PVS Pathway

OIE PVS Evaluation Follow-Up Mission Report

Swaziland

Human, Physical and Financial Resources | Technical Authority and Capability | Interaction with Interested Parties | Access to Markets




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WORLD ORGANISATION FOR ANIMAL HEALTH
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OIE PVS EVALUATION FOLLOW-UP REPORT OF THE VETERINARY SERVICES OF SWAZILAND (5 – 14 May 2015)

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Table of contents

List of acronyms, abbreviations and/or special terms

AAHI	Assistant Animal Health Inspector
AHI	Animal Health Inspectors
AHS	African Horse Sickness
AI	Avian Influenza
ARC	Agricultural Research Centre, Stellenbosch RSA
AU-IBAR	African Union International Bureau of Animal Resources
AVOs	Assistant Veterinary Officers
CA	Contagious abortion in cattle caused by *Brucella abortus*
CAADP	Comprehensive Africa Agricultural Development Programme
CAHI	Chief Animal Health Inspectors
CBPP	Contagious Bovine Pleuro-Pneumonia
CE	Continuing Education
CI	Cordon Inspector
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CG	Cordon Guard
COMESA	Common Market for Eastern and Southern Africa
CPD	Continuing Professional Development
CTA	Central Transport Administration (Ministry of Works)
CVL	Central Veterinary Laboratory
CVO	Chief Veterinary Officer
DDLS	Deputy Director – Livestock Services
DDVS	Deputy Director - Veterinary Services
DTA	Dip Tank Assistant
DTC	Dip Tank Committee
DVLS	Director of Veterinary and Livestock Services
DVS	Director of Veterinary Services – Chief Veterinary Officer (CVO)
DDVS	Deputy Director of Veterinary Services
EAC	East African community
EDF	European Development Fund
EPP	Emergency Preparedness Plans
ET	Evaluation Team
EU	European Union
EU-BTSF	EU- Better Trade for Safe Food
FAO	Food and Agricultural Organization
FMD	Foot and Mouth Disease
FVO	EU- Food and Veterinary Office
GNVS	Guidelines of the National Veterinary Service (SOPs)
HACCP	Hazard Analysis and Critical Control Points System
HPAI	Highly Pathogenic Avian Influenza
HR	Human resources
ILAC	International Laboratory Accreditation Cooperation
IOs	International Organizations
IP	Import permit
LDPS	Livestock Development Policy for Swaziland (1995)
LiDeSA	Livestock Development Strategy for Africa
MHI	Meat Hygiene Inspector
MoF	Ministry of Fisheries
MoH	Ministry of Health
NAMBoard	National Agricultural Marketing Board

ND	Newcastle Diseases
NVS	National Veterinary Services
OIE	World Organisation for Animal Health
OIE PVS	OIE Performance of Veterinary Services Evaluation Tool
OVI	Onderstepoort Veterinary Institute (in RSA)
PBC	Public budget committee
PCP-FMD	Progressive Control Pathway for FMD (FAO-OIE)
PMI	Principal Meat Inspector
PEO	Port of Entry Official
PPR	Peste des Petits Ruminants
RSA	Republic of South Africa
RVO	Regional Veterinary Officer
SABS	South African Bureau of Standards (Pretoria, RSA)
SACU	Southern African Customs Union
SADC	Southern African Development Community
SADP	Swaziland Development Plan
SIMPA	Swaziland Institute of Management and Public Administrations
SLITS	Swaziland Livestock and Traceability System
SMI	Swaziland Meat Industry
SMP	Standard Methods & Procedures
SNL	Swazi Nation Lands
SNTC	Swaziland National Trust Commission
SPINAP-AHI	Swaziland Support Programme to Integrate Action Plans for Avian & Human Influenza
SPP	Swaziland Poultry Products
SPS	Sanitary and Phyto-Sanitary Agreement
SRP	Stock Removal Permit
SVA	Swaziland Veterinary Association
SVO	Senior Veterinary Officer
TAD	Transboundary Animal Disease
TB	Tuberculosis
TBD	Tick-borne diseases
TDL	Titled Deed Land (communal)
UNIDO	United Nations Industrial Development Organisation
UNISA	University if South Africa (online)
USAID	United States Agency for International Development
VA	Veterinary Assistant
VCS	Veterinary Council of Swaziland
VEO	Veterinary Education Officer (within VSD field services)
VEU	Veterinary Epidemiology Unit
VFTC	Veterinary and Farmer Training Centre
VET-GOV	Veterinary Governance in Africa (for West African nations under AU-IBAR)
VPH	Veterinary Public Health
VS	Veterinary Services
VSB	Veterinary Salutatory Body
VCS	Veterinary Council of Swaziland
VLU	Veterinary Livestock Unit
VSD	Veterinary Services Department
WAHIS	World Animal Health Information System
WAEMU	West African Economic & Monetary Union
WTO	World Trade Organization

