**

4.4.1. Reporting channels

Reporting will be a key component of the M&E plan that ensures appropriate feedback mechanisms and stakeholder engagement in the implementation of the strategy.

- MINICOM will be responsible for reporting on the Strategy.
- Reports will be presented to different platforms and structures as defined under Section 5.4. (**Table 14**).
- The different reports will be defined in the M&E Plan.

Table 14:Reporting arrangement

Reporting commitment	Responsibility	Frequency
Impact	MINICOM Directorate of Planning	Year 3 and Year 6
Intermediate and Immediate outcomes	Outcome leaders and given in the Implementation Plan and coordinated by MINICOM	Annually
Activity and output monitoring	Outcome leaders with inputs from all implementing parties as defined in the Implementation Plan	Annually

In addition, MINICOM will prepare a final report on the performance against the Strategy. External evaluations will be conducted at mid-term and conclusion of the Strategy's 5 years for which an external evaluator will be engaged.

4.4.2. MVC foreseen implementation risks

Certain risks may appear and influence changes;

- The current pandemic disease Covid-19 and its remanent/long terms consequences may negatively affect the implementation of the strategy interventions, as well as the expected changes. The likelihood of restrictions on movements of persons and goods are expected to increase the number of vulnerable families, taking them from the normal MVC flows and benefits,
- Other risks that may occur include the risk of serious climatic changes that would affect production or cause forage shortage; the appearance of one or more epizootic diseases that would lead to high morbidity and mortality of breeding stock,
- There is a risk that the collaborating MFIs (SACCOs, Banks) loose the required confidence to support SMEs and other stakeholders willing to invest in the highly-risky meat sector.

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Annex 1: Indicative list of suitable breeds as per recommended breeding and production systems in Rwanda

Breeding System + Indicated Breeds	**Main characteristics + Observations**
A. Cattle Breeding and Production Systems	
A.1. Intensive beef production	
Red poll Angus Shorthorn bovine Charollais Limousin Hereford South Devon Sussex Ankole Borane Brahman	Intensive feedlot beef production would be most suited for medium rainfall, peri-urban, accessible, tsetse and disease-free zones, A breeding programme to use temperate beef breeds as sires to cross with Ankole, Borane and Brahman dams, to produce commercial steers for fattening and slaughter shall be adopted, The heifers produced in the above crosses shall be bred with another terminal beef bred to produce steers for slaughter, Rwanda may not have a comparative advantage in producing beef for prime European markets as of now. However, possibilities exist for export to the Middle East and Regional countries. Some areas such as Gako (Bugesera District), Karama (Nyagatare District), and Mahama (Kirehe District) may be designated intensive beef production areas. Appropriate breeding strategies to create an exportable surplus and zoo-sanitary infrastructure shall be put in place, to facilitate production for export in the long term, both by Government and facilitated private investors.
A.2. Semi-intensive beef production	
Brahman Tuli Boran Tswana Nguni Angus Red Poll Shorthorn bovine Charollais Ankole	Semi-intensive beef production is most suited for medium rainfall, medium altitude, tall grasslands zones, tsetse free zones, accessible, and medium to low population density areas, Tropical beef breeds such as Brahman, Tuli, Boran, Tswana, and Nguni are best suited, Temperate beef breeds such as Angus, Red Poll, Shorthorn bovine and Charollais shall be used as sire breeds, to cross with Ankole dams.
A.3. Extensive multipurpose	
Sahiwal Red Sindhi Kenana Ankole	Extensive multipurpose production systems are most suited for low rainfall, medium altitude, lowlands, Eastern Agricultural zone (specifically in Bugesera and Umutara areas), rural areas, low population density areas and accessible areas, The use of improved indigenous breeds and tropical multipurpose breeds such as Sahiwal, Red Sindhi and Kenana, as a development and genetic resources conservation strategy shall be adopted, In addition, synthetic breeds shall be developed for milk, meat and disease resistance/ tolerance.
A.4. Intensive multipurpose	
Ankole Sahiwal Red Sindhi Tharparkar Kenana	The intensive multipurpose production system is most suited for medium rainfall areas, medium altitude, Southern Agricultural Zone, medium density populated areas, easily accessible areas and low tsetse challenge areas,

Simmental (Temperate) Brown Swiss Dairy Shorthorn	The indigenous breed (Ankole) crossed with tropical dairy and multipurpose breed such as Sahiwal, Red Sindhi, Tharparkar and Kenana; crosses with temperate dual-purpose breeds such as Brown Swiss, Simmental and Dairy Shorthorn; and synthetic breeds made from crossing and back crossing indigenous breeds with tropical beef breeds shall be promoted for this system.
B. Small ruminant Breeding and Production Systems	
B.1. Intensive meat production	
Meaty goat breeds: Boer goat Ethipian Gala Anglo-Nubian Local goat Kalahari reds Rangeland **Meaty sheep breeds:** South African Mutton Merino (SAAM) Suffolk Karakul Dorper sheep Limousin sheep Tunis Dorset	Intensive goat meat production is convenient to Southern Agricultural Zone (Short grassland system), Peri-urban areas, High populated areas, low rainfall and altitude areas. Intensive sheep meat production is most suitable to Northern Agricultural Zone (Tall grasslands system), Western Agricultural Zone (High altitude system), Peri-urban areas, High populated areas, high rainfall regimes and high-altitude areas.
C. Pig Breeding and Production Systems	
C.1. Intensive pig breeding	
French Landrace Belgian Landrace Large White Pietrain Yorkshire Berkshire	Intensive pig breeding is suitable to Peri-urban and low populated areas. The proximity to Research and Academic Institutes (UR, RAB) shall ease the pig breeding activities (e.g.; Pig AI), as per established quality and ethical standards.
C.2. Intensive slaughter pig production	
Pietrain*Belgian Landrace Pietrain*French Landrace Pietrain*(Landrace*Large White)	Intensive slaughter pig production shall be indicated for Peri-urban areas, High and populated areas, The proximity to national borders shall constitute a significant asset to the system, as the feed supply and meat exports would be the most efficient. Government shall put in place adequate legislation and guidelines to promote effective public-private partnership, to assure the standard operations and quality of the pig value chain in the concentrated areas, F1 slaughter pig production by using meaty sires from the Piétrain breed on purebred Landrace or Large White sows shall be the recommended breeding scheme for this type of production, as yielding a maximum heterosis and relatively uniform crossbreed product. However, given the superiority of hybrid sows (Landrace*Large White), a 3-way cross between those F1 (L*LW) and Sire Pietrain shall be equally promoted, to target both heterosis in F2 and Maternal Heterosis in F1 dame lines.
D. Poultry Breeding and Production Systems	
D.1. Intensive meat production	
ISA Brown Hubbard	Peri-urban areas, High populated areas.

Bleu de Holland	
E. Rabbit Breeding and Production Systems	
E.1. Intensive Breeding and Production	
Californian Blanc de Termonde Geant des Flandres Neo-Zealand rabbit Californian-White NZ Local breed	Intensive rabbit breeding is suitable for a large range of conditions, from the peri-urban areas, rural areas and high populated areas, In commercial breeding and production systems, interesting cross breeding between meaty sires (Gean des Flandres, Blanc de Termonde) and dame lines of prolific breeds (Neo-Zealand rabbit, Californian, local breed) are recommended. Those terminal (F1) crosses yield the maximum heterosis.

Annex 2: Summary regulations supporting meat value chain and safety in Rwanda

S/N	Policy/Legislation	Relevant responsibilities/powers addressing food/meat quality and safety	Gender[1] Youth[2]	Implementing authority	Source of power
		Regulations			
1.	The Constitution of the Republic of Rwanda of 2003 Revised In 2015	(O. G. n° S. of 24/12/2015 The Republic of Rwanda, 2015) It was revised in 2015, and passed by referendum of 18 December 2015 (T. R. of Rwanda, 2015). Regulation: State and rule of laws, recognition and supremacy of laws and treaties-Article 95: "The hierarchy of laws is as follows: 1° Constitution; 2° organic law; 3° international treaties and agreements ratified by Rwanda; 4° ordinary law; 5° orders). Treasures the principles of gender equality and women's rights and provides for the minimum 30% quota for women in all decision-making positions,	**(++)**	The Republic of Rwanda	We, the People of Rwanda
2.	Law N°14/2017 of 14/04/2017 establishing Rwanda Agriculture and animal resources Development Board (RAB) and determining its mission, organisation and functioning	(O. G. Republic of Rwanda, 2017a). Article 6: Mission of RAB "10 ° to conduct research on animal diseases, put in place and implement appropriate measures to prevent and control them", "17 ° to prevent, inspect, investigate and monitor the movement of animals and animal products that are not processed by industries in order to prevent the introduction and spread of animal diseases", "18 ° to carry out inspection and authorize the movement within and out of the country of animals and animal products that are not processed by industries".	**(-)**	Board of Directors (RAB)	President of the Republic/The Parliament (The Chamber of Deputies, in its session of 22 February 2017).
3.	Law N° 13/2017 of 14/04/2017 establishing National Agricultural Export Development Board (NAEB) and determining its mission, organisation and functioning	(O. G. Republic of Rwanda, 2017b). CHAPTER II: MISSION AND POWERS OF NAEB Article 5: Mission of NAEB: "3° to work with stakeholders' networks and coordinate their activities in relation to the processing and export of agricultural and livestock products"; "4° to provide timely and cost-effective support services required for enhanced international competitiveness of the private sector in agricultural and livestock exports"; "9° to issue certificates of authenticity and origin of agricultural and livestock export commodities".	**(-)**	Board of Directors (NAEB)	The Parliament (The Chamber of Deputies, in its session of 28 March 2017).
4.	Law N° 56/2013 of 09/08/2013, establishing Rwanda Council of Veterinary Doctors and determining its mission,	(O. G. Republic of Rwanda, 2013c) Article 7: Specific mission Article 1° to control entry of persons into practice of the profession, set professional conditions for admission and decide on applications for the practice of the profession; 9° to intervene in cases requiring the expertise of veterinary doctors, etc.	**(-)**	The General Assembly, National Council Board, Executive Secretariat,	The Chamber of Deputies, in its session of 02 April 2013

