

# OIE PVS Evaluation Follow-Up Mission Report

Rwanda

Human, Physical  
and Financial  
Resources

Technical Authority  
and Capability

Interaction with  
Interested Parties

Access to Markets



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July  
2019



# **OIE PVS EVALUATION FOLLOW-UP**

## **MISSION REPORT OF THE**

### **VETERINARY SERVICES OF**

#### **RWANDA**

**(15 – 26 July 2019)**

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#### Disclaimer

This mission has been conducted by a Team of OIE PVS Pathway experts authorised by the OIE. However, the views and the recommendations in this Report are not necessarily those of the OIE.

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## LIST OF ACRONYMS, ABBREVIATIONS AND SPECIAL TERMS

AMR	Antimicrobial resistance
AMU	Antimicrobial usage
AS	Animal scientist
ASF	African swine fever
CAHW	Community animal health worker
CBPP	Contagious bovine pleuropneumonia
CC	Critical Competency
CE	Continuing education
DARO	District animal resources officer
DRC	Democratic Republic of Congo
DVM	Doctor of Veterinary Medicine
EAC	East Africa Community
ECF	East Coast Fever
ELISA	Enzyme-linked immunosorbent assay
EU	European Union
FAO	Food and Agriculture Organization (of the UN)
FMD	Foot and mouth disease
GDP	Gross domestic product
GEMP	Good emergency management practice
HACCP	Hazard and critical control points
HPAI	Highly pathogenic avian influenza
IPRC	Integrated Polytechnic Regional Centre
LAN	Local area network
LIMS	Laboratory information management system
LMP	Livestock Masterplan
LSD	Lumpy skin disease
MCC	Milk collection centre
MINAGRI	Ministry of Agriculture and Animal Resources
MINALOC	Ministry of Local Government
MINICOM	Ministry of Trade and Industry
MINECOFIN	Ministry of Finance and Economic Planning
MINEDUC	Ministry of Education
MINIRENA	Ministry of National Resources
MINITNER	Ministry of Interior
MIS	Management Information System
MoH	Ministry of Health
MSc	Master of Science
MT	Metric tonne
NAEB	National Agricultural Export Development Board
ND	Newcastle disease
NGO	Non-governmental organisation
NSS	National Statistical System
NVL	National Veterinary Laboratory
OIE	World Organisation for Animal Health
PCP	Progressive Control Pathway
PCR	Polymerase Chain Reaction

PhD	Doctor of Philosophy
PPR	Peste de petits ruminants
PSTA	Strategic Plan for the Transformation of Agriculture in Rwanda
PVS	Performance of Veterinary Services (of OIE)
RAB	Rwanda Agriculture Board
RALIS	Rwanda Agriculture and Livestock Inspection and Certification Service
RBC	Rwanda Biomedical Centre
RCVD	Rwanda Council of Veterinary Doctors
RDB	Rwanda Development Board
RDDP	Rwanda Dairy Development Project
REMA	Rwanda Environment Management Authority
RSB	Rwanda Standards Board
RVF	Rift Valley Fever
Rwanda FDA	Rwanda Food and Drug Authority
RWF	Rwanda franc
SARO	Sector animal resources officer
SOP	Standard Operating Procedure
SPIU	Specific Projects Implementing Unit
SPS	Sanitary and Phyto-sanitary Agreement (of WTO)
TBD	Tick-borne diseases
TVET	Technical and Vocational Education and Training
UPS	Uninterruptible Power Supply
UR	University of Rwanda
USD	United States dollar
VLSP	Veterinary Legislation Support Programme
VPP	Veterinary paraprofessionals
VSB	Veterinary Statutory Body
VSF	Veterinaires sans frontieres
WAHIS	World Animal Health Information System (of OIE)
WHO	World Health Organization
WTO	World Trade Organization

### Note on terminology

In Rwanda the term ‘vets’ is used to refer to veterinary related staff with a range of qualifications – from DVM and Bachelor of Science (A0) to VPP qualifications in veterinary technology (A1) and veterinary technicians (A2) – see further discussion under CCs I.1A, I.1B, I.2A and I.2B.

With reference to OIE standards only those holding a DVM would be considered to be veterinarians, the other qualifications would be considered to be VPPs.

To avoid confusion in this report the term ‘vets’ (with quotation marks) will be used when referring to positions/staff referred to as vets in Rwanda, and the terms veterinarians and veterinary paraprofessionals (VPPs) will be used as defined by OIE.

## Acknowledgements

The conduct of this PVS Follow-up Evaluation by Dr John Weaver (Team Leader), Dr Piergiuseppe Facelli (Technical Expert) and Dr Moetapele Letshwenyo (Trainee Expert), hereinafter called the PVS Evaluation Team, has been formally authorised by the OIE. The support provided by OIE to this mission is acknowledged with thanks.

The OIE PVS Evaluation Follow-Up of Rwanda was very rewarding given the progress made by the Veterinary Services since the OIE PVS Evaluation conducted in 2008. Challenges remain but significant progress has been made and plans are in place for further improvements.

The PVS Evaluation Team wishes to express its thanks to the Permanent Secretary of the Ministry of Agriculture and Livestock (MINAGRI), Mr Jean Claude Musabyimana, and Dr Theogen Rutagwenda, Director General of Animal Development for their support of the OIE PVS mission.

Senior staff of the Rwanda Agriculture and Animal Resources Development Board (RAB) showed strong support for the mission and the Team is indebted to their commitment and guidance. The Team wish to particularly thank the Director General Patrick Karangwa, Deputy Director General Solange Uwituze and the OIE Delegate Dr Fabrice Ndayisenga.

The Team were very fortunate to be accompanied by Dr Isidore Gafarasi who managed the logistics and provided day to day support and also answered our many questions. Special thanks also to the support provided by Dr Carine Nyilimana and Jean Claude Rukundo.

The two field teams were able to meet a number of districts, sectors and field staff and to visit many places including the veterinary school, other training colleges, border posts and abattoirs, and their support, time and patience in answering our questions is gratefully acknowledged. A list of places visited and the people we met is attached as Appendix 4 – thank you to all VS staff and stakeholders who took the time to meet us, contributing to making our mission a success and the visit to your country so enjoyable.

***John Weaver***

***Piergiuseppe Facelli***

***Moetapele Letshwenyo***



# PART I: EXECUTIVE SUMMARY

## I.1 Introduction

Following a request to the OIE from the Government of Rwanda a Follow-Up Evaluation of the Veterinary Services based on the *OIE PVS (Performance of Veterinary Services)* methodology was conducted by a team of three independent OIE certified PVS evaluators from 15 – 26 July 2019.

The evaluation began with meetings with the Head of the Animal Resources, Research and Technology Transfer Department and senior staff at the headquarters of the Rwanda Agriculture Board (RAB), followed by meetings with officers in the Ministries of Health, the Rwanda Food and Drug Authority, and the Rwanda Environment Management Authority. Meetings were also held with the Permanent Secretary of MINAGRI and the Director General of Animal Resources, Research and Technology Transfer, RAB.

The OIE PVS Team visited sites and institutions in both the public and private sector in the cities and rural areas of Rwanda and held discussions with government officials, public and private sector veterinarians, livestock producers, traders, consumers and other stakeholders.

The mission concluded with a closing meeting held at MINAGRI, chaired by the Permanent Secretary, at which the overall findings of the evaluation were discussed.

Background information on Rwanda is provided in Appendix 3 including a country map, geographical and climate information, human demographic data, livestock demographic data, animal and animal product trade data and general economic data.

## I.2 Key findings of the evaluation

The Rwanda VS have made very significant improvements since the initial PVS Evaluation conducted in 2008, and the following PVS Gap Analysis mission (2010) and the Veterinary Legislation Support Programme mission (2014). The VS are to be complimented on the progress being made. Nevertheless, the VS face a number of major challenges which will take political will, time and resources to address. Summary findings are presented here with more detailed information being provided in the main body of the report.

### I.2.A Human, physical and financial resources

A major change in the VS since the 2008 PVS Evaluation is the marked increase in 'vets' delivering field services at district and sector level and in the private sector. Note that here the term 'vets' is used to signify the designation as used in Rwanda. Many of these 'vets' are not veterinarians as defined by OIE but would be regarded as veterinary paraprofessionals (VPPs). The increase in the number of 'vets' means that all sectors now have access to government veterinarians or VPPs. However more than 25% of 'vets' at sector level, that is the Sector Animal Resources Officers (SAROs), are VPPs and not veterinarians. At district level only 43% of District Animal Resources Officers (DAROs) are veterinarians. The wide use of VPPs is a stage in the evolution of the Rwanda VS but does compromise the integrity of the service and its compliance with international standards. The lack of veterinarians limits the management of VPPs and the capacity to provide veterinary supervision of VPPs and others.

Training of veterinarians has been strengthened with the establishment of the veterinary school and its compliance with OIE Day 1 competencies. The veterinary school facilities need some upgrading. VPP training has also been strengthened with

the development of the veterinary technology course at the Integrated Polytechnic Regional Centre (IPRC) and the ongoing veterinary technician courses at the Technical and Vocational Education and Training Colleges (TVET). These courses have good curricula and operate to a high standard.

Though the Rwanda Agriculture Board (RAB) has a policy of continuing education it is not adequately focused on priority needs nor does it have sufficient capacity for the necessary staff development. Reporting back and assessment of the courses being undertaken is insufficient.

The chain of command, that is the organisation and delivery of the VS, has become more complex and this is limiting the development of the VS. Vertical reporting and information flow from the decentralised district and sector field services is poor and delegation of programme activities has been made more difficult. Horizontally coordination is more difficult with the multiple other agencies that cover aspects of the veterinary domain including particularly the Rwanda Food and Drug Authority (Rwanda FDA), Ministry of Health (MoH), Rwanda Standards Board (RSB), Rwanda Agriculture and Livestock Inspection and Certification Service (RALIS) and the Rwanda Environment Management Authority (REMA).

Within RAB, the veterinary authority is a unit of the Animal Resources and Technology Transfer Department and so has a very low political and organisational profile.

Reporting and information flow is poor and there is little critical review of policies and programmes and the progress being made, if any.

Physical and financial resources are generally good with secure annual funding allowing for baseline operations and some new projects and programmes. There is a need to invest more in maintenance and equipment upgrades in the National Veterinary Laboratory (NVL) and the five satellite laboratories.

Though emergency funding is said to be available there is no documented process and this may lead to critical delays when an animal health or food safety disaster occurs.

### ***1.2.B Technical authority and capability***

NVL has good capacity and a wide range of tests are available. It does not have the capability to undertake residue testing and has only very limited ability to undertake antimicrobial resistance (AMR) testing. The number of diagnostic samples tested is low. There is a need to upgrade NVL facilities and equipment. There is no formal quality management programme.

The five satellite laboratories have good facilities but minimal equipment and staffing and are little used. The role of these laboratories should be reviewed and investment made accordingly in their development.

Epidemiology and risk analysis skills are limited resulting in poor levels of reporting and data management; this compromises VS as these skills are key to understanding disease and food safety, how best to manage the risk and how to direct the most effective and efficient use of the limited resources.

Border inspection is based on animal and animal products crossing at designated border posts, or the main international airport, and is based largely on document checking. Officers have the authority to check, sample and hold/reject consignments but no records were available. Quarantine stations are available.

The national network of Community Animal Health Workers (CAHWs) along with the private 'vets' and the SAROs provide a sound basis for surveillance and the detection (passive surveillance) and monitoring (active surveillance) of disease. There is insufficient reporting, investigation, sampling and diagnostic testing of disease

outbreaks and the generally poor data capture, its analysis and reporting which results in a surveillance system of low sensitivity, and one that provides little insight into disease and how it might be better managed.

Emergency preparedness is limited by the lack of a defined emergency management system under which all relevant agencies and authorities should have defined roles and responsibilities with known funding and resources. There has been little training of staff in emergency response and no simulation exercises have been conducted to assess capabilities and to test and mentor staff.

There are a number of priority disease control programmes in place with various levels of resourcing and activities. Vaccination is key in the control of a number of diseases and is provided through effective cold chains and with the support of the private sector. There is only limited reporting and follow up (e.g. post vaccination monitoring) and no critical evaluation of the effectiveness and efficiency of the disease control programmes.

The major abattoirs that supply the national market and are potential exporters are of good standard and are well operated; local slaughterplaces are more basic and do not meet international standards. All abattoirs and smaller slaughterhouses are registered and inspected. Private sector 'vets' conduct ante and post mortem inspections to varying standards with moderate record keeping and minimal reporting to the SAROs/DAROs and RAB. Rwanda FDA is increasingly taking over food safety but RAB and the DAROs/SAROs will continue to be responsible until the carcasses leave the slaughter place.

The control of veterinary medicines and biologicals (vaccines and reagents) has recently passed to the Rwanda FDA. A sound process of registration and control of imports is in place but only limited control over their prudent use. Distribution is via the many veterinary pharmacies supposedly only with a veterinary prescription but access seems to be variable. There is no recording of end user (owner, animal, etc.).

Animal feed mills are registered by RSB pending the draft Animal Feed Law. Feed is largely sold in bags with varying levels of information (feed type and analysis, date of manufacture, etc). There is no ban on the use of growth promoters.

There is no national residue programme.

Animal identification and traceability is currently limited to cattle movement with animals over six months and those leaving their place of origin requiring ear tags. There is a moderate rate of compliance with these regulations and no apparent enforcement programme. Animal movement requires a permit with the appropriate authority depending on their distance of travel and whether they are to enter another administrative unit. Animal products with the exception of milk and dairy products are not identified.

There is no animal welfare programme or legislation. Some basic animal welfare practices (stunning, race and lairage layouts, etc.) were observed at some of the pig and cattle abattoirs visited.

### ***1.2.C Interaction with stakeholders***

There is limited availability and visibility of communications materials on animal health, veterinary public health and animal welfare in the country. Many of the agencies and authorities engaged in the veterinary domain have websites with limited information and which are sometimes not up to date. RAB has a communications unit. At sub-national level there seems to be a very low level of communications with animal owners and other stakeholders.

The major commercial sector producers have industry associations and RAB meets regularly with them. There is no smallholder association but the sub-national DAROs and SAROs engage with local producers. There are no joint programmes as such but the private sector stakeholders work with and support the government programmes.

The establishment of the Rwanda Council of Veterinary Doctors (RCVD), the Veterinary Statutory Body in 2015 was a major step forward in delivering a veterinary service in compliance with international standards. The RCVD registers both veterinarians and VPPs.

Veterinary clinical services is a recently introduced Critical Competency and was assessed for the first time in Rwanda. In Kigali there are a number of competent companion animal veterinary clinics. Elsewhere the level of capability is less and the clinical service is often provided by 'vets', who are not fully qualified veterinarians.

### ***1.2.D Access to markets***

A number of new laws have been passed and these have helped address a number of gaps and also to establish the RCVD. In addition, further laws and Ministerial Orders are in draft e.g. the animal feed law. This progress is acknowledged but concerns over the quality of the legislation remain – definitions are unclear and vary from one law to another, the quality of the translation can be an issue and there are insufficient secondary regulations.

There is no formal compliance programme with reporting and follow up activities. The legal mandate exists for such a programme but has not yet been implemented.

The trade in animals and animal products has been developing with some support from improved international harmonisation, certification, sanitary agreements and overall transparency. Among the East Africa Community (EAC) countries the EAC SPS Protocol is a good tool for improving cooperation and harmonisation of animal health and food safety measures.

Rwanda VS expressed an interest in developing an internationally recognised disease-free zone for FMD. There are concerns over the viability of this approach. Though the incidence of detections of FMD has been low the surveillance systems remain weak. There are no clear boundaries of the proposed zone and how the risk of disease entry would be minimised – there is little capacity to undertake a risk analysis and few epidemiological skills to support disease prevention measures.

Table 1: Summary of OIE PVS evaluation results

Critical Competencies	PVS Evaluation 2008	PVS Follow-Up 2019
<b>I. HUMAN, PHYSICAL AND FINANCIAL RESOURCES</b>		
I.1.A. Staffing: Veterinarians and other professionals	1	2
I.1.B. Staffing: Veterinary paraprofessionals	3	3
I.2.A. Competency and education of veterinarians	3	3
I.2.B. Competency and education of veterinary paraprofessionals	2	3
I-3. Continuing education	2	3
I-4. Technical independence	3	3
I-5. Planning, sustainability and management of policies and programmes	5	3
I-6.A. Internal coordination (chain of command)	3	3
I-6.B. External coordination (including the One Health approach)		3
I-7. Physical resources and capital investment	2/3*	4
I-8. Operational funding	4	3
I-9. Emergency funding	4	2
<b>II. TECHNICAL AUTHORITY AND CAPABILITY</b>		
II-1.A. Access to veterinary laboratory diagnosis	4	3
II-1.B. Suitability of the national laboratory infrastructures		3
II-1.C. Laboratory quality management systems	1	1
II-2. Risk analysis and epidemiology	2	2
II-3. Quarantine and border security	4	3
II-4.A. Passive surveillance, early detection and epidemiological outbreak investigation	2	3
II-4.B. Active surveillance and monitoring	3	3
II-5. Emergency preparedness and response	2	3
II-6. Disease prevention, control and eradication	3	3
II-7.A. Regulation, inspection, authorisation and supervision of establishments for production and processing of food of animal origin	1	2
II-7.B. Ante- and post mortem inspection at slaughter facilities and associated premises		2
II-8. Veterinary medicines and biologicals	2	2
II-9. Antimicrobial Resistance and Antimicrobial Use	NA	2
II-10. Residue testing, monitoring and management	1	2
II-11. Animal feed safety	NA	2
II-12.A. Premises, herd, batch and animal identification, tracing and movement control	3	3
II-12.B. Identification, traceability and control of products of animal origin		2
II-13. Animal welfare	NA	1
<b>III. INTERACTION WITH STAKEHOLDERS</b>		
III-1. Communication	3	3
III-2. Consultation with stakeholders	4	4
III-3. Official representation and international collaboration	2	2
III-4. Accreditation/authorisation/delegation	2	3
III-5. Regulation of the profession by the Veterinary Statutory Body (VSB)	1	4
III-6. Participation of producers and other stakeholders in joint programmes	3	2
III-7. Veterinary clinical services	NA	3
<b>IV. ACCESS TO MARKETS</b>		
IV-1.A. Integrity and coverage of legislation and regulations	2	3
IV-1.B. Implementation of and compliance with legislation and regulations	2	2
IV-2. International harmonisation	4	3
IV-3. International certification	2	3
IV-4. Equivalence and other types of sanitary agreements	5	3
IV-5. Transparency	3	2
IV-6. Zoning	4	2
IV-7. Compartmentalisation	1	NA

\* I.7 new CC combines previous physical resources and capital investment; NA - Not Available

## **I.3 Key recommendations**

To strengthen the VS the following recommendations should be considered as a priority; further details and recommendations are included in the main body of this report.

### ***I.3.A Human, physical and financial resources***

- The delivery of veterinary services is compromised by the complex, multiple array of boards, agencies and authorities and the low profile of the veterinary services within RAB, the veterinary authority. A review of the organisation structure should be undertaken with the view of veterinary services becoming a department of RAB and in time a directorate.
- It is recognised that the policy of decentralised delivery of local services and the role of Competent Authorities will not be changed. Therefore, to strengthen the VS a process of clearly defining and documenting the roles and responsibilities of the different entities and their lines of reporting and delegation must be undertaken and then compliance enforced.
- There has been an immense improvement in the number of ‘vets’ available to deliver field veterinary services but these are still largely dependent on VPPs. As quickly as possible veterinarians should be recruited to take on the lead roles of service delivery and to oversee the work of VPPs.
- RAB has a policy of staff development but this is not yet delivering the necessary programme of staff development. Continuing education is required across all staff levels of the VS to maintain and develop technical and specialist skills. All trainings delivered should be subject to review and assessment of their impact and revised as necessary.
- Technical independence of the VS is generally high. The direct employment of ‘vets’ by abattoirs is a concern and their independence should be assured by developing good lines of reporting and undertaking regular mentoring visits and reviews.
- Operational plans and reporting are inadequate to effectively monitor programme delivery and to adjust activities as necessary. Information on disease surveillance and disease control is poor. A review of reporting mechanisms is required and the development of an integrated animal information database should be considered.
- The physical resources of the VS are of a high standard though with some need for increased funding for repairs and maintenance. Inventory management with scheduled maintenance and replacement is not available and there is no well defined capital budget – these should be developed.
- Emergency funding mechanisms are not well defined and should be developed and documented.

### ***I.3.B Technical authority and capability***

- The NVL operates at a good standard but neither it nor the satellite laboratories are receiving enough diagnostic samples so these resources are being under-utilised. The role of the satellite laboratories should be reviewed and depending on the identified role investment should be made accordingly. The NVL facility should be upgraded

(buildings and equipment) and NVL should implement a quality management system both for its own operations and as the national reference laboratory for all veterinary diagnostic tests.

- Risk analysis is a useful tool in determining where the greatest threats are for animal health, veterinary public health and food safety. Staff should receive training in risk analysis. Data capture should be improved to provide the necessary baseline information for valid risk analysis.
- Operations at the main border inspection posts need to be further developed with greater capacity for animal/animal product testing. The quarantine stations should be reviewed and made fit for purpose with double fencing, waste management, etc. Effective reporting of consignments and consignments held/rejected is required. A programme of raising awareness of the risks of illegal trade should be implemented.
- Disease surveillance can operate well but there is generally insufficient reporting, investigation and sampling from disease outbreaks and there is little critical review of surveillance data using epidemiology skills. The VS should provide greater feedback to the field veterinary services and owners.
- Emergency preparedness and response has received little attention and there is a need to develop a national animal and veterinary public health emergency management system. Such a system should use the resources from the whole of government and have clearly defined roles and responsibilities. Staff of the VS should be trained in their roles. It is recommended that simulation exercises are run to test the system and to further develop staff skills.
- The many disease control programmes in place are operating without obvious progress and without critical review. Every disease control programme should be subjected to periodic critical review with consideration of the investment being made, the impact and progress made (if any) and to make recommendations on future priorities.
- At abattoirs there is a need to improve ante and post mortem inspections and reporting back to RAB – additional ‘vet’ training should be provided. Clear mechanisms for the disposal of condemned animals and animal carcasses are required. There is no through chain traceability of meat and meat products and this should be developed with Rwanda FDA. Abattoirs working at local level should be progressively improved to reach international standards.
- The control of veterinary medicines has recently been changed to Rwanda FDA but RAB still have a pivotal role in the distribution and prudent use of veterinary medicines and biologicals. RAB working with district and sector authorities should implement an awareness campaign on the need for improved control of veterinary medicines, including antimicrobials, with tighter control over prescription practices at veterinary pharmacies and good record keeping and reporting of their end use. The draft antimicrobial resistance (AMR) action plan should be finalised and implemented with MoH and Rwanda FDA.
- There is currently no residue control plan on animal origin food and this should be developed with One Health partners.
- Animal identification has been introduced for cattle but not yet for other species. The cattle programme is working moderately well but with some gaps. An awareness and

compliance programme should be implemented for cattle identification to increase compliance rates. Pilot programmes should be developed for other species.

- An animal welfare programme should be implemented with the development of the necessary legislation and an awareness and compliance programme. Industry guidelines on meeting good animal welfare standards are also required.

### ***1.3.C Interaction with stakeholders***

- The VS do not currently have a strong communications programme. A communications programme targeting priority surveillance, disease control and animal welfare issues should be developed and implemented. The RAB website, an excellent resource, should be updated.
- Consultations with the private sector are occurring regularly but with inadequate record keeping. Consideration should be given to working more closely with producers and industry to jointly develop and deliver disease surveillance, disease control and food safety programmes.
- The establishment of RCVD is a huge step forward for the Rwanda VS. It should be made obligatory that all government 'vets', that is both veterinarians and VPPs, must be registered – not just the private sector.

### ***1.3.D Access to markets***

- The Rwanda VS have made good progress in increasing the coverage of their legislation but concerns remain over the quality of the legislation. It is recommended that a full review of all veterinary legislation is undertaken, deficiencies highlighted and then a programme of redrafting implemented. The further legislation in draft such as the animal feed law should be finalised.
- There are few reports of compliance with legislation. A communications, awareness and enforcement programme should be developed with strong reporting and feedback on non-compliance.
- Zoning is regarded as a high priority with the possible establishment of an internationally recognised disease-free zone for FMD. This task is not simple and requires exacting definition of the disease-free population, management of surveillance systems, risk analysis and animal and animal product identification and movement control. It is recommended that RAB seek support from international experts on how best to manage this approach.



## PART II: CONDUCT OF THE EVALUATION

At the request of the Government of Rwanda the Director General of the OIE appointed an independent OIE PVS team consisting of Dr John Weaver (Team Leader), Dr Piergiuseppe Facelli (Technical expert) and Dr Moetapele Letshwenyo (Trainee Expert) to undertake an evaluation of the veterinary services of Rwanda. The evaluation was conducted from 15 to 26 July 2019.

The evaluation was carried out with reference to the OIE standards contained in Chapters 3.1., 3.2., 3.3. and 3.4., and in other chapters as relevant, of the OIE *Terrestrial Animal Health Code* (the Terrestrial Code), using an interim version of the OIE PVS Tool - 7th Edition, 2019<sup>1</sup> to guide the process. Relevant Terrestrial Code references are provided for each Critical Competency in Appendix 1.

This report identifies the strengths and weaknesses of the veterinary services of Rwanda as referenced to the OIE standards. The report makes some general recommendations for priority actions to improve performance.

### II.1 OIE PVS Tool: method, objectives and scope of the evaluation

To assist countries, establish their current level of performance, form a shared vision, establish priorities and carry out strategic initiatives, the OIE has developed an evaluation tool, the OIE Tool for the Evaluation of Performance of Veterinary Services (OIE PVS Tool<sup>2</sup>). The PVS Tool is made up of four fundamental components:

- Human, physical and financial resources
- Technical authority and capability
- Interaction with stakeholders
- Access to markets

The four fundamental components cover 45 Critical Competencies, each of which is assessed against five qualitative levels of advancement.

A glossary of terms is provided in Appendix 2.

The report follows the structure of the OIE PVS Tool including the descriptions and levels of advancement for each Critical Competency.

The objective and scope of the OIE PVS Evaluation covers all aspects of the veterinary domain relevant to the OIE Terrestrial Animal Health Code and the quality of Veterinary Services.

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<sup>1</sup> The final version of the OIE PVS Tool 7th Edition has been published in April 2019. The interim version used for the PVS Evaluation Follow-Up mission in Rwanda is very similar to the final version and the results of the mission should be considered as valid and comparable as those from missions undertaken with the final version.

<sup>2</sup> Available at <http://www.oie.int/solidarity/pvs-evaluations/oie-pvs-tool/>

## II.2 Context of the evaluation

### II.2.A Availability of data relevant to the evaluation

A list of documents received by the OIE PVS Team before and during the PVS Evaluation mission is provided in Appendix 6. The documents and pictures listed in Appendix 6 are referenced to the relevant Critical Competencies and provide material evidence for the levels of advancement and related findings.

The following table provides an overview of the availability of the main categories of documents or data needed for the evaluation, taking into account the requirements set out in the OIE Terrestrial Code.

**Table 2: Summary of data available for evaluation**

Main document categories	Data available in the public domain	Data accessible only on site or on request	Data not available/not provided
<b>→ Animal census:</b>			
○ at 1st administrative level		X	
○ at 2 <sup>nd</sup> administrative level		X	
○ at 3rd administrative level		X	
○ per animal species		X	
○ per production systems			X
<b>→ Organisations charts</b>			
○ Central level of the VS	X		
○ 2 <sup>nd</sup> level of the VS	X		
○ 3 <sup>rd</sup> level of the VS			X
<b>→ Job descriptions in the VS</b>			
○ Central levels of the VS			X
○ 2 <sup>nd</sup> level of the VS			X
○ 3 <sup>rd</sup> level of the VS			X
<b>→ Legislations, regulations, decrees ...</b>			
○ Animal health and public health		X	
○ Veterinary practice		X	
○ Veterinary statutory body		X	
○ Veterinary medicines and biologicals		X	
○ Official delegation		X	
<b>→ Veterinary census</b>			
○ Global (public, private, veterinary, para-professional)		X	
○ Per level		X	
○ Per function		X	
<b>→ Census of logistics and infrastructure</b>			X
<b>→ Strategic plan(s)</b>	X	X	
<b>→ Operational plan(s)</b>			X
<b>→ Activity reports</b>		X	X
<b>→ Financial reports</b>		X	
<b>→ Animal health status reports</b>		X	
<b>→ Evaluation reports</b>			X
<b>→ Procedures, registers, records, letters ...</b>		X	X

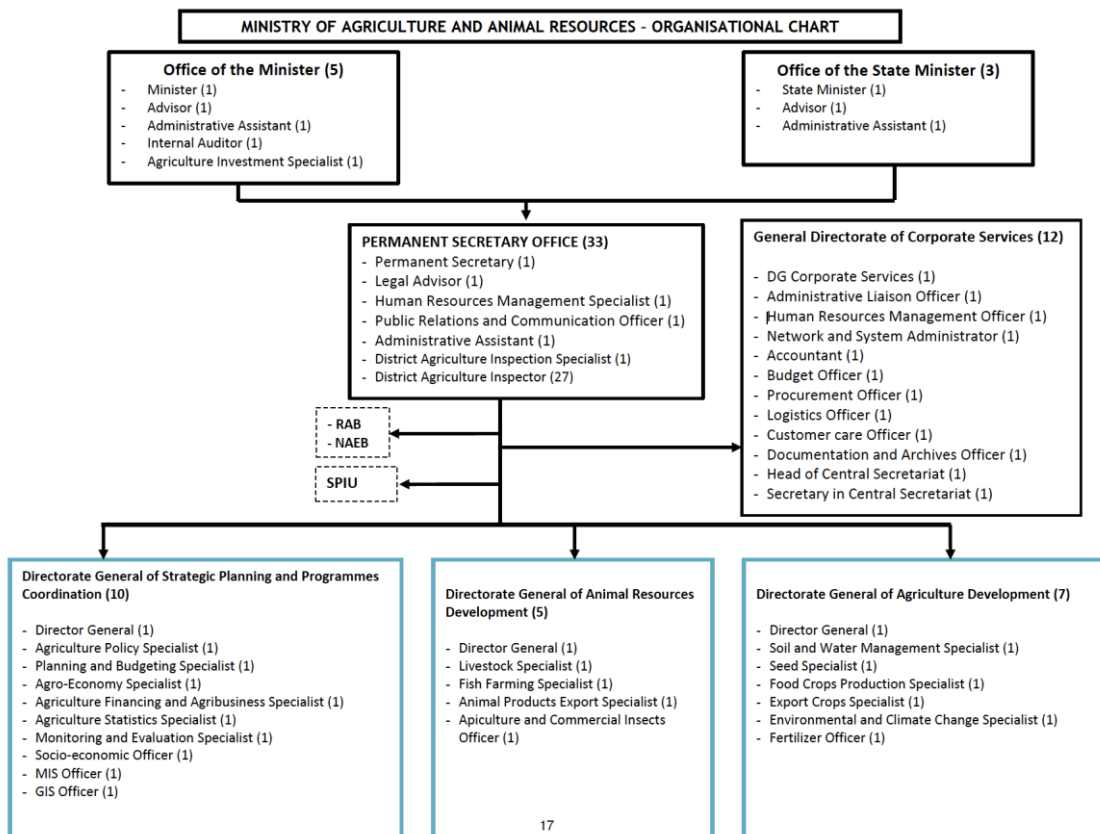
## ***II.2.B General organisation of the Veterinary Services***

Rwanda has a complex structure governing the delivery of Veterinary Services across the veterinary domain. The Ministry of Agriculture and Animal Resources (MINAGRI) is responsible for policy formulation, regulation and development of the livestock sector. Under MINAGRI, the Rwanda Agriculture and Animal Resources Development Board (RAB) is the 'Veterinary Authority' and there are a number of other Competent Authorities responsible for food safety, drug control and wildlife. RAB is mandated by law to provide quality veterinary services delivery for the prevention, control, detection and rapid response to animal diseases including zoonoses; and to provide information related to the status of animal diseases in the country at national and international levels;

In November 2010, RAB replaced the Rwanda Animal Resources Development Authority within MINAGRI. The creation of such autonomous boards with a Board of Directors and General Directorate is common in Rwanda. Other boards involved in the veterinary domain are the Rwanda Development Board (RDB) within the Rwanda Environmental Management Authority (REMA), the National Agricultural Export Development Board (NAEB) within MINAGRI, and the Rwanda Standards Board (RSB) within the Ministry of Commerce (MINICOM). Legislation provides RAB with property, budget allocations, subsidies, income from its services, loans, donations and interest from its property.

MINAGRI sets policies and coordinates with other ministries, and RAB has been established as an implementing agency for agriculture including animal health at national level. The National Agriculture Export Board (NAEB) has also been established under MINAGRI; NAEB is a 'commercial public institution' established by Government to promote Rwanda as a 'world class agriculture and livestock commodity exporter'. RALIS, also under MINAGRI, is the department responsible for the overall coordination of animal and plant inspection services and to ensure compliance with animal and plant health laws and regulations and compliance with the SPS agreement necessary for trade, animal pest/disease monitoring, surveillance and diagnosis; it provides inspection and certification services.