Acknowledgements

The OIE-PVS Evaluation Team wishes to express its sincere gratitude to the staff of the Swaziland Department of Veterinary Services and all the individuals who freely gave of their time and experience to assist in this evaluation. We are particularly grateful to Drs. Roland Dlamini, Nhlanhla Shongwe and Patrick Dlamini and their staff. We appreciate the free flow of information and ideas, sites visits and documentation shared during this evaluation.

PART I: EXECUTIVE SUMMARY

I.1 Introduction

Following a request to the OIE from the Government of the Kingdom of Swaziland, an evaluation of the Veterinary Services (VS) based on the *OIE PVS (Performance of Veterinary Services)* methodology was conducted in 5- 14 May 2015 by a team of four independent OIE certified PVS evaluators. This follow-up mission was conducted in order to update the outcomes of the first OIE PVS Evaluation Mission which was conducted in September 2007 by Dr Ghazi Yehia and Dr Anne Mackenzie. This report is in the public domain and can be downloaded here:http://www.rr-africa.oie.int/docspdf/en/PVS/Swaziland-2007.pdf

The 2015 evaluation began with meetings with the Director of Veterinary and Livestock Services (DVLS), who is also the Chief Veterinary Officer, and senior staff in the headquarters of the Ministry of Agriculture (MoA) followed by meetings with Regional Resources.

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

The mission concluded in Manzini with a closing meeting involving the Undersecretary of Agriculture and representatives of the VS at which the overall findings of the evaluation were discussed.

I.2 Key findings of the evaluation

The *Veterinary Services Department* (VSD) of Swaziland has successfully addressed a number of animal disease challenges over the past decades including FMD and endemic tick borne diseases (babesiosis, anaplasmosis, erhlichiosis/heartwater). This has required extensive commitment of both human and financial resources. In the case of FMD, this has been dealt with by extensive commitment to infrastructure to erect and maintain cordon fences. For the tick borne diseases this entailed the construction and resourcing of diptanks to apply acarcides to the country's ruminant population on a year-round basis.

The passage of the Veterinary Public Health Act (17/2013) was the result of Parliament expressing the concerns of the Swazi population that food of animal origin should be safe and under the control of a competent authority capable of addressing food safety at all levels from the 'farm to the fork'. The VSD is tasked to address this major new responsibility by the end of 2016. However, at this point the supporting regulations have not been drafted and additional resources have not been allocated to accomplish this massive undertaking.

I.2.A Human, physical and financial resources

The human, physical and financial resources of the VS are generally adequate and uniform throughout the country. The VS is staffed with veterinarians trained to a high standard. However, the absolute shortage of Swazi veterinarians has been overcome by recruiting expatriate veterinarians.

The VS is generally well resourced with adequate office space and access to computers in most areas at least at the regional level. However, the most remote/rural areas lack internet and telecommunication connections.

The exception is in the area of transport and staff housing. Transport is generally not provided to the sub-regional level although stipends are provided for the use of personal vehicles for public services; however, many if not most veterinary para-professionals do not own a private vehicle. The availability and condition of staff housing is variable.

The bulk of the fieldwork is performed by a large cadre of veterinary para-professionals trained in Swaziland to a uniform standard that is quite adequate for entry level work. The number of veterinary para-professionals graduating each year is well matched to the opportunities for employment in the public sector. However, the opportunity to advance and improve their skills is limited. The lack of available further training will impact the capability of VSD to recruit, retain and further train the personnel to acquire the skills needed to support new duties under the Veterinary Public Health Act (17/2013)).