	organization and functioning	Article 51: Repealing provision: The Ordinance n° 54 /363 of 09 November 1954 on Registration of Veterinary Doctors and all prior legal provisions contrary to this Law are hereby repealed.		Regional Council Boards	
5.	Ministerial Order N°008/11.30 of 18/11/2010, determining the organization of veterinary pharmacy practice	(O. G. Republic of Rwanda, 2010a) Article 6 : Control and inspection of pharmaceutical establishments No pharmaceutical company shall be open to the public without prior inspection by the Ministry in charge of veterinary services, Article 29 : Public health In the context of efforts to protect public health, pharmacy inspectors can seize drugs and pharmaceutical products not complying with this Order.	**(-)**	RAB/MINAGRI RFDA/MoH	The Minister of Agriculture and Animal Resources
6.	Ministerial Order N^{0}009/11.30 of 18/11/2010, on stray cattle and other domestic animals	(O. G. Republic of Rwanda, 2010a) Article One: Purpose of this Order This Order regulates the control of stray cattle and other domestic animals in Rwanda Article 3: Movements of animals	**(-)**	RAB/MINAGRI	The Minister of Agriculture and Animal Resources
7.	Ministerial Order N° 012//11.30 of 18/11/2010, on animal slaughtering, meat inspection	(O. G. Republic of Rwanda, 2010a) CHAPTER II: ANIMAL SLAUGHTERING: Article 3: Application for authorization to slaughter an animal for people who do not normally practice butcher occupation, Article 6: Slaughterhouse hygiene Article 7: Animal Slaughtering outside public slaughterhouse CHAPTER III: MEAT INSPECTION: Article 8: Meat subject to inspection, Article 9: Persons authorized to inspect meat, Article 10: Period for inspection, Article 11: Sale of meat, Article 12: Categories of meat, Article 13: Case of meat unfit for consumption, Article 14: Certificate of meat inspection, Article 15: Inspection of poultry, Article 16: Meat import permit, Article 17: Preservation of meat, Article 18: Examination of poorly preserved meat, Article 19: Contaminated meat, Article 20: Sale of contaminated meat, Article 21: Holding meat and its by-products not intended for consumption	**(-)**	RAB/MANAGRI RICA/MINICOM	The Minister of Agriculture and Animal Resources
8.	Ministerial Order N°013/11.30 of 18/11/2010, on transport and trade of meat	(O. G. Republic of Rwanda, 2010a) CHAPTER ONE: TRANSPORT OF MEAT Article One: Purpose of this Order Article 2: Transport of meat Article 3: Requirements regarding vehicles for meat transport Article 4: Requirements concerning people employed in the transport of meat CHAPTER II: MEAT TRADE Article 5: Butchers Article 6: Meat trade Establishment Article 7: Requirements to be met by the butcher's shop	**(-)**	RAB/MANAGRI RICA/MINICOM	The Minister of Agriculture and Animal Resources,

		Article 8: Equipment required for butcher's Article 9: Meat packaging Article 10: Scales CHAPTER III: HYGIENE OF PREMISES Article 11: Required hygiene standards Article 12: Waste bins Article 13: Butcher shop employees clothing Article 14: Presence of live animals in meat salerooms prohibited, etc.			
9.	Law N° 54/2008 of 10/09/2008, determining the prevention and fight against contagious diseases for domestic animals in Rwanda	(O. G. The Republic of Rwanda, 2009) Article 11: Controlling the spreading of contagious disease Article 17: The carcasses of dead animals Article 34: Actions taken on carcasses of animals infected with anthrax Article 40: Actions taken on carcasses of animals which died following rinder pest Article 46 : Prevention of foot and mouth disease, Article 48 : Actions taken on carcasses of animals which died of the foot and mouth disease Article 56 : Actions taken on a carcass of a cow which died out of bovine peripneumonia, Article 69: Selling meat from animals infected with contagious sheep ectima and goat pox, etc.	**(-)**	RAB/MANAGRI RICA/MINICOM	The chamber of Deputies, in its session of 16 June 2008
10.	Law N° 50/2013 of 28/06/2013 establishing Rwanda Standards Board (RSB) and determining its mission, organization and functioning	(O. G. Republic of Rwanda, 2013a). Article 4: Mission of RSB 1° to establish and publish national standards; 2° to disseminate information on standards, technical regulations relating to standards and conformity assessment;	**(-)**	The Board of Directors (RSB)/MINICOM	The Chamber of Deputies, in its session of 16 May 2013; The Senate, in its session of 16 May 2013;
11.	Law N° 51/2013 of 28/06/2013, establishing the National Industrial Research and Development Agency (NIRDA) and determining its mission, organization and functioning	(O. G. Republic of Rwanda, 2013a) The main mission of NIRDA shall be the following: 1° to implement the national industrial development policy, patent inventions and traditional knowledge in relation to industrial development and promote the trade of research products, 6° to facilitate the vertical growth of small and medium enterprises for them to enter new markets and increase new improved products, etc.	**(-)**	NIRDA (Board of Directors, General Directorate)/MINICOM	The Chamber of Deputies, in its session of 16 May 2013; The Senate, in its session of 16 May 2013
12.	Law N° 31/2017 of 25/07/2017, establishing Rwanda Inspectorate,	(O. G. Republic of Rwanda, 2017c) Repealed the Law n° 61/2013 of 23/08/2013 establishing the National Standards Inspectorate, Competition and Consumer Protection Authority (NICA).	**(-)**	RICA (Board of Directors, Executive Organ)/	The Chamber of Deputies, in its session of 19 June 2017

	Competition and Consumer Protection Authority (RICA) and determining its mission, organisation and functioning	Key RICA responsibilities: 1° to carry out inspection of quality and standards conformity for the following trade products: a) unprocessed animal products; b) food products; e) goods and products which are not inspected by other organs, that include… agriculture tools, animal feeds, etc. 2° to establish quality management system in accordance with regional or international standards… Key RICA Powers: 3° to impose administrative sanctions for breach of laws related to the mission of RICA…		MINICOM	
13.	Law N° 003/2018 OF 09/02/2018 establishing Rwanda Food and Drugs Authority and determining its mission, organization and Functioning	(O. G. Republic of Rwanda, 2018). Article 8: Missions of Rwanda FDA: "1° regulate pharmaceutical products, vaccines, human and veterinary processed foods…. For human and veterinary use"; 2° regulate compliance with quality standards relating to the manufacture, storage, sale, distribution, use, import and export, labels, packages and raw materials used in the manufacture of products regulated under this Law;	**(-)**	RW FDA/ Ministry of Health	The Chamber of Deputies, in its session of 28 December 2017.
14.	Law N° 51/2007 of 20/09/2007 determining the responsibilities, organization and functioning of the Gender Monitoring Office in Rwanda	(O. G. The Republic of Rwanda, 2013a) This Law determines the responsibilities, organisation and the functioning of the Gender Monitoring Office in national development, referred to as the "Office". **Gender perspective:** It enshrines the overall mandate and responsibilities of the Gender Monitoring Office.	**(+)**	Office of the Prime Minister	The Chamber of Deputies, in its session of June 6, 2007; The Senate, in its session of 30 April 2007
15.	Law N° 43/2013 of 16/06/2013 governing land in Rwanda	(O. G. The Republic of Rwanda, 2013c) This Law determines modalities of allocating, acquisition, transfer, use and management of land in Rwanda. It also establishes the principles applicable to rights recognised over all lands situated on Rwanda's national territory and all rights united or incorporated with land, whether naturally or artificially. **Gender perspective:** Guarantees equal rights for men and women on land access, ownership and utilization.	**(+)**	Minister of Justice/Attorney General	The Chamber of Deputies, in its session of 10 June 2013; The Senate, in its session of 6 June 2013
16.	Organic Law on State finances and property N° 12/2013/OL of 12/09/2013	(O. G. The Republic of Rwanda, 2012d) Organic Budget Law no. 12/2013, instituting Gender-responsive Budgeting **Gender perspective:** Enforces accountability measures for gender sensitive resource allocation across sectors programmes and projects through Gender Budget Statements; a mandatory annex of the Budget Framework Paper submitted to both chambers of Parliament,	**(+)**	Minister of Justice/Attorney General	The Chamber of Deputies, in its session of 02 August 2013; The Senate, in its session of 31 July 2013