**Figure 1: MINAGRI organisation structure**

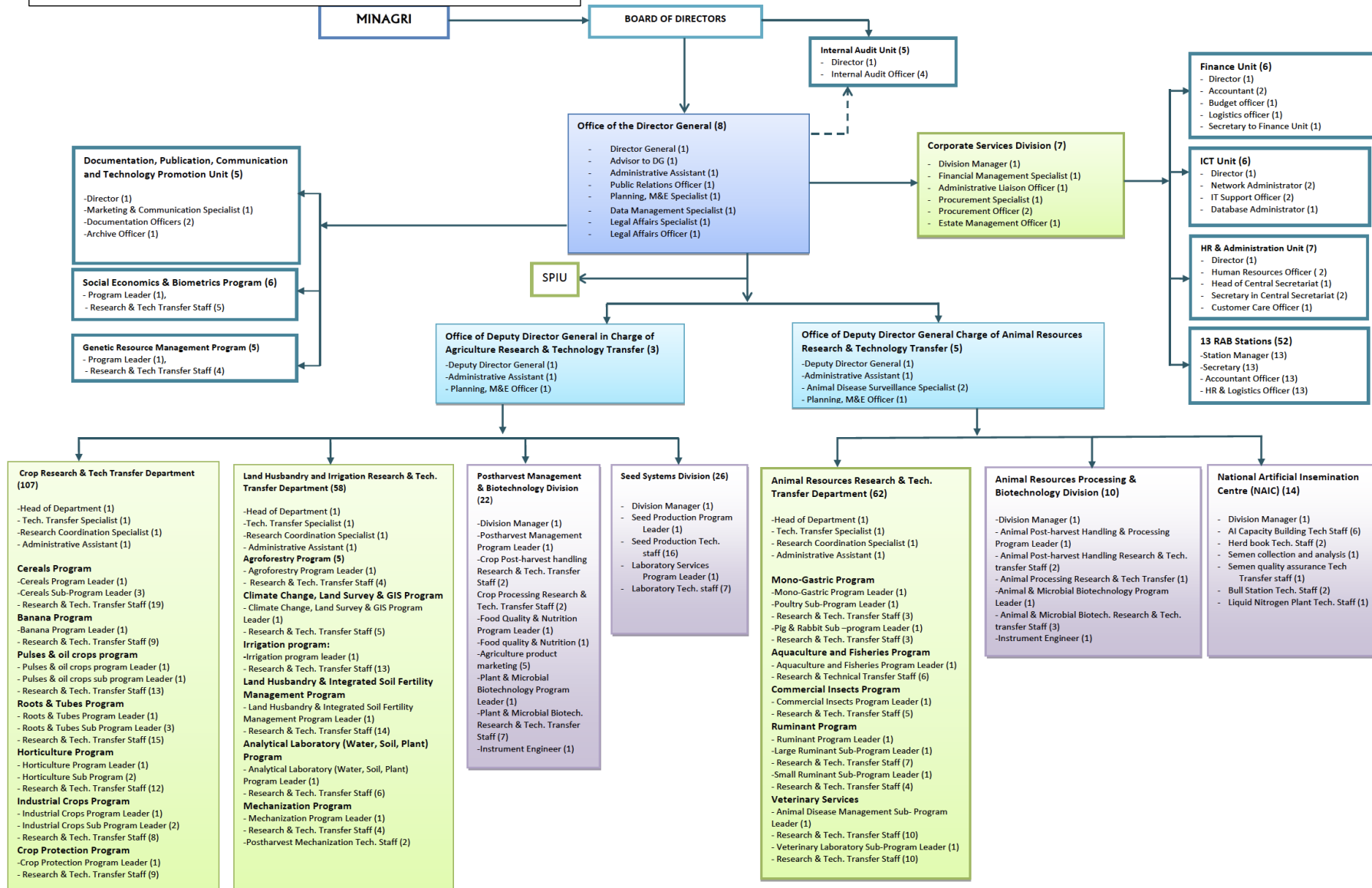


RAB's head office is in Kigali and it has 13 'stations' that work closely with decentralised districts; districts are under MINILOC (see Figure 2). The current RAB organisational chart is shown in Figure 3.

**Figure 2: Map showing Location of RAB stations, laboratories, border posts and quarantine stations**



Figure 3: RAB organisational chart



It can be seen from Figure 3 that in RAB the Veterinary Services are under the Animal Resources Research and Technology Transfer Department, of the Deputy Director General for Animal Resources Research and Technology Transfer, The Deputy Director General reports to the Director General and he in turn to the RAB Board of Directors. As such it can be seen that the veterinary services have a very low profile in the organisational structure and limited presence and political power.

RAB has the responsibility to:

- Implement national policy on animal husbandry
- Provide leadership for the prevention, diagnosis and control of animal diseases and to coordinate activities aimed at diagnosing and monitoring animal diseases and to provide early warning measures to farmers
- Coordinate monitoring of animal diseases at border and other control posts
- Coordinate interventions in liaison with local authorities before, during and after disease outbreaks
- Compile disease status information for the country and report to the national, regional and international authorities
- Implement the national veterinary services development policy and animal health laws
- Provide stockbreeders and consumers of animal products with technical information and services to improve the supply of animal products and raise their incomes
- Control animal diseases and implement appropriate strategies to ensure prevention, protection, diagnosis and treatment of animal diseases and zoonoses
- Build the capacity of animal product consumers to promote their role in improving food safety and the country's development with reference to the WTO-SPS Agreement
- To collect and publish statistics and information on animal diseases at the national level, and the movement of live animals and animal products by issuing permits for the import /export of live animals, animal products and veterinary drugs
- Participate and establish relations and collaboration with regional and international organisations engaged in animal health

The OIE Team was advised that regulation of export of live animals was delegated to RAB by NAEB; animal products are certified by Rwanda Agriculture and Livestock Certification Service (RALIS). It was unclear whether the current delegation is interim or only until capacity is built within NAEB or the soon to be formed 'Rwanda Inspectorate and Competition Authority' a combination of RALIS, the Rwanda Standards Board (RSB) and consumer affairs associations.

The responsibilities for NAEB are stated as:

- Elaborate and implement policies and strategies for exports of agricultural and livestock products
- Identify and support research in agricultural and livestock products:

- Collaborate with other institutions to identify places to build factories to process agricultural and livestock export commodities
- Set quality standards of agriculture and livestock export commodities and ensure their implementation
- Issue certificates of origin for agricultural and livestock export

The VS implement disease control programmes for foot and mouth disease (FMD), contagious bovine pleuropneumonia (CBPP), anthrax and lumpy skin disease (LSD). There is also vaccination for Newcastle disease and a small rabies vaccination programme. There are surveillance programmes for FMD, CBPP, brucellosis, Rift Valley fever (RVF), peste des petits ruminants (PPR) and African swine fever (ASF).

The National Veterinary Laboratory (NVL), located next to RAB headquarters has sections for virology, bacteriology, serology, parasitology and pathology. In addition there are five 'Satellite Laboratories' with basic level capabilities (see Figure 2).

There are eight border control posts and seven quarantine stations (see Figure 2). There are also two bull centres with a semen distribution network across the country, five dairy plants, 125 'Milk Collection Centres' (MCCs), 34 abattoirs, 146 small abattoirs, 82 livestock markets, and a significant honey industry.

Field veterinary services are coordinated through the 13 RAB sections (see Figure 2) and delivered by the Ministry of Local Authority (MINALOC) the 30 District Animal Resources Officers (DAROs) (sometimes referred to as District Veterinary Officers) and 416 Sector Animal Resources Officers (SAROs) (or 'vets'), the private sector 'vets' and the volunteer 1,856 Community Animal Health Workers (CAHWs).

Note that the term 'vets' is not well defined in law and can apply to veterinary doctors (DVM) and veterinary paraprofessionals (Bachelors of Science). Each of the 416 sectors in the country now has a 'vet'.

The local authorities are responsible for service delivery including at the slaughter slabs, the MCCs, and for field services such as disease surveillance and control activities. The chain of command is not direct but RAB staff suggested that during an outbreak, because of the size of the country, this is managed by direct communications with field veterinary staff and so a functioning chain of command exists. Vaccines are purchased centrally, distributed and then administered by section vets with support from the private sector and the CAHWs. There are 1,856 CAHWs in the 2,148 cells (a cell consists of four or five villages).

Rwanda now has one veterinary school, it previously had two, and this school produced its first Doctor of Veterinary Medicine (DVM) graduates in 2019. In addition, there are two levels of training available for VPPs. The Integrated Polytechnic Regional College (IPRC) provides three year diploma courses in veterinary technology and there are 15 TVET courses that provide training to veterinary certificate level as veterinary technicians. Graduates of the veterinary school and also holders of bachelor degrees in agriculture are classified as A0, IPRC graduates are classified as A1 and the TVET schools as A2. In Rwanda it is common for all these levels to be referred to as 'vets', that is A0, A1 and A2. This causes confusion when OIE standards are considered and is discussed further in CCs I.1A, I.1B, I.2A and I.2B.

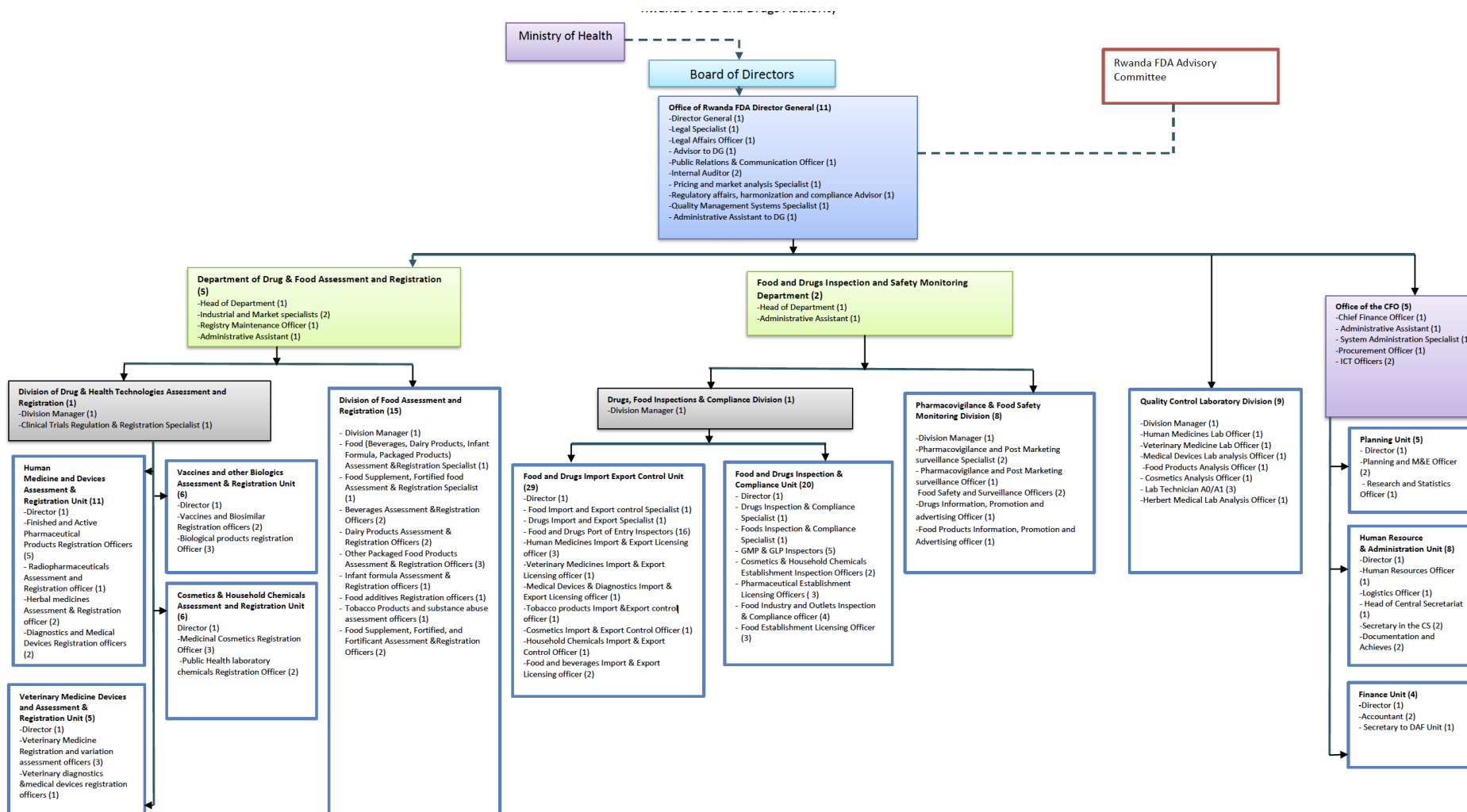


Other Competent Authorities that play an important role in the VS of Rwanda include the Ministry of Health (MoH) responsible for health and the control of zoonoses, the Rwanda Food and Drug Authority (Rwanda FDA) responsible for food safety and the control of drugs including veterinary medicines and biologicals, the Ministry of Education and the Ministry of Defence. Rwanda FDA has only been operational since 2018. An organisational chart is shown as Figure 4. In this organisational chart it can be seen that the Veterinary Medicine Devices and Assessment and Registration Unit is placed under the Division of Drug and Health Technologies Assessment and Registration of the Department of Drug and Food Assessment and Registration. As for RAB it can be seen that veterinary activities have a low profile and limited authority within Rwanda FDA.

Partners who play a major role in the development of Rwanda's livestock industry include farmers and their cooperatives, private veterinarians, the Rwanda College for Veterinary Doctors (RCVD), research and academic institutions, NGOs and international organisations, ministries and institutions involved in One Health including the Rwanda Biomedical Centre (RBC), Ministry of Health (MoH), Rwanda Food and Drug Authority (Rwanda FDA), Rwanda Environment Management Authority (REMA), University of Rwanda, Ministry of Education (MINEDUC), Police and Immigration.

RCVD, the Veterinary Statutory Body was legally mandated in 2013 and established in 2015. RCVD requires the registration of all private sector veterinarians and VPPs; registration is not mandatory for the public sector.

Figure 4: Rwanda FDA organisational structure



## II.2.C Animal disease occurrence

Information on animal disease occurrence from the OIE website (see Table 3)

Table 3: Disease status of Rwanda (2017); no reports available for 2018 or 2019

Disease	Domestic		Wild		Note
	Notifiable	Status	Notifiable	Status	
African swine fever	✓	Disease present	✗	Suspected (not confirmed)	
Anthrax	✗	Disease present	✗	Suspected (not confirmed)	
Avian infectious bronchitis	✓	Disease present	✗	Suspected (not confirmed)	
Bovine anaplasmosis	✓	Disease present	✗	No information	
Bovine babesiosis	✓	Disease present	✗	No information	
Bovine tuberculosis	✓	Suspected (not confirmed)	✗	No information	
Brucellosis (Brucella abortus)	✓	Disease present	✗	No information	
Brucellosis (Brucella melitensis)	✓	Suspected (not confirmed)	✗	No information	
Contagious bov. pleuropneumonia	✓	Absent (since 10/2009)	✗	Suspected (not confirmed)	
Contagious cap. pleuropneumonia	✓	Suspected (not confirmed)	✗	No information	
Foot and mouth disease	✓	Disease present	✓	Suspected (not confirmed)	
Fowl typhoid	✓	Disease present	✗	Suspected (not confirmed)	
Infec bursal disease (Gumboro)	✓	Disease present	✗	No information	
Lumpy skin disease	✓	Disease present	✗	Disease present	
Newcastle disease	✓	Disease present	✗		
Peste des petits ruminants	✗	Suspected (not confirmed)	✗	Suspected (not confirmed)	
Porcine cysticercosis	✓	Suspected (not confirmed)	✗	No information	
Rabies	✓	Disease present	✗	Suspected (not confirmed)	
Rift Valley fever	✓	Disease limited to one or more zones	✗	No information	
Sheep pox and goat pox	✓	Suspected (not confirmed)	✗	No information	
Theileriosis	✓	Disease present	✗		
Trichomonosis	✓	Suspected (not confirmed)	✗	No information	
Trypanosomosis	✓	Disease present	✗	No information	

Table 4: Reported exceptional disease events (2018); no reports in 2017 or 2019

Summary	Report	Country	Date of Notification	Disease	Reason for notification	Disease manifestation	Outbreaks	Date resolved
		Rwanda	10/08/2018	Rift Valley fever	Recurrence	Clinical disease	8	Continuing

## II.3 Timetable of the mission

Appendix 4 provides a list of key persons met; the timetable and a map of the mission and details of the facilities and locations visited by the OIE PVS Team and Appendix 5 provides the air travel itinerary of team members.



## PART III: RESULTS OF THE EVALUATION & GENERAL RECOMMENDATIONS

This evaluation identifies the strengths and weaknesses of the veterinary services, and makes general recommendations, across the four main fundamental components of the PVS tool:

### FUNDAMENTAL COMPONENTS

1. HUMAN PHYSICAL AND FINANCIAL RESOURCES
2. TECHNICAL AUTHORITY AND CAPABILITY
3. INTERACTION WITH STAKEHOLDERS
4. ACCESS TO MARKETS

The activities of the Veterinary Services are recognised by the international community and by OIE Members as a 'global public good'. It is therefore essential that each country acknowledges the importance of the role and responsibilities of its Veterinary Services and provides sufficient human and financial resources to fulfil their responsibilities.

This OIE PVS Evaluation examined the Critical Competencies under the four fundamental components, listed strengths and weaknesses where applicable, and established a current level of advancement. Evidence supporting the assessment was obtained from interviews and field observations and documents, as listed in Appendix 6. General recommendations are also provided where relevant.

The current level of advancement for each Critical Competency is shown in cells shaded in grey (15%) in the table.

### III.1 Fundamental component I: Human, physical and financial resources

This component of the evaluation concerns the institutional effectiveness and sustainability of the VS as demonstrated by the levels of human, physical and financial resources available and their efficient application. It comprises fourteen Critical Competencies:

#### Critical Competencies:

<b>I-1 Professional and technical staffing of the Veterinary Services (VS).....</b>	<b>23</b>
<b>A. Veterinary and other professionals (university qualified).....</b>	<b>23</b>
<b>B. Veterinary paraprofessionals .....</b>	<b>25</b>
<b>I-2 Competency and education of veterinarians and veterinary paraprofessionals ....</b>	<b>27</b>
<b>A. Veterinarians .....</b>	<b>27</b>
<b>B. Veterinary paraprofessionals .....</b>	<b>29</b>
<b>I-3 Continuing education (CE).....</b>	<b>31</b>
<b>I-4 Technical independence .....</b>	<b>33</b>
<b>I-5 Planning, sustainability and management of policies and programmes .....</b>	<b>35</b>
<b>I-6 Coordination capability of the Veterinary Services.....</b>	<b>37</b>
<b>A. Internal coordination (chain of command).....</b>	<b>37</b>
<b>B. External coordination (including the One Health approach) .....</b>	<b>39</b>
<b>I-7 Physical resources and capital investment .....</b>	<b>42</b>
<b>I-8 Operational funding .....</b>	<b>44</b>
<b>I-9 Emergency funding.....</b>	<b>46</b>

#### ----- Terrestrial Code References:

Points 1-7, 9 and 14 of Article 3.1.2. on Fundamental principles of quality: Professional judgement/Independence/Impartiality/Integrity/Objectivity/Veterinary legislation/General organisation/Procedures and standards/Human and financial resources.

Point 4 of Article 3.2.1. on General considerations.

Point 1 of Article 3.2.2. on Scope.

Points 1 and 2 of Article 3.2.3. on Evaluation criteria for the organisational structure of the Veterinary Services.

Point 2 of Article 3.2.4. on Evaluation criteria for quality system.

Article 3.2.5. on Evaluation criteria for human resources.

Points 1-3 of Article 3.2.6. on Evaluation criteria for material resources: Financial/Administrative/Technical.

Points 3 and Sub-point d) of Point 4 of Article 3.2.10. on Performance assessment and audit programmes: Compliance/In-Service training and development programme for staff.

Article 3.2.12. on Evaluation of the veterinary statutory body.

Points 1-5 and 10 of Article 3.2.14. on Organisation and structure of Veterinary Services/National information on human resources/Financial management information/Administration details/Laboratories engaged in diagnosis/Performance assessment and audit programmes.

I-1 Professional and technical staffing of the Veterinary Services (VS)	Levels of advancement
<p><i>The appropriate level of staffing of the VS to allow for veterinary and technical functions to be undertaken efficiently and effectively.</i></p> <p><b>A. Veterinary and other professionals (university qualified)</b></p> <p><i>The appropriate level of staffing of the VS to allow for veterinary and other professional functions to be undertaken efficiently and effectively.</i></p>	1. The majority of positions requiring veterinary or other professional skills are not occupied by appropriately qualified professionals.
	2. The majority of positions requiring veterinary or other professional skills are occupied by appropriately qualified professionals at central and state/provincial levels.
	3. The majority of positions requiring veterinary or other professional skills are occupied by appropriately qualified professionals at local (field) levels.
	4. There is a systematic approach to defining job descriptions and formal, merit-based appointment and promotion procedures for <i>veterinarians</i> and other professionals.
	5. There are effective procedures for formal performance assessment and performance management of <i>veterinarians</i> and other professionals.

Terrestrial Code reference(s): Appendix 1

### **Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 1
- PVS Gap Analysis (2010) – level 3 (5 year target)

### **Findings:**

Assessing the level of veterinary staffing in Rwanda is difficult as the term ‘vet’ is used as a position description and does not necessarily indicate that a veterinarian is required. Here the term ‘veterinarian’ is used as per the OIE definition (see Appendix 2) that is with a formal qualification such as a DVM or equivalent.

Rwanda VS has developed with the minimal use of veterinarians and has been heavily dependent on VPPs. This problem has been recognised and significant progress is being made in increasing the number of veterinarians and reducing the VS reliance on VPPs. Many positions requiring veterinarians continue to be occupied by VPPs at district and sub-district, that is sector, levels.

With reference to Table 1, below, it can be seen that 43% of District Animal Resources Officers (DARO), sometimes referred to as District Veterinary Officers are ‘veterinarians’, that is have a DVM qualification with the remainder being graduates in an agricultural science. At Sector level 26% of Sector Animal Resources Officers (SARO) have a DVM with the remainder having a degree in agriculture (46%) or a certificate in veterinary technology (8%) or a diploma as a veterinary technician (20%). The terms A0, A1 and A2 refer to DVMs/Bachelors in agriculture, diploma in veterinary technology or a certificate as veterinary technician respectively. Further information is provided in the following CCs I.1B, I.2A and I.2B and in the section on veterinary organisation (see Section II.2B)

**Table 4: Numbers of veterinary staff at district and sector level**

Province	DARO		SARO			
	DVM (A0)	AS (A0)	DVM (A0)	AS (A0)	A1	A2
East	3	4	37	55	1	3
West	3	4	16	44	12	24
South	4	4	18	33	11	39
North	1	2	23	46	5	7
Kigali	1	2	10	6	5	6
<b>Total</b>	<b>12 (43%)</b>	<b>16 (57%)</b>	<b>104 (26%)</b>	<b>184 (46%)</b>	<b>34 (8%)</b>	<b>79 (20%)</b>

AS – Animal Scientist (Bachelor in Agriculture or equivalent)

There are two veterinarians in MINAGRI that support the development of animal health policies and high level engagement across government.

RAB has nine veterinarians (DVMs) at its headquarters in Kigali and a further 11 based at the 13 regional RAB stations; there are two RAB specialists providing specialist support for the east and west of the country.

Rwanda FDA currently has two veterinarians but is expected to increase this to six or more in the near future.

**Key Changes from 2008 to 2019:**

- Significant increase in veterinarians working in the VS both at headquarters and field levels

**Strengths:**

- RAB has veterinarians at headquarters and in its stations to develop policies and programmes and to oversee the delivery of field services
- Veterinarians and VPPs in place in all sectors to deliver field services
- Job descriptions in use and annual performance reviews undertaken

**Weaknesses:**

- Most district and sector positions still occupied by VPPs
- Insufficient veterinarians to supervise VPPs or the CAHWs

**Recommendations:**

- Recruit additional veterinarians (DVMs) to gradually replace VPPs operating as DAROs and SAROs
- Ensure VPPs are being effectively supervised by veterinarians

**Evidence** (as listed in Appendix 6): E24, P10



<b>B. Veterinary paraprofessionals</b>	<b>Levels of advancement</b>
<p><i>The appropriate level of staffing of the VS to allow for veterinary paraprofessional (according to the OIE definition) functions to be undertaken efficiently and effectively.</i></p> <p><i>This covers OIE veterinary paraprofessional categories having trained at dedicated educational institutions with formal qualifications which are recognised by the government or the VSB.</i></p>	1. The majority of positions requiring veterinary paraprofessional skills are not occupied by personnel holding appropriate qualifications.
	2. Some positions requiring veterinary paraprofessional skills are occupied by personnel holding appropriate qualifications. There is little or no veterinary supervision.
	3. The majority of positions requiring veterinary paraprofessional skills are occupied by personnel holding appropriate qualifications. There is a variable level of veterinary supervision.
	4. The majority of veterinary paraprofessional positions are effectively supervised on a regular basis by veterinarians.
	5. There are effective management procedures for formal appointment and promotion, as well as performance assessment and performance management of veterinary paraprofessionals.

Terrestrial Code reference(s): Appendix 1

### **Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 3
- PVS Gap Analysis (2010) – level 4 (5 year target)

### **Findings:**

VPPs are commonly used in Rwanda and occupy many ‘vet’ positions – see Table 1 and discussion in CCI.1A for a review of veterinary staffing.

The VPPs undertake a range of activities including veterinary tasks. Such veterinary tasks include being the DARO, the senior animal health and production officer in each district who manages and is responsible for all the SAROs, the ‘sector vets’, in the district. The SAROs are responsible for delivering government veterinary services in their sectors, and coordinating with the private ‘vets’ and the CAHWs.

The VPPs implement many of the activities in animal and veterinary public health such as the implementation of disease control programmes (diagnosis and treatment, animal testing, vaccination, etc.), veterinary public health (meat inspection, vaccination, dispensing of medicines). These positions are occupied by VPPs with various levels of training (A0, A1 and A2 levels) but with only limited if any specialist training – see also CCI.2B.

Veterinary supervision by veterinarians, that is those with DVMs, is limited as many of these VPPs operate as ‘vets’ in the terminology used in Rwanda. For further discussion see also CCI.1A

### **Key Changes from 2008 to 2019:**

- Significant increase in VPPs A0 and A1 working in the VS both at headquarters and field levels

**Strengths:**

- Large cadre of trained VPPs provide the main staff resource for the delivery of veterinary services

**Weaknesses:**

- No specialist roles for VPPs defined and little specialist training being provided
- Many VPPs operate as ‘vets’ in the Rwanda system
- Little veterinary supervision of VPPs

**Recommendations:**

- Review service delivery and define roles for specialist VPPs and provide additional training, as required
- Continue the programme of strengthening the delivery of district and sector veterinary services by replacing VPPs with veterinarians
- Develop the capacity to ensure veterinary supervision of VPPs

**Evidence** (as listed in Appendix 6): E24, E40

I-2 Competency and education of veterinarians and veterinary paraprofessionals	Levels of advancement
<p><i>The capability of the VS to effectively carry out their veterinary and technical functions, as indicated by the level and quality of the qualifications of their personnel in veterinary and veterinary paraprofessional positions.</i></p> <p><b>A. Veterinarians</b></p> <p><i>This references the OIE Day 1 and advanced competencies, and the OIE model core curricula for veterinarians</i></p>	1. The veterinarians' knowledge, skills and practices, are of a variable standard that allow only for elementary clinical and administrative activities of the VS.
	2. The veterinarians' knowledge, skills and practices are of a uniform standard sufficient for accurate and appropriate clinical and administrative activities of the VS.
	3. The veterinarians' knowledge, skills and practices are sufficient for all professional/technical activities of the VS (e.g. surveillance, treatment and control of animal disease, including conditions of public health significance)
	4. The veterinarians' knowledge, skills and practices are sufficient for specialised technical activities (e.g. higher level epidemiological analysis, disease modelling, animal welfare science) as may be needed by the VS, supported by post-graduate level training.
	5. The veterinarians' knowledge, skills and practices are subject to regular updating, and are internationally recognised such as through formal evaluation and/or the granting of international equivalence with other recognised veterinary qualifications.

Terrestrial Code reference(s): Appendix 1

### **Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 3
- PVS Gap Analysis (2010) – level 4 (5 year target)

### **Findings:**

There is now a single and public veterinary school, part of the University of Rwanda. The veterinary school operates from three campuses at Nyagatare in the Eastern Province. It was established in 2013 from a previously privately-run school. (Up to 2014, veterinary students graduated from the Institute of Agriculture and Animal Husbandry (ISAE) and the Umutara Polytechnic.) The first class of 40 is due to complete the five year course and graduate in 2019. These students will then have a one year probationary period before being able to register with the Rwanda Council of Veterinary Doctors (RCVD).

The curriculum has been developed by the school with international support and reference to the EAC policy of mutual recognition, and to OIE Day 1 competencies. The curriculum veterinary uses the common international approach with initially basic science subjects following by increasing applied topics with diagnostic, treatments and surgery; ethics and epidemiology are covered in the curriculum. It is stated that in the future the curriculum will be reviewed every five years to ensure it remains current and best practice for Rwanda. There are 56 academic teaching staff with more than 50% having PhD or Masters qualifications. The veterinary school is also introducing Masters courses from this academic year.

The veterinary school has extensive classroom, laboratory and animal teaching facilities and operates a farm with livestock, poultry and rabbits; dogs are also available. The facilities are aged and in need of refurbishment but are functional.

There is limited specialist veterinary expertise in the country with little or no capacity for epidemiological analysis, risk analysis, disease modelling or animal welfare science. Staff competencies at RAB are provided in Table 5. It should be noted that this information only covers RAB and not the decentralised district delivery of veterinary services. Many of the 'District Animal Resource Officers' and 'Sector Vets' are not veterinarians (that is they do not hold a DVM) and these positions are occupied by VPPs.

**Table 5: RAB staff qualifications and those proposed under the RAB staff development plan**

Programme/department	Existing				Proposed	
	PhD	MSc	BSc/A1	A2	PhD	MSc
Animal Resources Department (veterinary and laboratory services, breeding, production)	1	2	15	2	2	5
Zonal Animal Resources (disease control, quarantine laboratory)	-	2	20	5	-	4
Quality Control (veterinary inspection)	-	-	5	-	-	3
<b>Total</b>	<b>1</b>	<b>4</b>	<b>40</b>	<b>7</b>	<b>2</b>	<b>12</b>

**Key Changes from 2008 to 2019:**

- Establishment of a public veterinary school providing OIE Day 1 competencies
- The first class of 40 is due to complete the five year course and graduate in 2019

**Strengths:**

- Veterinary school established with a curriculum based on OIE Day 1 competencies

**Weaknesses:**

- Veterinary school facilities need upgrading
- Overuse of live animals in surgical training
- Few specialist skills available

**Recommendations:**

- Upgrade veterinary school facilities
- Review and reduce the use of live animals in surgical training and ensure a high standard of animal welfare is maintained
- Develop specialist skills by promoting postgraduate studies within and outside Rwanda

**Evidence** (as listed in Appendix 6): E24

B. Veterinary paraprofessionals	Levels of advancement
<p><i>This references the OIE Guidelines on Competencies for Veterinary Paraprofessionals, including categories of animal health (on farm, at markets or borders), veterinary public health (in slaughter establishments) and laboratory diagnostics who are recognised by the government or the VSB, having received formal training and qualifications from dedicated educational institutions.</i></p>	1. Positions requiring veterinary paraprofessional skills are generally occupied by those having no formal training or qualifications from dedicated educational institutions.
	2. The training and qualifications of those in positions requiring veterinary paraprofessional skills is of a variable standard and allows for the development of only basic competencies.
	3. The training and qualifications of veterinary paraprofessionals is of a fairly uniform standard that allows the development of some specific competencies (e.g. vaccination on farms, meat hygiene control, basic laboratory tests).
	4. The training and qualifications of veterinary paraprofessionals is of a uniform standard that allows the development of more advanced competencies (e.g. blood and tissue sample collection on farms, supervised meat inspection, more complex laboratory testing).
	5. The training and qualifications of veterinary paraprofessionals is of a uniform standard and is subject to regular evaluation and/or updating.

Terrestrial Code reference(s): Appendix 1

### **Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 2
- PVS Gap Analysis (2010) – level 3 (5 year target)

### **Findings:**

Rwanda has a unique approach to training ‘veterinary paraprofessionals’ (VPPs) with a two level approach.

At the first level there are three year ‘vet technician’ certificate courses (so-called ‘A2’ courses) with a national standardised curriculum that covers broad skills (communications, management, computing), animal husbandry, animal handling and production, and animal health considering the healthy animal, animal diseases, and treatment including major surgery (laparotomies, etc). There are 15 A2 training colleges (referred to as TVET schools) in Rwanda and together they graduate more than 1,000 students each year. Graduates with veterinary technician certificates go on to work in various capacities including in private/public work including handling tasks such as meat inspection, on farms, at veterinary clinics, animal research facilities, animal feed stores, veterinary drugs stores, natural parks or in public services. Graduates may also go on to complete studies to obtain an ‘A1’ (Diploma in veterinary technology) or ‘A0’ (veterinarian, a DVM).