For many professional categories in government service, terms of reference are clearly defined through *Schemes of Service* (SoS). Performance evaluations of VSD personnel are done regularly.

Currently there is no requirement for CPD/CE. Access to ongoing training is limited although available in the region. Various in-service trainings are provided to VAs and other field staff through the VFTC.

The new VPH mandate will require recruitment and development of specific skills to support VSD activities.

Strong technical independence of the Department of Veterinary and Livestock Services is demonstrated and served the VSD well during the financial crisis of 2011-2012 when the drastic reduction in public expenditure impacted government services. VSD remained intact and were able to prioritize and scale back activities but continued to deliver an appropriate level of service.

Strong internal coordination and direct chain of command make the delivery of services and response to emergencies effective. Internal coordination is also made easier by the relatively small size of the country and good infrastructure (eg., good roads, telecommunication).

There is good external coordination with other competent authorities at the borders and with respect to wildlife services (eg., Big Game Parks and the Swaziland National Trust Commission). There is no evidence of external coordination with other competent authorities, either within the Ministry of Agriculture (e.g. fisheries department) or other agencies (e.g. Ministry of Health, City Councils). Coordination with the Ministry of Health (MoH) in particular needs to be improved to better address the notification and control of zoonotic diseases. However, external coordination works in times of emergencies and there is good cooperation with police in relation to livestock theft.

There is a general lack of transport for field activities that impacts the general performance of routine activities and the capacity at the local level to access the farms. The lack of transport at the sub-regional level could have a very negative impact on the capacity to respond to and manage emergencies. Although resources from within the MoA could be brought to bear on the short term, this would not be sustainable in a prolonged or protracted disease eradication or control situation.

VSD routinely does internal audits of all activities and positions to ensure compliance with policies and procedures. It produced the excellent Guidelines for National Veterinary Services (2013) and other documented procedures.

The financial and fiscal crisis the country suffered between 2011 and 2012, due to the collapse of SACU revenues, led Government to drastically reduce public expenditure, including for the VSD. Today, funding of the VSD is again adequate and regular and occurs though a transparent process. However, there is no established emergency fund although funding has always been made available in a timely manner when needed. There are no funds for compensation in emergency or eradication programmes.

No regular funding of capital investment is provided in the recurrent budget and major projects must be funded and managed as projects external to the VSD. In spite of this, VSD has been able to secure funding for building the VSD complex in Manzini housing the Regional VO, CVL and VEU. The construction of a new building for the RVO in Mbabane is nearing completion.

The team was particularly impressed with the quality of the government information technology network which links the SLITS client computers in the various veterinary offices to the SLITS server in Mbabane. However, with the exception of the SLITS animal identification database there are no computerised records or databases to support other VSD functions.

I.2.B Technical authority and capability

The VS have access to a comprehensive range of laboratory diagnostics. In-country laboratory expertise at the CVL is rather limited but VSD makes good use of regional and international laboratories primarily in the Republic of South Africa (RSA). The CVL generally has a very low throughput of samples and suffers from insufficient funding for reagents and other routine supplies. There CVL has no system of Quality Assurance and no computerised database for integrated management of laboratory data; however, all external laboratories use well recognised QA systems. Risk analysis is well understood and applied. However, publishing more risk assessment and documentation of risk based decision making would be beneficial to support VS activities.

Border control is very good and has proven quite successful over time at preventing the incursion of FMD from outbreaks in neighbouring countries. Border control points are not computerised or supported by a database and the telecommunication capacity is variable. VSD expends considerable resources to maintain the ‘protection zone’ cordon fencing and control points including the internal ‘green-line’ fence.

The extensive network of diptanks for tick control in the ruminant population offers a good opportunity for animal disease surveillance, both passive and active, in ruminants. The record and animal identification system in place at the diptank level supports a comprehensive annual census of these animals. However, passive surveillance in other species is minimal due to lack of contact with veterinary personnel.