17.	Law N° 27/2016 of 08/07/2016 governing matrimonial regimes, donations and successions	(O. G. The Republic of Rwanda, 2016b) This Law governs matrimonial regimes, donations granted or received within a family and successions. **Gender perspective:** It provides equal treatment of legitimate children in succession without any discrimination between male and female children and right of the surviving spouse to take part in succession	**(+)**	Minister of Justice/Attorney General	The Chamber of Deputies, in its session of 29 March 2016
18.	Law N°32/2016 of 28/08/2016 Governing Persons and Family	(O. G. The Republic of Rwanda, 2012b) This Law governs natural persons and family as well as relations between persons. **Gender perspective:** The Law governs natural persons and family as well as relations between persons. It contains different provisions relating to rights and obligations of both men and women,	**(+)**	Minister of Justice/Attorney General	The Chamber of Deputies, in its session of 30 March 2016;
19.	Law N°003/2016 of 30/03/2016 Establishing and Governing Maternity Leave benefits Scheme	(O. G. The Republic of Rwanda, 2016a) **Gender perspective:** This Law establishes and governs maternity leave benefits scheme. It guarantees security for women employment and for the protection of the child,	**(+)**	Minister of Justice/Attorney General	The Chamber of Deputies, in its session of 16 February 2016;
20.	Prime Minister's Order N°001/03of 11/01/2012 determining modalities in which Government Institutions Prevent and Respond to Gender Based Violence	(O. G. The Republic of Rwanda, 2012e) This Order determines the modalities in which government institutions prevent gender- based violence and for receiving, relieving, defending medicating and assisting the victim for the purpose of rehabilitating his/her health. **Gender perspective:** The law gives responsibility for all Government institutions for GBV prevention and Response and Reporting,	**(+)**	Minister of Justice/Attorney General	Office of the Prime Minister
21.	Law N° 66/2018 of 30/08/2018 regulating labour in Rwanda	(O. G. The Republic of Rwanda, 2018) **Gender perspective:** Provides for Equal opportunities and equal pay for women and men; rights to full salary to a female employee who gives birth during 3 months of maternity leave and the breastfeeding period; working conditions for a pregnant or breastfeeding woman and prohibits sexual harassment in the workplace	**(+)**	Minister of Justice/Attorney General	The Chamber of Deputies, in its session of 9 July 2018
22.	Standards published (RSB, 2016)	(Ministry of Trade and Industry, 2016). Food Safety Maturity Model to support SMEs growth towards Certification: This publication provides a dynamic standard framework, indicating the category of compliance and certification of SMEs in Rwanda. Most relevant categories of standards: 1. Food and Agriculture (28 standards) 2. Water and Environment Protection (15 standards) 3. Services (5 standards)	**(-)**	RSB	MINICOM
23.	Ministerial Instructions N°23/2015 of 18/03/2015	(O. G. Republic of Rwanda, 2012). All Rwanda Standards attached to these Ministerial Instructions modify and complement the annex to the Ministerial Instructions n°21/2013 of 03/07/2013	**(-)**	RSB	The Minister of Trade and Industry (MINICOM)

	modifying and complementing the Ministerial Instructions n°21/2013 of 03/07/2013 declaring compulsory Rwandan Standards	declaring Compulsory Rwandan Standards; "LIST OF RWANDAN COMPULSORY STANDARDS (2013-2014)": 30 standards on Food and Agriculture were published in this Law.			

[1] **(-) The Law is silent on the "role/place" of women and youth into the livestock/meat sector,**
(1+) At least one section linking to a specific provision on "Gender" involvement into the livestock/meat sector,
(2+) At least one section linking to a specific provision on "Youth" involvement into the livestock/meat sector,
(++) At least one section specific to "gender/Youth" and/or the "role/place of women and youth" with regards to the livestock/meat sector

Annex 3: Summary of policies addressing food safety of ASF value chains in Rwanda

S/N	Policy/Legislation	Most relevant section regulating the meat value chain and safety	Gender[1] Youth[2]	Implementing authority	Line Ministry
		Policies			
1.	Rwanda's Strategic Plan for Agriculture Transformation 2018-2024, phase 4 (PSTA 4)	(M. of A. and A. R. The Republic of Rwanda, 2018b). 3.1.12 OPPORTUNITIES: "There are opportunities for export and domestic strategies focused on high-quality niche products competing in higher–price and lower-volatility markets, catering to a middle-class consumer who demands product quality and food safety", 1.3.2 SKILLS DEVELOPMENT IN AGRICULTURE VALUE CHAINS: "Youth need to access specialized training and assistance to address issues such as meeting local and international food safety standards and developing appropriate, low-cost packaging and labelling". **Gender and youth perspectives:** • In addition to mainstreaming gender, specific activities are proposed to further women economic empowerment and engagement in decision-making processes. • Special consideration is also given to youth to stimulate profitable engagement in agriculture and agribusinesses, through developing skills and promotion entrepreneurship. • There will be dedicated staff in the M&E unit to ensure that gender and youth issues are addressed and mainstreamed.	(1+) At least one section linking to a specific provision on "Gender" involvement into the MVC, (2+) At least one section linking to a specific provision on "Youth" involvement into the MVC, (++) At least one section specific to "gender/Youth" and/or the "role/place of women and youth" with regards to the meat sector	RAB, NAEB, MINAGRI	The Government of Rwanda, MINAGRI
2.	National Agriculture Policy (MINAGRI, 2018)	(M. of A. and A. R. The Republic of Rwanda, 2018a). SO 4: Inclusive markets and off-farm opportunities (4 SOs); • "Efficiently working market systems are deciding factors for consumers, producers, processors, and traders alike….The objective (3rd) is to promote food safety and access to higher end markets with expanded access SPS and quality standards certification". • "With growing urban markets in the region and increased readiness for export diversification among producers, this will be increasingly important. However, there is currently relatively few Rwandan companies certified for international standards such as HACCP, FSMS, QMS, and Global GAP".	(1+) At least one section linking to a specific provision on "Gender" involvement into the livestock/meat sector, (2+) At least one section linking to a specific provision on "Youth" involvement into the livestock/meat sector, (++) At least one section specific to "gender/Youth" and/or the "role/place of women and youth" with regards to the livestock/meat sector	The NAP will be implemented primarily through the fourth Sector Strategic Plan for Agriculture (PSTA4)	Ministry of Agriculture and Animal Resources (MINAGRI-SPIU)

3.	Strategy and Investment to Strengthen the Poultry Industry in Rwanda (MINAGRI, 2012)	(M. of A. and A. R. Republic of Rwanda, 2012a). 1.2.2.7 "Weaknesses to be removed to get the full potential of poultry sector: Price, Product Quality and Food Safety"…"Animal Welfare and Health"… 1.4 Strategic axis n°2: Marketing: 1.4.1 Component 1: Mastery of the sanitary quality 6.4.2 Component 2: Promotion of the poultry products	1+) At least one section linking to a specific provision on "Gender" involvement into the livestock/meat sector, (2+) At least one section linking to a specific provision on "Youth" involvement into the livestock/meat sector,	RAB	MINAGRI
4.	Strategy and Investment Plan for Small Animal Industry in Rwanda (MINAGRI, 2012)	(Republic of Rwanda, Ministry of Agriculture and Animal Resources, 2012 b.) 6.3 Strategic axis 1: Enhancing livestock production 6.3.3 Component 3: Animal Health Strategic Objectives: A. 6.3.3.1.1 Communication of animal diseases and zoonoses information: "The objective is to communicate timely and accurate animal disease information, including information on zoonosis, by making the best use of scientific data modeling, modern information technologies, and non-official information tracking systems", 6.3.3.1.2 Development and implementation of scientifically based standards and guidelines: "The objective is to Develop scientifically based standards and guidelines on all matters concerning animal health, veterinary public health, animal welfare, diagnosis and control of diseases, assessment and relevant recognition of animal health status, and sanitary safety in animal production and international trade in animals and animal products".	(-) The policy/strategy is silent on the "role/place" of women and youth into the livestock/meat sector,	RAB	MINAGRI
5.	Strategic and investment plan to strengthen meat industry in Rwanda (MINAGRI, 2012)	(Ministry of Agriculture and Animal Resources (MINAGRI), 2012) The Strategy depicts challenges hampering the uplifting of the livestock sector and supply of meat in quantity and quality. Two main objectives are attempted through this study: • Developing a plan to improve the quality and availability of meat and meat products in Rwanda • Developing a sovereign meat market in Rwanda and profitable outside Rwanda.	(-) The policy/strategy is silent on the "role/place" of women and youth into the livestock/meat sector,	RAB	MANAGRI
6.	National ICT4RAg Strategy (2016 -2020)	(M. of A. and A. R. Republic of Rwanda, 2016). 3. Mobile-Telephone Enabled Agriculture Technology Apps, e-Trace Dairy: "1. Guarantees traceability, quality and food safety", Impact: "ICT4RAg has potential to contribute enormously in the efforts to achieve food security, and reduce food losses",	1+) At least one section linking to a specific provision on "Gender" involvement into the livestock/meat sector, (2+) At least one section linking to a specific provision	RAB, NAEB, MINAGRI	The Government of Rwanda, MINAGRI