At the higher level is the ‘A1’ course. There is currently one ‘A1’ course in Rwanda, the Veterinary Technology course at the Integrated Polytechnic Regional College (IPRC), Huye. This three year course was only established in 2014 and the first students graduated in 2018. In the first two years less than 40 students graduated but this number has been increased with

66 due to graduate this year. No details of the course curriculum were provided but the focus is on practical skill development and the course covers all the main production animal species including bee keeping.

In Rwanda, VPPs may also have a high A0 classification, that is, staff with a bachelor degree in agriculture or equivalent.

The RCVD, the Veterinary Statutory Body, registers VPPs to work in veterinary clinics, veterinary pharmacies, to provide livestock and husbandry support, artificial insemination and meat and animal product hygiene.

**Key Changes from 2008 to 2019:**

- The establishment of the Veterinary Technology course at the Integrated Polytechnic Regional College (IPRC) in 2014

**Strengths:**

- Well established Veterinary Technician courses and recently established Veterinary Technologist courses
- Both Veterinary Technician and Veterinary Technologist courses are of a high standard with well structured curricula and good teaching facilities

**Weaknesses:**

- No clear definition as to the role and therefore the training required for the VPPs

**Recommendations:**

- Review the roles and competencies required for the VPPs and provide appropriate training – consider developing categories of VPPs, e.g. meat inspection, laboratory science, disease surveillance

**Evidence** (as listed in Appendix 6): E42, E56, E57

I-3 Continuing education (CE)	Levels of advancement
<p><i>The capability of the VS to maintain, update and improve the knowledge, attitudes and skills of their personnel, through an ongoing staff training and development programme assessed on a regular basis for relevance and targeted skills development.</i></p>	1. The VS have no access to veterinary or paraprofessional CE.
	2. The VS have access to CE (internal and/or external training) on an irregular basis but it does not take into account needs, or new information or understanding.
	3. The VS have access to CE that is reviewed and sometimes updated, but it is implemented only for some categories of veterinary professionals and paraprofessionals.
	4. The VS have access to a CE programme that is reviewed annually and updated as necessary, and is implemented for all categories of veterinary professionals and paraprofessionals.
	5. The VS have up-to-date CE that is implemented or is a requirement for all relevant veterinary professionals and paraprofessionals and is subject to dedicated planning and regular evaluation of effectiveness.

Terrestrial Code reference(s): Appendix 1

**Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 2
- PVS Gap Analysis (2010) – level 2 (5 year target)

**Findings:**

RAB has developed an ‘Employees Staff Training Policy, 2018’ which identifies the ‘gaps and imbalances in availability and distribution of RAB’s existing human skill capacities’ which affect its achievements. Under this policy training approaches are defined including long and short courses, on-the-job training, mentoring and coaching. RAB is expected to prepare a strategic training plan and annual training plan for all RAB staff basing on training need assessment and recognising the RAB priorities. The plan is to be approved by RAB management before submitting for funding. Participants in longer training courses (Masters and PhD) are required to sign a contract binding them to continue working for RAB for a specified period.

RAB has developed a ‘Capacity Building Plan 2018-2024’ with the objective of developing staff capacity to ‘meet the institutional mandate and set targets, keep the competitive employees and expand partnerships by strengthening linkages with national, regional, and international organizations’.

To address the institutional capacity gaps in the Animal Resources, Research and Technology Transfer Department of RAB it is planned to train two staff to PhD level and 12 to Master’s level, excluding fisheries (see Table 5 in CCI.2A). RAB will also provide short-term technical training inside and outside the country as part of career development. A list of staff enrolled in longer term education was provided to the Team.

Recently training was provided to laboratory staff on biorisk management by 'One Health Central and Eastern Africa'. This training focused on good laboratory practices, laboratory biosecurity assessment and biorisk reduction. Some short course training has also been provided by FAO on Good Emergency Management Practices (GEMP).

The veterinary school reported that training courses had been delivered for 'vets' in meat inspection, AMU/AMR, and poultry production. No further details were available.

The CAHWs receive some training every few months. For example 223 CAHW were trained in Muhanga, Ruhango, Nyanza and Huye districts and a further 975 were assessed and received a refresher training course in the management of animal diseases.

No information was provided on training by other Competent Authorities or at the district level.

**Key Changes from 2008 to 2019:**

- RAB has develop a 'Capacity Building Plan 2018-2024'
- To address the institutional capacity gaps in the Animal Resources, Research and Technology Transfer Department of RAB it is planned to train two staff to PhD level and 12 to Masters level

**Strengths:**

- RAB have a strategic plan for staff development
- Some training taking place across most sectors

**Weaknesses:**

- No annual report available
- Insufficient follow-up to assess the effectiveness of training

**Recommendations:**

- Follow-up after training courses to assess their effectiveness
- Prepare annual reports on training provided and its effectiveness

**Evidence** (as listed in Appendix 6): E24, E40, E47, E52, E91, P10



I-4 Technical independence	Levels of advancement
<p><i>The capability of the VS to carry out their duties with autonomy and without undue commercial, financial, hierarchical and political influences that may affect technical decisions in a manner contrary to the provisions of the OIE (and of the WTO SPS Agreement where applicable).</i></p>	1. The technical decisions made by the VS are generally not based on scientific considerations.
	2. The technical decisions consider scientific evidence, but are routinely modified based on non-scientific considerations.
	3. The technical decisions are based on scientific evidence but are subject to review and occasional modification based on non-scientific considerations.
	4. The technical decisions are made and generally implemented in accordance with scientific evidence and the country's OIE obligations (and with the country's WTO SPS Agreement obligations where applicable).
	5. The technical decisions are based on a high level of scientific evidence, which is both nationally relevant and internationally respected, and are not unduly changed to meet non-scientific considerations.

Terrestrial Code reference(s): Appendix 1

#### **Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 3
- PVS Gap Analysis (2010) – level 3 (5 year target)

#### **Findings:**

Policy decisions by MINAGRI and other ministries, the development and implementation of programmes by RAB and other authorities and the decentralised delivery of veterinary services is not being unduly affected by political or commercial interests. This applies to the core animal health sector, veterinary public health and food safety.

The complex organisational structure of the VS has resulted in a low profile for the delivery of animal health and veterinary public health activities and this may result in a reduced ability to make technical decisions.

The management of information limits the ability to base decision making on 'scientific evidence' as data capture, analysis and information flow is poor. Reporting upwards is largely based on summary reports with little consolidation. The MIS information management system only provides limited data for analysis.

Of concern is that slaughterhouse 'vets'/meat inspectors are employed by the owner/operator and may therefore be subject to a conflict of interest.

#### **Key Changes from 2008 to 2019:**

- No major changes

#### **Strengths:**

- No evidence of undue political or commercial interference on decision making

**Weaknesses:**

- Low profile of the VS in the organisational structure of RAB and the decentralised delivery of field services
- Slaughterhouses privately employ their own veterinary inspectors

**Recommendations:**

- Modify the RAB organisational structure to elevate the VS
- Strengthen the chain of command of the VS over the delivery of field services
- Require meat inspectors to be independent of the owners/operators – or, at least in the short term, undertake regular checks and audits

**Evidence** (as listed in Appendix 6): E68

I-5 Planning, sustainability and management of policies and programmes	Levels of advancement
<p><i>The capability of the VS leadership and organisation to develop, document and sustain strategic policies and programmes, and also to report on, review and evolve them, as appropriate over time.</i></p>	<p>1. Policies and programmes are insufficiently developed and documented. Substantial changes to the organisational structure and/or leadership of the VS frequently occur (e.g. annually) resulting in a lack of sustainability of policies and programmes.</p>
	<p>2. Some basic policy and programme development and documentation exists, with some reporting on implementation. Sustainability of policies and programmes is negatively impacted by changes in the political leadership or other changes affecting the structure and leadership of the VS.</p>
	<p>3. There is well developed and stable policy and programme documentation covering most relevant areas. Reports on programme implementation are available. Sustainability of policies and programmes is generally maintained during changes in the political leadership and/or changes to the structure and leadership of the VS.</p>
	<p>4. Policies or programmes are sustained, but also reviewed (using data collection and analysis) and updated appropriately over time through formal national strategic planning cycles to improve effectiveness and address emerging concerns. Planning cycles continue despite changes in the political leadership and/or changes to the structure and leadership of the VS.</p>
	<p>5. Effective policies and programmes are sustained over time and the structure and leadership of the VS is strong and stable. Modification to strategic and operational planning is based on a robust evaluation or audit process using evidence, to support the continual improvement of policies and programmes over time.</p>

Terrestrial Code reference(s): Appendix 1

**Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 5
- PVS Gap Analysis (2010) – level 5 (5 year target)

**Findings:**

Policies and programmes are stable with many specific plans and activities being undertaken over many years e.g. control programmes for FMD control, brucellosis, tick diseases and tsetse fly. The policies are coherent with the government vision for economic development – previously ‘Vision 2020’, and now ‘Vision 2050’ which has a strong commitment to the development of agriculture and specifically to the livestock sector. This development is set out in the National Agriculture Strategy: Priority 1– Agriculture and Animal Resources transformation, Research and technology transfer of advisory services. Priority 3 – Value chain development and private sector investment, and Priority 4 – Institutional development and cross cutting issues.

There has been no change of VS leadership with political changes; in the veterinary sector the previous OIE delegate has been in place for more than ten years.

RAB was established in 2011 as the implementing body for animal health services under MINAGRI, the policy setting body. In addition, the delivery of veterinary services has been made more complex with the decentralisation of local services/field delivery. These changes have resulted in a weaker chain of command.

The development of Rwanda FDA to take the lead in food safety and drug control in Rwanda has supported coordination and integration between the animal and human health services but has further weakened the Veterinary Authority (see further discussion on the organisation of the VS in Section II.2B)

A limitation is the insufficient reporting and analysis of programmes with no regular review and adaptation to increase the effectiveness and efficiency of programmes.

**Key Changes from 2008 to 2019:**

- Note that this CC has changed markedly since the 2008 PVS Evaluation mission and now includes management of resources and operations and policy development
- The delivery of veterinary services has been made more complex with the decentralisation of local services/field delivery; these changes have resulted in a weakened chain of command.

**Strengths:**

- Good stability of programmes and strong alignment with government policies
- Long tenure of previous OIE delegate

**Weaknesses:**

- Complex organisational structure of the VS
- Rwanda FDA has taken over mandate for the control of veterinary medicines and biologicals in addition to food safety
- Insufficient reporting and review of programmes, their resourcing, the activities undertaken and their effectiveness

**Recommendations:**

- Review organisational structure and ensure that the chain of command of the VS is strong with good coordination with other Competent Authorities
- Strengthen data capture and analysis with regular review of programmes and their effectiveness

**Evidence** (as listed in Appendix 6): nE16, E25, E26, E27, E29, E31, E32, E33, E34, E37, E38, E41, E42, E26, E61, E62, E63, E67

I-6 Coordination capability of the Veterinary Services	Levels of advancement
<b>A. Internal coordination (chain of command)</b>  <i>The capability of the Veterinary Authority to coordinate their mandated activities with a clear chain of command, from the central level (the Chief Veterinary Officer or equivalent), to the field level of the VS, as relevant to the OIE Codes (e.g. surveillance, disease control, food safety, emergency preparedness and response).</i>	1. There is no formal internal coordination and the chain of command is not clear.
	2. There are internal coordination mechanisms for some activities but the chain of command is not clear.
	3. There are internal coordination mechanisms and a clear and effective chain of command for some activities, such as for export certification, border control and/or emergency response.
	4. There are formal, documented internal coordination mechanisms and a clear and effective chain of command for most activities, including surveillance (and reporting) and disease control programmes.
	5. There are formal and fully documented internal coordination mechanisms and a clear and effective chain of command for all activities, and these are periodically reviewed/audited and updated to re-define roles and optimise efficiency as necessary.

Terrestrial Code reference(s): Appendix 1

### **Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 3 (note a combined level for I.6A and I.6B)
- PVS Gap Analysis (2010) – level 4 (5 year target)

### **Findings:**

The Rwanda VS have undergone major changes in recent years with the establishment of RAB in 2011 and the Rwanda Food and Drugs Authority (Rwanda FDA) in 2018. Further decentralisation has seen the delivery of district and local area services being provided through the Ministry of Local Government (MINALOC). This has resulted in a complex array of organisations responsible and weakened the chain of command for the delivery of veterinary services. Reports from the field are delayed and only provided in summary form, delegation and authorisation to undertake activities is managed through effective personal contacts but without formality, documentation or any substantive review or revision.

RAB funds and coordinates delivery of field services through MINALOC and the District Animal Resources Officers (DAROs), some of whom are veterinarians, others are VPPs. Meetings are held regularly between RAB and the district officers, usually quarterly or as the need arises. Communications are informal and undertaken variously by phone, email, WhatsApp or fax. Monthly reports provide only summary information on district activities, as aggregated from the sector reports. There is no national animal health information system.

DAROs meet and communicate regularly with the sector ‘vets’, and the sector ‘vets’ with the private ‘vets’ and the CAHWs. No records of these meetings or communications were made available to the mission.

Internal coordination mechanisms are undocumented and vague for activities such as for active and passive disease surveillance, the management and implementation of disease

control programmes, export certification and border control. Staff state that the system works without the formality of documentation, SOPs and reporting.

**Key Changes from 2008 to 2019:**

- Major organisational changes with the establishment of RAB in 2011, Rwanda FDA in 2018, and further decentralisation with district and local area services being provided through the MINALOC.
- The complex array of VS organisations has limited the effectiveness of the chain of command

**Strengths:**

- VS staff confident in the system for internal coordination
- Regular meetings between RAB and the District Animal Resource Officers
- Sector ‘vets’ work closely with the private ‘vets’ and the CAHWs

**Weaknesses:**

- Complex organisational structure of the VS
- No formal record of communications and coordination undertaken

**Recommendations:**

- Given the decentralised delivery of field veterinary services ensure that reports from the districts and the field are regularly submitted using a standardised template – and in time an animal health information system
- Define acceptable methods of formal communication with record keeping and periodic reviews

**Evidence** (as listed in Appendix 6): E16, E27, E41, E42, E49

B. External coordination (including the One Health approach)	Levels of advancement
<p><i>The capability of the Veterinary Authority to coordinate its resources and activities at all levels with other government authorities with responsibilities within the veterinary domain, in order to implement all national activities relevant to the OIE Codes, especially those not under the direct line authority of the Chief Veterinary Officer (or equivalent).</i></p> <p><i>Relevant authorities include other ministries and Competent Authorities, such as government partners in public health (e.g. zoonoses, food safety, drug regulation and anti-microbial resistance), environment (e.g. wildlife health), customs and border police (e.g. border security), defence/intelligence (e.g. bio-threats), or municipalities/local councils (e.g. local slaughterhouses, dog control).</i></p>	1. There is no external coordination with other government authorities.
	2. There are informal external coordination mechanisms for some activities at national level, but the procedures are not clear and/or external coordination occurs irregularly.
	3. There are formal external coordination mechanisms with clearly described procedures or agreements (e.g. Memoranda of Understanding) for some activities and/or sectors at the national level.
	4. There are formal external coordination mechanisms with clearly described procedures or agreements at the national level for most activities (such as for One Health), and these are uniformly implemented throughout the country, including at state/provincial level.
	5. There are external coordination mechanisms for all activities, from national to field, and these are periodically reviewed and updated to re-clarify roles and optimise efficiency.

Terrestrial Code reference(s): Appendix 1

### **Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 3 (note a combined level for I.6A and I.6B)
- PVS Gap Analysis (2010) – level 2 (5 year target)

### **Findings:**

One Health is considered a Government priority and has been identified in the Rwanda Vision 2020 and Vision 2050 policy documents, and is referenced in the Rwanda Economic Development and Poverty Reduction Strategy, the Rwanda Health Sector Strategic plan III, the Strategic Plan for the Transformation of Agriculture in Rwanda, and the Rwanda Green Growth Strategy. It is also a UN Sustainable Development Goals (SDG 3).

One Health is seen as particularly important in Rwanda owing to the global pandemic threat from avian influenza (H5N1 and H1N1), the large Ebola outbreak in West Africa and the ongoing outbreak in DRC. It is also recognised that there has been only *ad hoc* response to outbreaks of zoonoses due to a lack of integrated government funding and response.

The One Health Steering Committee was established in 2011 and became operational in 2015. Its members include MINAGRI, MoH, RDB, MINEDUC, REMA, MINIRENA, MIDMAR, NSS and MININTER/the Police. The One Health Strategic Plan, 2019 identified the following objectives:

- Promote and strengthen interdisciplinary collaboration and partnerships in One Health
- Strengthen surveillance, early detection, rapid response, prevention and control of zoonosis within the One Health approach
- Build capacity and promote applied research at the human-animal-ecosystem interface
- Ensure that One Health is included in all existing policies and strategic documents of all the key stakeholder ministries
- Implement a One Health Communication strategy
- In time establish a comprehensive system and protocol for the surveillance of epidemic/epizootic detection, diagnosis, and rapid response is in place

An organisational structure has been established with the national One Health Steering Committee operating under the guidance of the One Health Committee which is under the social cluster of ministries including MoH, MINEDUC, MINAGRI, MINALOC, and the Ministry of Infrastructure (MININFRA). For implementation four Technical Working Groups are to be established for: (i) Food safety and AMR, (ii) Disease surveillance, emergency preparedness and response, (iii) Environmental disasters and (iv) One Health training, advocacy, outreach and innovation.

One Health coordination has resulted in improved surveillance of vector borne diseases such as RVF, increased understanding of the burden of brucellosis and cysticercosis in animals and man, and joint outbreak investigations for RVF, anthrax, rabies, TB and cholera.

A National AMR Action Plan is being developed but is currently only in draft.

Meeting records and reports of One Health activities are limited.

Coordination with other Competent Authorities and external agencies is more variable. There is good coordination with Customs at the Border Inspection Posts with the adoption of a 'single desk' policy and integrated information systems. There is also said to be good coordination with the Police when it is necessary to impose road blocks for movement control or to check that animals being moved are appropriately certified.

There is little or no coordination on One Health or other activities such as food safety at local levels.

#### **Key Changes from 2008 to 2019:**

- Establishment of the One Health Steering Committee (2011) that became operational in 2015
- A national One Health Steering Committee operating under the social cluster<sup>3</sup> of ministries

#### **Strengths:**

- Strong Government ownership
- One Health committees established and operating
- Joint One Health strategies, plans and activities in place/being undertaken

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<sup>3</sup> 'Social cluster' is the term used by the Government of Rwanda that encompasses the ministries which have inputs into social well being. The One Health Steering Committee is administratively placed in the social cluster.



- Good coordination with Customs and Police

**Weaknesses:**

- Poor coordination of One Health at sub-national levels
- Insufficient formal record keeping and reporting
- National AMR Action Plan only in draft

**Recommendations:**

- Improve One Health coordination at local levels
- Implement formal record keeping and reporting
- Finalise and implement the National AMR Action Plan

**Evidence** (as listed in Appendix 6): E5, E16, E41, E61, E63

I-7 Physical resources and capital investment	Levels of advancement
<i>The access of the VS to functional and well-kept physical resources including buildings, transportation, information technology (e.g. internet access), cold chain, and other necessary equipment or structures. This includes whether major capital investment is available.</i>	1. The VS have no or unsuitable physical resources at almost all levels and maintenance of existing infrastructure is poor or non-existent.
	2. The VS have suitable physical resources at national (central) level and at some state/provincial levels, but maintenance, as well as replacement of obsolete items, occurs rarely.
	3. The VS have suitable physical resources at national, state/provincial and some local levels but maintenance, as well as replacement of obsolete items, occurs irregularly.
	4. The VS have suitable physical resources at all levels and these are regularly maintained. Major capital investments occur occasionally to improve the VS operational infrastructure over time.
	5. The VS have suitable physical resources at all levels (national, state/provincial and local levels) and these are regularly maintained and updated as more advanced items become available. Major capital investments occur regularly to improve the VS operational capability and infrastructure.

Terrestrial Code reference(s): Appendix 1

**Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 2 and level 3
- PVS Gap Analysis (2010) – level 3 and level 3
- Note that this CC is now a combination of previous Physical Resources and Capital Investment

**Findings:**

The MINAGRI and RAB office in Kigali are of suitable size and well maintained. The RAB headquarters are a new building that was completed in 2017. Transport is available though much has been provided by project funding; there are a number of broken down vehicles still on the site with no apparent intention of repairing them. A dedicated ‘veterinary vehicle’ has been purchased by RAB fully fitted out with cold storage and other lockers and equipment; this vehicle is used to deliver vaccine to the districts and it is available for outbreak investigations. Computers and peripherals are widely available and there is internet access. There is no Local Area Network (LAN) system or any integrated animal health information system. Office equipment is identified and recorded in an inventory system – though this has no maintenance or replacement schedule.

The National Veterinary Laboratory (NVL) is located next to the RAB headquarters in a series of older buildings. The laboratory is functional and being well maintained. Critical equipment has UPS power protection and there is a back up generator. Solid waste is incinerated and liquid waste is treated. Laboratory equipment allows for the testing required e.g Biosafety cabinets, ELISA readers, PCR etc.

The five satellite laboratories have sizeable buildings but with very little equipment and do only very basic testing. For additional testing samples are referred to the NVL.

The 13 RAB stations have sufficient space and are well maintained. Computers and transport are available.

At district level the DAROs have limited space with a basic desk in a shared office. They have laptop computers and a motorbike. Similarly SAROs have minimal facilities.

Private sector 'vets' and CAHWs have basic equipment; NGOs such as VSF have provided motorbikes and some basic equipment to support private 'vets' and CAHWs.

Domestic fridges are available for vaccine storage although there is no temperature monitoring or power back up system.

There is no clearly defined capital investment programme.

**Key Changes from 2008 to 2019:**

- Good office facilities at RAB headquarters and the 13 RAB stations, transport available to DAROs and SAROs
- Computers and peripherals widely available

**Strengths:**

- Good office facilities at RAB headquarters and the 13 RAB stations
- NVL has well maintained and functional facilities
- Computers and peripherals widely available
- Transport available

**Weaknesses:**

- No LAN or animal health information system
- Old unused vehicles remain on site
- Inventory system outdated

**Recommendations:**

- Update inventory system with schedules for maintenance and replacement
- Upgrade computer networks including LAN for RAB headquarters and an animal health information system
- Provide improved facilities for district officers

**Evidence** (as listed in Appendix 6): P6, P16, P17

I-8 Operational funding	Levels of advancement
<p><i>The ability of the VS to access operational resources adequate for their planned and continued activities (e.g. salaries, contracts, fuel, vaccines, diagnostic reagents, personal protective equipment, per diem or allowances for field work).</i></p>	1. Operational funding for the VS is neither stable nor clearly defined and depends on irregular allocation of resources.
	2. Operational funding for the VS is clearly defined and regular, but is inadequate for their required baseline operations (e.g. basic disease surveillance, disease control and/or veterinary public health).
	3. Operational funding for the VS is clearly defined and regular, and is adequate for their baseline operations, but there is no provision for new or expanded operations.
	4. Operational funding for new or expanded operations is on a case-by-case basis, and not always based on <i>risk analysis</i> and/or benefit-cost analysis.
	5. Operational funding for all aspects of VS activities is generally adequate; all funding, including for new or expanded operations, is provided via a transparent process that allows for technical independence, based on <i>risk analysis</i> and/or cost-benefit analysis.

Terrestrial Code reference(s): Appendix 1

### **Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 4
- PVS Gap Analysis (2010) – level 4 (5 year target)

### **Findings:**

Operational funding for RAB is clearly defined and regular, and is adequate for their baseline operations. This includes funding provided by RAB through MINALOC for the delivery of field services in the decentralised system in place in Rwanda.

The total RAB budget (that is for all agriculture) increased from 66 billion RWF (approximately 73m USD) in 2018/19 to an expected 74.5 billion RWF (approximately 83m USD) in 2019/20. In 2015/16 the RAB budget was only 45 billion RWF.

A formal budget cycle is followed with preparation of budgets beginning in the last quarter of the year and being finalised for release in the new financial year (July-June). The budget is detailed and covers central/headquarters operations and the release of funds to the districts. Note that the funds are distributed to the 30 districts via the four provinces. Activities covered include repairs and maintenance, training, extension activities, disease surveillance and laboratory tests, veterinary supplies, vaccine supplies, animal identification and movement control, and the management of animal feed.

No information was available on the budgets and operational funding for the other Competent Authorities.

No economic analyses such as cost-benefit analyses were being undertaken.

**Key Changes from 2008 to 2019:**

- Operational funding for RAB is clearly defined and regular, and is adequate for baseline operations of the VS

**Strengths:**

- Regular funding of core veterinary services
- Detailed budgets available

**Weaknesses:**

- Decentralised delivery of VS make budgeting and accounting more difficult
- Periodic reporting not always available
- Reports of the Office of Auditor General not widely available
- No economic cost-benefit analyses being undertaken

**Recommendations:**

- Increase transparency of reporting by districts and local agents (sector 'vets' and private 'vets')
- Establish a procedure for monthly reporting from sectors to districts and to the central level
- Ensure reports of the Office of Auditor General are made available to RAB managers

**Evidence** (as listed in Appendix 6): E3, E8, E25, E26, E28, E46

I-9 Emergency funding	Levels of advancement
<p><i>The capability of the VS to access extraordinary financial resources in order to respond to emergency situations or newly emerging issues, as measured by the ease with which contingency and related funding (i.e. arrangements for compensation of producers in emergency situations) can be made rapidly available when required.</i></p>	1. No emergency funding arrangements exist.
	2. Emergency funding arrangements with limited resources have been established, but these are inadequate for likely emergency situations (including newly emerging issues).
	3. Emergency funding arrangements with limited resources have been established; additional resources may be approved but approval is through a political process.
	4. Emergency funding arrangements with adequate resources have been established; their provision must be agreed through a non-political process on a case-by-case basis.
	5. Emergency funding arrangements with adequate resources have been established and their rules of operation documented and agreed with interested parties.

Terrestrial Code reference(s): Appendix 1

#### **Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 4
- PVS Gap Analysis (2010) – level 4 (5 year target)

#### **Findings:**

Rwanda has not experienced an animal disease or food safety emergency and although contingency plans have been prepared for HPAI, there is no provision for exceptional emergency funding. It is stated that if an emergency were to occur that the Minister of MINAGRI would simply contact the Minister of MINECOFIN who would provide the necessary funds. No formal protocols, delegations of authority, limits of funding available have been set down.

There is no funding line in the RAB budget for emergency preparedness or response, though it might be expected that if an emergency were to arise some funds could quickly be released from existing programmes.

The funding of emerging preparedness or response is made more complex by the decentralisation of government with field services provide by MINALOC.

#### **Key Changes from 2008 to 2019:**

- No major change

#### **Strengths:**

- Contingency plan for HPAI references resources and activities required in a response

#### **Weaknesses:**

- HPAI contingency plan makes no reference to accessing resources or how an emergency response will be funded
- No protocols or guidelines on how emergency funds will be made available

**Recommendations:**

- Develop documented protocols for how emergency funds will be accessed including delegated authority and timelines for the release of funds
- Develop contingency plans (HPAI and other diseases) that include how funds will be provided
- Run simulation exercises to test the system for releasing funds

**Evidence** (as listed in Appendix 6): E18

## III.2 Fundamental component II: Technical authority and capability

This component of the evaluation concerns the authority and capability of the VS to develop and apply sanitary measures and science-based procedures supporting those measures. It comprises eighteen Critical Competencies.

For all sections of this chapter, the Critical Competency includes collaboration with relevant authorities, including other ministries and Competent Authorities, national agencies and decentralised institutions that share authority or have mutual interest in relevant areas.

### Critical Competencies:

<b>II-1 Veterinary laboratory diagnosis .....</b>	<b>50</b>
<b>A. Access to veterinary laboratory diagnosis .....</b>	<b>50</b>
<b>B. Suitability of the national laboratory system.....</b>	<b>52</b>
<b>C. Laboratory quality management systems (QMS).....</b>	<b>54</b>
<b>II-2 Risk analysis and epidemiology.....</b>	<b>56</b>
<b>II-3 Quarantine and border security.....</b>	<b>58</b>
<b>II-4 Surveillance and early detection .....</b>	<b>60</b>
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### ----- Terrestrial Code References:

*Chapter 1.4. on Animal health surveillance.*

*Chapter 1.5. on Surveillance for arthropod vectors of animal diseases.*

*Chapter 2.1. on Import risk analysis.*

*Chapter 6.11. on Risk analysis for antimicrobial resistance arising from the use of antimicrobial agents in animals*

*Points 6, 7 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation/General Organisation/Procedures and standards.*



*Point 1 of Article 3.2.4. on Evaluation criteria for quality systems.*

*Point 3 of Article 3.2.6. on Evaluation criteria for material resources: Technical.*

*Points 1 and 2 of Article 3.2.7. on Legislation and functional capabilities: Animal health, animal welfare and veterinary public health/Export/import inspection.*

*Points 1-3 of Article 3.2.8. on Animal health controls: Animal health status/Animal health control/National animal disease reporting systems.*

*Points 1-5 of Article 3.2.9. on Veterinary public health controls: Food hygiene/Zoonoses/Chemical residue testing programmes/Veterinary medicines/Integration between animal health controls and veterinary public health.*

*Sub-point f) of Point 4 of Article 3.2.10. on Veterinary Services administration: Formal linkages with sources of independent scientific expertise.*

*Points 2, 5, 7 and 8 of Article 3.2.14. on National information on human resources/Laboratories engaged in diagnosis/Veterinary legislation, regulations and functional capabilities/Animal health, animal welfare and veterinary public health controls.*

*Article 3.4.12. on Human food production chain.*

*Chapter 4.1. on General principles on identification and traceability of live animals.*

*Chapter 4.2. on Design and implementation of identification systems to achieve animal traceability.*

*Chapter 4.12. on Disposal of dead animals.*

*Chapter 6.3. on Control of biological hazards of animal health and public health importance through ante- and post-mortem meat inspection.*

*Chapter 6.4. on Control of hazards of animal health and public health importance in animal feed.*

*Chapters 6.7. to 6.11. on Antimicrobial resistance.*

*Chapter 7.1. on Introduction to the recommendations for animal welfare.*

*Chapter 7.2. on Transport of animals by sea.*

*Chapter 7.3. on Transport of animals by land.*

*Chapter 7.4. on Transport of animals by air.*

*Chapter 7.5. on Slaughter of animals.*

*Chapter 7.6. on Killing of animals for disease control purposes.*

**References to Codex Alimentarius Commission standards:**

*Code of Hygienic practice for meat (CAC/RCP 58-2005).*

*Code of Hygienic practice for milk and milk products (CAC/RCP/ 57-2004).*

*General Principles of Food Hygiene (CAC/RCP 1-1969; amended 1999. Revisions 1997 and 2003).*

*Guidelines for Risk Analysis of Foodborne Antimicrobial Resistance (CAC/GL 77-2011).*

*Code of Practice to Minimize and Contain Antimicrobial Resistance (CAC/RCP 61-2005).*

II-1 Veterinary laboratory diagnosis	Levels of advancement
<p><i>The authority and capability of the VS to effectively and efficiently use accurate laboratory diagnosis to support their animal health and veterinary public activities.</i></p> <p><b>A. Access to veterinary laboratory diagnosis</b></p> <p><i>The authority and capability of the VS to access laboratory diagnosis in order to identify and report pathogenic and other hazardous agents that can adversely affect animals and animal products, including those relevant to public health.</i></p>	1. Disease diagnosis is almost always conducted by clinical means only, with no access to or little use of a <i>laboratory</i> to obtain a correct diagnosis.
	2. For major animal <i>diseases</i> and <i>zoonoses</i> of national importance, and for the food safety of animal products, the VS have access to and use a <i>laboratory</i> to obtain a correct diagnosis.
	3. For animal <i>diseases</i> and <i>zoonoses</i> present in the country, and for animal feed safety and veterinary AMR surveillance, the VS have access to and use a <i>laboratory</i> to obtain a correct diagnosis.
	4. For animal <i>diseases</i> of zoonotic or economic importance not present in the country, but that exist in the region and/or that could enter the country, the VS have access to and use a <i>laboratory</i> to obtain a correct diagnosis.
	5. In the case of new and <i>emerging diseases</i> in the region or worldwide, the VS have access to and use a network of national or international reference laboratories (e.g. an OIE or FAO Reference Laboratory) to obtain a correct diagnosis.

Terrestrial Code reference(s): Appendix 1

### **Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 4
- PVS Gap Analysis (2010) – level 4 (5 year target)
- Note previously II.1A was a combination of current II.1A and II.1B

### **Findings:**

The NVL in Kigali has the capacity and capability to undertake a range of tests including in virology, serology, bacteriology with basic AMR, parasitology, pathology and haematology. Tests are available for the major animal diseases and zoonoses present in Rwanda.

At this time NVL has no capability to undertake residue testing.

The majority of testing undertaken by the laboratory is for active surveillance programmes for priority diseases such as brucellosis, FMD, RVF, ECF, ND and rabies. Precise test numbers were not available but ranged from 100 or less for RVF and rabies, several hundred for ND, helminths and mastitis (bacteriology) and more than 12,000 for brucellosis.

Few submissions are submitted for the diagnosis of disease outbreaks or from individual sick animals. Some sick animal samples were being collected by laboratory staff at the request of animal owners or were being submitted by field veterinarians; number of submissions were not available.

The five satellite laboratories provide local support for disease diagnosis but undertake few tests. The most frequent tests undertaken in these laboratories are for brucellosis, blood and intestinal parasites.