Contingency plans for FMD, rabies and AI are available but not routinely updated or supported by simulation exercises. The clear and direct chain of command supports effective emergency response.

Serological surveillance focusing on diptanks in areas considered to be at high risk for FMD is based on statistical sampling. Little/no scientific evaluation of the efficacy and efficiency of VSD programmes is done.

The lack of financial resources often curtails disease control efforts or prevents systematic implementation on an annual basis.

The new Veterinary Public Health Act (17/2013) provides the VSD with the authority to regulate, authorise and inspect all establishments involved in the production, processing and distribution of food of animal origin and of animal feed. Regulations have not yet been developed to support this Act. Moreover, the VSD has very limited capacity to address its new responsibilities in terms of procedures and skilled personnel. It will be necessary to develop supporting regulations and procedures and to establish expertise and resources to implement this mandate.

Under the Veterinary Public Health Act (17/2013), the VSD now has the mandate for feed safety. Currently VSD does perform some feed safety inspections during routine feedlot visits.

Veterinary medicines and vaccines are regulated and approved for import based on their approval in the RSA or the EU. The VSD has legally supported standards for drug importation and use in place. High quality products are imported under a comprehensive permit process in a process that seems to be well accepted by the end users. The VSD provides the acaricides used at government diptanks free of charge. Based on the results of inspections, there is little evidence of illegal entry of unapproved products or use of counterfeit products.

The SLITS database is an effective system for animal identification and movement control that enjoys wide compliance by owners. SLITS is well suited to the size of the animal population and has the capacity for good lifetime traceability of cattle.

There is legislation against cruelty to animals but no legal basis for the implementation of the OIE animal welfare standards currently exists. Draft legislation and regulations have been prepared.

I.2.C Interaction with interested parties

The VSD sponsors a regular radio broadcast as the primary means of communication with small farmers and the less commercialised sectors.

Communication resources need to be further developed and utilised by VSD. The MoA has dedicated communication resources that VS can use as needed; however, the implementation of the Veterinary Public Health Act (17/2013) will require extensive communication support.

Consultation and communication with sectors other than ruminants is difficult as these sectors are not well organised or represented in consultations. NAMBoard is attempting to organise some of these smaller sectors and will serve as a conduit for interaction.

There is little opportunity to delegate official tasks to the private sector because of the very small size of the private sector.

The Veterinary Council of Swaziland (VCS) registers and regulates all veterinarians practicing in Swaziland but does not regulate veterinary para-professionals.

I.2.D Access to markets

Most of the legislation that provides the VSD with its mandate is outdated but nevertheless does provide the necessary broad authority. There is a lack of supporting regulation for many key areas within the VS mandate. The process to approve regulations is nearly as arduous as the passage of legislation, although the use of Ministerial Orders / Notices and VSD Directives for lower level matters offers some alternatives. A strong chain of command within VSD ensures the capacity to implement regulations and procedures in a uniform manner throughout the country.

Internal audits done by the VS for performance and compliance occur on a regular basis

The need to develop and implement supporting regulations and procedures for the Veterinary Public Health Act (17/2013) is a critical area needing a comprehensive approach to ensure application of appropriate standards and assure full compliance. This Act provides a 3-year grace period that will end in 2016; a deadline that will be difficult to achieve unless considerable resources are brought to bear and the regulations are given priority.

International certification by the VSD is recognised in the region and in Europe. Swaziland has bilateral agreements in the region that facilitate the movement of animals and animal products.

Swaziland is an active member of OIE, Codex, SADC, WTO/SPS, AU-IBAR and SACU and is well represented at regional and international meetings. The VSD regularly notifies the OIE of the suspicion of disease occurrence and reports on a regular basis to OIE.

Zoning has been successfully applied in Swaziland and remains an important tool for FMD response.