		IV. Agriculture Growth Management System: "Quality, safety and traceability of food and feed are the main objectives of automated quality control",	on "Youth" involvement into the livestock/meat sector, (++) At least one section specific to "gender/Youth" and/or the "role/place of women and youth" with regards to the livestock/meat sector		
7.	Gender and Youth Mainstreaming Strategy (2019)	(The Ministry of Agriculture and Animal Resources (MINAGRI), 2019) This new Agriculture and Youth Gender Mainstreaming Strategy, serves to support the implementation of PSTA4, the 2018 National Agricultural Policy (NAP) and other sector programmes to take account of gender equality and youth considerations. The aim of this strategy is to help the Agriculture Sector as a whole to ensure that PSTA4 programmes are inclusive equally benefiting both men, women and youth. PSTA4 highlights youth, often in conjunction with gender, and allocates a budget for youth.	(++) At least one section specific to "gender/Youth" and/or the "role/place of women and youth" with regards to the livestock/meat sector	The Ministry of Agriculture and Animal Resources (MINAGRI)	The Government of Rwanda
8.	Leveraging Private Sector Strategy (2019)	(Ministry of Agriculture and Animal Resources (MINAGRI), 2019) The Leveraging Private Sector Strategy (LPSS), with the overall objective of attracting and retaining more private investors in the agriculture sector, supports the PSTA 4 implementation. The core focus of the strategy is to support private sector engagement with the intended broader benefits of sustainable job creation, a reduction of Rwanda's trade deficit, and, ultimately, meeting the country's ambitious growth targets. The LPSS also strengthens links between farmers and agricultural produce off-takers while ensuring safeguards against social and environmental risk factors.	(++) At least one section specific to "gender/Youth" and/or the "role/place of women and youth" with regards to the livestock/meat sector	The Ministry of Agriculture and Animal Resources (MINAGRI)	The Government of Rwanda
9.	The Knowledge and Communication Strategy for the Agricultural Sector (MINAGRI, 2012	(M. of A. and A. R. Republic of Rwanda, 2012b). The Knowledge and Communication Strategy is in line with main national strategic documents such as Rwanda's Vision 2020, National Agricultural Policy (NAP), National Extension Strategy (NAES), the Economic Development and Poverty Reduction Strategy (EDPRS) and MINAGRI's Strategic Plan for the Transformation of Agriculture in Rwanda – Phase II (PSTA-II).	1+) At least one section linking to a specific provision on "Gender" involvement into the livestock/meat sector, (2+) At least one section linking to a specific provision on "Youth" involvement into the livestock/meat sector,	MANAGRI	The Government of Rwanda
10.	Made in Rwanda (**MIR**) policy (MINICOM, 2016)	(M. of T. and I. The Republic of Rwanda, 2017a) Linkage to Government of Rwanda Vision 2020, National Export Strategy (NES) II, the Private Sector Development Strategy (PSDS) and the Domestic Market Recapturing Strategy (DMRS).	(1+) At least one section linking to a specific provision on "Gender" involvement into the livestock/meat sector,	The Made In Rwanda Division	Ministry of Trade and Industry (MINICOM)

		a) Under the SO 1 (Sector-specific Strategies) of the MIR, the GoR is targeting the meat value chain with several strategic priorities, namely increasing of meat supply, modernization and development of the industry infrastructure, and improvement of the access to domestic and foreign markets. The meat value chain has a great potential value addition to Rwanda's economy, estimated at about USD107 million worth of exports to DRC alone, excluding the domestic market, b) The Rwanda Meat Value Chain Competitiveness Project was developed to boost the domestic value addition, increase export value, and reduce imports. The project is aligned with SO 2 of the AfDB Country Strategy Paper (AfDB CSP), which puts emphasis on developing skills for industry sub-sectors as well as sectors which have a strong potential for high value-added production, exports, and job creation.	(2+) At least one section linking to a specific provision on "Youth" involvement into the livestock/meat sector,		
11.	Rwanda Strategy for Meat Export to DRC (MINICOM, 2016)	(MINICOM, 2016) The Situational Analysis Study on Rwanda Livestock and Meat export to DRC (MINICOM: July 2016) revealed that Rwanda exports livestock rather than meat to DRC. The Rwanda Abattoirs Assessment Report (MINICOM: October 2016) reveals that there are at least 6 abattoirs with installed capacity to uptake livestock currently being exported to DRC.	1+) At least one section linking to a specific provision on "Gender" involvement into the livestock/meat sector,	MINICOM	MINICOM
12.	Rwanda Health Sector Policy (MoH, 2015)	(M. of H. Republic of Rwanda, 2015). Rwanda's Health Sector Policy translates the Government's overall vision of development in the health sector, as set out in Vision 2020 and the Economic Development and Poverty Reduction Strategy (EDPRS II 2013-2018). It refers to meat value chain and safety in the following sections; 4.2. Governance, 4.2.3. Partnership and Coordination structures: **International Health Regulations.** MOH puts in place all regulations and public health mechanisms to align with international health regulations (IHR) designed under the authority of WHO for the following public health issues: • Laboratory capacity to test, diagnose and confirm public health threats; • Specific mechanisms to detect and respond to different public health events: points of entry, zoonotic events, food safety, chemical events and radiation emergencies.	1+) At least one section linking to a specific provision on "Gender" involvement into the livestock/meat sector, (2+) At least one section linking to a specific provision on "Youth" involvement into the livestock/meat sector,	Rwanda Biomedical Centre (RBC), The MoH	The Government of Rwanda, Ministry of Health
13.	National Export Strategy II (Ministry of Trade	(Government of Rwanda, 2011). The national export strategy (Government of Rwanda, 2011), highlights a need for Technical assistance (standards, certifications,	1+) At least one section linking to a specific provision on "Gender" involvement	Ministry of Trade and Industry	The Government of Rwanda

	and Industry, 2011)	etc.) for SMEs and calls for training in that area that is key to meat value chain and safety. 2.4.1.1 Potential New Exports to International Markets, Rules of Origin under the EPA: “Since 2002, the EU has obliged food business operators to implement HACCP systems on the basis of legislation (Council Directive 93/43/EEC on the hygiene of foodstuffs)”, “HACCP requires a detailed description in a concise process flow diagram with underlined points where hazards may occur, that can be subject to verification by food safety authorities. All firms exporting horticulture products to the EU should therefore be HACCP certified”. 3.3.1.2 The European Union: “New investment in the horticultural and floricultural sectors reaching production stage in the next two years”, “These investors are already operating in other countries in the region and have established links with markets in the EU. They also have the ability to meet EU food safety standards and requirements”, ” The RBS’ schemes for food production and product quality certification accredited (HACCP)…It is also essential for meeting EU food safety requirements”.	into the livestock/meat sector, (2+) At least one section linking to a specific provision on “Youth” involvement into the livestock/meat sector,		
14.	The National Gender Policy (2010)	(Ministry of Gender and Family Promotion, 2010) Highlights principal guidelines on which sectoral policies and programmes will base to integrate gender issues in their respective social, cultural, economic and political planning and programming	(1+) At least one section linking to a specific provision on “Gender” involvement into the livestock/meat sector,	Ministry of Gender and Family Promotion	The Government of Rwanda
15.	Revised National Gender Policy (2021)	(Ministry of Gender and Family Promotion (MIGEPROF), 2021b) ***“Accelerating the Effectiveness of Gender Mainstreaming and Accountability for National Transformation***”. The overall goal of this policy is to improve gender equality and equity in various sectors while increasing women’s access to productive economic resources and opportunities and ensuring that women and men are free from any form of gender-based violence and discrimination.	(1+) At least one section linking to a specific provision on “Gender” involvement into the livestock/meat sector,	Ministry of Gender and Family Promotion	The Government of Rwanda
16.	Gender cluster strategic plan 2010-2012	(Ministry of Gender and Family Promotion (MIGEPROF), 2010) The National Gender Cluster is a coordination mechanism that aims at supporting the Government of Rwanda (GoR) in promoting gender equality and utilizing partners’ synergies to improve gender interventions and avoid duplication. The Strategic Plan for the National Gender Cluster describes how the cluster will function in order to better coordinate support in line with government priorities, give guidance/advocate for improvement of ongoing interventions, share information and experience and avoid duplication.	(1+) At least one section linking to a specific provision on “Gender” involvement into the livestock/meat sector,	Ministry of Gender and Family Promotion	The Government of Rwanda