Field exercises have been undertaken to improve sample collection, transportation, analysis, storage and disposal.

**Key Changes from 2008 to 2019:**

- No major change

**Strengths:**

- Functional NVL with good range of tests
- Local area satellite laboratories submit samples to NVL

**Weaknesses:**

- Insufficient reporting of test submissions and results by type – too few disease incidence or surveys to allow for effective planning and review of needs
- Satellite laboratories have limited capabilities and are little used

**Recommendations:**

- Improve reporting of test submissions and results by type and periodically review capabilities and needs
- Review role of satellite laboratories and develop capabilities according to needs

**Evidence** (as listed in Appendix 6): E2, E3, E6, E10, E47, E67, E77, E84, E90

B. Suitability of the national laboratory system	Levels of advancement
<p><i>The sustainability, effectiveness, safety and efficiency of the national (public and private) laboratory system (or network), including infrastructure, equipment, maintenance, consumables, personnel and sample throughput, to service the needs of the VS.</i></p>	1. The national laboratory system does not meet the needs of the VS.
	2. The national laboratory system partially meets the needs of the VS, but it is not sustainable, as the management and maintenance of resources and infrastructure is ineffective and/or inefficient. Laboratory biosafety and <i>biosecurity</i> measures do not exist or are very limited.
	3. The national laboratory system generally meets the needs of the VS. Resources and organisation are managed effectively and efficiently, but funding is insufficient for a sustainable system, and limits throughput. Some laboratory biosafety and <i>biosecurity</i> measures are in place.
	4. The national laboratory system generally meets the needs of the VS, including for laboratory biosafety and <i>biosecurity</i> . There is sufficient sample throughput across the range of laboratory testing requirements. Occasionally, it is limited by delayed investment in certain aspects (e.g. personnel, maintenance or consumables).
	5. The national laboratory system meets all the needs of the VS, has appropriate levels of laboratory biosafety and <i>biosecurity</i> , and is efficient and sustainable with a good throughput of samples. The laboratory system is regularly reviewed, audited and updated as necessary.

Terrestrial Code reference(s): Appendix 1

### **Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 4
- PVS Gap Analysis (2010) – level 4 (5 year target)
- Note previously II.1A was a combination of current II.1A and II.1B

### **Findings:**

NVL functions well from multiple old style laboratory buildings. The working rooms are of adequate size and are reasonably well appointed; there is evidence of deterioration in the finish some of the floors and walls. Equipment is available to conduct the priority tests such as PCR, ELISA, serology, bacteriology and pathology, and for basic biosafety and biocontainment and for back up power; sufficient reagents are available. Staff have received sufficient training through an ongoing programme of staff development. NVL undertakes the majority of all testing undertaken in Rwanda. No details were available on actual tests numbers but it appears that a much higher number of samples could be handled. Two NVL staff recently received training on using risk analysis to manage biosafety and biosecurity in laboratories.

The five satellite laboratories (Nyagatare, Ngoma, Rubavu/Gishwati, Huye, Ntendezi (see Figure 4) are housed in well maintained buildings of good size. These laboratories have minimal equipment and have limited capabilities.

There are no private veterinary diagnostic laboratories. The major milk processors have laboratory facilities to test for contamination of milk and milk products with residues and bacteria.

**Key Changes from 2008 to 2019:**

- Not applicable as not assessed in 2008

**Strengths:**

- NVL has the capacity and capability to undertake testing of all priority diseases and to support disease control programmes

**Weaknesses:**

- Satellite laboratories are barely functional
- NVL needs some upgrading in facilities and equipment

**Recommendations:**

- Review the role of the satellite laboratories and then invest or close the laboratories as appropriate
- Conduct an audit of laboratory needs and current NVL capacity and develop NVL accordingly

**Evidence** (as listed in Appendix 6): E10, E47, E90, P8, P16, P17

C. Laboratory quality management systems (QMS)	Levels of advancement
<i>The quality and reliability of veterinary laboratory testing servicing the public sector VS as assessed by the use of formal QMS including, but not limited to, attainment of ISO 17025 accreditation and participation in proficiency testing programmes.</i>	1. No laboratories servicing the public sector VS are using formal QMS.
	2. One or more laboratories servicing the public sector VS, including the major national animal health reference laboratory, are using formal QMS.
	3. Most major laboratories servicing the public sector VS are using formal QMS. There is occasional use of multi-laboratory proficiency testing programmes.
	4. All the laboratories servicing the public sector VS are using formal QMS, with regular use of multi-laboratory proficiency testing programmes.
	5. All the laboratories servicing the public sector VS are using formal QMS systems, which are regularly assessed via national, regional or international proficiency testing programmes.

Terrestrial Code reference(s): Appendix 1

#### **Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 1
- PVS Gap Analysis (2010) – level 2 (5 year target)

#### **Findings:**

There are no formal laboratory quality management systems in place at NVL.

NVL has developed basic SOPs for a number of laboratory tests; some of these have been officially endorsed, others are in draft form and yet to be finalised. NVL has also participated in proficiency testing including for the serotyping of FMD disease in collaboration with a South African laboratory and another in Italy.

There is no Laboratory Information System (LIMS) operating which limits data handling and review.

The five satellite laboratories have no quality systems in place.

#### **Key Changes from 2008 to 2019:**

- No change

#### **Strengths:**

- Some test SOPs in place
- Some proficiency testing being undertaken

#### **Weaknesses:**

- No quality management system in place
- No LIMS
- Little quality control at the satellite laboratories

**Recommendations:**

- Establish a quality management system at NVL
- Develop a LIMS
- Train staff in quality control at the satellite laboratories

**Evidence** (as listed in Appendix 6): E10, E74, E90

II-2 Risk analysis and epidemiology	Levels of advancement
<p><i>The authority and capability of the VS to base its risk management and risk communication measures on risk assessment, incorporating sound epidemiological principles</i></p>	1. Risk management and risk communication measures are not usually supported by risk assessment.
	2. The VS compile and maintain data but do not have the capability to carry out <i>risk analysis</i> . Some <i>risk management</i> and <i>risk communication</i> measures are based on <i>risk assessment</i> and some epidemiological principles.
	3. The VS compile and maintain data and have the policy and capability to carry out <i>risk analysis</i> , incorporating epidemiological principles. The majority of <i>risk management</i> and <i>risk communication</i> measures are based on <i>risk assessment</i> .
	4. The VS conduct <i>risk analysis</i> in compliance with relevant OIE standards and sound epidemiological principles, and base their <i>risk management</i> and <i>risk communication</i> measures on the outcomes of <i>risk assessment</i> . There is a legislative basis (e.g. legal instrument) that supports the use of <i>risk analysis</i> .
	5. The VS are consistent and transparent in basing animal health and sanitary measures on <i>risk assessment</i> and best practice epidemiology, and in communicating and/or publishing their scientific procedures and outcomes internationally.

*Terrestrial Code* reference(s): Appendix 1

**Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 2
- PVS Gap Analysis (2010) – level 2 (5 year target)

**Findings:**

There is no risk analysis or epidemiology unit at RAB. Some risk analysis is carried out by RAB on the importation of animals. Two NVL staff received training on using risk analysis to manage biosafety and biosecurity in laboratories.

Data capture is limited for animal demography and movements, trade in animal products, disease surveillance (passive and active) including from ante and post mortem inspection, food safety issues including residues, animal welfare and compliance. The lack of coherent data and information limits the ability to use risk analysis and epidemiology effectively.

The Rwanda FDA has developed risk-based approach guidelines for food safety but these are not yet being implemented.

**Key Changes from 2008 to 2019:**

- No major change

**Strengths:**

- RAB (veterinary services unit) conducts some qualitative risk analysis for the importation of animals but not in a formal structured way.



- Rwanda FDA has prepared a risk-based approach for food guidelines but this is not yet enforced.

**Weaknesses:**

- Risk analysis is not done in a formal structured way for animal diseases, veterinary public health or food safety
- Staff have not received any formal training in risk analysis and its application

**Recommendations:**

- Establish a Risk Analysis Unit at RAB to undertake formal structured risk analysis for animal diseases, veterinary public health and food safety
- Train sufficient people working in risk analysis – both at high level to manage the Risk Analysis Unit and at operational levels to ensure most efficient use of resources

**Evidence** (as listed in Appendix 6): E10, E53, E90,

II-3 Quarantine and border security	Levels of advancement
<p><i>The authority and capability of the VS to operate to prevent the entry of diseases and other hazards of animals and animal and veterinary products into their country.</i></p>	1. The VS cannot apply any type of quarantine or border security procedures for the entry of animals, animal products and veterinary products with their neighbouring countries or trading partners.
	2. The VS can establish and apply minimal quarantine and border security procedures, or the VS only apply quarantine and border security procedures effectively at some official entry points via <i>border posts</i> .
	3. The VS can establish and apply quarantine and border security procedures based on import protocols and international standards at all official entry points via <i>border posts</i> , but the procedures do not systematically address illegal activities relating to the import of animals, animal products and veterinary products.
	4. The VS can establish and apply effective quarantine and border security procedures which systematically address legal pathways and illegal activities (e.g. through effective partnerships with national customs and border police).
	5. The VS can establish, apply and audit quarantine and border security procedures which systematically address all risks identified, including through collaboration with their neighbouring countries and trading partners.

Terrestrial Code reference(s): Appendix 1

#### **Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 4
- PVS Gap Analysis (2010) – level 4 (5 year target)

#### **Findings:**

There are eight border inspection posts and seven quarantine stations in Rwanda (see Figure 4) with the majority on the northern and eastern borders of the country as these are the main trade routes for incoming animals and animal products. There are seven terrestrial border inspection posts and one at the international airport in Kigali.

The border inspection posts work closely with Customs using a single desk approach with electronic transfer of information on consignments. At the animal/animal inspections posts document checks are carried out with closer examination of the animals/animal products as deemed necessary. Animals may be tested and/or sent to the quarantine station; fertile eggs and day-old chicks are sent direct to the designated farm. Animal products maybe tested and the consignment sent on to destination but sealed until release is approved.

The quarantines stations are located strategically near to the border inspections posts where animals are permitted to enter Rwanda. The quarantine stations are to be used for imported animals and also for local animals that strayed into neighbouring countries. They are operated by a combination of RAB staff, who check and keep records of the consignments (e.g. date, origin, particulars of the animal/animal product, inspection findings and any treatments if they

are retained in quarantine).

Imported live animals are generally quarantined with an import permit and health certificate signed by the Competent Authority of the exporting country, confirming that they have met all the pre-determined conditions. For animals that cross illegally, farmer/traders may be punished – sometimes involving destruction of the animals without compensation.

One quarantine station was visited which was of good size but only with a single line of fencing. The facility had a covered feeding shelter, office/accommodation for the quarantine manager, borehole water and extensive grazing. Currently this facility was not in use and was being used by a local farmer (who was also a CAHW).

There is no programme for reducing the risk of illegal import of animals and animal products. No risk analysis is used.

There are no protocols for destruction of animals/animal products.

**Key Changes from 2008 to 2019:**

- No major change

**Strengths:**

- Designated border inspection posts and associated quarantine stations
- Close cooperation with Customs
- Ability to hold animals/animal products and to send for quarantine or onward movement under seal as appropriate

**Weaknesses:**

- No programme to reduce illegal movement of animals and animal products
- No use of risk analysis

**Recommendations:**

- Implement programme to reduce illegal movement of animals and animal products
- Use risk analysis to target high risk activities effectively

**Evidence** (as listed in Appendix 6):b E12, E21, E39, E47, E48, E55, E64, E65, E66, E82, E90, P9

II-4 Surveillance and early detection	Levels of advancement
<p><i>The authority and capability of the VS to determine, verify and report on the sanitary status of their animal populations, including wildlife, in a timely manner.</i></p>	<p>1. The VS have very limited passive surveillance capacity, with no formal disease list, little training/awareness and/or inadequate national coverage. Disease outbreaks are not reported or reporting is delayed.</p>
<p><b>A. Passive surveillance, early detection and epidemiological outbreak investigation</b></p>	<p>2. The VS have basic passive surveillance authority and capacity. There is a formal disease list with some training/awareness and some national coverage. The speed of detection and level of investigation is variable. Disease outbreak reports are available for some species and diseases.</p>
<p><i>A surveillance system based on a field animal health network capable of reliably detecting (by clinical or post mortem signs), diagnosing, reporting and investigating legally notifiable diseases (and relevant emerging diseases) in a timely manner.</i></p>	<p>3. The VS have some passive surveillance capacity with some sample collection and laboratory testing. There is a list of notifiable diseases with trained field staff covering most areas. The speed of reporting and investigation is timely in most production systems. Disease outbreak investigation reports are available for most species and diseases.</p>
	<p>4. The VS have effective passive surveillance with routine laboratory confirmation and epidemiological disease investigation (including tracing and pathogen characterisation) in most animal sectors, and covering producers, markets and slaughterhouses. There are high levels of awareness and compliance with the need for prompt reporting from all animal owners/handlers and the field VS.</p>
	<p>5. The VS have comprehensive passive surveillance nationwide providing high confidence in the <i>notifiable disease</i> status in real time. The VS routinely report surveillance information to producers, industry and other stakeholders. Full epidemiological disease investigations are undertaken in all relevant cases with tracing and active follow up of at-risk <i>establishments</i>.</p>

Terrestrial Code reference(s): Appendix 1

**Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 2
- PVS Gap Analysis (2010) – level 3 (5 year target)

**Findings:**

The VS organisational structure is complicated by the decentralisation of the district, sector and field services. Animal owners have good access to the CAHWs operating at the cell level (typically four to five villages) and CAHWs report to the private sector ‘vets’ or directly to the SAROs; the SAROs report to the DAROs and the DAROs on to RAB ‘Veterinary Services’, either to the RAB Stations or directly to RAB headquarters. The system of reporting has a logical hierarchical structure but there are many steps and it is not clear how rapidly information, such as disease outbreaks, is reported to RAB. No reports on the timing of outbreak notifications were made available to the Team. The SAROs and DAROs use the MIS and compile monthly animal health/disease reports but these reports contain limited

information and have limited epidemiological value. In cases of an emergency disease outbreak the DAROs are mandated to notify RAB within 24 hours. Reports may be delivered in soft or hard copy. There is no effective review or analysis of these reports.

There is limited feedback from abattoirs of ante and post mortem findings and thus little support of the surveillance programme.

There is limited use of laboratory testing to confirm clinical diagnoses. The satellite laboratories were hardly used and relatively few samples were being sent to NVL.

There is said to be a list of notifiable diseases but this was not provided to the Team; it is noted that a list of 'reportable diseases' is recorded in the OIE WAHIS database for Rwanda.

Overall the VS have some passive surveillance capacity but there is insufficient sample collection with laboratory diagnostic testing. Reporting and investigation of outbreaks is limited. Disease outbreak investigation reports are not available.

#### **Key Changes from 2008 to 2019:**

- Some surveillance information is shared through monthly reports.

#### **Strengths:**

- Animal owners have access to local animal health services (CAHWs and private 'vets') with good liaison between the public and private sectors
- Hierarchy of veterinary service reporting and response is complex but well understood

#### **Weaknesses:**

- MIS and monthly animal health reports provide little useful epidemiological information
- Insufficient use of laboratory diagnostic testing
- Limited availability and little use of ante and post mortem data
- The notifiable disease list is not widely available

#### **Recommendations:**

- Review the data collected in MIS and provided in monthly animal health reports and adjust to provide useful epidemiological information for further analysis and reporting
- Develop field staff skills in undertaking disease outbreak investigations including increasing sample collection for laboratory diagnostic testing and data collection for epidemiological analysis
- Promote awareness of the notifiable disease list and the obligation to report
- Develop a rigorous system of ante and post mortem data capture and reporting

**Evidence** (as listed in Appendix 6): E10, E12, E17, E22, E36, E44, E56, E71

B. Active surveillance and monitoring	Levels of advancement
<p><i>Surveillance targeting a specific disease, infection or hazard to determine its prevalence, measure progress in disease control or support the demonstration of disease freedom (with passive surveillance), most often in the form of pre-planned surveys with structured sampling and laboratory testing.</i></p>	1. The VS have no active surveillance programme.
	2. The VS conduct active surveillance for one or a few <i>diseases, infections</i> or <i>hazards</i> (of economic or zoonotic importance), but the surveillance is not representative of the population and the surveillance methodology is not revised regularly. The results are reported with limited analysis.
	3. The VS conduct active surveillance using scientific principles and OIE standards for some <i>diseases, infections</i> or <i>hazards</i> , but it is not representative of the susceptible populations and/or is not updated regularly. The results are analysed and reported to stakeholders.
	4. The VS conduct active surveillance in compliance with scientific principles and OIE standards for some <i>diseases, infections</i> or <i>hazards</i> which is representative of all susceptible populations and is updated regularly. Results are routinely analysed, reported and used to guide further surveillance activities, disease control priorities, etc.
	5. The VS conduct ongoing active surveillance for most significant <i>diseases, infections and hazards</i> and apply it to all susceptible populations. The results are routinely analysed and used to guide disease control and other activities. The active surveillance programmes are regularly reviewed and updated to ensure they meet country needs and OIE reporting obligations.

Terrestrial Code reference(s): Appendix 1

### **Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 3
- PVS Gap Analysis (2010) – level 5 (5 year target)

### **Findings:**

RAB has conducted active surveillance (surveys) for a number of priority diseases including – FMD, CBPP, PPR, ASF, RVF, tick-borne diseases, trypanosomosis, brucellosis and tuberculosis. The VS sometimes use sample size calculations when designing surveys. The surveys undertaken do not follow rigorous randomisation procedures and are only applied to some animals/animal populations.

Recent surveys conducted by RAB have indicated prevalence rates for a number of diseases, as follows (note that these are not representative across the whole animal populations of Rwanda and that no confidence intervals were calculated): brucellosis-cattle 0.7% (3.5% in some areas), brucellosis-sheep/goats 0%, RVF 7.9%, mastitis 67.4%, theileria 1.5%, trypanosomiasis-cattle 0%, trypanosomiasis-dogs 9%, helminthiasis-cattle 24.5% and helminthiasis-small ruminant 38.3%.

**Key Changes from 2008 to 2019:**

- Active surveillance conducted for a wider number of priority diseases (FMD, PPR, ASF, RVF)

**Strengths:**

- Active surveillance being undertaken for priority diseases
- Some post vaccination monitoring being undertaken for ECF
- Sample size calculations sometimes used

**Weaknesses:**

- No clear protocols for defining target populations or randomisation
- Limited analysis with no calculation of confidence intervals or any comments on bias

**Recommendations:**

- Design active surveillance with detailed objectives, defined target populations and method of randomisation
- Collect data and undertake full analysis with no calculation of confidence intervals and consideration of any bias; report findings to all stakeholders

**Evidence** (as listed in Appendix 6): E10, E12, E22, E36, E44, E56, E71

II-5 Emergency preparedness and response	Levels of advancement
<p><i>The authority and capability of the VS to be prepared and respond rapidly to a sanitary emergency threat (such as a significant disease outbreak or food safety emergency).</i></p>	<p>1. The VS have no field network or established procedure to determine whether a sanitary emergency threat exists or the authority to declare such an emergency and respond appropriately.</p>
	<p>2. The VS have a field network and an established procedure to determine whether a sanitary emergency threat exists, but lack the legal and financial support to respond effectively. The VS may have basic emergency management planning, but this usually targets one or a few diseases and may not reflect national capacity to respond.</p>
	<p>3. The VS have the legal framework and financial support to respond rapidly to sanitary emergency threats, but the response is not well coordinated through an effective chain of command. They have national emergency management plans for some exotic <i>diseases</i>, but they are not updated/tested.</p>
	<p>4. The VS have the legal framework and financial support to respond rapidly to sanitary emergencies through an effective chain of command (e.g. establishment of a <i>containment zone</i>). The VS have national emergency management plans for major exotic <i>diseases</i>, linked to broader national disaster management arrangements, and these are regularly updated/tested such as through simulation exercises.</p>
	<p>5. The VS have national emergency management plans for all diseases of concern (and possible emerging infectious diseases), incorporating coordination with national disaster agencies, relevant <i>Competent Authorities</i>, producers and other non-government stakeholders. Emergency management planning and response capacity is regularly tested, audited and updated, such as through simulation exercises that test response at all levels. Following emergency events the VS have a formal 'After Action Review' process as part of continuous improvement.</p>

Terrestrial Code reference(s): Appendix 1

### **Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 2
- PVS Gap Analysis (2010) – level 4 (5 year target)

### **Findings:**

In cases of an emergency disease outbreak the DAROs are required to notify RAB within 24 hours.

The Animal Health law provides details on notifiable disease and mechanisms of notification of a disease, (Law no. 54/2008 of 10/09/2008); this law determines the prevention and of contagious diseases for domestic animals in the country. However, there is no detailed documentation or guidelines on what constitutes an emergency disease outbreak and whether it is 'suspect' based on clinical grounds or 'confirmed' with an appropriate laboratory diagnostic



test. The Veterinary and Laboratory Services report (2018) does not provide details of samples from suspect emergency outbreaks and overall submissions of samples from passive surveillance are very low. There is a concern that emergency reporting and confirmation would be delayed.

RAB is mandated (Animal Health Law, No. 20/2008) to lead any emergency response and to take over the operational control from local government. The RAB initial response is to send a team of experts (epidemiologist, microbiologists, pathologists, etc.) to investigate and confirm that an emergency outbreak exists. No protocols, timelines or lists of competent staff have been prepared. RAB reports to MINAGRI; the Minister of MINAGRI has overall responsibility for the response. The Minister briefs Cabinet and other appropriate high-level agencies and stakeholders.

The Minister sanctions the response and the information to be provided to the people through a national address on radio, television, and attendance at meetings, etc. RAB staff are responsible for ensuring that the response is carried out correctly until the situation is brought back to normal. Local government then takes back delivery of local veterinary services.

Responses to emergency FMD incursions from neighbouring countries have demonstrated that the government response to emergencies can be effective. No post emergency response reviews have been undertaken to identify lessons learnt.

A contingency plan has been developed for HPAI, with external support, but not for any other diseases.

Some staff have received FAO Good Emergency Management Practice (GEMP) training. Simulation exercises are not being undertaken.

The VS have the legal framework and financial support to respond rapidly to sanitary emergency threats, but this response is compromised by delays in notification, the complex chain of command, limited staff training and the lack of documentation, including the process to access emergency funding (see also CCI.9).

#### **Key Changes from 2008 to 2019:**

- RAB is mandated to lead any emergency response and to take over the operational control from local government
- Animal Health Law (2008) provides details on notifiable disease and mechanisms of notification of a disease
- Responses to emergency FMD incursions from neighbouring countries have demonstrated that the government response to emergencies can be effective

#### **Strengths:**

- Established procedure for emergency response which is led by MINAGRI/RAB
- Effective response to FMD incursions
- Contingency plan developed for HPAI

#### **Weaknesses:**

- Lack of detailed documentation of roles and organisational structure, guidelines and SOPs for emergency response activities
- No reports of post emergency response reviews

- Lack of contingency plans for other priority high-risk diseases
- No specific training or simulation exercises being undertaken

**Recommendations:**

- Review and develop detailed documentation of roles and organisational structure, guidelines and SOPs for emergency response activities
- Undertake debriefs and reviews following any emergency response
- Develop contingency plans for other priority high-risk diseases
- Design and implement specific training with simulation exercises

**Evidence** (as listed in Appendix 6): E12, E18, E22

II-6 Disease prevention, control and eradication	Levels of advancement
<p><i>The authority and capability of the VS to control or eradicate nationally important diseases present in the country, such as through a combination of vaccination, domestic movement control, establishing containment zones, biosecurity measures (including farm biosecurity), isolation and/or culling/stamping out.</i></p>	1. The VS have no capability to implement animal disease prevention, control or eradication programmes.
	2. The VS implement prevention, control or eradication programmes for some diseases and/or in some areas or populations <sup>4</sup> , but with little or no epidemiological, risk-based planning or evaluation of their efficacy and efficiency.
	3. The VS implement prevention, control or eradication programmes for some priority diseases in some areas or populations. There is variable epidemiological, risk-based planning and evaluation of efficacy and efficiency, with limited progress towards programme goals.
	4. The VS implement nationwide prevention, control or eradication programmes for priority diseases with a high level of epidemiological, risk-based planning, and continual evaluation of efficacy and efficiency. They have or are progressing towards OIE official recognition of disease control programmes for relevant diseases. They can demonstrate some progress towards programme goals in reducing or eradicating disease.
	5. The VS implement national control or eradication programmes for all priority diseases with scientific evaluation of their efficacy and efficiency consistent with relevant OIE international standards. They can demonstrate clear progress towards programme goals in reducing or eradicating disease, including achieving or progressing towards official recognition of freedom from relevant diseases.

Terrestrial Code reference(s): Appendix 1

### **Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 3
- PVS Gap Analysis (2010) – level 4 (5 year target)

### **Findings:**

The Rwanda VS implement a number of prevention and control programmes for priority diseases including FMD, RVF, CBPP, LSD, ECF, tick-borne diseases and brucellosis and also for important production limiting, endemic diseases such as blackquarter, mastitis and helminthiasis.

Strategic plans have been developed for some diseases including FMD, PPR and RVF. The FMD plan has been approved by OIE as Rwanda seeks to achieve freedom from FMD using the Progressive Control Pathway (PCP) as a logical approach to control and eradication. Operational plans and reports were not readily available to the Team – some were provided

<sup>4</sup> One may need to cross-reference this CC with CCs on Zoning and Compartmentalisation as appropriate.

but only in Kinyarwanda; on superficial review there appeared to be minimal analysis and review of the effectiveness and efficiency of the control programmes.

The VS use a range of activities to reduce and control disease such as border control and quarantine, early detection and monitoring, vaccination, animal identification (cattle only), certification of health for movement both nationally and for export. There is good cooperation and support from the private sector (CAHWs, private 'vets' and industry) to ensure good compliance and engagement with animal owners and to assist in delivery of vaccines and treatments.

The brucellosis control programme is based on testing with a Rose Bengal Test (RBT) and the vaccination of young stock with RB21, previously S19. There appears to be no supplementary testing to rule out false positives common when using RBT in vaccinated animals. Test positive animals are to be sent to slaughter but it is not clear how well this is enforced. No compensation is paid.

There is very little epidemiological, risk-based planning, review or revision of the control programmes and progress towards programme objectives appears limited.

**Key Changes from 2008 to 2019:**

- Strategic plans have been developed for some diseases including FMD, PPR and RVF.
- The FMD plan using the Progressive Control Pathway has been approved by OIE

**Strengths:**

- Strategic plans exist for a number of diseases
- Coordination with private sector in programme delivery

**Weaknesses:**

- Poor programme documentation with no annual workplans and no review of control activities, their effectiveness/efficiency and of progress being made
- No use of risk analysis to improve programme delivery and effectiveness
- Over reliance on low specificity tests for the brucellosis programme

**Recommendations:**

- Undertake a major review of all disease control programmes introducing revised strategic plans, annual workplans with budgets, reports on activities undertaken and progress being made/not being made
- Introduce risk analysis as part of the planning process to improve programme delivery and effectiveness
- Review the test and slaughter programme for the control of bovine brucellosis

**Evidence** (as listed in Appendix 6): E2, E3, E6, E7, E9, E10, E12, E17, E22, E28, E29, E31, E35, E37, E47, E50, E56, E61, P1, P3, P7, P11, P12, P15, P19, P21

II-7 Animal production food safety	Levels of advancement
<p><i>The authority and capability of the VS to assure the safety of food of animal origin for domestic and export markets</i></p>	<p>1. Regulation, authorisation, and inspection of relevant establishments and processes are generally not undertaken in conformity with international standards.</p>
<p><b>A. Regulation, inspection (including audits), authorisation and supervision of establishments for production and processing of food of animal origin</b></p>	<p>2. Regulation, authorisation and inspection of relevant establishments and processes are undertaken in conformity with international standards in some selected premises (e.g. export premises).</p>
<p><i>The authority and capability of the VS to establish and enforce sanitary and food hygiene standards for establishments that produce and process food of animal origin, including slaughter, rendering, dairy, egg, honey and other animal product processing establishments.</i></p>	<p>3. Regulation, authorisation and inspection of relevant establishments and processes are undertaken in conformity with international standards in large premises supplying major cities and/or the national market.</p>
<p><i>Includes the regulation, initial authorisation of establishments, and the ongoing inspection of establishments and processes, including the identification of and response to non-compliance, based on HACCP principles. It includes external coordination between Competent Authorities as may be required.</i></p>	<p>4. Regulation, authorisation and inspection of relevant establishments and processes are undertaken in conformity with international standards for premises supplying the national and local markets. There are some reports of dealing with non-compliance.</p>
	<p>5. Regulation, authorisation, inspection and audit of relevant establishments and processes (and coordination, as required) are undertaken in conformity with international standards at all premises. There are documented cases of the identification and effective response to non-compliance.</p>

Terrestrial Code reference(s): Appendix 1

**Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 1 (note CC covered current II.7A and II.7B)
- PVS Gap Analysis (2010) – level 3 (5 year target)

**Findings:**

The legislation on food safety has developed considerably in recent years. Animal production food safety is regulated by the Law No. 47 of 14 January 2013 which requires the regulation and inspection of food and pharmaceutical products. To comply with Article 5 no food product should be manufactured, sold, donated, imported or exhibited unless it conforms with the requirements under this law. In addition, Law No. 3 of 9 February 2018 established the Rwanda Food and Drug Authority (Rwanda FDA), and provides it with the mandate to protect human health by ensuring the quality and safety of processed food, human and veterinary medicines, vaccines, etc.

A Ministerial Order (Minister of Agriculture) No. 012 of 18 November 2010 regulates animal slaughtering and meat inspection.

In Rwanda there are five dairy plants and 125 Milk Collection Centers (MCCs) authorized by RALIS (in the future Rwanda FDA will be responsible for authorising dairy and other food processing plants) for national and international markets. The Team visited a milk processing plant in the Eastern Province which produced pasteurised milk and yoghurt and found it compliant with international standards. Raw milk is being collected from 15 MCCs where quality control is applied considering the specific gravity, antibiotic contamination, alcohol, aflatoxins and somatic cells. At the processing plant the sampling and testing was repeated as a double check. According to the plant quality manager the situation on antibiotic contamination had much improved in the last year compared with the multiple rejections of consignments with antibiotic residues in previous years.

There are 34 abattoirs authorised by RALIS for national and/or international markets and 146 abattoirs authorised by the districts for their local markets. Abattoirs for national or international market are authorised after joint inspection carried out by RALIS, RSB and RAB.

The team visited three abattoirs authorised to supply the national market and one authorised for local market. One of the three abattoirs authorised for the national market was fully compliant with international standards while the other two had some deficiencies (see CCII.7B for more details). The abattoir authorised only for the local market did not comply with international standards (meat and internal organs were not stored at refrigerated temperature after slaughter, meat inspector was not present during the slaughter, etc.).

None of the abattoirs visited had competent comprehensive record keeping nor did they make use of HACCP principles.

**Key Changes from 2008 to 2019:**

- A new food law and a law establishing the Rwanda FDA
- Improved control and application of standards in the dairy and milk processing sector

**Strengths:**

- The new food law requires the regulation and inspection of food and drink and any substance used in the manufacture and treatment of food
- The Rwanda FDA provides an independent authority for food safety and drug control
- The dairy and milk processing sector is largely compliant with the international standards

**Weaknesses:**

- Abattoirs working at local level do not comply with international standards
- Abattoirs authorized to supply the national market are not always in compliance with international standards

**Recommendations:**

- Abattoirs working at local level should be progressively improved to reach international standards
- All abattoirs authorized to supply the national market should comply with international standards

**Evidence** (as listed in Appendix 6): E13, E14, E20, E23, E29, E41, E53, E54, E55, E69, E75, E76, E85, E88, E89, E90, P1, P3, P7, P11, P19

B. <i>Ante- and post mortem inspection at slaughter facilities and associated premises</i>	Levels of advancement
<p><i>The authority and capability of the VS to implement and manage the ante-mortem inspection of animals destined for slaughter and the post-mortem inspection of carcasses and meat products at slaughter facilities and associated premises, including to ensure meat hygiene and safety, and for the collection of information relevant to livestock diseases and zoonoses.</i></p> <p><i>This includes standards relating to veterinary and veterinary paraprofessional supervision and inspection, and protocols applied for ante- and post-mortem inspection findings, based on HACCP principles. It includes external coordination between Competent Authorities as may be required.</i></p>	1. <i>Ante- and post-mortem</i> inspection is generally not undertaken in conformity with international standards.
	2. <i>Ante- and post-mortem</i> inspection with collection of disease information is undertaken in conformity with international standards only in selected premises (e.g. export premises).
	3. <i>Ante- and post-mortem</i> inspection with collection of disease information is undertaken in conformity with international standards for export premises and the major abattoirs in the larger cities and/or producing <i>meat</i> for distribution throughout the national market.
	4. <i>Ante- and post-mortem</i> inspection with collection of disease information is undertaken in conformity with international standards for all slaughter facilities producing meat for export, national and local markets.
	5. <i>Ante- and post-mortem</i> inspection with collection of disease information is undertaken in conformity with international standards at all premises (including municipal, community, and on farm slaughtering and distribution) and are subject to periodic audits.