Table 1. Summary of OIE PVS evaluation results

PVS summary results of Swaziland	Result
I. HUMAN, PHYSICAL AND FINANCIAL RESOURCES	
I.1.A. Staffing: Veterinarians and other professionals	4
I.1.B. Staffing: Veterinary paraprofessionals and other	4
I.2.A. Professional competencies of veterinarians	3
I.2.B. Competencies of veterinary paraprofessionals	3
I-3. Continuing education	2
I-4. Technical independence	3
I-5. Stability of structures and sustainability of policies	4
I-6.A. Internal coordination (chain of command)	4
I-6.B. External coordination	2
I-7. Physical resources	3
I-8. Operational funding	3
I-9. Emergency funding	3
I-10. Capital investment	3
I-11. Management of resources and operations	3
II. TECHNICAL AUTHORITY AND CAPABILITY	
II-1.A. Access to veterinary laboratory diagnosis	4
II-1.B. Suitability of national laboratory infrastructures	3
II-2. Laboratory quality assurance	2
II-3. Risk analysis	3
II-4. Quarantine and border security	4
II-5.A. Passive epidemiological surveillance	3
II-5.B. Active epidemiological surveillance	3
II-6. Emergency response	4
II-7. Disease prevention, control and eradication	3
II-8.A. Regulation, authorisation and inspection of establishments	2
II-8.B. Ante and post mortem inspection	2
II-8.C. Inspection of collection, processing and distribution	2
II-9. Veterinary medicines and biologicals	3
II-10. Residue testing	2
II-11. Animal feed safety	2
II-12.A. Animal identification and movement control	3
II-12.B. Identification and traceability of animal products	2
II-13. Animal welfare	3
III. INTERACTION WITH INTERESTED PARTIES	
III-1. Communications	2
III-2. Consultation with interested parties	2
III-3. Official representation	3
III-4. Accreditation/authorisation/delegation	2
III-5.A. Veterinary Statutory Body Authority	3
III-5.B. Veterinary Statutory Body Capacity	2
III-6. Participation of producers and other interested parties in joint programmes	3
IV. ACCESS TO MARKETS	
IV-1. Preparation of legislation and regulations	3
IV-2. Implementation of legislation and regulations and compliance thereof	3
IV-3. International harmonisation	4
IV-4. International certification	3
IV-5. Equivalence and other types of sanitary agreements	3
IV-6. Transparency	3
IV-7. Zoning	4
IV-8. Compartmentalisation	2

I.3 Key recommendations

I.3.A Human, physical and financial resources

There is a need to develop a comprehensive mid-term strategy covering the next 5 years and long-term HR strategy (10+ years). One area of needed planning is to ensure a continued "supply" of quality veterinarians, animal scientists and university- and mid-level laboratory technicians. This may be accomplished by the use of selected, targeted scholarships, financial incentives, as well as career advancement opportunities.

A similar strategy will be needed to ensure an increasing level of technical proficiency of veterinary para-professional staff by developing and strengthening the mid-level cadre especially to ensure personnel with the necessary skills to support the new VPH mandate. The salary differentials (eg., between VA and AHI or MHI) are adequate motivation to ensure that many VAs will choose to pursue further education to qualify for advancement. The use of online training at the *University of South Africa* (UNISA) for veterinary para-professionals is compatible with full-time employment and should be considered by the Swaziland Government for scholarships.

A comprehensive strategy is needed to support implementation of the Veterinary Public Health Act (17/2013) over the next few years. The scoping of skills gaps, HR resources, policies and procedures will be necessary to advocate for broad government support that will need to involve many Ministries beyond just the Ministry of Agriculture. Additional interaction with the MoH and local government will be needed to support the transition of the VPH mandate from the MoH and municipal agencies to the VSD.

At field veterinary level, there is need to improve the working and living conditions of the field staff in some areas, in particular the VA's and cordon staff, in terms of staff accommodation, remuneration, training opportunities, means of transport and improved means of telecommunication (through a dedicated/leased government cellular network or at least the reimbursement of calls).

The general lack of transport for field activities impacts the capacity and general performance of routine activities. This lack of transport at the sub-regional level could have a very negative impact on the management of disease control and VPH activities. Telecommunication capacity at the local/field level and border control posts needs to be addressed.