17.	2021/2022 Gender and Family Priorities to be considered in Sectoral Planning Process	(Ministry of Gender and Family Promotion (MIGEPROF), 2021a) Compiled by the Ministry of Gender and Family Promotion in collaboration with Gender Monitoring Office, to highlight the key sectoral gender and family issues and propose priorities and targets, to inform the concerned sectors and institutions for consideration in the planning and budgeting process for 2021-2022 Financial Year	(1+) At least one section linking to a specific provision on "Gender" involvement into the livestock/meat sector,	Ministry of Gender and Family Promotion	The Government of Rwanda
18.	Gender mainstreaming strategy for the private sector 2020-2024	(P. S. F.- Rwanda, 2020) Meant to serve as the strategic framework for advancing gender equality and enhancing gender accountability in the private sector. It is anticipated that the implementation of the strategy will raise awareness among PSF staff at all levels and the business community in general on gender equality issues in the private sector.	(1+) At least one section linking to a specific provision on "Gender" involvement into the livestock/meat sector,	Private Sector Federation - Rwanda	Gender Monitoring Office (GMO)

[1] **(-) The policy/strategy is silent on the "role/place" of women and youth into the livestock/meat sector,**
(1+) At least one section linking to a specific provision on "Gender" involvement into the livestock/meat sector,
(2+) At least one section linking to a specific provision on "Youth" involvement into the livestock/meat sector,
(++) At least one section specific to "gender/Youth" and/or the "role/place of women and youth" with regards to the livestock/meat sector

Annex 4: Results Framework

Ultimate Outcome / Impact		**Contribute to Rwanda's economic growth, by positioning the country as a regional competitive producer and exporter of quality and safe meat products**	
Intermediate Outcomes		**Enhance food and nutritional security, and to contribute to the national economic transformation by unlocking new economic opportunities with increased exports revenues, reduced critical skills gaps and creation of gender-sensitive jobs for a more competitive and sustainable MVC**	
Immediate Outcomes		**Improve meat production, expand the value chain, improve market and cross-border trade in the sector and increase the contribution of the meat value chain in Rwanda's economy**	
SOs	**Objective**	**Main Activities**	**Intervention Areas / Measures to achieve the expected outputs**
1. Strengthened quality meat production capacity and sustained supply	To significantly increase the production and supply of quality meat for the local and regional markets	1.2. Upscale the Recommended Level of Investment (RLI) for increased production of quality meat, to meet local and international demand	1.2.1. Develop a National Livestock Breeding and Production plan, in a view to optimizing the utilization of limited resources and reduction of production costs, by promoting an intensive production of small stack (Pigs, poultry, small ruminants and fish). Ideally, this would be part of broad-line strategy documents being developed by MINAGRI/RAB, 1.2.2. Develop/update a National Feed Security and Safety contingency plan to ensure a competitive supply of feed ingredients, alternative sources of feed additives; e.g., affordable sources of proteins + micro-nutrients, improving animal feed practices and optimizing on-farm crop-livestock integration. etc. 1.2.3. Develop/update a National Strategy and Contingency Plan against Transboundary Animal Diseases (TADs) and Zoonoses, with a view of securing a "Disease-Free-Zone" for premium end-markets and exports 1.2.4. Creating awareness on standards and guidelines (From farm to folk) on GHPs, HACCP, ISO 22000 to key stakeholders involved in meat production and capacity building for quality meat production and safety, including self-regulation
		1.3. Establish and piloting key strategic interventions to consider a relatively competitive advantage of livestock production and access to market	1.3.1. Encourage/incentivise private operators; SMEs and Firms, to invest in specialized medium and large-size commercial farms for quality meat production and creation of employment opportunities; 1.3.2. Establish 30 new commercial specialized pig farms for commercial pig production, 1.3.3. Supporting modern beef production farms for high-end markets; e.g., Gako Beef Project, Feedlots farms, Beef growers (fatteners), etc., 1.3.4. Raising youth employment rate in the MVC from 21.7% to at least 25.5% (EAC Average), 1.3.5. Raising women employment in the MVC from 12.3% to ate least 30% (Rwanda Gender Policy), 1.3.6. Conduct research to provide active Pilot Farms (With a special consideration to Private Farms, SMEs) with renewed and competitive quality breed stock, with a special consideration for beef cattle, pigs and poultry.
9. Enhanced capacity for meat processing and transport	To build a competitive Abattoir Business Model, for increased value-addition, compliance to meat quality standards and linkage to market	**9.2.** Establish a working framework linking pilot farmers (motivated and supported medium and big-size farms) with specialized abattoirs for a consistent monitoring and support.	9.2.1. Establish a modern Abattoir Business Model (ABM), linking producers, traders, abattoirs and meat market, by the mean of continuum business model from production to processing or sub-contracting meat producers (Pilot farms), traders, 9.2.2. Construct 30 pig marketing centres with slaughter facilities and modern butchers, to meet consumer's needs both in quality and quantity, 9.2.3. Construct at least 1 mechanized pig slaughterhouse + processing plant, with cold-storage for marketing of chilled pig meat to domestic and exports markets,

			9.2.4. Construct at least 1 mechanized poultry slaughterhouse + processing plant, of a total annual capacity of slaughtering 10 million broilers along with modern chicken cutting and processing facilities and cold storage, 9.2.5. Establish 15 private mini chicken slaughtering houses and butchers, to meet consumer's needs both in quality and quantity.
		9.3. Establishing an organized cold chain +logistics mechanism, for an effective handling (storage, transport, export etc.) of chilled or frozen meat products.	9.3.1. Enforce regulation and regular monitoring of abattoir inspection; including transport and ante mortem inspection to detect signs of animal welfare concerns (e.g., stress, fatigue, thirst, wounds and other physical traumatisms, etc.), to prevent the transmission of zoonotic diseases, monitor skin and hide malformations, etc., 9.3.2. Promote Public and private investment to increase capacity cold chain for meat products storage and transportation,
10. Increased value addition and market competitiveness	To enhance compliance to meat quality and safety standards, for the creation of value-addition of animal products and by-products, aiming high-end markets and exports.	10.2. Enhance awareness and compliance to meat quality and safety standards.	10.2.1. Conduct study tours and B2B and assess market-linkage opportunities for meat, and meat products, including by-products, which are expected to boost exports of livestock products, 10.2.2. Promotion of a "Premium Price" concept, for meat complying with quality and safety standards, based on international certification scheme, including Bio-Products,
		10.3. Create and increase the value addition of animal products, and by-products.	10.3.1. Increase the number and capacity of modern chilling/cooling facilities and promote small scale rural based meat-processing and value addition businesses in the designated bordering areas (Nyagatare, Bugesera, Rusizi and Rubavu Districts), 10.3.2. Harmonize meat packaging guidelines and promote investment in the local manufacturing of standard and affordable packaging material, 10.3.3. Modernize tanneries, with updated equipment and technology to curb environmental pollution. 10.3.4. Promote and support the E-commerce of meat products in order to explore profit- markets and diversify meat-trading destinations (National E-commerce strategy in agriculture value chain).
11. Enhanced capacity development of the meat value chain actors	To reverse the existing socio-economic paradigms by developing required skills withing clusters of MVC operators	11.2. Reduce the impact of socio-economic norms and stigma resulting in meat consumption and marketing gaps	11.2.1. Train Community Animal Health Workers on GHPs and Animal welfare principles, 11.2.2. Provide a substantial budget support to existing mechanisms/programs; "Zamukana Ubuziranenge Programme"-RSB and "Made-In-Rwanda; MIR"-MINICOM, to systematically prepare and supports the private sector, especially SMEs, towards the desired quality and safety performance, while building a standardization culture in the industries,
		11.3. Developing required skills among MVC operators, for a competitive meat value chain and cross-border trading, for augmented value-addition and economic returns.	11.3.1. Train abattoir operators, meat processors, traders and laboratory Technicians on FSMS, HACCP, 11.3.2. Train public and private meat Inspectors on GHPS, HACCP, ISO 22000, and encourage them to register with RICA, 11.3.3. Train cross-border market traders in Nyagatare, Bugesera, Rubavu and Rusizi on GHPs, Sanitary and quality standards, 11.3.4. Provide a substantial budget support to existing mechanisms/programs; "Zamukana Ubuziranenge Programme"-RSB and "Made-In-Rwanda; MIR"-MINICOM, to systematically prepare and supports the private sector, especially SMEs, towards the desired quality and safety performance, while building a standardization culture in the industries, 11.3.5. Review the curriculum of the Rwanda TVET, to include training for meat processing skills such as cuttings, washing and cleaning, packaging, etc.