Terrestrial Code reference(s): Appendix 1

### **Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 1 (note previously CC covered current II.7A and II.7B)
- PVS Gap Analysis (2010) – level 3 (5 year target)

### **Findings:**

In Rwanda, as indicated in CCII.7A, there are 34 abattoirs authorised for national and/or international markets and 146 abattoirs authorised only to supply the local market. It was reported that at all abattoirs ‘vets’ carried out ante and post mortem inspections. It was noted that these ‘vets’ had various qualifications – mostly A2 veterinary technicians but with some A0 veterinarians. No specialist training had been provided.

A number of deficiencies were noted in the larger national abattoirs including carcasses with no sanitary stamps, no place or management protocols for condemned organs or meat, poorly maintained register of ante and post mortem inspections, and some animals (cattle) being slaughtered with no identification (apparently these were local animals). In another abattoir, which was hoping to receive approval for export, the Team found the abattoir structure and equipment appropriate, well maintained modern and clean but with almost all cattle in the lairage having no ear tag/identification.

The abattoir visited that was authorised only for the local market was the biggest of nine abattoirs in the district did not comply with international standards (meat and internal organs were not stored at refrigerated temperature after the slaughter, lungs of the animals slaughtered were not available for post mortem inspection, meat inspector was not present



during the slaughter etc).

The abattoirs visited were not operating so the correctness of post mortem procedures was not assessed. In one abattoir carcasses and organs were being retained for inspection. No procedure for condemned carcasses or parts of carcasses were available and no records of condemnations were available. No samples were being collected for diagnostic testing. There was only limited recording and reporting of animal health surveillance data, using MIS, to SAROs, DAROs or to RAB.

An Order of the Minister of Agriculture (see also previous CC) declared in November 2019 regulates animal slaughtering and meat inspection. To comply with this Order every person wishing to become a butcher has to apply to the district for a permit. No training is required, nor any need to report any disease findings identified.

**Key Changes from 2008 to 2019:**

- A new food law and a ministerial Order that regulates animal slaughtering and meat inspection
- Meat is required to be inspected by a veterinarian or, in his absence, by any person commissioned by the Competent Authority who has sufficient knowledge for the task

**Strengths:**

- Ministerial Order that regulates animal slaughtering and meat inspection
- Some larger abattoirs supplying the national and international markets comply with the international standards

**Weaknesses:**

- Local abattoirs do not comply with the international standards; larger abattoirs supplying the national and international markets do not always comply with international standards
- No samples were being collected for diagnostic testing
- Limited information from ante and post mortem inspections being provided to the sectors, districts and RAB

**Recommendations:**

- Improve all abattoirs, especially at the local level, to progressively comply with international standards. This should include the development and monitoring of Good Practice Guidelines, SOPs for specific activities, increased training of staff and 'vets' on hygiene, food safety and animal welfare and improved reporting
- Routinely provide information from ante and post mortem inspections to the sectors, districts and RAB
- Ante and post mortem inspection should be done by a veterinarian and when not possible by a VPP with specific training and under the supervision of a veterinarian
- Develop standards for training 'vets' and meat inspectors and provide improved training of inspectors on ante and post mortem inspections

**Evidence** (as listed in Appendix 6): E13, E14, E20, E23, E29, E31, E53, E54, E55, E57, E62, E70, E75, E76, E78, E89, E90, P3, P11, P19

II-8 Veterinary medicines and biologicals	Levels of advancement
<p><i>The authority and capability of the VS to regulate veterinary medicines, and biologicals, in order to ensure their quality and safety, as well as their responsible and prudent use, including as medicated feed.</i></p> <p><i>This includes the marketing authorisation/registration, import, manufacture, quality control, export, labelling, advertising, distribution, sale (includes dispensing) and use (includes prescribing) of these products.</i></p>	1. The VS cannot regulate veterinary medicines and biologicals.
	2. The VS have some capability to exercise regulatory and administrative control over the import, manufacture and market authorisation (registration) of veterinary medicines and biologicals to ensure their safety and quality, but cannot ensure their responsible and prudent use in the field.
	3. The VS exercise effective regulatory and administrative control for the market authorisation of veterinary medicines and biologicals and have some capacity to regulate to ensure their responsible and prudent use in the field, including reducing the risk from illegal imports.
	4. The VS exercise comprehensive and effective regulatory and administrative control of all aspects of veterinary medicines and biologicals, including market authorisation, responsible and prudent use in the field, and reducing the risks of illegal distribution and use.
	5. The control systems for veterinary medicines and biologicals are regularly audited, tested and updated when necessary, including via an effective pharmacovigilance programme.

Terrestrial Code reference(s): Appendix 1

### **Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 2
- PVS Gap Analysis (2010) – level 3 (5 year target)

### **Findings:**

Veterinary medicines are regulated by the Law No.47 of 14 January 2013 and the regulation and inspection of food and pharmaceutical products by Law No.3 of 9 February 2018, which establishes the Rwanda Food and Drug Authority (Rwanda FDA) under the MoH. Previously RAB had the responsibility to control and monitor the registration, import, distribution and sale of veterinary medicines and biologicals.

Note that Rwanda has no manufacturers and all veterinary medicines and biologicals are imported.

In Rwanda both ‘vets’, that is both veterinarians and VPPs, can treat animals and prescribe veterinary medicines and biologicals. It was stated that CAHWs and farmers could not purchase veterinary medicines and biologicals directly from veterinary pharmacies – but the Team found this not to always be the case.

Veterinary pharmacies are required to have a veterinarian or a VPP; they must also be registered as traders with the local authority. Though no total figures were available there are many veterinary pharmacies in the country – one district had 52 veterinary pharmacies. The pharmacies visited had well managed, in date stock of only a few classes of antibiotic – mainly penicillins and tetracyclines. Records were available on medicines purchased by the veterinary

pharmacies but not on their end use. There was little apparent advice given on their use.

Under the new law all veterinary medicines and biologicals must be labelled in one of the three national languages.

**Key Changes from 2008 to 2019:**

- Specific law that regulates veterinary medicines
- Rwanda FDA established with broad authority and responsibility to regulate veterinary medicines, and biologicals

**Strengths:**

- Veterinary medicines regulated under specific law
- The registration, import, distribution and sale of veterinary medicines and biologicals is under Rwanda FDA, an independent authority
- Veterinary pharmacies have to be registered

**Weaknesses:**

- Open sale of veterinary medicines permitted by 'vets' and VPPs
- Farmers able to buy veterinary medicines without a prescription, although required under law

**Recommendations:**

- Complete the transition from RAB to Rwanda FDA for the registration, import, distribution and sale of veterinary medicines and biologicals; maintain coordination and cooperation between RAB to Rwanda FDA on the import and use of veterinary medicines and biologicals
- Implement awareness and compliance programme on the correct sale and use of veterinary medicines and biologicals
- Progressively reduce the role of VPPs in the sale of veterinary medicines and biologicals and ensure the prudent use of antimicrobials and other drugs

**Evidence** (as listed in Appendix 6): E5, E13, E14, E19, E20, E29, E55, E59, E60, E63, E73, P13

II-9 Antimicrobial Resistance (AMR) and Antimicrobial Use (AMU)	Levels of advancement
<p><i>The authority and capability of the VS to manage AMU and AMR, and to undertake surveillance and control of the development and spread of AMR pathogens in animal production and animal origin food products, via a One Health approach.</i></p>	<p>1. The VS cannot regulate or control AMR and AMU, and have not developed or contributed to an AMR action plan covering the veterinary domain.</p>
	<p>2. The VS are contributing or have contributed to a national AMR action plan. The action plan has initiated some activities to collect AMU/AMR data or control AMR e.g. awareness campaigns targeting veterinarians or farmers on the prudent use of antimicrobials. The use of antimicrobials for growth promotion is discouraged.</p>
	<p>3. The VS have defined a national AMR action plan in coordination with the Public Health authorities and other stakeholders, and are implementing some AMU/AMR surveillance and regulations. The use of antimicrobials for growth promotion is prohibited.</p>
	<p>4. The VS are implementing a comprehensive AMR action plan based on risk, including AMR surveillance of the most important pathogens for animal health or food-borne diseases, the monitoring of AMU, and the prudent use of antimicrobials in animals (especially the use of critically important antimicrobials). The use of antimicrobials for growth promotion does not occur.</p>
	<p>5. An effective national AMR action plan covering the veterinary domain is regularly audited, reviewed and updated by the VS with the Public Health authorities and other stakeholders, using the results of AMR surveillance. The scale and type of antimicrobial usage in animals poses minimal risk of AMR and alternative solutions for the control of diseases in animals are being implemented.</p>

Terrestrial Code reference(s): Appendix 1

**Results from Previous PVS Pathway Missions:**

- New CC not previously evaluated

**Findings:**

The Rwanda One Health Strategic Plan II (2019-2024) has been approved and will be launched in August. One of the priorities of this Plan II is to address concerns over AMR. The plan was prepared with representatives from MoH, MINAGRI, RDB, REMA, the national university and other partners.

A draft National AMR Action Plan has been prepared but not yet endorsed. There is currently minimal surveillance activity in assessing the AMR situation in the animal sector in Rwanda; NVL has the capability to undertake basic disc diffusion antimicrobial susceptibility testing.

The Rwanda One Health Strategic Plan I was not all well implemented. One of the first actions to be put in place was a national register for medicines and a system to monitor distribution in both the human and veterinary sectors. In both the human and veterinary sectors the sale and

use of antimicrobials is not under rigorous control; it is possible to purchase some antimicrobials over the counter. Although all antimicrobials are imported there is no system of reporting by importers and onward distribution.

There is no ban on the use of growth promoters. Medicated feed is used in poultry production.

At the district level the One Health approach and AMR concerns receive little attention or recognition.

**Key Changes from 2008 to 2019:**

- Not previously assessed

**Strengths:**

- The Rwanda Health Sector Strategic Plan II has AMR as a priority
- Veterinary medicines are all imported and this should allow assessment of their total use (Antimicrobial Consumption) in the country

**Weaknesses:**

- The use of antibiotics in the veterinary sector is not adequately regulated
- No AMR surveillance programme in place
- There is a need of an integrated surveillance and information system across the sectors
- One Health principles and improving the control of AMR is not yet taking place at the district level
- No ban on using antimicrobials as growth promoters

**Recommendations:**

- Establish an awareness and compliance programme on the prudent use of antimicrobials, including the need for the prescription of veterinary medicines
- Develop a pilot AMR surveillance programme targeting key sectors and organisms
- Increase data and information sharing between the sectors – review options for developed an integrated surveillance and information system
- Promote One Health and the control of AMR at the district and sector levels
- Ban the use of antimicrobials as growth promoters

**Evidence** (as listed in Appendix 6): E5, E13, E14, E19, E20, E29, E55, E59 E60, E73, P13

II-10 Residue testing, monitoring and management	Levels of advancement
<p><i>The capability of the VS to undertake residue testing and monitoring programmes for veterinary medicines (e.g. antimicrobials and hormones), chemicals, pesticides, radionuclides, heavy metals, etc. and respond appropriately to adverse findings.</i></p>	1. No residue testing for animal products is being undertaken.
	2. Some residue testing is being undertaken, such as for research or pilot purposes and/or it is conducted only on specific animal products for export.
	3. A comprehensive residue <i>monitoring</i> programme is conducted for all animal products for export and some for domestic consumption based on limited risk analysis. Documented protocols exist for preventing residue risks (e.g. withholding periods for veterinary drugs) and for responding to breaches of Maximum Residue Limits.
	4. A comprehensive residue <i>monitoring</i> programme is conducted for all animal products for export and domestic consumption based on risk analysis. Effective protocols both reduce residue risks and respond to breaches of Maximum Residue Limits, including traceback and follow up.
	5. The residue <i>monitoring</i> and risk management programme is subject to routine quality assurance and regular evaluation/audit.

Terrestrial Code reference(s): Appendix 1

### **Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 1
- PVS Gap Analysis (2010) – level 3 (5 year target)

### **Findings:**

Rwanda FDA is in charge of developing and implementing a national residue plan for foods of animal origin. As a recently established authority Rwanda FDA is currently under-resourced and lacks the capacity to address the issue of residues. Rwanda FDA is aware of the risks and has identified the establishment of a residue programme as a priority. The plan will be to target high risk products and to test using its own laboratory and also other laboratories such as NVL and the National Reference Laboratory for Health. At this time NVL has no capability to undertake residue testing.

The milk processors undertake some rapid testing for antimicrobial residues in milk; there is no reporting of their findings. A large egg producer advised that they undertook residue testing as required by their export client; they sent samples offshore – again no reports were made to the authorities (RAB, RALIS or Rwanda FDA).

Currently the only national residue plan is for the export of honey to the European Union (EU). This plan has been in place since 2013. Every year RALIS sends to the EU the results of tests undertaken on a number of residues that are processed in a German laboratory.

### **Key Changes from 2008 to 2019:**

- No major change – except honey for export to the EU is being tested

**Strengths:**

- Rwanda FDA has the authority to develop and implement a programme to control residues in food including in products of animal origin
- Residue testing in place for the export of honey to the EU

**Weaknesses:**

- No national plan on residue testing in foods of animal origin
- Unclear role of NVL in residue testing – NVL does not yet have the capability

**Recommendations:**

- Develop and implement a national plan to identify and control for residues in foods of animal origin
- Identify and equip a national laboratory to undertake the required testing

**Evidence** (as listed in Appendix 6): E13, E14, E19, E20, E43, E55, E82, P2

II-11 Animal feed safety	Levels of advancement
<p><i>The authority and capability of the VS to regulate animal feed safety e.g. processing, handling, storage, distribution and use of both commercial and on-farm produced animal feed and feed ingredients.</i></p> <p><i>This includes feed safety risks such as swill feeding, feeding by-products, ruminant feed bans, the use of antimicrobials in feed, as well as managing risks of microbial, physical and toxin contamination of feed.</i></p>	1. The VS cannot regulate animal feed safety.
	2. The VS have some capability to exercise regulatory and administrative control over animal feed safety.
	3. The VS exercise regulatory and administrative control for most aspects of animal feed safety.
	4. The VS exercise comprehensive and effective regulatory and administrative control of animal feed safety.
	5. The control systems are regularly audited, tested and updated when necessary.

Terrestrial Code reference(s): Appendix 1

### **Results from Previous PVS Pathway Missions:**

- New CC not previously evaluated

### **Findings:**

Animal feed production, trade and selling is not currently regulated by a law or a regulation. A national Animal Feed Law has been drafted and is in advanced stage of approval.

The Team visited an animal feed factory in Southern Province which produces feed for poultry, fish and pigs. It was registered by the Rwanda Development Board. The feed factory produces some medicated feed for fish under a veterinary prescription. The bags in the plant ready for sale had information on product type and nutrient levels but did not provide information on the included antibiotics (type, quantity).

The Team visited as well a large egg farm that produced its own feed. It was stated that they did put antibiotic into their feed for general treatments. They used antibiotics only to treat individual sick animals using separation and water medication. They purchased antibiotics and other medicines in Kigali without a prescription. It is understood that other poultry producers do use antimicrobials as growth promoters.

The feed mill visited had no laboratory facilities and was dependent in external testing of products for quality and contamination, e.g. certificates of freedom aflatoxin were provided with their imported soy. No residue testing was undertaken on products coming from within Rwanda, that is it was only imported products that were being tested.

### **Key Changes from 2008 to 2019:**

- Not previously assessed

### **Strengths:**

- Feed plants are registered by the Rwanda Standards Body
- Medicated feed can be prepared but only under a veterinary prescription



**Weaknesses:**

- VS do not exercise regulatory and administrative control for most aspects of animal feed safety
- Labelling of bags of animal feed often lacks information on date manufactured and batch number and of the type and quantity of antibiotics used, if any
- The use of antimicrobials as growth promoters is still permitted

**Recommendations:**

- VS should develop and implement a programme on animal feed safety to ensure that comprehensive regulation is in place with effective monitoring and control
- The control systems should be regularly audited and tested, using a risk analysis approach, and updated when necessary
- Ban the use of antimicrobials as growth promoters

**Evidence** (as listed in Appendix 6): E13, E14, E19, E20, E43, E55, E82, P2

II-12 Identification, traceability and movement control	Levels of advancement
<p data-bbox="201 327 558 461"><b>A. Premises, herd, batch and animal identification, tracing and movement control</b></p> <p data-bbox="201 483 558 898"><i>The authority and capability of the VS, in coordination with producers and other stakeholders, to regulate the identification of animals, to trace their history and location(s), and to control domestic movements for the purpose of animal disease control, food safety, trade or other legal requirements under the VS mandate.</i></p>	1. The VS do not have the authority or the capability to regulate the identification of animals, either individually, by batch, or by premises, or to trace and control their movements.
	2. The VS can identify some animals by premises or location and control some movements, using traditional methods, and can demonstrate the ability to deal with a specific problem (e.g. to trace sampled or vaccinated animals for follow up, or to prevent theft).
	3. The VS implement a system for <i>animal identification, traceability</i> and movement control for specific animal sub-populations (e.g. for export, at borders, specified zones or markets) as required for traceability and/or disease control, in accordance with international standards.
	4. The VS implement appropriate and effective <i>animal identification, traceability</i> and movement control procedures for some animal species at national level, in accordance with international standards.
	5. The VS carry out periodic audits of the effectiveness of their identification, traceability and movement control systems. They have been demonstrated as effective in dealing with a problem (e.g. tracing a disease <i>outbreak</i> , residue or other food safety incident).

Terrestrial Code reference(s): Appendix 1

### **Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 3 (note previously CC covered current II.12A and II.12B)
- PVS Gap Analysis (2010) – level 4 (5 year target)

### **Findings:**

Identification of animals is regulated by Law No.33 of 6 November 2002. The Ministerial Order foreseen by the Article 3 has not yet been approved. A proposal for a Ministerial Order on animal identification (2017) is awaiting approval by the Minister of Agriculture.

It is not permitted to move animals without first obtaining a permit issued by a SARO for within sector movement and from a DARO for movement between districts; RAB issues permits for exports. The authorising 'vet' will identify the animals with an ear-tag and provide a movement permit.

In a cattle market in the Eastern Province at least 95% of animals were identified with a green ear-tag. This tag is put in before the animal is transported to market, most are walked from the surrounding area. Only a few animals were identified with the yellow year-tags which are required when an animal reaches six months of age on the farm.

In lairages visited cattle identification varied with some high rates of compliance, others with animals with no tags as they were 'local animals' that had just been walked in. In one abattoir

authorised for export of meat almost no cattle were identified and it was explained that the truck driver had removed the ear tags for resale – this approach breaks the possibility of through chain traceability and also compromises animal/owner/origin traceability if tags are being re-used.

**Key Changes from 2008 to 2019:**

- Situation has not significantly changed

**Strengths:**

- The Law No. 33/2002 provides for the regulation of animal identification
- Movement of livestock from herds to herds and from herds to abattoirs has to be authorised by the VS
- Central registration for cattle ear tags

**Weaknesses:**

- The Ministerial Order to implement Law No 33/2002 has not yet been approved
- Identification of cattle is in place but is not yet rigorously enforced and results in limitations to movement control and traceability
- No identification or movement control programme in other species

**Recommendations:**

- Approve and implement Ministerial Order (as per Article 3 of the law 33/2002)
- Review and strengthen the identification process for cattle supported by awareness campaigns and checks to ensure the programme is working – develop a compliance programme with defined fines for failure to comply
- Design and implement an identification programme for the other species (sheep and goats, pigs, poultry, etc.)

**Evidence** (as listed in Appendix 6): E17, E29, E41, E70, E71, E72, P5, P19

<b>B. Identification, traceability and control of products of animal origin</b>	<b>Levels of advancement</b>
<p><i>The capability of the Veterinary Authority, in coordination with Competent Authorities (such as food safety authorities) and other stakeholders as appropriate, to achieve whole-of-chain traceability, including the identification, tracing and control of products of animal origin for the purpose of food safety, animal health or trade.</i></p>	1. The VS do not have the capability or access to information to identify or trace products of animal origin.
	2. The VS can identify and trace some products of animal origin, by coordination between Competent Authorities, to deal with a specific problem (e.g. high risk products traced back to premises of origin).
	3. The VS have implemented procedures to identify and trace some products of animal origin, in coordination with Competent Authorities, for food safety, animal health and trade purposes, in accordance with international standards.
	4. The VS have implemented national programmes enabling them to identify and trace all products of animal origin, and respond to threats, in coordination with Competent Authorities, in accordance with international standards.
	5. The VS periodically audit the effectiveness of their identification and traceability procedures, in coordination with Competent Authorities. The procedures have been demonstrated as being effective for traceback and response to a relevant food safety incident (e.g. foodborne zoonoses or residue incident).

Terrestrial Code reference(s): Appendix 1

#### **Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 3 (note previously CC covered current II.12A and II.12B)
- PVS Gap Analysis (2010) – level 1 (5 year target)

#### **Findings:**

Labelling of foods of animal origin is not regulated.

Milk and dairy products are labelled with information on the producer, temperature of refrigeration, expiry date, batch number, etc. Meat and meat products are not generally labelled and are as such of unknown origin.

In case of a food outbreak, the traceability of milk products is possible, at least as far as the producing factory and, with the help of the 'lot' or batch number, as far as the MCC. Beyond this tracing back is not readily possible as milk arrives at MCC already as a mixed consignment.

The traceability of meat and other products of animal origin (meat, eggs, etc.) is not possible.

#### **Key Changes from 2008 to 2019:**

- Good traceability in the dairy sector

#### **Strengths:**

- Traceability of dairy products is possible at least as far as the MCC

**Weaknesses:**

- Traceability of meat, meat products, eggs, honey produced for the national market, is not possible
- No history of responding to a food safety incident

**Recommendations:**

- Develop a law/regulation/decreed establishing the obligation for producers and processors to label food by-products of animal origin and for traders to sell only correctly labelled animal origin food

**Evidence** (as listed in Appendix 6): E29, E53, P1, P4, P14, P20

II-13 Animal welfare	Levels of advancement
<p><i>The authority and capability of the VS to legislate and implement the animal welfare standards of the OIE as published in the Terrestrial Code.</i></p> <p><i>This requires consultation and coordination with Competent Authorities, non-governmental organisations and other stakeholders, as appropriate.</i></p>	1. There is no national legislation or regulations on <i>animal welfare</i> .
	2. There is limited national legislation or regulations on <i>animal welfare</i> covering some of the OIE standards, with limited stakeholder or public awareness.
	3. The national legislation and regulations on <i>animal welfare</i> cover most OIE standards, with some awareness programmes and implementation, but are in conformity with international standards in only some sectors (e.g. for the export sector).
	4. <i>Animal welfare</i> programmes, supported by suitable legislation and regulations, are being implemented in conformity with relevant international standards and are applied to most sectors and species with stakeholder and public awareness. Documented compliance programmes, including consequences for non-compliance are available.
	5. <i>Animal welfare</i> programmes, supported by suitable legislation and regulations, are being implemented in conformity with relevant international standards. Comprehensive national programmes are applied to all sectors and species with the active involvement of stakeholders. The animal welfare programmes, including non-compliance issues, are subject to regular audit and review, with documented cases of responding effectively to non-compliance.

Terrestrial Code reference(s): Appendix 1

### **Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – not evaluated
- PVS Gap Analysis (2010) – level 1 (5 year target)

### **Findings:**

There is no specific animal welfare legislation. Some references were made to other materials such as guidelines but these were not made available to the team. The pig and poultry producers association indicated that some materials were available but commented that they were not being complied with.

There is no animal welfare programme in the country. Generally animal welfare in the country seems to be good. One area of concern was the veterinary school and its extensive use of live animals for students to practice their handling skills on but also to undertake minor interventions (hoof trimming, dehorning, rectal examinations) and also more major surgery (fractured legs, laparotomies, etc). Though the surgery was being supervised the justification for these animals to have major elective surgery and then to be put through a full convalescence is questionable; the benefit of practising surgery skills is recognised but the

welfare of such animals needs very rigorous controlled. Such control should follow strict guidelines and be periodically audited.

In the field the Team saw no evidence of animal cruelty or abuse. The Team saw evidence of good animal welfare in some pig and cattle abattoirs (lairage layouts and race, electrical stunning, etc.), in another stunning was by pithing at the base of the skull. In one cattle market loading ramps were in place to make uploading and downloading of animals easier and to minimise stress.

**Key Changes from 2008 to 2019:**

- Not previously assessed

**Strengths:**

- Good welfare being practiced at some abattoirs and at cattle markets

**Weaknesses:**

- No legislation or guidelines on animal welfare
- Overuse of animals for surgery at the veterinary school

**Recommendations:**

- Develop an animal welfare programme including raising public and producer awareness, enacting animal welfare legislation, monitoring the programme and implementing a compliance programme with penalties for non-compliance
- Prioritise the animal welfare programme based on risk, focusing first on transport, animal slaughtering, control of stray dog populations and culling of animals for disease control purposes
- Review the use of live animals in surgery at the veterinary school and develop strict guidelines with audits

**Evidence** (as listed in Appendix 6): E21, E23, P3, P5, P12, P18

### III.3 Fundamental component III: Interaction with stakeholders

This component of the evaluation concerns the capability of the VS to collaborate with and involve non-government stakeholders including the private sector, Non-Government Organisations (NGOs) and civil society organisations (including consumer organisations) in the implementation of programmes and activities. This also includes relevant state-owned enterprises, research institutions, universities and other training establishments.

#### Critical Competencies:

<b>III-1</b>	<b>Communication .....</b>	<b>89</b>
<b>III-2</b>	<b>Consultation with stakeholders .....</b>	<b>91</b>
<b>III-3</b>	<b>Official representation and international collaboration .....</b>	<b>93</b>
<b>III-4</b>	<b>Accreditation/ authorisation/ delegation .....</b>	<b>95</b>
<b>III-5</b>	<b>Regulation of the profession by the Veterinary Statutory Body (VSB) .....</b>	<b>97</b>
<b>III-6</b>	<b>Participation of producers and other stakeholders in joint programmes.....</b>	<b>99</b>
<b>III-7</b>	<b>Veterinary clinical services .....</b>	<b>101</b>

#### ----- Terrestrial Code References:

*Points 6, 7, 9 and 13 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation/General organisation/Procedures and standards/Communication.*

*Point 9 of Article 3.2.1. on General considerations.*

*Points 2 and 7 of Article 3.2.3. on Evaluation criteria for the organisational structure of the Veterinary Services.*

*Sub-point b) of Point 2 of Article 3.2.6. on Administrative resources: Communications.*

*Article 3.2.11. on Participation on OIE activities.*

*Article 3.2.12. on Evaluation of the veterinary statutory body.*

*Points 4, 8 and Sub-point g) of Point 10 of Article 3.2.14. on Administration details/Animal health, animal welfare and veterinary public health controls/Sources of independent scientific expertise.*

*Chapter 3.3. on Communication.*

*Point 4 of Article 3.4.3. on General principles: Consultation.*

*Article 3.4.5. on Competent Authorities.*

*Article 3.4.6. on Veterinarians and veterinary paraprofessionals.*



III-1 Communication	Levels of advancement
<p><i>The capability of the VS to keep non-government stakeholders aware and informed, in a transparent, effective and timely manner, of VS activities and programmes, and of developments in animal health, animal welfare and veterinary public health.</i></p> <p><i>This competency includes communication with all non-government stakeholders, including livestock farmer, meat sector, dairy sector and trading groups, as well as relevant NGOs and the general public, such as via communication campaigns and the media, including social media.</i></p>	1. The VS do not inform stakeholders of VS activities and programmes.
	2. The VS have informal communication mechanisms with some stakeholders e.g. with the larger commercial livestock or related companies.
	3. The VS maintain a dedicated and specialist communications function which communicates with stakeholders occasionally, but it is not always up-to-date or pro-active in providing information.
	4. The VS contact point or unit for communication provides up-to-date information to most relevant stakeholders. This information is aligned with a well developed communications plan, and accessible via the Internet and other appropriate channels targeted to the audience, and covers relevant events, activities and programmes, including during crises.
	5. The VS have a well-developed communications plan, and regularly circulate information to all relevant stakeholders, well targeted to the audience via the full range of communications media, including social media. The VS regularly evaluate and revise their communications plan.

Terrestrial Code reference(s): Appendix 1

#### **Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 3
- PVS Gap Analysis (2010) – level 4 (5 year target)

#### **Findings:**

RAB has a Communications Unit which covers the whole board – there is no specific unit for VS communications. There is no strategic plan for communications from the VS on animal health, veterinary public health or animal welfare.

Many of the ministries, boards and agencies have websites including MINAGRI, RAB, MoH and Rwanda FDA. These websites are informative but not always up to date and some including RAB have many pages still under development.

The Team were informed that during emergencies such as disease outbreaks, the Minister of MINAGRI would be the spokesperson and address the public through radio/television/live meetings and explain the emergency and the steps that Government would take.

On the many site visits and at interviews there were very few material communication aids (posters, flyers, etc.).

#### **Key Changes from 2008 to 2019:**

- No major change

**Strengths:**

- RAB has a communications unit that should cover VS activities
- A number of well structured Government websites

**Weaknesses:**

- No dedicated VS website or pages under the RAB website; the RAB website needs updating
- Little use made of print and other media to provide communications to stakeholders

**Recommendations:**

- Develop a communications strategy for the VS including the greater use of print and other media.
- Update websites regularly

**Evidence** (as listed in Appendix 6): P1

III-2 Consultation with stakeholders	Levels of advancement
<p><i>The capability of the VS to consult effectively with non-government stakeholders on VS policies and programmes, and on developments in animal health and food safety.</i></p> <p><i>This competency includes consultation with all non-government stakeholders, including livestock farmer, meat sector, dairy sector and trading groups or associations, as well as interested NGOs and members of the public.</i></p> <p><i>Unlike communication (CCIII-1), consultation is two way and should involve mechanisms that not only inform, but actively seek views of consulted parties, for consideration and response.</i></p>	1. The VS have no mechanisms for consultation with non-government stakeholders.
	2. The VS maintain informal channels of consultation with some non-government stakeholders (e.g. only the larger commercial livestock or related companies)
	3. The VS hold formal consultations with non-government stakeholders, usually represented by industry groups or associations.
	4. The VS regularly hold workshops and meetings with non-government stakeholders, who are organised to have broad representation, such as through elected, self-financed industry groups or associations. Consultation outcomes are documented and the views of stakeholders considered and occasionally incorporated.
	5. The VS actively consult with all non-government stakeholders, including representatives of smaller producers, regarding current and proposed policies and programmes, developments in animal health and food safety, and proposed interventions at the OIE, Codex Alimentarius Commission, WTO SPS Committee, etc. The consultation results in improved, better adapted activities and greater stakeholder support.

Terrestrial Code reference(s): Appendix 1

### **Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 4
- PVS Gap Analysis (2010) – level 5 (5 year target)

### **Findings:**

In meetings with the poultry and pig producer associations it was stated that RAB met with them regularly and that consultation worked well. RAB and the industry associations were engaged in the planning and execution of activities. No reports were made available on the consultations, who was attending or the outcomes reached.

At district level DAROs work with the SAROs and consult with local owners, commercial producers and industry. No formal records are prepared.

Overall it was considered that frequent effective consultations were taking place between the major production sectors – particularly with pigs, poultry and dairying. In addition, RAB provides training and sometimes invites the relevant industry associations to international events.

### **Key Changes from 2008 to 2019:**

- No major change

**Strengths:**

- Good consultation mechanisms with industry associations nationally and to some extent locally

**Weaknesses:**

- Few records kept of consultations
- Local consultations are limited

**Recommendations:**

- Develop formal ongoing consultations with the private sector and prepare and retain records
- Discuss international developments and proposals with major industry associations and seek their support and/or feedback

**Evidence** (as listed in Appendix 6): no documentation available

III-3 Official representation and international collaboration	Levels of advancement
<p><i>The capability of the VS to regularly and actively participate, coordinate and provide follow-up on relevant meetings and activities of regional and international organisations including the OIE, Codex Alimentarius Commission, WTO SPS Committee, WHO, FAO and Regional Economic Communities.</i></p>	1. The VS do not participate in or follow up on relevant meetings or activities of regional or international organisations.
	2. The VS sporadically participate in relevant meetings or activities and/or make a limited contribution.
	3. The VS actively participate in the majority of relevant meetings and activities, and provide some feedback to national colleagues.
	4. The VS consult with non-government stakeholders and take into consideration their opinions in developing papers and making interventions in relevant meetings and in following up on meeting outcomes at national or regional level.
	5. The VS consult with non-government stakeholders to provide leadership, to ensure that strategic issues are identified, and to ensure coordination among national delegations as part of their participation in relevant meetings, and follow up on meeting outcomes at national and/or regional levels. The VS collaborate internationally by sharing information and assisting to build capacity where appropriate.

Terrestrial Code reference(s): Appendix 1

#### **Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 2
- PVS Gap Analysis (2010) – level 3 (5 year target)

#### **Findings:**

RAB is the veterinary authority and with other Competent Authorities (RALIS, Rwanda FDA and MINECOM), participate in most OIE, Codex Alimentarius and WTO-SPS Agreement meetings held in the EAC. Rwanda contributes to the regional EAC meetings but does not lead in developing papers.

Internationally participation is less with some major meetings such as the OIE General Session not being attended.

It was noted that one problem faced in attending international and regional meetings was that international travel required high level Government approval and this took time – up to three weeks, and this time was not always provided when meetings were scheduled.