12. Strengthen research and innovation to modernize the meat value chain	To create and support effective collaboration frameworks between academia and livestock industry	12.2. Support effective collaboration frameworks between academia and livestock industry	12.2.1. Strengthening existing platforms linking meat value chain stakeholders and academia, e.g., Rwanda Meat Society, 12.2.2. Establish link between incubation centres (e.g., UR-CAVM, IPRC Huye) and meat stakeholders and operators, to provide for viable industrial attachment opportunities and to sell out realized technologies, processes
13. Strengthened MVC governance and regulatory framework	To enhance compliance to meat quality and safety standards, with a view to slaughtering to establishing and ensuring a meat safety system that is effective in protecting the public health and consumer's confidence	13.2. Enhance compliance to meat quality and safety standards, with a view to slaughtering to establishing and ensuring a meat safety system that	6.1.1. Support and/or establish Accredited Reference Laboratories, to test meat safety and quality standards, 6.1.2. Establishing a private meat inspection scheme, mandated and monitored by a competent authority, 6.1.3. Establishing a digital platform for information sharing and coordination of national regulatory, quality control, inspection and certification offices/bodies, 6.1.4. Establishing a governance framework for meat value chain stakeholders and operators, including the Consumer's Rights Watchdogs (ADECOR, CHROR), for advocacy and mindset change towards quality and safety of meat products on the market.
		13.3. Establish a national meat/food traceability system and work towards MVC certification (national + international)	6.1.5. Establish and operationalize a National Meat Traceability Scheme,
14. Improved cross-cutting (Gender, Youth, Environmental Management) significance to the meat value chain	To improved cross-cutting (Gender, Youth, Environmental Management) significance to the meat value chain, for more equity, engagement and sustainability of the MVC.	14.2. Provide support to women and youth empowering and capacity building, for an increased engagement into MVC SMEs and Cooperatives.	14.2.1. Create database for women and youth engaged in the MVC SMEs, entrepreneur's role models to stimulate others to engage in the MVC, 14.2.2. Create career incentives and opportunities (Tax exemption, access to financial services) for new SMEs, women, and youth to be actively engaged in meat value chain segments including commercialization, 14.2.3. Build capacities of women and young entrepreneurs in the MVC, by providing them with practical skills at each level of /segment of meat value chain through mentorship and internship programs, 14.2.4. Supporting women headed households in rearing small domestic animals (goats, sheep, pigs and hens) based on the HH capacities to afford them, 14.2.5. Apply a special consideration to youth to stimulate profitable engagement in agriculture and agribusinesses, through developing skills and promotion of entrepreneurship.
		14.3. Ensure environmental protection for all MVC projects/Activities for a sustainable development and competitiveness.	14.3.1. Enforcement of regulations related to environmental protection including: 1) Law No 48/2018 of 13/08/2018, 2) National Environment and Climate change policy, 3) General Procedures for conducting Environmental Impact Assessment (EIA) in Rwanda, 4) Sector Specific Environmental Impact Assessment guidelines for slaughterhouse projects in Rwanda, etc.

Annex 5: Monitoring and Evaluation Framework

OUTPUT	GENDER SENSITIVE INDICATORS	BASELINE	ANNUAL TARGET					Responsible Institution	Means of verification
GOAL/IMPACT (Ultimate Outcome): Contribute to Rwanda's economic growth, by positioning the country as a regional competitive producer and exporter of quality and safe meat products									
Intermediate Outcomes: Enhance food and nutritional security, and to contribute to the national economic transformation by unlocking new economic opportunities with increased exports revenues, reduced critical skills gaps and creation of gender-sensitive jobs for a more competitive and sustainable MVC **Immediate Outcomes: Improve meat production, expand the value chain, improve market and cross-border trade in the sector and increase the contribution of the meat value chain in Rwanda's econ**									
			2022/23	**2023/24**	**2024/25**	**2025/26**	**2026/27**		
Strategy Objective 1: Increased (From 6% to > 10% of the livestock contribution) quality meat production capacity and sustained supply, trough modern farming practices, improved breeding and feeding, as well as organized veterinary services and slaughtering facilities, **Outcome indicator: Increased quality meat production, sustained supply to domestic and export markets and improved cross-border trade economy (Contribution to the National GDP)**									
Output 1.1: Upscaled Recommended Level of Investment (RLI) for increased production of quality meat, to meet local and international demand								**0.2 Billion**	
Output indicator: National Livestock Breeding and Production plan in place, to optimizing the utilization of limited resources and reduction of production costs	Approved and implemented inclusive and gender sensitive livestock development /breeding policy	MINAGRI/Rwanda Livestock Masterplan (2017-2022)	Planning, Tender process (ToR for Consultancy), Resource mobilisation	70 % developed	100% Approved	Implementation	Implementation	**RAB (Lead)** MINAGRI, PSF, DPs	RAB Annual Report, MINAGRI Reports
National Feed Security and Safety contingency plan in place, to ensure a competitive feed manufacturing, supply and feeding	Approved and implemented inclusive and gender sensitive feed security and safety contingence plan	MINAGRI/Rwanda Livestock Masterplan (2017-2022)	Planning, Tender process (ToR for Consultancy), Resource mobilisation	70 % developed	100% Approved	Implementation	Implementation	**RAB (Lead)** MINAGRI, MINICOM PSF, DPs	RAB Annual Report, MINAGRI Reports

National Strategy and Contingency Plan against Transboundary Animal Diseases (TADs) and Zoonoses in place	Approved and implemented inclusive and gender sensitive National Strategy and Contingency Plan against TADs	MINAGRI/Rwanda Livestock Masterplan (2017-2022)	Planning, Tender process (ToR for Consultancy), Resource mobilisation	70 % developed	100% Approved	Process to secure a "Disease-Free-Zone" initiated	At least 1 Secured "Disease-Free-Zone"	**RAB (Lead)** MINAGRI, OIE-FAO, PSF, DPs	RAB Annual Report, MINAGRI Reports
Quantity of meat production for domestic	MT (% women and Youth Share)	170,524.6 MT	190,291	210,058	229,825	249,592	269,359	**RAB (Lead)** MINAGRI, RSB, NAEB, PSF, DPs	RAB Annual Report, MINAGRI Reports
Meat production exported	MT (% women and Youth Share)	4,379.4 MT	5879.4	6,789	7,879	8,879.4	9,879.4		
Export value of Meat (USD) cumulatively	USD (% women and Youth Share)	11,094,593	12,107,937	24,215,873	36,323,810	48,431,747	60,539,683		
Output 1.2: Established and piloted key strategic interventions to consider a relatively competitive advantage of livestock production and access to market								**6.8 Billion**	
Output Indicator: Number of specialized pig and poultry farms for commercial production and breeding	(% youth and women involved)	517Pig Farmers (12% F); 393 Poultry Farmers (24.4% F)	550Pig Farmers (18% F); 393 Poultry Farmers (24.4% F)	580Pig Farmers (20% F); 400 Poultry Farmers (25% F)	600Pig Farmers (25% F); 400 Poultry Farmers (30% F)	610Pig Farmers (30% F); 400 Poultry Farmers (30% F)	610Pig Farmers (30% F); 402 Poultry Farmers (30%)	**RAB (Lead)** RAB-SPIU/PRISM PROJECT, MINAGRI, PSF, Development Partners (DPs), RDB	RAB Annual Report, MINAGRI Reports
Employment rate (%) increment	(% women and youth participating in modern farming activities)	21.27% young, 12.3% women	21.27% young, 12.3% women	22% young, 15% women	24% young, 20% women	24.5% young, 25% women	25% young, 30% women		
Number of competitive modern beef and small	Number of motivated Farmers/Invest	654 Cattle Farmers (8.75% F), 148	654 Cattle Farmers (8.75% F), 148	660 Cattle Farmers (8.75% F), 150	665 Cattle Farmers (15% F), 158 Goat	674 Cattle Farmers (25% F), 188 Goat	674 Cattle Farmers (30% F), 188 Goat		