#### **Key Changes from 2008 to 2019:**

- RAB as the veterinary authority and other Competent Authorities, RALIS, Rwanda FDA and MINECOM, participate in most OIE, Codex Alimentarius and WTO-SPS Agreement meetings held in the EAC

#### **Strengths:**

- Most regional meetings attended

**Weaknesses:**

- Rather sporadic attendance at international meetings
- Little preparation of meeting papers and positions

**Recommendations:**

- Develop a schedule of meetings as far as possible in advance to ensure permission to attend is granted
- Start preparing meeting papers and positions in consultation with other Competent Authorities and private sector stakeholders

**Evidence** (as listed in Appendix 6): no documentation available

III-4 Accreditation/authorisation/delegation	Levels of advancement
<p><i>The authority and capability of the public sector of the VS to accredit/authorise/delegate to private sector or NGO expertise (e.g. private veterinarians and laboratories, animal welfare NGOs), to carry out official tasks on its behalf, usually via a formal agreement (i.e. public-private partnership).</i></p>	1. The public sector of the VS has neither the authority nor the capability to accredit/authorise/delegate official tasks to the private sector or NGOs.
	2. The public sector of the VS has the authority and capability to accredit/authorise/delegate official tasks to the private sector or NGOs, but there are currently no accreditation/authorisation/delegation activities.
	3. The public sector of the VS develops accreditation/authorisation/delegation programmes for certain tasks using formal agreements, but these activities are not routinely reviewed.
	4. The public sector of the VS develops and implements accreditation/authorisation/delegation programmes using formal agreements, and these activities are routinely reviewed to maintain standards and manage performance.
	5. The public sector of the VS carries out audits of its accreditation/authorisation/delegation programmes, in order to maintain the trust of their trading partners and other stakeholders.

Terrestrial Code reference(s): Appendix 1

#### **Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 2
- PVS Gap Analysis (2010) – level 2 (5 year target)

#### **Findings:**

Under the current decentralised system, RAB coordinates with the DAROs and SAROs for the delivery of field veterinary services, who in turn work with the private sector ‘vets’ and CAHWs to support delivery of official programmes, particularly the vaccination programmes (FMD, PPR, brucellosis, blackquarter, etc.).

There is no formal delegation as such with no contracts, formal agreements or any review and quality control. There is no direct payment for support from the private ‘vets’ or CAHWs though they may make a charge direct to the owner.

In abattoirs, directly employed ‘vets’ conduct ante and post mortem inspections and submit reports to the SAROs. There is no formal agreement with the public sector and no quality review. The standard of food safety inspections at abattoirs is generally low.

There are no private veterinary or food safety laboratories in Rwanda.

#### **Key Changes from 2008 to 2019:**

- RAB coordinates with the DAROs and SAROs, who in turn work with the private sector ‘vets’ and CAHWs to support delivery of official programmes, particularly the vaccination programmes (FMD, PPR, brucellosis, blackquarter, etc.)

**Strengths:**

- Close liaison and working relationship between public and private sector ‘vets’ and CAHWs

**Weaknesses:**

- No contracts, formal agreements or any review and quality control of private sector support and delivery of official VS programmes
- No review of private sector abattoir ‘vets’

**Recommendations:**

- Implement a system of contracts, formal agreements with established performance standards, reviews and quality control of private sector support and delivery of official VS programmes
- Undertake a review of private sector abattoir ‘vets’ and develop an official programme for improved food safety and better compliance

**Evidence** (as listed in Appendix 6): no documentation available



<b>III-5 Regulation of the profession by the Veterinary Statutory Body (VSB)</b>	<b>Levels of advancement</b>
<p><i>The authority and capacity of the VSB to effectively and independently maintain educational and professional standards for veterinarians and veterinary paraprofessionals.</i></p> <p><i>Regulation includes licensing or registration of those veterinarians and veterinary paraprofessionals that meet educational standards, and the ongoing oversight of their professional competence and conduct.</i></p>	1. There is no VSB.
	2. The VSB regulates <i>veterinarians</i> only within certain sectors of the veterinary profession and/or does not systematically apply educational standards or disciplinary measures.
	3. The VSB regulates <i>veterinarians</i> in all sectors of the veterinary profession setting educational standards and applying disciplinary measures.
	4. The VSB regulates <i>veterinarians</i> in all sectors and some <i>veterinary paraprofessionals</i> in a transparent manner. It has defined one or more specific categories of veterinary paraprofessional and their qualifications for initial and ongoing registration.
	5. The VSB regulates and applies disciplinary measures to <i>veterinarians</i> and <i>veterinary paraprofessionals</i> in all sectors throughout the country. <i>Veterinarians</i> and <i>veterinary paraprofessionals</i> are required to undertake continuing education to maintain their professional registration.

Terrestrial Code reference(s): Appendix 1

### **Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 1
- PVS Gap Analysis (2010) – previously as two CCs: level 4 (authority) and level 2 (capacity) (5 year target)

### **Findings:**

The Rwanda Council of Veterinary Doctors (RCVD), the national VSB, was established in 2013 by Law No. 56/2013. The RCVD became operational in 2015.

Registration is mandatory for all ‘veterinary doctors’ (DVM) and VPPs except for those in public service. In May 2019 there were 404 registered veterinarians with more than 80% being private; the remaining 20% are government staff. The majority of veterinarians operate clinics and pharmacies but with very few caring for companion animals.

From 2019, private DVMs have to obtain a ‘Licence’ which establishes a ‘zone’ or area of activity and specifies the activities that the veterinarian is permitted to undertake (e.g. veterinary clinic, veterinary pharmacy, artificial insemination, food safety, consultancies). Each veterinarian has to choose one or more possible activities. The only two activities that cannot be combined together are veterinary clinic and veterinary pharmacy.

The procedure for registration is that each year RCVD is informed by the veterinary school of the number of expected graduates (approximately 40). After graduation a mandatory professional internship is required for from six to twelve months, negotiated by the RCVD with partners such as VSF (Veterinaires Sans Frontières), the RDDP project, etc. After the internship licensing is approved by a board following a test. Each veterinarian is then provided with an identity card.

VPPs, that is ‘vets’ without DVMs, such as those with A1 and A2 qualifications (sometimes referred to as ‘paravets’, ‘veterinary technologists’ or ‘veterinary technicians’) are also required to be registered by the RCVD. As for DVMs, registration of the public sector VPPs is not mandatory though it said that most are registered – so far are 2,230 VPPs have been registered (21 are A1 and 2,209 are A2). Specific activities for which VPPs may be registered are: artificial insemination, veterinary clinic, veterinary pharmacy, and food hygiene and quality of animal products.

The RCVD also registers ‘zootechnicians’ that is those who have graduated in animal science with a four year university study. In Rwanda there are said to be more than 500 zootechnicians, 175 of whom are registered.

RCVD is an independent body, sustained only by the shares/fees payed by its enrolled vets and VPPs

The RCVD operates as five Provincial Council Boards. The ultimate target is to have Council Boards in each district.

The RCVD receives complaints and has a permanent inspection team for following up on complaints. If a veterinarian does not respect the licence that is for zoning or the type of activity, or in the case a VPP or some other person is undertaking activities not allowed then RCVD has the authority to apply sanctions including issuing warnings, second warnings, suspension, or complete withdrawing of registration.

#### **Key Changes from 2008 to 2019:**

- RCVD, the national VSB, was established in 2015
- RCVD registers veterinarians and VPPs

#### **Strengths:**

- RCVD established with legal mandate for veterinarians and VPPs
- The RCVD is an independent body financed by registration fees

#### **Weaknesses:**

- Public sector veterinarians and VPPs are not required to register with the RCVD
- Licensing veterinarians and VPPs to work in specific with zones and activities seems to be very restrictive
- VPPs are allowed to undertake many veterinary activities (as identified in the TAHC) e.g. prescription of veterinary medicines, undertaking surgery

#### **Recommendations:**

- The RCVD should limit the activity of VPPs restricting the right to prescribe veterinary medicines and to perform surgery
- Require the registration of public sector veterinarians and VPPs with the RCVD
- The name of RCVD should be modified to take into account the registration of VPPs
- RCVD should consider applying to the OIE for a VSB twinning project with other countries

**Evidence** (as listed in Appendix 6): E24, E58, E59, E61

III-6 Participation of producers and other stakeholders in joint programmes	Levels of advancement
<p><i>The capability of the VS to develop joint programmes (public-private partnerships) with producers and non-government stakeholders to deliver animal health, veterinary public health, food safety and/or animal welfare outcomes.</i></p>	1. Producers and other non-government stakeholders do not participate in joint programmes.
	2. Producers and other non-government stakeholders are informed of programmes by the VS and informally assist the VS in programme delivery in the field (e.g. industry groups helping to communicate the programme with their membership).
	3. Producers and other non-government stakeholders formally participate with the VS in the delivery of joint programmes and advise of needed changes and improvements.
	4. Representatives of producers and other non-government stakeholders actively partner with the VS to plan, manage and implement joint programmes.
	5. Producers and other non-government stakeholders contribute resources and may lead the development and delivery of effective joint programmes with the VS. They also actively participate in their regular review, audit and revision.

Terrestrial Code reference(s): Appendix 1

#### **Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 3
- PVS Gap Analysis (2010) – level 4 (5 year target)

#### **Findings:**

There is good engagement with the private sector, both producers and processors with collaboration on the delivery of joint programmes. There is no contribution of funds or other resources by the private sector but support is provided in administration and organisation.

RAB delivers animal health and veterinary public health programmes through the decentralised system at district and sector levels. There is good coordination with the private ‘vets’ and the CAHWs in the field and at abattoirs, processors, etc. Cooperation and engagement is informal as there are no formal contracts, agreements or MoUs.

#### **Key Changes from 2008 to 2019:**

- No major change

#### **Strengths:**

- Good consultation and cooperation between the public and private sectors

#### **Weaknesses:**

- No formal agreements or contracts between the public and private sectors

#### **Recommendations:**

- Develop cooperation and joint joint programmes between the public and private sectors including signing formal agreements or contracts

**Evidence** (as listed in Appendix 6): no documentation provided

III-7 Veterinary clinical services	Levels of advancement
<p><i>The availability and quality of veterinary clinical services to meet the needs of animal owners, including their access to animal disease or injury diagnosis and treatment.</i></p>	1. There are no/few clinical services provided from either the public or private sector.
	2. Clinical services are available to animal owners in some areas but the quality and coverage (i.e. access to qualified veterinarians and/or veterinary paraprofessionals) is highly variable.
	3. Clinical services are available to most animal owners via the public and/or private sector. In rural areas this is delivered mostly by veterinary paraprofessionals with some formal training and some veterinary supervision – but providing only basic clinical diagnosis and treatment.
	4. Clinical services are available to all animal owners via an efficient network of veterinary clinics, including in rural areas, serviced by qualified veterinarians assisted by veterinary paraprofessionals. Diagnoses are generally made prior to treatment, including with supporting laboratory tests where appropriate and professional standards are maintained by a well-functioning VSB.
	5. Clinical services are available to all animal owners through qualified veterinarians, with appropriate facilities, diagnostic equipment and treatments, and the opportunity for specialist referral if required.

Terrestrial Code reference(s): Appendix 1

**Results from Previous PVS Pathway Missions:**

- Not previously evaluated

**Findings:**

The numbers of veterinary clinics were not available. It was stated that 80% of the more than 400 registered veterinarians worked in private practice, that is provided clinical services.

In Kigali there are two elite veterinary practices with the capability to deliver high level care to companion and other animals. These practices had orthopaedic and soft tissue surgery skills and provided minor surgery/support activities such as radiography and dentistry using gaseous anaesthesia. The practices did not have specialist skills in disciplines such as ophthalmology.

In the rest of the country private veterinarians were able to provide basic surgery such as neutering and caesarean sections but these were undertaken under injectable anaesthesia. An NGO indicated that the private veterinarians and other ‘vets’ delivering clinical services were under-resourced and unable to buy their own transport or equipment.

The national veterinary school for DVMs provided training in animal handling, animal care, diagnosis and treatment including therapeutics and surgery.

Many private ‘vets’ in Rwanda are VPPs, as defined by OIE, and as such have not received appropriate training in medicine and surgery. It was noted that in an A2 school that was visited

the students were trained to undertake ‘minor’ surgery, which included ovariohysterectomies and caesarean sections in dogs.

**Key Changes from 2008 to 2019:**

- Not previously evaluated

**Strengths:**

- Veterinary school training follows OIE Day 1 guidelines
- High quality veterinary care provided in Kigali
- Private ‘vets’ widely available and provide a clinical service

**Weaknesses:**

- Many ‘vets’ providing clinical services have only been trained to VPP level
- There is only minimal supervision of the VPPs by veterinarians
- Facilities and expertise in clinical services is limited in much of the country

**Recommendations:**

- As numbers become available replace the non-DVM ‘vets’, that is the VPPs, with qualified veterinarians
- Seek to support and upgrade the delivery of private sector veterinary services by increasing engagement and delegation of services from the public sector

**Evidence** (as listed in Appendix 6): no documentation available

### III.4 Fundamental component IV: Access to markets

This component of the evaluation concerns the authority and capability of the VS to provide support by demonstrating the overall integrity of its animal health and veterinary public health system in order to access, expand and retain regional and international markets for animals and animal products.

#### Critical Competencies:

<b>IV-1 Legislation and regulations .....</b>	<b>104</b>
<b>A. Integrity and coverage of legislation and regulations .....</b>	<b>104</b>
<b>B. Implementation of and compliance with legislation and regulations .....</b>	<b>106</b>
<b>IV-2 International harmonisation .....</b>	<b>108</b>
<b>IV-3 International certification .....</b>	<b>110</b>
<b>IV-4 Equivalence and other types of sanitary agreements .....</b>	<b>112</b>
<b>IV-5 Transparency .....</b>	<b>114</b>
<b>IV-6 Zoning .....</b>	<b>116</b>
<b>IV-7 Compartmentalisation .....</b>	<b>118</b>

#### ----- Terrestrial Code References:

*Points 6, 7 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation/General organisation/Procedures and standards.*

*Points 1 and 2 of Article 3.2.7. on Legislation and functional capabilities: Animal health, animal welfare and veterinary public health/Export/import inspection.*

*Points 1 and 3 of Article 3.2.8. on Animal health controls: Animal health status/National animal disease reporting systems.*

*Sub-point g) of Point 4 of Article 3.2.10. on Veterinary Services administration: Trade performance history.*

*Article 3.2.11. on Participation in OIE activities.*

*Points 7 and 11 of Article 3.2.14. on Veterinary legislation, regulations and functional capabilities/Membership of the OIE.*

*Chapter 3.4. on Veterinary legislation.*

*Chapter 4.3. on Zoning and compartmentalisation.*

*Chapter 4.4. on Application of compartmentalisation.*

*Chapter 5.1. on General obligations related to certification.*

*Chapter 5.2. on Certification procedures.*

*Chapter 5.3. on OIE procedures relevant to the Agreement on the Application of Sanitary and Phytosanitary Measures of the World Trade Organization.*

*Chapters 5.10. to 5.13. on Model international veterinary certificates.*

IV-1 Legislation and regulations	Levels of advancement
<p><i>The effectiveness of veterinary legislation and regulations.</i></p>	<p>1. National veterinary legislation is lacking, out-dated or of poor quality. The VS do not have the authority or capability to develop or update legislation and regulations.</p>
<p><b>A. Integrity and coverage of legislation and regulations</b></p>	<p>2. Veterinary legislation and regulations cover some fields of the veterinary domain. The VS, working with legal professionals, have some authority and capability to develop or update national legislation and regulations.</p>
<p><i>The authority and capability of the VS to develop or update veterinary legislation to ensure its quality and coverage of the veterinary domain.</i></p>	<p>3. Veterinary legislation and regulations cover most fields, including in collaboration with relevant Competent Authorities. The VS, working in formal partnership with legal professionals, have the authority and capability to develop or update national legislation and regulations, including via consultation with stakeholders, to ensure its legal quality and applicability.</p>
<p><i>This competency covers the quality of legislation considering the principles of legal drafting, its impact, and suitability for implementation.</i></p>	<p>4. The VS have national (and sub-national where relevant) veterinary legislation and regulations covering the entire veterinary domain. The VS have the authority and the capability to develop or update national (and sub-national) legislation and regulations, using a formal methodology which considers consultation with stakeholders, regulatory impact, legal quality and applicability, and international standards.</p>
<p><i>This competency includes formal collaboration with other legal drafting professionals, other relevant ministries and Competent Authorities, national agencies and decentralised institutions that share authority or have mutual interest in relevant areas of the veterinary domain. It also covers stakeholder consultation relevant to veterinary legislation.</i></p>	<p>5. The VS have comprehensive and current national (and sub-national where relevant) veterinary legislation and regulations that covers the entire veterinary domain. The VS regularly evaluate and update their legislation and regulations with reference to ongoing effectiveness and changing international standards and science.</p>

Terrestrial Code reference(s): Appendix 1

### **Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 2
- PVS Gap Analysis (2010) – level 4 (5 year target)

### **Findings:**

The Rwanda VS have veterinary legislation that covers most fields, including legislation for other Competent Authorities. Rwanda has enacted a series of new laws that affect the veterinary domain in recent years including: establishing the Rwanda Veterinary Council (2013), the Food and Drug Law (2013), establishing the Rwanda Food and Drug Authority (2018) and the draft Animal Feed Law.

Though the veterinary legislation is quite comprehensive there are concerns over its consistency and quality; this issue was identified in the VLSP mission conducted in 2014. This continues to apply. For example, in two laws on veterinary activities one uses the term veterinary doctor and the other veterinary surgeon, though both refer to ‘veterinarians’ that is



those with a DVM; other terms and definitions are also sometimes ambiguous causing confusion.

The overly long, detailed and complex Animal Health Law (2009) remains in place and needs review and revision. The recommendation to use more Ministerial Orders would help to simplify primary legislation.

A further concern is the lack of consultation with stakeholders over proposed legislation to that relevant, intelligible and applicable.

**Key Changes from 2008 to 2019:**

- The Rwanda VS have veterinary legislation that covers most fields, including legislation mandating other Competent Authorities

**Strengths:**

- Extensive veterinary legislation
- New legislation has been put in place to address identified gaps

**Weaknesses:**

- The primary laws are often overly complex and unwieldy
- Insufficient use of secondary legislation
- Drafting quality is often poor
- Inadequate consultation

**Recommendations:**

- Review and revise the primary laws, particularly the Animal Health Law (2009)
- Increase the use of secondary legislation (Ministerial Orders)
- Improve drafting quality by employing/contracting professional legal drafters
- Increase consultation on proposed legislation and its progression through drafting and approval

**Evidence** (as listed in Appendix 6): E12, E22, E43, E48

<b>B. Implementation of and compliance with legislation and regulations</b>	<b>Levels of advancement</b>
<p><i>The authority and capability of the VS to ensure compliance with legislation and regulations across the veterinary domain through communications and compliance inspection activities.</i></p> <p><i>This competency includes formal collaboration with other relevant ministries and Competent Authorities, national agencies and decentralised institutions that share responsibility for implementation, or have mutual interest in relevant areas.</i></p>	1. The VS have no or very limited programmes or activities to communicate or ensure compliance with legislation and regulations.
	2. The VS implement some programmes or activities comprising targeted communications and awareness raising on stakeholder legal obligations, but conduct few inspection and compliance verification activities.
	3. <i>Veterinary legislation</i> is implemented through a programme of communications and awareness raising, and through formal, documented inspection and compliance verification activities. The VS undertake some legal action/initiate prosecution in instances of non-compliance in most relevant fields of activity.
	4. <i>Veterinary legislation</i> is implemented across the entire veterinary domain and is consistently applied. The VS work to minimise instances of non-compliance through multiple means, including through targeted communications, incentives and appropriate legal processes. They have documented reports of dealing with non-compliance.
	5. Legislative or regulatory compliance programmes are regularly subjected to audit and review by the VS or external agencies.

Terrestrial Code reference(s): Appendix 1

**Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 2
- PVS Gap Analysis (2010) – level 4

**Findings:**

RAB have no records of compliance activities as all field activities are implemented by the decentralised districts and sectors.

The districts undertake some awareness raising activities and some monitoring of compliance but the programme is said to take place more in principle than in practice. Some fines for non-compliance are being imposed and there is a disagreement as to whether these funds should be paid to RAB or the district authorities.

At live cattle markets cattle are mostly identified but not all and no actions are apparently being taken to address this problem.

No records were available on the reporting of notifiable diseases so it was not possible to assess the rigour of reporting.

No information on compliance activities was available from the border inspection posts or other Competent Authorities such as Rwanda FDA

**Key Changes from 2008 to 2019:**

- No major change

**Strengths:**

- Some local area compliance activities taking place but no reporting or consolidation nationally

**Weaknesses:**

- No coherent reporting at district level – and no reporting or consolidation of activities at central level

**Recommendations:**

- Develop a risk based programme for priority compliance activities including target groups, communication messages and monitoring and compliance activities
- Develop rigorous reporting at district and central levels

**Evidence** (as listed in Appendix 6): E11, E12, E22, E43, E48

IV-2 International harmonisation	Levels of advancement
<p><i>The authority and capability of the VS to be active in the harmonisation of national regulations and sanitary measures to ensure they take into account international standards, and/or related regional directives or guidelines.</i></p>	1. National regulations and <i>sanitary measures</i> under the mandate of the VS do not take into account international standards.
	2. The VS are aware of gaps, inconsistencies or non-conformities in national regulations and <i>sanitary measures</i> as compared to international standards, but do not have the capability or authority to rectify the problems.
	3. The VS monitor the establishment of new and revised international standards, and periodically review national regulations and <i>sanitary measures</i> in response.
	4. The VS harmonise their regulations and <i>sanitary measures</i> , and can demonstrate a level of alignment with changing international standards. The VS also review and comment on the draft standards of relevant intergovernmental organisations, and work through regional organisations, where available, to ensure better harmonisation with international standards.
	5. The VS actively and regularly participate at the international level in the formulation, negotiation and adoption of international standards, and use the standards to regularly harmonise national legislation, regulations and <i>sanitary measures</i> .

Terrestrial Code reference(s): Appendix 1

**Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 4
- PVS Gap Analysis (2010) – level 4 (5 year target)

**Findings:**

Rwanda monitors the establishment of new and revised international standards as an active member of the EAC and also through its participation in OIE regional and international meetings. A VLSP mission was conducted in Rwanda in 2014 and this highlighted a number of gaps in the veterinary legislation.

Rwanda has developed legislation, with reference to WTO-SPS rules, to support free trade in animals and animal products including the definition of place of origin and the requirements for health certificates. The main Government agencies responsible for trade in animals and animal products in Rwanda are MINAGRI and RSB.

Specific legislation is also in place covering food safety and food standards. Imports of animal products considered of high risk to humans and the environment require a batch certificate from the RSB, confirming that the product is in line with Rwanda standards, or to an international or foreign standard recognised by the RSB. All imported foodstuffs must indicate the date of manufacture and expiry. Product labelling requirements are defined including the name of the product, its ingredients, net weight, name and address of the manufacturer, packer, distributor, importer, exporter or vendor, lot identification, date marking and storage

instructions, and instructions for use. All mandatory information must be in one of the three official languages (English, French, or Kinyarwanda).

A number of new laws have been passed in recent years but these laws tend to lack quality.

**Key Changes from 2008 to 2019:**

- Rwanda has developed legislation, with reference to WTO-SPS rules, to support free trade in animals and animal products including the definition of place of origin and the requirements for health certificates
- Specific legislation is in place covering food safety and food standards

**Strengths:**

- Engagement in the EAC and participation in some OIE regional and international meetings
- New legislation recently passed

**Weaknesses:**

- Quality of legislation is inconsistent
- Not all OIE and WTO meetings are being attended

**Recommendations:**

- Improve the quality of legal drafting by making greater use of legal drafting expertise
- Plan for and schedule attendance at all key OIE and WTO meetings and review and comment on the draft standards of international and regional organisations

**Evidence** (as listed in Appendix 6): E41

IV-3 International certification	Levels of advancement
<p><i>The authority and capability of the VS to reliably certify animals and animal products, and related services and processes under their mandate, for export, in accordance with national legislation and regulations, international standards and importing country requirements.</i></p> <p><i>This refers to the country's veterinary export certification processes. Issues such as: the legislative basis, format and content of veterinary certificates; who signs certificates and the confidence they have in what they are certifying; and the outcome in terms of meeting international standards and/or importing country requirements to facilitate exportation should all be considered.</i></p>	1. The VS have neither the authority nor the capability to certify animals and animal products for export.
	2. The VS have the authority to certify certain animals and animal products for export, but are not always in compliance with national legislation and regulations, and international standards.
	3. The VS develop and carry out certification for certain animals, animal products, services and processes for export under their mandate in compliance with international standards.
	4. The VS develop and carry out all relevant certification programmes for all animals, animal products, services and processes for export under their mandate in compliance with international standards.
	5. The VS carry out audits of their certification programmes, in order to maintain national and international confidence in their system.

Terrestrial Code reference(s): Appendix 1

**Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 2
- PVS Gap Analysis (2010) – level 4 (5 year target)

**Findings:**

Rwanda has a define process for the certification of animals and animal products for export. RAB is responsible for certifying the health of live animals and RALIS for the certification of quality and safety of animal products; Rwanda FDA is expected to take over the certification of food products form RALIS. Certificates meet international standards with clear identification of product and source.

The major concern with the validity of the health certificates is the limited information available on the animal health status of the country as surveillance systems and laboratory testing is weak. Certificates are therefore based on limited knowledge.

In the fiscal year 2017-2018 Rwanda exported cattle (170,882), goats and sheep (218,882), pigs (154,572), hatching eggs and day old chicks (3,173 tons).

**Key Changes from 2008 to 2019:**

- RALIS has improved the procedure for issuing health certificates for animal origin foods

**Strengths:**

- RAB and RALIS issue international health certificates in compliance with international standards

- RAB and RALIS have appropriate staffing
- RAB and RALIS meet with counterparts in the EAC to develop protocols and harmonise standards (tests, processes, health guaranties etc)

**Weaknesses:**

- Poor surveillance information management limits integrity of the certification process
- The VS does not conduct audits of their certification programmes to ensure international confidence
- The transition from RALIS to Rwanda FDA for the certification of food products may compromise the reliability of the system

**Recommendations:**

- Strengthen the national surveillance system to improve the integrity of certification
- Ensure that the transition from RALIS to Rwanda FDA does not compromise the reliability of certification
- To put in place at RAB level and at RALIS (Rwanda FDA) level a certification programme that ensures international confidence
- Implement an audit programme to ensure the reliability of the international health certificates

**Evidence** (as listed in Appendix 6): E30, E36, E39, E51, E55, E64, E79, E80, E81, E83, E86, E87, E90

IV-4 Equivalence and other types of sanitary agreements	Levels of advancement
<p><i>The authority and capability of the VS to apply flexibility in negotiating, implementing and maintaining equivalence and other types of sanitary agreements with trading partners.</i></p> <p><i>As a reference, Article 4 of the WTO SPS Agreement:</i></p> <p><i>Members shall accept the sanitary or phytosanitary measures of other Members as equivalent, even if these measures differ from their own or from those used by other Members trading in the same product, if the exporting Member objectively demonstrates to the importing Member that its measures achieve the importing Member's appropriate level of sanitary or phytosanitary protection. For this purpose, reasonable access shall be given, upon request, to the importing Member for inspection, testing and other relevant procedures.</i></p>	1. The VS have neither the authority nor the capability to negotiate or approve equivalence or other types of sanitary agreements with other countries.
	2. The VS have the authority to negotiate and approve equivalence and other types of sanitary agreements with trading partners, but no such agreements have been implemented.
	3. The VS have implemented equivalence and other types of sanitary agreements with trading partners on selected animals, animal products and processes.
	4. The VS actively pursue the development, implementation and maintenance of equivalence and other types of sanitary agreements with trading partners on all matters relevant to animals, animal products and processes under their mandate. They publish their existing sanitary agreements in the public domain.
	5. The VS actively work with stakeholders and take account of developments in international standards, in pursuing equivalence and other types of sanitary agreements with trading partners.

Terrestrial Code reference(s): Appendix 1

### **Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 5
- PVS Gap Analysis (2010) – level 5 (5 year target)

### **Findings:**

The most significant sanitary agreement for Rwanda is for trade in animals and animal origin food in the East African Community (EAC) as determined in the EAC SPS Protocol. The EAC is a regional intergovernmental organisation consisting of six partner countries: Rwanda, Uganda, Kenya, Tanzania, Burundi and South Sudan. Under the EAC SPS Protocol (approved by five States, not yet South Sudan) countries are to cooperate, in order to promote trade of food and agricultural commodities, for the harmonisation of plant health, animal health and food safety measures.

Under the EAC SPS Protocol RAB and RALIS (and soon also Rwanda FDA) meet with other country representatives to develop and share protocols and harmonise standards (tests, processes, health guaranties, etc) for the import and export of animals and animal products. Previous agreements (still valid) for the import and export of animals and animal origin products were based only on health certificates.



Agreement has been reached with DRC on veterinary health certificates.

No equivalence agreements have been established by Rwanda's authorities.

It is noted that in 2008 the assessment of this CC was level 5 which suggested a very high level of international agreements on trade considering equivalence and sanitary agreements. In this evaluation level 3 is considered appropriate as Rwanda do not publish 'their existing sanitary agreements in the public domain' and do not have '...sanitary agreements with trading partners on all matters relevant to animal products and processed under their mandate', that is level 4

**Key Changes from 2008 to 2019:**

- EAC SPS Protocol endorsed 2013
- The level 3 compared with the previous level 5 is explained by the lack of broad-based sanitary agreements and no publication of their standards and agreements

**Strengths:**

- RAB and RALIS have developed some specific animal health certificates for animal and animal products for the import and export to other EAC countries and also to other countries (e.g. Republic Democratic of Congo).
- The EAC SPS Protocol
- Existing sanitary agreements based on compliance with international health certificates

**Weaknesses:**

- Competent Authorities do not publish existing sanitary agreements in the public domain

**Recommendations:**

- Competent Authorities should publish the existing sanitary agreements in the public domain (e.g. on the MINAGRI website)
- Existing international health certificates should be updated and adjusted in line with international standards
- Take advantage of the EAC SPS Protocol for the better regulation of imports and exports with the other member countries

**Evidence** (as listed in Appendix 6): E65, E90

IV-5 Transparency	Levels of advancement
<i>The authority and capability of the VS to notify the OIE, WTO, trading partners and other relevant organisations of its disease status, regulations and sanitary measures and systems, in accordance with established procedures, as applicable to international trade.</i>	1. The VS do not notify.
	2. The VS occasionally notify.
	3. The VS notify in compliance with the procedures established by these organisations.
	4. The VS regularly and actively inform stakeholders of changes in disease status, regulations and sanitary measures and systems, as applicable to international trade.
	5. The VS, in cooperation with their stakeholders, carries out reviews or audits of their notification procedures.

Terrestrial Code reference(s): Appendix 1

#### **Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 3
- PVS Gap Analysis (2010) – level 4 (5 year target)

#### **Findings:**

Biannual notifications to OIE of Rwanda's animal health status were regular up till 2018; last year notifications were received. Notifications to OIE of animal diseases outbreaks used to be regular, but in 2018 notification of RVF outbreaks were delayed (OIE and FAO); notifications of RVF outbreaks were delayed compared with other countries and only provided after a number of human cases in Rwanda. In addition, some difficulties were reported on follow-up queries or reports. It is noted that only a single event was reported from 2017 up to April 2019.

OIE focal points are at RAB. Other international focal points are RSB for Codex Alimentarius though this will soon change to Rwanda FDA and MINECOM for the WTO-SPS Agreement. According to RALIS staff, notifications of standard modifications in food safety are regularly sent to the SPS Agreement Secretariat by the MINECOM focal point.

There is no evidence that VS regularly and actively inform stakeholders of changes in regulations and sanitary measures, as applicable to international trade.

#### **Key Changes from 2008 to 2019:**

- OIE notifications were good but have become less predictable
- Ongoing notifications to WTO-SPS and Codex Alimentarius

#### **Strengths:**

- Veterinary Services generally notify OIE
- The focal points for notification to Codex Alimentarius and WTO are clearly identified

#### **Weaknesses:**

- The VS do not regularly and actively inform stakeholders of changes in regulations and sanitary measures and systems, as applicable to international trade

- The VS, in cooperation with their stakeholders, do not carry out reviews or audits of their notification procedures

**Recommendations:**

- The VS should regularly and actively inform stakeholders of changes in regulations and sanitary measures and systems applicable to international trade
- The VS, in cooperation with their stakeholders, should carry out reviews or audits of their notification procedures

**Evidence** (as listed in Appendix 6): E90

IV-6 Zoning	Levels of advancement
<p><i>The authority and capability of the VS to establish and maintain disease free zones, as necessary and in accordance with the criteria established by the OIE (and by the WTO SPS Agreement where applicable).</i></p> <p><i>Where a country has no need for or interest in developing disease free zones and has not initiated such a process, this Critical Competency should be assessed as “Non-Applicable” (N/A).</i></p>	1. The VS do not have the authority or capability to initiate the establishment of disease free zones.
	2. The VS have identified a geographical animal sub-population or sub-populations as candidates to target a specific health status suitable for zoning.
	3. The VS are implementing <i>biosecurity</i> and sanitary measures with the intention of establishing a disease free zone for selected animals and animal products.
	4. The VS have established at least one disease free zone of selected animals and animal products with collaboration from producers and other stakeholders in alignment with OIE standards.
	5. The VS can demonstrate the scientific basis for any disease free zone and have gained recognition by OIE and/or trading partners that they meet the criteria established by the OIE (and by the WTO SPS Agreement where applicable).

Terrestrial Code reference(s): Appendix 1

#### **Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 4
- PVS Gap Analysis (2010) – level 5 (5 year target)

#### **Findings:**

MINAGRI and RAB expressed the desire to establish a disease-free zone for FMD. The requirements of establishing an internationally recognised disease-free zone and consideration of OIE standards were not well understood. The impression given was that as no disease had been detected that a disease-free zone could be declared, that is a ‘self declaration’.

The VS have the legal authority to establish a disease-free zone. However the capability is currently lacking.

RAB working with the decentralised field veterinary services can define a sub-population and this might be demarcated by a natural barrier; though Rwanda is densely populated and livestock production is mostly small scale and ubiquitous there are some natural barriers that might be used, particularly the major rivers and lakes. The problems to be addressed include the weak surveillance detection and monitoring systems, the lack of a rigorous livestock identification and movement control programme, no contingency planning and no effective risk analysis. A further critical limitation is the weak chain of command of the VS with its decentralised structure and multiple agencies and boards. These limitations would result in the inability to manage and protect a disease-free zone.

#### **Key Changes from 2008 to 2019:**

- In 2008 the assessment of this CC was level 4 which was incorrect. Rwanda have never established a disease-free zone according to OIE standards. Currently Rwanda

can identify a target population (level 2) but has not yet implemented any biosecurity measures – that is level 3 has not yet been reached

**Strengths:**

- Political enthusiasm to develop a disease-free zone for FMD
- Possibility of identifying a disease-free zone with defined boundaries

**Weaknesses:**

- Weak surveillance detection and monitoring systems, the lack of a rigorous livestock identification and movement control programme, no contingency planning and no effective risk analysis
- Complex decentralised delivery of the VS with weak chain of command

**Recommendations:**

- Address the limitations – strengthen the surveillance detection and monitoring systems, implement a rigorous livestock identification and movement control programme, develop contingency plans and capacity in risk analysis
- Strengthen the chain of command of the VS

**Evidence** (as listed in Appendix 6): no documentation available

IV-7 Compartmentalisation	Levels of advancement
<p><i>The authority and capability of the VS to establish and maintain disease free compartments in accordance with the criteria established by the OIE.</i></p> <p><i>Where a country or its relevant animal industries have no need for or interest in developing disease free compartments and neither party has initiated or considered such a process or partnership, this Critical Competency should be assessed as “Non-Applicable” (N/A)</i></p>	1. The VS do not have the authority or capability to initiate the establishment of disease free <i>compartments</i> . <sup>5</sup>
	2. The VS can identify animal sub-populations as candidate establishments with a specific health status suitable for compartmentalisation, in partnership with interested stakeholders.
	3. The VS, working in close partnership with interested stakeholders, ensure that planned <i>biosecurity</i> measures to be implemented will enable the establishment and maintenance of disease free <i>compartments</i> for selected animals and animal products.
	4. The VS collaborate with producers and other stakeholders to define responsibilities and undertake actions that enable the establishment and maintenance of disease free <i>compartments</i> for selected animals and animal products, including a national government certification and accreditation system.
	5. The VS can demonstrate the scientific basis for disease free <i>compartments</i> and have gained recognition by other countries that they meet the criteria established by the OIE (and by the WTO SPS Agreement where applicable).

Terrestrial Code reference(s): Appendix 1

**Results from Previous PVS Pathway Missions:**

- PVS Evaluation (2008) – level 1
- PVS Gap Analysis (2010) – level 1 (5 year target)

**Findings:**

No assessed – as compartmentalisation is not considered applicable in Rwanda at this time

<sup>5</sup> If the VS has the authority and capability but chooses not to implement compartmentalization, this CC should be recorded as “not applicable at this stage”

## PART IV: APPENDICES

### Appendix 1: Terrestrial Code references for Critical Competencies

Critical Competencies	Terrestrial Code references
<b>I-1.A</b> <b>I-1.B</b> <b>I-2.A</b> <b>I-2.B</b>	<ul style="list-style-type: none"> <li>➤ Points 1-5 of Article 3.1.2. on Fundamental principles of quality: Professional judgement/Independence/Impartiality/Integrity/Objectivity.</li> <li>➤ Points 7 and 14 of Article 3.1.2. on Fundamental principles of quality: General organisation/Human and financial resources.</li> <li>➤ Article 3.2.5. on Evaluation criteria for human resources.</li> <li>➤ Article 3.2.12. on Evaluation of the veterinary statutory body.</li> <li>➤ Points 1-2 and 5 of Article 3.2.14. on Organisation and structure of Veterinary Services/National information on human resources/Laboratory services.</li> </ul>
<b>I-3</b>	<ul style="list-style-type: none"> <li>➤ Points 1, 7 and 14 of Article 3.1.2. on Fundamental principles of quality: Professional judgement/General organisation/Human and financial resources.</li> <li>➤ Article 3.2.5. on Evaluation criteria for human resources.</li> <li>➤ Sub-point d) of Point 4 of Article 3.2.10. on Veterinary Services administration: In-service training and development programme for staff.</li> <li>➤ Point 10 of Article 3.2.14. on Performance assessment and audit programmes.</li> </ul>
<b>I-4</b>	<ul style="list-style-type: none"> <li>➤ Point 2 of Article 3.1.2. on Fundamental principles of quality: Independence.</li> </ul>
<b>I-5</b>	<ul style="list-style-type: none"> <li>➤ Point 1 of Article 3.2.3. on Evaluation criteria for the organisational structure of the Veterinary Services.</li> <li>➤ Point 10 of Article 3.2.14. on Performance assessment and audit programmes.</li> </ul>
<b>I-6.A</b> <b>I-6.B</b>	<ul style="list-style-type: none"> <li>➤ Points 6, 7 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation/General organisation/Procedures and standards.</li> <li>➤ Article 3.2.2. on Scope.</li> <li>➤ Points 1 and 2 of Article 3.2.3. on Evaluation criteria for the organisational structure of the Veterinary Services.</li> <li>➤ Point 4 of Article 3.2.10. on Performance assessment and audit programmes: Veterinary Services administration.</li> </ul>
<b>I-7</b>	<ul style="list-style-type: none"> <li>➤ Point 2 of Article 3.2.4. on Evaluation criteria for quality system: “Where the Veterinary Services undergoing evaluation... than on the resource and infrastructural components of the services”.</li> <li>➤ Points 2 and 3 of Article 3.2.6. on Evaluation criteria for material resources: Administrative / Technical.</li> <li>➤ Point 3 of Article 3.2.10. on Performance assessment and audit programmes: Compliance.</li> <li>➤ Point 4 of Article 3.2.14. on Administration details.</li> </ul>
<b>I-8</b> <b>I-9</b>	<ul style="list-style-type: none"> <li>➤ Points 6 and 14 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / Human and financial resources.</li> <li>➤ Point 1 of Article 3.2.6. on Evaluation criteria for material resources: Financial.</li> <li>➤ Point 3 of Article 3.2.14. on Financial management information.</li> </ul>
<b>I-11</b>	<ul style="list-style-type: none"> <li>➤ Points 7, 11 and 14 of Article 3.1.2. on Fundamental principles of quality: General organisation / Documentation / Human and financial resources.</li> <li>➤ Point 4 of Article 3.2.1. on General considerations.</li> <li>➤ Point 1 of Article 3.2.2. on Scope.</li> <li>➤ Article 3.2.6. on Evaluation criteria for material resources.</li> <li>➤ Article 3.2.10. on Performance assessment and audit programmes.</li> </ul>
<b>II-1.A</b> <b>II-1.B</b> <b>II-1.C</b>	<ul style="list-style-type: none"> <li>➤ Point 9 of Article 3.1.2. on Fundamental principles of quality: Procedures and standards.</li> <li>➤ Point 1 of Article 3.2.4. on Evaluation criteria for quality systems.</li> </ul>

	<ul style="list-style-type: none"> <li>➤ Point 3 of Article 3.2.6. on Evaluation criteria for material resources: Technical.</li> <li>➤ Point 5 of Article 3.2.14. on Laboratory services.</li> </ul>
<b>II-2</b>	<ul style="list-style-type: none"> <li>➤ Chapter 2.1. on Import risk analysis</li> <li>➤ Chapter 6.11. on Risk analysis for antimicrobial resistance arising from the use of antimicrobial agents in animals</li> </ul>
<b>II-3</b>	<ul style="list-style-type: none"> <li>➤ Points 6 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / Procedures and standards.</li> <li>➤ Point 2 of Article 3.2.7. on Legislation and functional capabilities: Export/import inspection.</li> <li>➤ Points 7 and 8 of Article 3.2.14. on Veterinary legislation, regulations and functional capabilities / Animal health and veterinary public health controls.</li> </ul>
<b>II-4.A</b> <b>II-4.B</b>	<ul style="list-style-type: none"> <li>➤ Points 6, 7 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / General organisation / Procedures and standards.</li> <li>➤ Points 1-3 of Article 3.2.8. on Animal health controls: Animal health status / Animal health control / National animal disease reporting systems.</li> <li>➤ Sub-points a) i), ii) and iii) of Point 8 of Article 3.2.14. on Animal health: Description of and sample data from any national animal disease reporting system controlled and operated or coordinated by the Veterinary Services / Description of and sample reference data from other national animal disease reporting systems controlled and operated by other organisations which make data and results available to Veterinary Services / Description and relevant data of current official control programmes including:... or eradication programmes for specific diseases.</li> <li>➤ Chapter 1.4. on Animal health surveillance.</li> <li>➤ Chapter 1.5. on Surveillance for arthropod vectors of animal diseases.</li> </ul>
<b>II-5</b>	<ul style="list-style-type: none"> <li>➤ Points 6, 7 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / General organisation / Procedures and standards.</li> <li>➤ Points 1-3 of Article 3.2.8. on Animal health controls: Animal health status / Animal health control / National animal disease reporting systems.</li> <li>➤ Sub-point a) of Point 8 of Article 3.2.14. on Animal health, animal welfare and veterinary public health controls: Animal health.</li> </ul>
<b>II-6</b>	<ul style="list-style-type: none"> <li>➤ Points 6, 7 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / General organisation / Procedures and standards.</li> <li>➤ Points 1-3 of Article 3.2.8. on Animal health controls: Animal health status / Animal health control / National animal disease reporting systems.</li> <li>➤ Sub-point a) of Point 8 of Article 3.2.14. on Animal health, animal welfare and veterinary public health controls: Animal health.</li> <li>➤ Chapter 4.12. on Disposal of dead animal.</li> </ul>
<b>II-7.A</b> <b>II-7.B</b>	<ul style="list-style-type: none"> <li>➤ Points 6, 7 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / General organisation / Procedures and standards.</li> <li>➤ Article 3.4.12. on Human food production chain.</li> <li>➤ Points 1-5 of Article 3.2.9. on Veterinary public health controls: Food hygiene / Zoonoses / Chemical residue testing programmes / Veterinary medicines/ Integration between animal health controls and veterinary public health.</li> <li>➤ Points 2, 7 and 8 of Article 3.2.14. on National information on human resources / Veterinary legislation, regulations and functional capabilities / Animal health and veterinary public health controls.</li> <li>➤ Chapter 6.2. on Control of biological hazards of animal health and public health importance through ante- and post-mortem meat inspection.</li> <li>➤ Chapter 6.3. on Control of biological hazards of animal health and public health importance through ante- and post-mortem meat inspection.</li> </ul> <p>References to Codex Alimentarius Commission standards:</p> <ul style="list-style-type: none"> <li>➤ Code of Hygienic practice for meat (CAC/RCP 58-2005).</li> <li>➤ Code of Hygienic practice for milk and milk products (CAC/RCP/ 57-2004).</li> <li>➤ General Principles of Food Hygiene (CAC/RCP 1-1969; amended 1999. Revisions 1997 and 2003).</li> </ul>



<p><b>II-8</b></p>	<ul style="list-style-type: none"> <li>➤ Points 6 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation/Procedures and standards.</li> <li>➤ Points 3 and 4 of Article 3.2.9. on Veterinary public health controls: Chemical residue testing programmes/Veterinary medicines.</li> <li>➤ Sub-point a) ii) of Point 7 of Article 3.2.14. on Animal health and animal welfare and veterinary public health: Assessment of ability of Veterinary Services to enforce legislation.</li> </ul>
<p><b>II-9</b></p>	<ul style="list-style-type: none"> <li>➤ Chapter 6.7. on Introduction to the recommendations for controlling antimicrobial resistance</li> <li>➤ Chapter 6.8. on Harmonisation of national antimicrobial resistance surveillance and monitoring programmes</li> <li>➤ Chapter 6.9. on Monitoring of the quantities and usage patterns of antimicrobial agents used in food-producing animals</li> <li>➤ Chapter 6.10. on Responsible and prudent use of antimicrobial agents in veterinary medicine</li> <li>➤ Chapter 6.11. on Risk analysis for antimicrobial resistance arising from the use of antimicrobial agents in animals</li> </ul> <p>References to Codex Alimentarius Commission standards:</p> <ul style="list-style-type: none"> <li>➤ Guidelines for Risk Analysis of Foodborne Antimicrobial Resistance (CAC/GL 77-2011)</li> <li>➤ Code of Practice to Minimize and Contain Antimicrobial Resistance (CAC/RCP 61-2005).</li> </ul>
<p><b>II-10</b></p>	<ul style="list-style-type: none"> <li>➤ Points 3 and 4 of Article 3.2.9. on Veterinary public health controls: Chemical residue testing programmes / Veterinary medicines.</li> <li>➤ Sub-points b) iii) and iv) of Point 8 of Article 3.2.14. on Veterinary public health: Chemical residue testing programmes / Veterinary medicines.</li> <li>➤ Chapter 2.2 – Criteria applied by the OIE for assessing the safety of commodities.</li> </ul> <p>References to Codex Alimentarius Commission standards:</p> <ul style="list-style-type: none"> <li>➤ Guidelines for the Design and Implementation of National Regulatory Food Safety Assurance Programmes Associated with the Use of Veterinary Drugs in Food Producing Animals (CAC/GL 71-2009)</li> <li>➤ Glossary of Terms and Definitions (Residues of Veterinary Drugs in Foods) (CAC/MISC 5-1993)</li> <li>➤ Maximum Residue Limits (MRLs) and Risk Management Recommendations (RMRs) for Residues of Veterinary Drugs in Foods (CAC/MRL 2)</li> <li>➤ Code of Practice to Minimize and Contain Antimicrobial Resistance (CAC/RCP 61-2005)</li> <li>➤ General Standard for Contaminants and Toxins in Food and Feed (CODEX STAN 193-1995)</li> <li>➤ Code of Practice Concerning Source Directed Measures to Reduce Contamination of Foods with Chemicals (CAC/RCP 49-2001)</li> <li>➤ Guidelines for Risk Analysis of Foodborne Antimicrobial Resistance (CAC/GL 77-2011).</li> <li>➤ Code of Practice to Minimize and Contain Antimicrobial Resistance (CAC/RCP 61-2005).</li> </ul>
<p><b>II-11</b></p>	<ul style="list-style-type: none"> <li>➤ Chapter 6.4. on Control of hazards of animal health and public health importance in animal feed.</li> <li>➤ Chapter 6.10.8 – Responsibilities of animal feed manufacturers</li> </ul>
<p><b>II-12.A</b> <b>II-12.B</b></p>	<ul style="list-style-type: none"> <li>➤ Point 6 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation.</li> <li>➤ Chapter 4.1. on General principles on identification and traceability of live animals.</li> <li>➤ Chapter 4.2. on Design and implementation of identification systems to achieve animal traceability.</li> </ul>

<b>II-13</b>	<ul style="list-style-type: none"> <li>➤ Section 7 on Animal Welfare</li> <li>➤ Chapters 7.2., 7.3., 7.4. 7.5., 7.6., 7.9., 7.10., 7.11 and 7.13. on farm animal welfare (including humane on farm, transport and slaughter conditions).</li> <li>➤ Chapter 7.8. on Use of animals in research and education.</li> <li>➤ Chapter 7.7. on Stray dog population control.</li> <li>➤ Chapter 7.12. on Welfare of working equids.</li> </ul>
<b>III-1</b>	<ul style="list-style-type: none"> <li>➤ Point 13 of Article 3.1.2. on Fundamental principles of quality: Communication.</li> <li>➤ Sub-point b) of Point 2 of Article 3.2.6. on Administrative resources: Communications.</li> <li>➤ Point 4 of Article 3.2.14. on Administration details.</li> <li>➤ Chapter 3.3. on Communication.</li> </ul>
<b>III-2</b>	<ul style="list-style-type: none"> <li>➤ Point 13 of Article 3.1.2. on Fundamental principles of quality: Communication.</li> <li>➤ Point 2 of Article 3.2.3. on Evaluation criteria for the organisational structure of the Veterinary Services.</li> <li>➤ Point 4 and Sub-point g) of Point 10 of Article 3.2.14. on Administration details and on Sources of independent scientific expertise.</li> <li>➤ Chapter 3.3. on Communication.</li> </ul>
<b>III-3</b>	<ul style="list-style-type: none"> <li>➤ Article 3.2.11. on Participation on OIE activities.</li> <li>➤ Point 4 of Article 3.2.14. on Administration details.</li> </ul>
<b>III-4</b>	<ul style="list-style-type: none"> <li>➤ Points 6, 7 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / General organisation / Procedures and standards.</li> <li>➤ Point 7 of Article 3.2.3. on Evaluation criteria for the organisational structure of the Veterinary Services.</li> <li>➤ Article 3.4.5. on Competent Authorities.</li> </ul>
<b>III-5</b>	<ul style="list-style-type: none"> <li>➤ Point 6 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation.</li> <li>➤ Point 9 of Article 3.2.1. on General considerations.</li> <li>➤ Article 3.2.12. on Evaluation of the veterinary statutory body.</li> <li>➤ Article 3.4.6. on Veterinarians and veterinary para-professionals.</li> </ul>
<b>III-6</b>	<ul style="list-style-type: none"> <li>➤ Points 6 and 13 of Article 3.1.2. Fundamental principles of quality: Veterinary legislation / Communication.</li> <li>➤ Points 2 and 7 of Article 3.2.3. on Evaluation criteria for the organisational structure of the Veterinary Services.</li> <li>➤ Point 8 of Article 3.2.14. on Animal health, animal welfare and veterinary public health controls.</li> <li>➤ Point 4 of Article 3.4.3. on General principles: Consultation.</li> </ul>
<b>III-7</b>	<ul style="list-style-type: none"> <li>➤ Chapter 1.4. on Animal health surveillance.</li> <li>➤ Chapter 1.5. on Surveillance for arthropod vectors of animal diseases.</li> <li>➤ Points 6, 7 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation/Procedures and standards.</li> <li>➤ Points 1-3 of Article 3.2.8. on Animal health controls: Animal health status/Animal health control/National animal disease reporting systems.</li> <li>➤ Points 4 of Article 3.2.9. on Veterinary public health controls: Veterinary medicines.</li> </ul>
<b>IV-1.A IV-1.B</b>	<ul style="list-style-type: none"> <li>➤ Points 6, 7 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / General organisation / Procedures and standards.</li> <li>➤ Points 1 and 2 of Article 3.2.7. on Legislation and functional capabilities: Animal health, animal welfare and veterinary public health / Export/import inspection.</li> <li>➤ Point 7 of Article 3.2.14. on Veterinary legislation, regulations and functional capabilities.</li> <li>➤ Chapter 3.4. on Veterinary legislation, specifically articles 3.4.3 and 3.4.4</li> </ul>
<b>IV-2</b>	<ul style="list-style-type: none"> <li>➤ Point 6 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation.</li> <li>➤ Article 3.2.11. on Participation in OIE activities.</li> </ul>

	<ul style="list-style-type: none"> <li>➤ Points 7 and 11 of Article 3.2.14. on Veterinary legislation, regulations and functional capabilities/Membership of the OIE.</li> </ul>
<b>IV-3</b>	<ul style="list-style-type: none"> <li>➤ Points 6, 7 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation/General organisation/Procedures and standards.</li> <li>➤ Point 2 of Article 3.2.7. on Legislation and functional capabilities: Export/import inspection.</li> <li>➤ Sub-point b) of Point 7 of Article 3.2.14. on Veterinary legislation, regulations and functional capabilities: Export/import inspection.</li> <li>➤ Chapter 5.2. on Certification procedures.</li> <li>➤ Chapters 5.10. to 5.13. on Model international veterinary certificates.</li> </ul>
<b>IV-4</b>	<ul style="list-style-type: none"> <li>➤ Points 6 and 7 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation/General organisation.</li> <li>➤ Sub-point g) of Point 4 of Article 3.2.10. on Veterinary Services administration: Trade performance history.</li> <li>➤ Chapter 5.3. on OIE procedures relevant to the Agreement on the Application of Sanitary and Phytosanitary Measures of the World Trade Organization.</li> </ul>
<b>IV-5</b>	<ul style="list-style-type: none"> <li>➤ Point 6 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation.</li> <li>➤ Points 1 and 3 of Article 3.2.8. on Animal health controls: Animal health status/National animal disease reporting systems.</li> <li>➤ Chapter 5.1. on General obligations related to certification.</li> </ul>
<b>IV-6</b>	<ul style="list-style-type: none"> <li>➤ Point 6 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation.</li> <li>➤ Chapter 4.3. on Zoning and compartmentalisation.</li> </ul>
<b>IV-7</b>	<ul style="list-style-type: none"> <li>➤ Point 6 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation.</li> <li>➤ Chapter 4.3. on Zoning and compartmentalisation.</li> <li>➤ Chapter 4.4. on Application of compartmentalisation.</li> </ul>



## Appendix 2: Glossary of terms

Terms defined in the Terrestrial Code that are used in this publication are reprinted here for ease of reference.

### **Animal**

means a mammal, reptile, bird or bee.

### **Animal identification**

means the combination of the identification and *registration* of an *animal* individually, with a unique identifier, or collectively by its *epidemiological unit* or group, with a unique group identifier.

### **Animal identification system**

means the inclusion and linking of components such as identification of *establishments* or owners, the person(s) responsible for the *animal(s)*, movements and other records with *animal identification*.

### **Animal Traceability**

means the ability to follow an *animal* or group of *animals* during all stages of its life.

### **Animal welfare**

means the physical and mental state of an *animal* in relation to the conditions in which it lives and dies.

### **Antimicrobial agent**

means a naturally occurring, semi-synthetic or synthetic substance that exhibits antimicrobial activity (kill or inhibit the growth of micro-organisms) at concentrations attainable in vivo. Anthelmintics and substances classed as disinfectants or antiseptics are excluded from this definition

### **Biosecurity**

means a set of management and physical measures designed to reduce the risk of introduction, establishment and spread of animal diseases, infections or infestations to, from and within an animal population.

### **Border Post**

means any airport, or any port, railway station or road check-point open to *international trade* of *commodities*, where import veterinary inspections can be performed.

### **Case**

means an individual animal infected by a pathogenic agent, with or without clinical signs

### **Compartment**

means an animal *subpopulation* contained in one or more *establishments* under a common *biosecurity* management system with a distinct health status with respect to a specific *disease* or specific *diseases* for which required *surveillance*, control and *biosecurity* measures have been applied for the purposes of *international trade*.

### **Competent Authority**

means the *Veterinary Authority* or other Governmental Authority of a Member, having the responsibility and competence for ensuring or supervising the implementation of animal health and welfare measures, international veterinary certification and other standards and recommendations in the *Terrestrial Code* and the *OIE Aquatic Animal Health Code* in the whole territory.

**Containment Zone**

means a defined *zone* around and including suspected or infected *establishments*, taking into account the epidemiological factors and results of investigations, where control measures to prevent the spread of the *infection* are applied.

**Disease**

means the clinical and/or pathological manifestation of *infection*.

**Emerging disease**

means a new occurrence in an animal of a disease, infection or infestation, causing a significant impact on animal or public health resulting from:

- a. change of a known pathogenic agent or its spread to a new geographic area or species; or
- b. previously unrecognised pathogenic agent or disease diagnosed for the first time.

**Epidemiological Unit**

means a group of *animals* with a defined epidemiological relationship that share approximately the same likelihood of exposure to a pathogenic agent. This may be because they share a common environment (e.g. *animals* in a pen), or because of common management practices. Usually, this is a *herd* or a *flock*. However, an *epidemiological unit* may also refer to groups such as *animals* belonging to residents of a village, or *animals* sharing a communal animal handling facility. The epidemiological relationship may differ from *disease to disease*, or even strain to strain of the pathogenic agent.

**Establishment**

means the premises in which *animals* are kept.

**Feed**

means any material (single or multiple), whether processed, semi-processed or raw, which is intended to be fed directly to terrestrial *animals* (except bees).

**Hazard**

means a biological, chemical or physical agent in, or condition of, an animal or animal product with the potential to cause an adverse health effect

**International veterinary certificate**

means a certificate, issued in conformity with the provisions of Chapter 5.2. of the *Terrestrial Animal Health Code*, describing the animal health and/or *public* health requirements which are fulfilled by the exported *commodities*.

**Laboratory**

means a properly equipped institution staffed by technically competent personnel under the control of a specialist in veterinary diagnostic methods, who is responsible for the validity of the results. The *Veterinary Authority* approves and monitors such laboratories with regard to the diagnostic tests required for *international trade*.

**Meat**

means all edible parts of an *animal*.

**Monitoring**

means the intermittent performance and analysis of routine measurements and observations, aimed at detecting changes in the environment or health status of a *population*.

**Notifiable disease**

means a *disease* listed by the *Veterinary Authority*, and that, as soon as detected or suspected, must be brought to the attention of this *Authority*, in accordance with national regulations.

**Official Veterinarian**

means a *veterinarian* authorised by the *Veterinary Authority* of the country to perform certain designated official tasks associated with animal health and/or public health and inspections of *commodities* and, when appropriate, to certify in conformity with the provisions of Chapters 5.1. and 5.2. of the *Terrestrial Code*.

**Outbreak**

means the occurrence of one or more cases in an epidemiological unit.

**Risk analysis**

means the process composed of *hazard identification*, *risk assessment*, *risk management* and *risk communication*.

**Risk assessment**

means the evaluation of the likelihood and the biological and economic consequences of entry, *establishment* and spread of a *hazard* within the territory of an *importing country*.

**Risk communication**

Means the interactive transmission and exchange of information and opinions throughout the risk analysis process concerning risk, risk-related factors and risk perceptions and risk assessors, risk managers, risk communicators, the general public and interested parties.

**Risk management**

means the process of identifying, selecting and implementing measures that can be applied to reduce the level of *risk*.

**Sanitary measure**

means a measure, such as those described in various Chapters of the *Terrestrial Code*, destined to protect animal or human health or life within the territory of the OIE Member from *risks* arising from the entry, *establishment* and/or spread of a *hazard*.

**Surveillance**

means the systematic ongoing collection, collation, and analysis of information related to animal health and the timely dissemination of information so that action can be taken.

**Terrestrial Code**

means the OIE *Terrestrial Animal Health Code*.

**Veterinarian**

means a person with appropriate education, registered or licensed by the relevant *veterinary statutory body* of a country to practice veterinary medicine/science in that country.

**Veterinary Authority**

means the Governmental Authority of a Member Country, comprising veterinarians, other professionals and paraprofessionals, having the responsibility and competence for ensuring or supervising the implementation of the animal health and welfare measures, international veterinary certification and other standards and recommendations in the Terrestrial Code in the whole territory.

**(Veterinary) legislation**

means laws, regulations and all associated legal instruments that pertain to the veterinary domain.

**Veterinary paraprofessional**

means a person who, for the purposes of the *Terrestrial Code*, is authorised by the *veterinary statutory body* to carry out certain designated tasks (dependent upon the category of *veterinary paraprofessional*) in a territory, and delegated to them under the responsibility and direction of a *veterinarian*. The tasks for each category of *veterinary paraprofessional* should be defined by the *veterinary statutory body* depending on qualifications and training, and according to need.

**Veterinary Services**

means the governmental and non-governmental organisations that implement animal health and welfare measures and other standards and recommendations in the Terrestrial Code and the OIE Aquatic Animal Health Code in the territory. The Veterinary Services are under the overall control and direction of the Veterinary Authority. Private sector organisations, veterinarians, veterinary paraprofessionals or aquatic animal health professionals are normally accredited or approved by the Veterinary Authority to deliver the delegated functions.

**Veterinary statutory body**

means an autonomous regulatory body for *veterinarians* and *veterinary paraprofessionals*.

**Wildlife**

means *feral animals*, *captive wild animals* and *wild animals*.

**Zone**

means a clearly defined part of a territory containing an animal subpopulation with a distinct health status with respect to a specific disease for which required surveillance, control and *biosecurity* measures have been applied for the purpose of international trade.



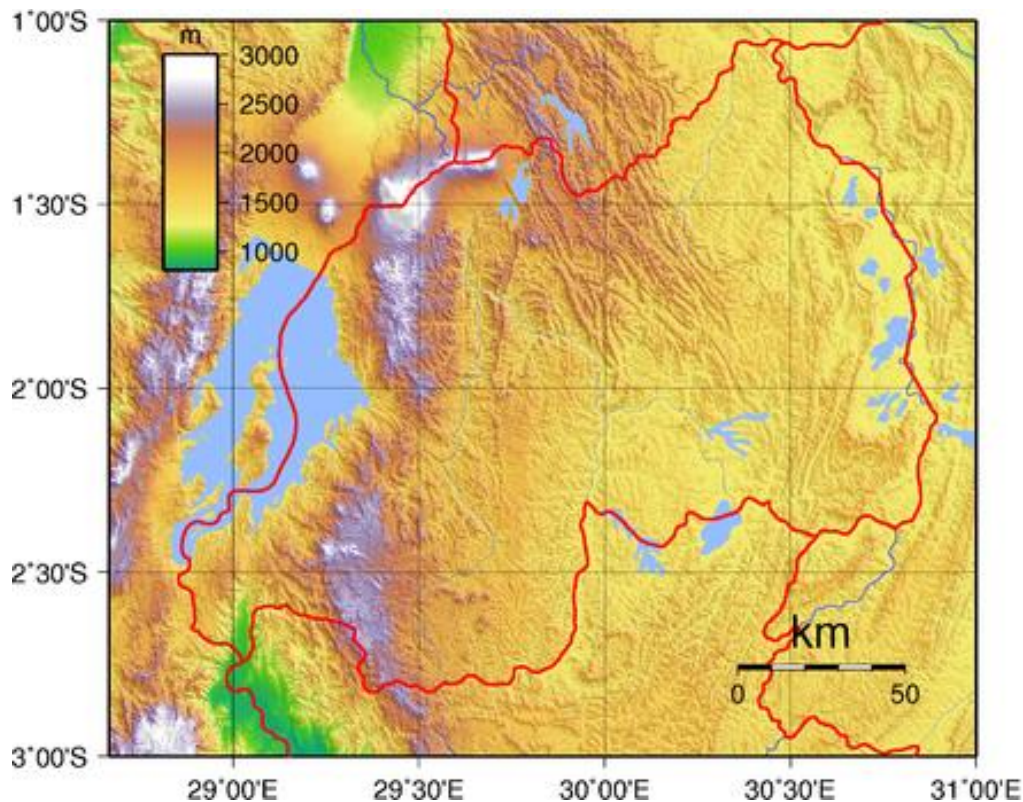
## Appendix 3: Country information (geography, administration, agriculture and livestock)

Rwanda is a landlocked country in central Africa with an area of 26,338 km<sup>2</sup>. Rwanda is bordered by Burundi to the south, the Democratic Republic of Congo to the west, Uganda to the north and Tanzania to the east (Figure 5).