ruminant production farms for high-end markets	ors (Private + SMEs; % Women) supported	Goat Farmers (12% F), 39 Sheep Farmers (11.9% F)	Goat Farmers (12% F), 39 Sheep Farmers (11.9% F)	Goat Farmers (12% F), 45 Sheep Farmers (11.9% F)	Farmers (20% F), 50 Sheep Farmers (20% F)	Farmers (25% F), 59 Sheep Farmers (25% F)	Farmers (30% F), 59 Sheep Farmers (30% F)		
Number of research projects and outputs	(Number of SMEs supported, involving women and youth)	100	450	650	800	1012	1500		
Strategy Objective 2: Enhanced capacity for meat processing and transport, by means of modernized abattoir linkage to various MVC operators, as well as their compliance to quality and safety standards **Outcome indicator: Established competitive Abattoir Business Model, for increased value-addition, compliance to meat quality standards and linkage to market**									
Output 2.1. Establish a working framework linking pilot farmers (motivated and supported medium and big-size farms) with specialized abattoirs for a consistent monitoring and support								**5 Billion**	
Output Indicator: Established Abattoir Business Model (ABM), linking producers, traders, abattoirs and meat market	Level of organization and (%) of women + Youth involvement in the ABM	Consultation among MVC stakeholders	Concept note development, ToRs and hiring Consultancy	Validation of the ABM concept Report	Operationalization of the ABM concept; Building stakeholders networks, consortium, singing contracts, et.	Operational ABM concept	Operational ABM concept	**MINICOM (Lead)**, RICA, RAB, MINAGRI, RSB, RDB, PSF, DPs	MINICOM Annual Report
Level of investment (disaggregated data, gender) in slaughtering services and meat processing	Number of modern slaughterhouses operational across Districts (Managed by increased % of women)	15 Modern slaughterhouses (Managed by 15 males)	20 modern slaughterhouses; including 5 pig marketing centres with slaughter facilities (10% F)	25 modern slaughterhouses; including 10 pig marketing centres with slaughter facilities (15% F)	30 modern slaughterhouses; including 15 pig marketing centres with slaughter facilities (20% F)	45 modern slaughterhouses; including 30 pig marketing centres with slaughter facilities (30% F)	45 modern slaughterhouses; including 30 pig marketing centres with slaughter facilities (30% F)	**MINICOM (Lead)**, RAB-SPIU/PRISM PROJECT RICA, RAB, MINAGRI, RSB, RDB, PSF, DPs	MINICOM Annual Report

Established capacity for specialised pig and poultry slaughtering and processing, with at least 30 % of women and 25% of youth involved in the investment/management	Operational mechanized pig (1) and poultry (1) slaughterhouse + processing plant, with cold-storage for marketing of chilled pig meat to domestic and exports markets	Absence of modern and mechanized pig and/or poultry slaughtering and processing facility.	Feasibility study	Resource mobilization	1	1	2	**MINICOM (Lead)**, RAB-SPIU/PRISM PROJECT RICA, RAB, MINAGRI, RSB, RDB, PSF, DPs	MINICOM Annual Report
Output 2.2. Establishing an organized cold chain +logistics mechanism, for an effective handling (storage, transport, export etc.) of chilled or frozen meat products.								**0.05 Billion**	
Output Indicator: Number of joint meat inspections conducted to enforce regulation at various steps of meat production, transport-trade, slaughtering, processing and trade (retailer, export)	% of MVC operators (with at least 30 % women and 25% youth) demonstrating a satisfactory level of minimum compliance to meat quality and safety standards (70% compliance for pre-determined level of GHPs and Sanitary standards)	Only 27.3% of abattoirs inspected by RIC in 2021 have indicated a relatively satisfying minimum level of compliance	30%	40%	50%	60%	70%	**MINICOM (Lead)**, RICA, RAB, MINAGRI, RSB, RDB, PSF, DPs	MINICOM Annual Report
Strategy Objective 3: Increased value addition and market competitiveness **Outcome indicator: Compliance to meat quality and safety standards, for the creation of value- addition of animal products and by-products, aiming high-end markets**									

and exports									
Output 3.1. Enhanced awareness and compliance to meat quality and safety standards								**0.05 Billion**	
Output Indicator: Number of study tours and B2B conducted regionally and/or internationally, to increase the level of awareness and knowledge towards high-ends and export meat market requirements	Number of inclusive and gender sensitive organization of study tours and B2B activities	N/A	1	1	2	2	2	**MINICOM (Lead)**, RICA, MINAGRI, NAEB, RDB, PSF, DPs	MINICOM Annual Report
Number of international meat trade shows attended by key MVC operators (farmers, traders, processors, Inspectors)	Number of inclusive and gender sensitive meat trade shows attended	N/A	1	1	2	2	2		
Output 3.2. Create and increase the value addition of animal products, and by-products.								**2 Billion**	
Number of chilling/cooling facilities and small scale rural based meat-processing businesses operational in the designated bordering areas (Nyagatare, Bugesera, Rusizi and Rubavu Districts),	Number of chilling/cooling facilities and small scale rural based meat-processing businesses established with involvement of women (30%) and youth (25%) operators	Only 10 modern and high-throughput cold chain facilities are operating across the country	Feasibility study + resource mobilisation	20	40	60	100 + Enforced standards and regulations to enhance packaging of meat	**MINICOM (Lead)**, RICA, MINAGRI, NAEB, RDB, PSF, DPs	MINICOM Annual Report
Number of modern tanneries, with updated equipment and technology to	Inclusive and gender sensitive management of modern	N/A	Feasibility study + resource mobilisation	5	10	40	50	**MINICOM (Lead)**, NIRDA, MINAGRI, RDB,	MINICOM Annual Report

curb environmental pollution.	tanneries across districts							PSF, DPs	
Number of MVC operators trained on E-Commerce to explore profit-markets and diversify meat-trading destinations	At least 30% women and 25% youth benefiting from E-Commerce access and added value	Approved National E-commerce strategy in agriculture value chain	200	250	300	350	400	**MINICOM (Lead)**, NAEB, RDB, PSF, DPs	MINICOM Annual Report
Strategy Objective 4: Enhanced capacity development of the meat value chain actors Outcome indicator: Reversed socio-economic paradigms by developing required skills withing clusters of MVC operators									
Output 4.1. Reduced impact of socio-economic norms and stigma resulting in meat consumption and marketing gaps								**0.05 Billion**	
Output Indicator: Number of Community Animal Health Workers on GHPs, Animal welfare principles and basic meat quality and safety standards	At least 1560, with 30% women and 25% youth representatives trained	N/A	100	200	500	500	500	**RICA (Lead)**, RSB, RAB, MINAGRI, PSF, DPs	RICA Annual Report MINICOM Annual Report
Output 4.2. Developed required skills among MVC operators, for a competitive meat value chain and cross-border trading, for augmented value-addition and economic returns.								**0.2 Billion**	
Output Indicator: Number of MVC operators trained on FSMS, HACCP, GHPS, ISO22000 + Number of Private Meat Inspectors registered with RICA	At least 30% women and 25% youth representatives trained	N/A	At least targeting 100 farmers, 20 abattoir operators, Vet Doctors (Lab analysts), 50 cross-border market traders, 100 public and private meat Inspectors trained and registered	At least targeting 200 farmers, 40 abattoir operators, Vet Doctors (Lab analysts), 250 cross-border market traders, 250 public and private meat Inspectors trained and registered	At least targeting 700 farmers, 100 abattoir operators, Vet Doctors (Lab analysts), 250 cross-border market traders, 300 public and private meat Inspectors trained and registered	At least targeting 700 farmers, 100 abattoir operators, Vet Doctors (Lab analysts), 250 cross-border market traders, 446 public and private meat Inspectors trained and registered	At least targeting 700 farmers, 100 abattoir operators, Vet Doctors (Lab analysts), 250 cross-border market traders, 446 public and private meat Inspectors trained and registered	**RICA (Lead)**, RSB, RAB, MINAGRI, PSF, DPs	RICA Annual Report MINICOM Annual Report

Reviewed curriculum of the Rwanda TVET, to include training for meat processing skills such as cuttings, washing and cleaning, packaging, etc	An inclusive and gender sensitive curriculum of Rwanda TVET Schools reviewed and approved	N/A	Stakeholder's consultations	Review process + approval	Implementation	Implementation	Implementation	**Rwanda TVET Board (RTB) (Lead)**, UR, RAB, MINAGRI, PSF, DPs	RTB Annual Report MINEDUC Annual Report
Strategy Objective 5: Strengthened research and innovation to modernize the meat value chain **Outcome indicator: Effective collaboration frameworks between academia and livestock industry is established and supported**									
Output 5.1. Support effective collaboration frameworks between academia and livestock industry								**0.05 Billion**	
Output Indicator: Number of MVC platforms in place and effective linkage between incubation centres and MVC operators (industry)	At least 30% women and 25% youth benefiting from the professional linkages/platform of key MVC operators	Scattered professional organizations; e.g., Famers Associations, Rwanda Meat Society, etc.	At least 1 well-structured MVC platform established and supported	At least 1 well-structured MVC platform established and supported	At least 1 well-structured MVC platform established and supported	At least 1 well-structured MVC platform established and supported	At least 1 well-structured MVC platform established and supported	**NIRDA (Lead)**, UR, RAB, MINAGRI, PSF, DPs	NIRDA Annual Report MINICOM Annual Report
Strategy Objective 6: Strengthened MVC governance and regulatory framework **Outcome indicator: Level of compliance to meat quality and safety standards, with a view to slaughtering to establishing and ensuring a meat safety system that is effective in protecting the public health and consumer's confidence**									
Output 6.1. Enhanced compliance to meat quality and safety standards, with a view to slaughtering to establishing and ensuring a meat safety system that								**2.5 Billion**	
Output Indicator: 1 Accredited Reference Laboratories, to test meat safety and quality standards in place	Approved inclusive and gender sensitive SOPs and policies (Recruitment and career development)	Established need for least 1 Accredited Reference Laboratory	Feasibility study and Tender process	Establishing + equipping the lab	Operational	Operational	Operational	**RW FDA (Lead)**, UR, RAB, MINAGRI, PSF, DPs	RW DFA Annual Report MoH Annual Report
An effective platform and governance structure of MVC operators in place, for information sharing and promotion of private (SMEs) share	At least 30% women and 25% youth empowered through the mentoring and support program	N/A						**MINICOM (Lead)**, RICA, RAB, MINAGRI, PSF, DPs	MINICOM Annual Report

Output 6.2. Establish a national meat/food traceability system and work towards MVC certification (national + international)								**0.01 Billion**	
Output Indicator: Established and operational National Food Traceability Scheme	At least 30% women and 25% youth served and benefit the meat traceability scheme in place	Absence of a food traceability system (including meat)	Feasibility study and Tender process	Building and piloting the food traceability system	Operational	Operational	Operational	**MINICOM (Lead)**, RICA, MINALOC, RW FDA, RSB, RAB, MINAGRI, PSF, DPs	MINICOM Annual Report
Strategy Objective 7: Improved cross-cutting (Gender, Youth, Environmental Management) significance to the meat value chain **Outcome indicator: Improved cross-cutting (Gender, Youth, Environmental Management) significance to the meat value chain, for more equity, engagement and sustainability of the MVC.**									
Output 7.1. Provide support to women and youth empowering and capacity building, for an increased engagement into MVC SMEs and Cooperatives.								**0.25 Billion**	
Output Indicator: Number of empowered women and youth, through capacity building, for an increased engagement into MVC SMEs and Cooperatives.	Number of women and youth benefiting from the support and mentoring programs	N/A	At least targeting 500 women and 200 youth representatives	At least targeting 700 women and 300 youth representatives	At least targeting 1000 women and 800 youth representatives	At least targeting 2000 women and 1000 youth representatives	At least targeting 2500 women and 1500 youth representatives	**MINICOM (Lead)**, GMO, MIGEPROF, MINALOC, RCA, PSF, DPs	MINICOM Annual Report
Number of women and youth engaged into profitable businesses in agriculture, through developing skills and promotion of entrepreneurship	Number of women and youth benefiting from the support programs	N/A	At least targeting 500 women and 200 youth representatives	At least targeting 700 women and 300 youth representatives	At least targeting 1000 women and 800 youth representatives	At least targeting 2000 women and 1000 youth representatives	At least targeting 2500 women and 1500 youth representatives	**MINICOM (Lead)**, RAB, GMO, MIGEPROF, MINALOC, RCA, PSF, DPs	MINICOM Annual Report
Output 7.2. Ensure environmental protection for all MVC projects/Activities for a sustainable development and competitiveness.								**0.02 Billion**	
Output Indicator: Enforced environmental protection for all MVC projects/Activities for a sustainable development and competitiveness.	Inclusive and gender sensitive regulation and procedures in place, to ensure equal	N/A	Awareness campaigns	Enforcement of regulations related to environmental protection	Enforcement of regulations related to environmental protection	Enforcement of regulations related to environmental protection	Enforcement of regulations related to environmental protection	REMA (Lead), RNP, MINALOC, PSF, DPs	REMA Annual Report MINIRENA Annual Report

	engagement of MVC operators towards compliance								

Annex 6: Key assessment tools to boost the national meat sector development (2010-2021)

S/N	Assessment tool/Strategy	Main highlights with regards to meat sector strengthening
19.	Strategy and Investment to Strengthen the Poultry Industry in Rwanda (MINAGRI, 2012)	(M. of A. and A. R. Republic of Rwanda, 2012a). 1.2.2.8 "Weaknesses to be removed to get the full potential of poultry sector: Price, Product Quality and Food Safety"…"Animal Welfare and Health"… 1.5 Strategic axis n°2: Marketing: 1.5.1 Component 1: Mastery of the sanitary quality 6.4.2 Component 2: Promotion of the poultry products
20.	Strategy and Investment Plan for Small Animal Industry in Rwanda (MINAGRI, 2012)	(Republic of Rwanda, Ministry of Agriculture and Animal Resources, 2012 b.) 6.3 Strategic axis 1: Enhancing livestock production 6.3.3 Component 3: Animal Health Strategic Objectives: B. 6.3.3.1.1 Communication of animal diseases and zoonoses information: "The objective is to communicate timely and accurate animal disease information, including information on zoonosis, by making the best use of scientific data modeling, modern information technologies, and non-official information tracking systems", 6.3.3.1.2 Development and implementation of scientifically based standards and guidelines: "The objective is to Develop scientifically based standards and guidelines on all matters concerning animal health, veterinary public health, animal welfare, diagnosis and control of diseases, assessment and relevant recognition of animal health status, and sanitary safety in animal production and international trade in animals and animal products".
21.	Strategic and investment plan to strengthen meat industry in Rwanda (MINAGRI, 2012)	(Ministry of Agriculture and Animal Resources (MINAGRI), 2012) The Strategy depicts challenges hampering the uplifting of the livestock sector and supply of meat in quantity and quality. Two main objectives are attempted through this study: • Developing a plan to improve the quality and availability of meat and meat products in Rwanda • Developing a sovereign meat market in Rwanda and profitable outside Rwanda.
22.	Rwanda Strategy for Meat Export to DRC (MINICOM, 2016)	The Situational Analysis Study on Rwanda Livestock and Meat export to DRC (MINICOM, 2016) revealed that Rwanda exports livestock rather than meat (especially to DRC), while the Rwanda Abattoirs Assessment Report (MINICOM, 2016) indicated the country's capacity to slaughter and process the available livestock on the local market.

Annex 7: Estimated number of MVC Operators across Provinces of Rwanda

MVC Stakeholders	Eastern Province		Kigali City		Northern Province		Southern Province		Western Province		Total
Abattoir	18	16.8%	3	2.8%	42	39.3%	15	14.0%	29	27.1%	**107**
Broiler farmer	3	100.0%		0.0%		0.0%		0.0%		0.0%	**3**
Butcher	132	33.0%	21	5.3%	46	11.5%	118	29.5%	83	20.8%	**400**
Cattle farmer	413	63.1%	11	1.7%	115	17.6%	26	4.0%	89	13.6%	**654**
Cross-border Livestock Trader	4	6.1%	4	6.1%		0.0%	24	36.4%	34	51.5%	**66**
Cross-border Meat Trader		0.0%		0.0%		0.0%	10	19.2%	42	80.8%	**52**
Feed processor	3	42.9%	1	14.3%	2	28.6%	1	14.3%		0.0%	**7**
Goat farmer	85	57.4%		0.0%	51	34.5%	12	8.1%		0.0%	**148**
Livestock Market	20	27.8%		0.0%	11	15.3%	17	23.6%	24	33.3%	**72**
Livestock Trader	3	13.0%		0.0%	4	17.4%	4	17.4%	12	52.2%	**23**
Livestock Transporter	11	12.4%		0.0%	15	16.9%	37	41.6%	26	29.2%	**89**
Livestock service provider	74	17.0%	8	1.8%	22	5.1%	230	52.9%	101	23.2%	**435**
Meat exporter	3	18.8%	2	12.5%	1	6.3%	7	43.8%	3	18.8%	**16**
Meat processor	1	20.0%		0.0%	1	20.0%	1	20.0%	2	40.0%	**5**
Pig farmer	111	21.5%	4	0.8%	254	49.1%	94	18.2%	54	10.4%	**517**
Poultry farmer	75	19.1%	3	0.8%	174	44.3%	84	21.4%	57	14.5%	**393**
Rabbit farmer		0.0%		0.0%		0.0%	6	100.0%		0.0%	**6**
Sheep farmer	13	33.3%		0.0%	22	56.4%	3	7.7%	1	2.6%	**39**
Umutenezi	89	41.0%		0.0%	27	12.4%	51	23.5%	50	23.0%	**217**
Total	1058	32.6%	57	1.8%	787	24.2%	740	22.8%	607	18.7%	**3249**

The Southern and Western Provinces represent another major MVC hub, with respectively an estimated number of 740 actors (22.80%) and 607 (18.70%) in the West. The 2 regions remain the only major actors in the cross-border trade of livestock and meat, with an estimated number of 10 traders (0.30%) located in the South compared to 42(1.30%) cross-border meat/livestock traders[1] active in the Western Province.

1 Records from Rubavu, Rusizi Districts (Western Province), and Nyamagabe, Gisagara Districts (Southern Province).