Figure 5. Map of Rwanda

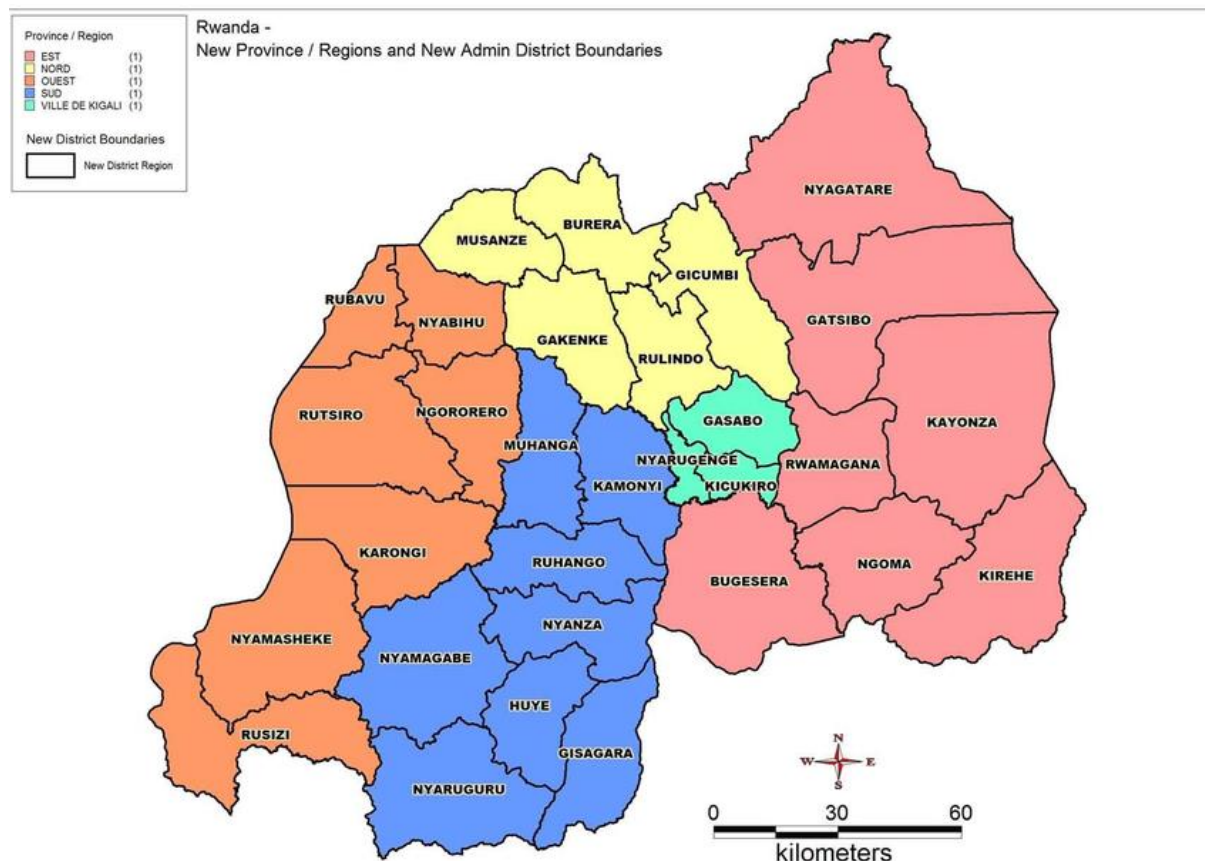


Rwanda lies on the watershed between the major Congo and Nile drainage basins and this runs from north to south across the country. Mountains dominate central and western Rwanda; the country has many lakes. There are major national parks along the country's borders (Figure 5)

**Figure 6. Topographic map of Rwanda**

Rwanda has a temperate tropical highland climate, with lower temperatures than are typical for equatorial countries due to its high elevation. Kigali, in the centre of the country, has a typical daily temperature range between 12 °C and 27 °C, with little variation through the year. There are two rainy seasons in the year. The first runs from February to June and the second from September to December. These are separated by two dry seasons: the major one from June to September, and a shorter and less severe dry season from December to February. Rainfall varies with the west and northwest of the country receiving more rain annually than the east and southeast.

Rwanda has a decentralised administrative structure with a capital area and four provinces (north, south, east and west). The country is further divided into 30 districts and 416 sectors. Sectors are made up of 2,148 cells with each cell consisting of four or five villages; there are 14,837 villages.

**Figure 7: Map showing administrative structure of Rwanda**


Rwanda is Africa's most densely populated country. Agriculture occupies 90% of the population labour force. The population of Rwanda is estimated to be 12,630,000 (2019). Reflecting the impact of the 1994 genocide, 60% of the population is less than 24 years old with a median age of 18 years. Just over a million people live in the capital city of Kigali. Urban population is estimated to be 19.1%. Life expectancy is 59 years.

Arable land constitutes 46.3% of the country with permanent crops occupying 9.5%. Montane grassland historically covered much of Rwanda's rolling highlands but terraced agriculture now dominates and has led to serious soil erosion in some areas. The poorer soils of the flatter east support the typical open savannah of east Africa. The Eastern Province has 60% of the cattle population but has a long dry season requiring fodder support. The only remaining large stands of Rwanda's natural rainforest are found at the Nyungwe Forest National Park and, to a lesser degree, the Volcanoes National Park. The forest at Nyungwe is a true rainforest (receiving more than 2m of rain a year) and is one of Africa's oldest. The wetlands of the Akagera National Park are fringed by riverine forest and papyrus swamp.

Rwanda is a parliamentary democracy with an elected president. Elections are held every five years for the president, the Senate and the Chamber of Deputies. Rwanda has a mixed legal system of civil law, based on German and Belgian models, and customary law.

Rwanda's economic development is framed by its long term economic plan, Vision 2050, and its medium term strategy, the Economic Development Poverty Reduction Strategy (EDPRS) which outlines the path from poverty to a middle income country. Key sectors identified are agriculture, investment and tourism as well as information, communication and technology. The country is in the third phase of the Strategic Plan for the Transformation of Agriculture in

Rwanda (PSTA) seeking to intensify and commercialise agriculture with a reduction in subsistence farming and conversion to a market economy. Through the Girinka project (one cow per rural family), 47% of farm households have at least one cow and 53% have at least one goat. The Girinka project's success increased milk production from 50,000 MT in 2006 to 450,000 MT in 2012.

The fourth phase (2018-2024) of the PSTA follows on from the third phase which aimed to increase production of crops and livestock products, particularly small stock and fisheries, with greater involvement of the private sector. Increased exports, new processing facilities and value addition initiatives through entrepreneurship and agri-business were the key drivers. Specific lines of action include doubling milk production, improved animal nutrition, improved genetics, diversification of small holder meat production to include small ruminants, rabbits, swine and poultry, extension of the Girinka project and strengthening of the veterinary service network. It was recognised that government needs to ensure a regulatory framework conducive to investment in agriculture. PSTA 4 identifies strategic innovations including: strengthened focus on better land management, increased market orientation and farm profitability, strengthened private sector service delivery and investment, improved domestic market and high-value exports, enhanced focus on diversified animal resources (e.g. poultry, pork), and more emphasis and investment in research and skills development. In addition, PSTA 4 will prioritize food security and poverty reduction.

The Livestock Masterplan (LMP) sets out the investment interventions for livestock: better genetics, feed and health services, which, together with complementary policy support which aims to improve productivity and total production in the key livestock value chains for cow dairy, red meat-milk, poultry, and pork. The proposed investments (some USD 287 million over a 5-year period) should result in further modernisation of the sector and has the potential to have a major impact on livestock keepers by increasing their incomes and the food and nutritional security of their households. The success of the LMP is seen as critical to the achievement of food security at the sectorial and national levels.

To achieve market expansion, an export certification programme is to be developed with the Rwanda Standards Board (RSB) along with raising awareness of export quality standards among farmers and traders. Improvement in dairy is to be achieved through consumer awareness, increased milk availability and innovative dairy products. The dairy supply chain is to be modernised with improved relationships between milk collection centres (MCCs) and cooperatives and processors.

For meat, slaughter facilities are to be refurbished and new ones built under local management. Guidelines on effluent handling in line with environmental standards are also to be developed. Feedlots are to be established and a meat processing plant under a public-private partnership is to be built in Kigali along with training in hygienic slaughter and guidelines for good hygiene practice will be distributed. Quality standards are to be harmonised with the East African Community (EAC) and producers subsidised for quality certification.

Beekeeping is to be strengthened from a local industry to a national one through promotional material and training in international standards of honey production.

Rwanda's main export trading partners are Kenya, the Democratic Republic of the Congo, China, Malaysia, the USA and Swaziland. Imports are from Kenya, Uganda, the United Arab Emirates, China, India, Tanzania, Belgium and Canada.

Rwanda had an estimated gross domestic product (GDP) of \$24.68 billion USD in 2017 with

an average annual growth of 6 - 8% in recent years. Agriculture represents 31% of the GDP of which a third relates to livestock husbandry. Overall livestock husbandry contributes a significant 12% of the total GDP. Main other products are coffee, tea, pyrethrum, bananas, beans, sorghum, potatoes and livestock. Current agricultural exports include coffee, tea and hides.

### Livestock population by type /head

Category	2010	2018
Cattle	1,334.820	1,293,768
Goats	2,688.273	2,731,795
Sheep	769.937	601,836
Pigs	684.708	1,330,461
Rabbits	792.895	1,264,734
Poultry	3,537.608	5,442,152

### Animal Products (tons)

Milk	372,619	815,074
Meat	70,928	162,470
Fish	15,007	31,465
Eggs	5,203	8,336
Honey	2,921	5,200
Hides & skin	4,072	6,567

### Meat Production

Beef	27,538	50,107
Caprine meat	15,005	32,966
Ovine meat	5,064	9,586
Poultry meat	13,718	37,806
Rabbit meat	2,375	9,413
Pork meat	7,228	22,592
Other	2,010	2,018
<b>TOTAL MEAT PRODUCTION</b>	<b>70,928</b>	<b>162,470</b>

### Export

Revenues from export of Livestock Products		
Products	2017/2018 Value (USD)	2018/2019 Value (USD)
Hides & Skins	5,342,296	828,005
Meat	22,286,801	19,767,951
Dairy Products	16,124,983	10,133,965

Live animals	29,888,422	30,700,222
Fish	25,515,496	28,319,677
Eggs	12,608,463	6,252,377
<b>Total</b>	<b>111,766,461</b>	<b>96,002,197</b>

## Appendix 4: Timetable of the mission; sites/ facilities visited and people met

Date	Meeting Title	NAME	INSTITUTION	POSITION
15/07/2019	Entry meeting with the Deputy Director General Rwanda Agriculture and Animal Resources Development Board (RAB)	John Weaver	OIE PVS Team	Team Leader
		Piergiuseppe Facelli	OIE PVS Team	Expert
		Moetapele Letshwenyo	OIE PVS Team	Trainee Expert
		Christine Kanyandekwe	RAB	Division Manager/ National Artificial Insemination
		Carine Nyilimana	MINAGRI	Animal Products Specialist
		Isidore Gafarasi M.	Rwanda Agriculture and Animal Resources Board (RAB)	Head of Veterinary Services
		Methode Gasana Ngabo	RAB	Animal Disease Management Officer
		Rukundo Jean Claude	RAB	Veterinary Inspector
		Solange Uwituze	RAB	Deputy Director General of Animal Resources Research and Technology
		Fabrice Ndayisenga	RAB/HoD-ARR-TT	Head of Department/ Department of Animal Resources Research and Technology Transfer
16/07/2019	One Health Platform: FAO, , Food & Drug Authority (FDA), Rwanda Development Board (RDB), (held at FAO Buildings)	Wondwasen Awoke	FAO	ONE-Health Contact
		Adeline Kabeja	Rwanda Biomedical Center	Director of diseases Surveillance Unit
		Fabrice Ndayisenga	RAB	Head of Department
		Otto Vianney Muhinda	FAO	Assistant FAO Representative, in Charge of Programs
		Methode Gasana Ngabo	RAB/ Management	Animal Disease Management Officer
		Niyiragira Vincent	RAB/Rwanda Dairy Development Project (RDDP)	Animal Diseases Specialist
		Mudakikwa Antoine	Rwanda Development Board (RDP)	<i>Not Indicated</i>
		Jean Claude Mushayija	Food and Agricultural Organisation (FAO)	ECTAD Technical Assistant
		Carine Nyilimana	MINAGRI	Animal Products Specialist
		Eustache Musafiri	Food and Drugs Authority (FDA)	<i>Not Indicated</i>
		Beatrice Cyiza	Rwanda Environment Management Authority (REMA)	<i>Not Indicated</i>
		Dr Rukundo J. Claude	RAB	Veterinary Inspector
		Dr. Julius Nziza	Gorilla Doctors/PREDICT	<i>Not Indicated</i>
		Isidore Gafarasi M.	RAB-ARTTS/VS	Head of Veterinary Services
16/07/2019	Private Sector – Rwanda National Dairy Platform, Rwanda Pig Industry Association Rwanda Pig Industry Association, etc.	Shema Aimable	National Agricultural Export Development Board (NAEB)	Animal Value Chain Specialist
		Ndayambaje Alexis	Rwanda Pig Farmers Association	Member
		Dr. Kwizera Fred	Rwanda Poultry Industry Association	Member
		Jean Claude Shirimpumu	Vision Agribusiness Farm Ltd	Managing Director
		Jean Claude Ruzibiza	Rwanda Poultry Industry Association	President
		Gaspard Simbarikure	MINAGRI/Rwanda Agriculture and Livestock Inspection and Certification Services	Professional in Charge of Animal Quarantine
		Carine Nyilimana	MINAGRI	Animal Products Specialist
16/07/2019	Meeting with the Rwanda Council of Veterinary Doctors (RCVD)	Dr. Nshimiyimana	Rwanda Council of Veterinary Doctors (RCVD)	Executive Secretary
		Alphonse M.		
		Piergiuseppe Facelli	OIE PVS Team	Expert
16/07/2019	Visit to Veterinary Pharmacy and Visit to Veterinary Clinic , Kigali	Moetapele Letshwenyo	OIE PVS Team	Trainee Expert
		Carine Nyilimana	MINAGRI	Animal Products Specialist
16/07/2019	Meeting with the Permanent Secretary	John Weaver	OIE PVS Team	Team Leader
		Musabyimana Jean Claude	Ministry of Agriculture and Animal Resources	Permanent Secretary
		Theogene Rutagwenda	MINAGRI	Director General/Animal Resources Development

17/07/2019	Field Visit to the Eastern province - Bugesera	Angelique UMWALI	Eastern Province, Bugesera District	Vice Mayor
		Hyacanthus Uwitonze	Eastern Province, Bugesera District	District Veterinary Officer
		Isidore Gafarasi M.	Rwanda Agriculture and Animal Resources Board (RAB)	–Head of Veterinary Services
17/07/2019	Field Visit to the Eastern province - Ruguru Gako Site Cattle Abattoir	Jean Bosco Rujikanga	Ruguru Gako Site Cattle Abattoir	Plant Manager
		Eric Kalisa	Ruguru Gako Site Cattle Abattoir	Veterinary officer
		Julius Murenzi	Ruguru Gako Site Cattle Abattoir	Administrator
		Abdoulilah Nahimana	Ruguru Gako Site Cattle Abattoir	Halal Supervisor
17/07/2019	Field Visit to the (Eastern Province) – ABOSOL POULTRY FARM	Dr Janvier Twaibazinai	Abosol Poultry Farm	Farm Manager
		Jean Claude Murekezi	Abosol Poultry Farm	Vice Farm Manager
17/07/2019	Field Visit to the Pig Abattoir (Eastern Province)	Francois Kimonyo	Ruguru Meat Supply Co. LTD	Managing Director (Owner)
		Emmanuel Mbomigabia	Ruguru Meat Supply Co. LTD	Veterinary Services Official (Vet)
		Isidore Gafarasi M.	Rwanda Agriculture and Animal Resources Board (RAB)	–Head of Veterinary Services
18/07/2019	Meeting with Finance and Human Resources staff, at RAB	Jean Michel Nihitmiyimana	RAB	Chief Account,
			RAB	Human Resources
		Jean Damascene Majoro	<i>Not Indicated</i>	<i>Not Indicated</i>
		Felicien Shumbusho	RAB	Human Resources
		Isidore Gafarasi M.	Rwanda Agriculture and Animal Resources Board (RAB)	–Head of Veterinary Services
18/07/2019	Meeting with Finance and Human Resources staff, at RAB	Valens Hitiyaiemye	Gatsibo District	District veterinary Office.
		Isidore Gafarasi M.	Rwanda Agriculture and Animal Resources Board (RAB)	–Head of Veterinary Services
18/07/2019	Field Visit to a PPR Vaccination point (Eastern Province, Nyagatare District)	Dr Ngoga Didas	Karangazi Sector	Sector Veterinarian
		<i>Name not taken</i>	Karangazi Sector	Cell Animal Private Animal Health Technician
		Isidore Gafarasi M.	Rwanda Agriculture and Animal Resources Board (RAB)	–Head of Veterinary Services
18/07/2019	Field Visit to a Nyagatare District, Eastern Province.	Dr Charles Nkuranga	School of veterinary medicine, University of Rwanda.	Lecturer
		Dr Eugene Mazimpako	School of veterinary medicine, University of Rwanda.	Lecturer & Head Of Veterinary medicine Department
		Immaculate Kantenfwa	University of Rwanda, Nyagatare Campus.	OCEHA Administrator, One-Health Coordinator
		Isidore Gafarasi M.	Rwanda Agriculture and Animal Resources Board (RAB)	Head of Veterinary Services
19/07/2019	Visit to Ngatare Satellite Laboratory, Nyagatare District Eastern Province	Agnes Murungi	Nyagatare Satellite Laboratory	Laboratory Technician
		Rukundo Jean Claude	RAB	Veterinary Inspector
		Dr. Justin M. Zimulinda	RAB Station, Nyagatare	Animal Disease Surveillance Specialist
		Evalde Kogwe	Nyagatare RAB Station	Station Manager
		Isidore Gafarasi M.	Rwanda Agriculture and Animal Resources Board (RAB)	Head of Veterinary Services
19/07/2019	Visit to Ngatare Milk Processing, Nyagatare District Eastern Province	James RWEMA	Ngatare Milk Processing	Quality Manager
		Rukundo Jean Claude	RAB	Veterinary Inspector
		Isidore Gafarasi M.	Rwanda Agriculture and Animal Resources Board (RAB)	–Head of Veterinary Services
19/07/2019	Visit to Rwempasha Quarantine, Nyagatare District Eastern Province	David GAFIRITA	Rwempasha Quarantine	Community Animal Health Animal Health Worker in Charge -
		Rukundo Jean Claude	RAB	Veterinary Inspector
		Moetapele Letshwenyo	OIE PVS Team	Trainee Expert



22/07/2019	Meeting at District Office, Kamony District	Justin MUKIZA	Kamony District Office	Acting Director of Agriculture.
		Isidore Gafarasi M.	Rwanda Agriculture and Animal Resources Board (RAB)	Head of Veterinary Services
22/07/2019	Meeting at Ruhango District Office	Isaac IZABAYO	Kamony District Office	Statistician.
		Martin NDAGIJINANA	Kamony District Office	Sector Animal Resource Officer (SARO)
		Emmanuel BYIRINGIRO	Kamony District Office	Director of Agriculture and Natural Resources
		Dienadonne RENQUINGOGA	Kamony District Office	District Animal Resources Officer
		Isidore Gafarasi M.	Rwanda Agriculture and Animal Resources Board (RAB)	Head of Veterinary Services
22/07/2019	Visit to the Integrated Polytechnic Regional College (IPRC)	Maj. Dr. Barnabe TWABAGIRA	Integrated Polytechnic Regional College (IPRC)	Principal
		Dr. Joshua KATUSI	Integrated Polytechnic Regional College (IPRC)	Head of Veterinary Department
		Isidore Gafarasi M.	Rwanda Agriculture and Animal Resources Board (RAB)	Head of Veterinary Services
23/07/2019	Visit to Kabutare TVET School , Huye District	Philemon NYIMMANZI	Kabutare Veterinary School	Deputy School Manager
		Aristide KALISA	Kabutare Veterinary School	District Animal Resources Officer
		Isidore Gafarasi M.	Rwanda Agriculture and Animal Resources Board (RAB)	–Head of Veterinary Services
23/07/2019	Visit to Huye Feeds , Huye District	Chantal UWAMAHOHO	Huye Feeds	Manager
		Irene MLOOYIRE	Huye Feeds	Accountant
		Isidore Gafarasi M.	Rwanda Agriculture and Animal Resources Board (RAB)	Head of Veterinary Services
23/07/2019	Visit to Milk Collection Centre (MCC), Huye District	Alphonse NSANIZIMANA	Milk Collection Centre	Associate Manager
		Callixte NSENGIYUMVA	Milk Collection Centre	Veterinarian
		Isidore Gafarasi M.	Rwanda Agriculture and Animal Resources Board (RAB)	Head of Veterinary Services
24/07/2019	Visit to Rwanda Food and Drug Authority (FDA)	Dr. Charles Karangwa	Rwanda Food and Drug Authority (FDA)	Acting Director General
		Desire MUSANGWA	Rwanda Food and Drug Authority (FDA)	Division Manager, Food Assessment and Registration,
		Isidore Gafarasi M.	Rwanda Agriculture and Animal Resources Board (RAB)	Head of Veterinary Services
24/07/2019	Visit to Rwanda Agricultural Board (RAB)	Dr. Patrick Karangwa	Rwanda Agriculture and Animal Resources Board (RAB)	Director General
		Desire MUSANGWA	Rwanda Food and Drug Authority (FDA)	Division Manager, Food Assessment and Registration,
		Isidore Gafarasi M.	Rwanda Agriculture and Animal Resources Board (RAB)	Head of Veterinary Services
25/07/2019	Visit to Rwanda Agriculture and Livestock Inspection Services (RALIS)	Dr. Beatrice UWUMUKIZA	RALIS	Director General
		Dr. Euphrasie NYIRAZIKWIYE	RALIS	Animal Products Certification
		Gasparand SIMBARIKURE	RALIS	Head of Quarantine and Border Inspections
25/07/2019	Visit to Veterinaire Sans Frontiers (VSF)	Martin Steel	Visit to Veterinaire Sans Frontiers (VSF)	Animal Scientist
26/07/2019	Closing Meeting with all Stakeholders invited by RAB	John Weaver	OIE PVS Team	Team Leader
		Piergiuseppe Facelli	OIE PVS Team	Expert
		Moetapele Letshwenyo	OIE PVS Team	Trainee Expert
		Carine Nyilimana	MINAGRI	Animal Products Specialist
		Isidore Gafarasi M.	Rwanda Agriculture and Animal Resources Board (RAB)	Head of Veterinary Services
		Methode Gasana Ngabo	RAB	Animal Disease Management Officer
		Rukundo Jean Claude	RAB	Veterinary Inspector
		Fabrice Ndayisenga	RAB/HoD-ARR-TT	Head of Department/ Department of Animal Resources Research and Technology Transfer
		Dr. Justin M. Zimulinda	RAB Station, Nyagatare	Animal Disease Surveillance Specialist
		Samuel Wakhusama	OIE SRR EA	Representative
		Samson Ntegeyibizaza	RAB	RAB Staff
		Eustache Musafiri	Food and Drugs Authority (FDA)	Staff
		Musabyimana Jean Claude	Ministry of Agriculture and Animal Resources	Permanent Secretary
Dr. Nshimiyimana Alphonse M.	Rwanda Council of Veterinary Doctors (RCVD)	Executive Secretary		
Eupharase Nyirazikwiye	MINAGRI/RALIS	Staff		



## Appendix 5: Air travel itinerary

Assessor	Date	From	To	Flight no.	Departure	Arrival
John Weaver	13/7/19	London	Brussels	SN2104	06.50	09.00
	13/7/19	Brussels	Kigali	SN0465	10.25	18.50
	27/7/10	Kigali	Nairobi	EY4038	09.50	12.20
	27/7/19	Nairobi	Abu Dhabi	EY0642	14.10	20.25
	27/7/19	Abu Dhabi	Melbourne	EY0460	21.45	17.05+1
Piergiuseppe Facelli	14/07/2019	Rome	Istanbul	TK1862	11:25	14:55
	14-15/07/2019	Istanbul	Kigali	TK0569	18:35	00:05
	27/07/2019	Kigali	Istanbul	TK0606	00:35	09:50
	27/07/2019	Istanbul	Rome	TK1865	12:45	14:45
Moetapele Letshwenyo	14/7/19	Gaborone	Kigali	SA 1766	1110	2120
	26/7/19	Kigali	Johannesburg	SA 7169	2235	0225
	27/7/19	Johannesburg	Gaborone	SA 8456	1100	1155



## Appendix 6: List of documents used in the PVS evaluation

E = Electronic version

P= Digital picture

Ref	Title	Author / Date	Related CCs
E2	Strategic plan for mastitis prevention and control 2015-2020	RAB, 2015	II.1A, II.6
E3	Mastitis implementation plan and budget 2015-2020	RAB, 2015	I.8, II.1A, II.6
E4	Veterinary services, Rwanda – opening presentation	RAB, 2019	General
E5	One Health implementation process – presentation	RAB, 2019	I.6B, II.8, II.9
E6	FMD control, 2017	RAB, 2017	II.1A, II.6
E7	Rwanda national strategy for the control and eradication of peste des petits ruminants	RAB, 2017	II.6
E8	VSU AP & Budget, 2017-2018	RAB, 2017	I.8
E9	Brucellosis strategic plan, 2018-2024	RAB, 2018	II.8
E10	Veterinary and laboratory services unit narrative report for the FY2017-2018	RAB, 2017	II.1A, II.1B, II.2, II.4A, II.4B, II.6
E11	Penal Code, 2012	Official Gazette, 2012	IV.1B
E12	Animal Health Law, 2009	Official Gazette, 2009	II.3, II.4A, II.4B, II.5, II.6, IV.1A, IV.1B
E13	Organizational chart, FDA	FDA, 2019	II.7A, II.7B, II.8, II.9, II.10, II.11
E14	FDA Law, 2018	Official Gazette, 2018	II.7A, II.7B, II.8, II.9, II.10, II.11
E15	MinAgri structure, 2018	MinAgri, 2018	II.5, II.6A, II.6B
E16	List of MinAgri staff, 2019	MinAgri, 2019	I.1A, I.1B, I.6A
E17	<i>Rwanda Livestock Identification Act, 2002</i>	Official Gazette, 2002	II.4A, II.6, II.12A
E18	National Emergency Preparedness and response Plan to Highly Pathogenic Influenza	RAB, 2017	I.9, II.5
E19	Agrochemical ministerial order Official_Gazette_no_30_of_25.07.2016 (List of agrochemicals)	Official Gazette, 2016	II.8, II.9, II.10, II.11
E20	FOOD&DRUG LAW, 2013	Official Gazette, 2013	II.7A, II.7B, II.8, II.9, II.10, II.11
E21	Produits Vét. exonérés UPDATE 2011, 080412	MinAgri, 2011	II.3
	Law determining the prevention and fight against contagious diseases for domestic animals in Rwanda		
E23	Slaughtering of animals Law	Official Gazette, 2010	II.7A, II.7B, II.13
E24	Rwanda Vet Council Law	Official Gazette, 2013	I.1A, I.1B, I.2A, I.2B, I.3, III.5
E25	MTIF_Detailed 2017-2018	RAB, 2017	I.5, I.8
E26	RAB Detailed_Aproved_Budget 2016-2017	RAB, 2017	I.5, I.8
E27	GUIDELINES FOR THE VSU IMPLEMENTATION OF THE DECENTRALISED APPROACH	RDDP, 2019	I.5, I.6A
E28	Final_RAB Animal Resources R TT Action Plan 2019_20	RAB, 2019	I.8, II.6
E29	RAB_ANNUAL_REPORT__2016-2017	RAB, 2017	I.5,II.6, II.7A, II.7B, II.8, II.9, II.12A, II.12B
E30	Copia di Export revenues	NAEB, 2019	IV.3
E31	Final LMP	RAB, 2017	I.5, II.6, II.7B
E32	National_Agriculture_Policy_- 2018 ____Approved_by_Cabinet	MinAgri, 2018	I.5
E33	NST1_7YGP_Final	PMO, 2017	I.5
E34	PSTA 4 - Strategic Plan for Agriculture Transformation _ Planning for Wealth Creation	MinAgri, 2018	I.5
E35	PPR Rwanda Strategy	RAB, 2017	II.6
E36	Veterinary Services Rwanda oie-WAHIS report	OIE, 2019	II.4A, II.4B, IV.3
E37	Characterization of Cattle Production Systems in Nyagatare District of Eastern Province	Rheology, 2017	I.5, II.6
E38	Modernizing Rwanda's livestock to attract investment and enhance food security	FAO, 2019	I.5

E39	<a href="http://meac.go.ke/wp-content/uploads/2018/02/EAC-Book-2.pdf">http://meac.go.ke/wp-content/uploads/2018/02/EAC-Book-2.pdf</a>	EAC, undated	II.3, IV.3
E40	<a href="http://www.iprchuye.rp.ac.rw/index.php/veterinary-technology/">http://www.iprchuye.rp.ac.rw/index.php/veterinary-technology/</a>	IPRC, 2019	I.1B, I.2B
E41	<a href="http://www.rab.gov.rw/index.php?id=180">http://www.rab.gov.rw/index.php?id=180</a>	RAB, 2019	I.5, I.6A, I.6B, II.6, II.7A, II.12A
E42	<a href="https://www.minagri.gov.rw/index.php?id=16">https://www.minagri.gov.rw/index.php?id=16</a>	MINAGRI, 2019	I.5, I.6A
E43	Corrected Draft Animal Feeds Law on 24 May 2019	MINAGRI, 2019	II.11, IV.1A, IV.1B
E44	EPIDEMIOSURVEILLANCE OF ANIMAL DISEASES IN RWANDA	RAB, 2018	II.4A, II.4B
E47	Draft RAB Employee Training and Development Policy 19 september 2018	RAB, 2018	I.3
E45	Indwara ziterwa n'uburondwe; Tick control	RAB	I.5, II.6
E46	MTIF_Detailed FY 2018-2019	RAB, 2018	I.5, I.8
E47	PPR Rwanda Strategy	RAB, 2017	II.1A, II.4A, II.4B, II.6
E48	Quarantine Law	Official Gazette, 2013	II.3, IV.1A, IV.1B
E49	RAB org chart	RAB, 2019	I.6A
E50	RAPORO RVF.	RAB, 2018	II.6
E51	Sanitary Certificate for Export and Re-export of Animal products	MINAGRI	IV.3
E52	Semi-final_capacity building plan RAB	RAB, 2019	I.3
E53	Risk based approach for food inspection guidelines	FDA, 2019	II.2, II.7B, II.12B
E54	Guidelines for investigation and control of food borne diseases	FDA, 2019	II.4A, II.7A, II.7B
E55	<a href="https://www.rwandafda.gov.rw/web/">https://www.rwandafda.gov.rw/web/</a>	FDA, 2019	II.3, II.7A, II.7B, II.8, II.9, II.10, II.11, IV.3
E56	TVET A2 vet curriculum	TVET, 2019	I.2B, II.4A, II.6
E57	TVET A2 food safety curriculum	TVET, 2019	I.2B, II.7A, II.7B
E58	Certificate of registration	Veterinary Council	III.5
E59	Vet shop registration	Rwanda Revenue Authority	II.8, II.9, III.5
E60	Drug labels	Various	II.8, II.9
E61	Vaccination report	DARO, 2019	I.5, I.6B, II.6
E62	Monthly progress report	District Mayor	I.5, I.6B, II.7
E63	MIS - management report	DARO, 2019	I.5, I.6B, II.8
E64	Transit permit dogs and cats	RAB, 2019	II.3, IV.3
E65	Travel Clearance	RAB, 2019	II.3, IV.4
E66	International veterinary health certificate, Uganda	Min of Ag, 2019	II.3
E67	Satellite lab monthly report	RAB, 2017	I.5, II.1A
E68	Sign 'no to corruption'	GoR, 2018	I.4
E69	Abattoir licence, 2017	RAB, 2017	II.7A
E70	Kill sheet, abattoir	Gako, 2019	II.7B, II.12A
E71	Ante/post mortem inspection	Gako, 2020	II.4A, II.7B, II.12A
E72	Movement permit	RAB, 2019	II.12A
E73	Vet shop inwards good record	2019	II.8, II.9
E74	NVL SOPs - various	RAB, 2019	II.1C
E75	Poultry processor inspection certificate	RAB, 2019	II.7A, II.7B
E76	Milk processor inspection certificate	RAB, 2019	II.7A, II.7B
E77	Serology work sheet NVL	RAB, 2019	II.1A

E78	Milk product ID	2019	II.7B
E79	Health certificate for export of hides and skins	RAB, 2019	IV.3
E80	Health certificate for export of pigs	RAB, 2019	IV.3
E81	Health certificate for export of poultry, day old chicks	RAB, 2019	IV.3
E82	Import permit for animal feed	RAB, 2019	II.3, II.11
E83	Veterinary export certificate - pigs	RAB, 2019	IV.3
E84	Satellite lab request for test	RAB, 2019	II.1A
E85	Good Manufacturing Practice SOP	RAB, 2018	II.7A
E86	Application document for export of honey to EU	RALIS, 2013	II.10, IV.3
E87	Results of residues honey plan 2018	RALIS, 2018	II.10, IV.3
E88	Milk Collection Center Inspection check list	RALIS, 2017	II.7A
E89	Slaughterhouse Inspection check list	RALIS, 2017	II.7A, II.7B
E90	EAC SPS Protocol	EAC, undated	II.1, II.2, II.3, II.6, II.7A, II.7B, IV.3, IV.4, IV.5
	<b>Photos</b>		
P1	MCC in southern province x 4		PF II.7A, II.7B, III.1
P2	Animal feed plant x 3		PF II.11
P3	Small abattoir, Huye x 6		PF II.7A, II.7B, II.13
P4	Supermarket meat x 2		PF II.12B
P5	Cattle market x 3		PF II.12A, II.13
P6	RAB mobile clinic/vet truck		PF I.7
P7	Milk plant - Inyange x 2		PF II.7A
P8	Satellite lab x 3		PF II.1B
P9	Border post x 2		PF II.3
P10	Vet school		PF I.1A, I.3
P11	Rugero abattoir x 3		PF II.7A, II.7B
P12	Poultry farm (intensive) x 2		PF II.6, II.13
P13	Veterinary pharmacy x 5		PF II.8, II.9
P14	Rugero abattoir trucks		PF II.12B
P15	PPR vaccination		PF II.6
P16	RAB - office, old cars, lab, etc x 6		JW I.7, II.1B
P17	Lab equipment inventory number		JW I.7, II.1B
P18	Blinded' chickens		JW II.13
P19	Rugero abattoir and lairage		JW II.7A, II.12A
P20	Supermarket fish		PF II.12B
P21	Eastern province vaccination PPR		PF II.6