Ideally emergency preparedness plans (EPP) and disease control campaigns (eg., tuberculosis and brucellosis eradication and control) should earmark (financial or in-kind) compensation for farmers whose livestock has been the subject of official measures as part of these control campaigns. The VSD should agree on which diseases are eligible for compensation of farmers (possibly endorsed by a Ministerial Legal Notice) and should provide clear guidance, agreed in peace time, on the access to emergency funding, under the Animal Diseases Act (1965).

Better external coordination with MoH is needed in the area of zoonotic disease. Reports of such diseases should be shared and the VSD should follow-up to farm of origin. At the time of the mission, TB lesions are mainly found at the beef export abattoir and probably represent only a small proportion of the actual number of cases. The VSD should encourage the Swaziland Dairy Board and NAMBoard to develop more links with small scale animal production units to establish better communication and consultation. It should also foster closer cooperation with the Dairy Board on issues of disease prevention and control of brucellosis and tuberculosis, as well as

residue detection and promoting awareness of farmers and consumers on issues of dairy-related food safety.

I.3.B Technical authority and capability

A PVS Gap Analysis mission can provide an opportunity to link the activities of the field services and the meat inspection to the expected turnover of samples for the laboratory services in Swaziland and should provide clear insight into the future needs in terms of financial, physical and human resources (5-year horizon).

There is a need to develop a procedure to ensure that results from the private veterinary laboratories processing samples from Swazi animals are shared with the VSD and ensure there is a mechanism for obligatory notification to the VSD when a notifiable disease is detected.

The regular reporting from the field provides for good passive surveillance as well as for the annual collection of animal census data. These reports could be used to help prioritise disease control activities and support them with scientific evaluation of their efficacy and efficiency.

The SLITS database provides individual identification with uniquely numbered eartags for all cattle supported by computerized records but is the only computerised record system available. Identification systems or databases for species other than cattle are not currently available and should be considered as a next step. A system of traceability for products of animal origin outside the beef export chain will also be needed under the Veterinary Public Health Act (17/2103).

Centralised databases should be made available to CVL and for import/export certification. Procedures for documentary control at border inspection points should be reviewed and one should assess the possibility of computerising the documentary control with a supporting database.

With a view to the implementation of the Veterinary Public Health Act (17/2013) the VSD should develop a comprehensive implementation plan, based on enabling regulations with timelines and procedures supported by a comprehensive evaluation of required resources and associated costs. Part of the process will require identifying the necessary resources to develop appropriate risk-based inspection procedures. It will be necessary to develop standards for all classes of facilities, including animals slaughtered for home consumption and the conduct of ritual slaughter. This should include consideration of identification and traceability of products of animal origin.

At the national level, the VSD needs to prioritize the development of VPH regulations and procedures and get Ministerial support to advocate on its behalf in Cabinet.

It will probably be necessary to seek outside expertise to develop appropriate regulations and procedures to support implementation of this Act including recruitment and training of personnel to conduct and oversee inspection. Part of the effort will be to provide education and outreach material to ensure full understanding and cooperation of interested parties as well as the general public.

The VSD also needs to develop and implement appropriate guidelines for the prudent use of veterinary medicines, especially but not exclusively antibiotics. It will have to develop and implement such guidance with supporting educational outreach for VAs and farmers.

As part of the implementation of the Veterinary Public Health Act (17/2013), the VSD should review options for a scientifically based residue testing plan for domestic products in an appropriate range of livestock species. The VSD should also develop appropriate policies and procedures for the identification of livestock other than cattle,

the traceability of foods of animal origin, and the inspection and control of animal feeds.

Bovine TB surveillance needs to be updated to determine if the increased number of positives at slaughter reflects an increase in national prevalence. The VSD should also work with MoH to share reports of human cases of *M. bovis* and brucellosis and follow-up on trace backs to the area of origin.

The VSD should clarify policies on the payment of compensation to farmers within the emergency preparedness plans and contingency plans. Emergency preparedness / simulation exercises should be carried out on a regular (e.g. 2 yearly) basis to ensure adequate response and ensure staff readiness.

Animal welfare legislation including the current draft Act and regulations, need to be updated to reflect current OIE guidelines.

I.3.C Interaction with interested parties

VSD should develop a communications plan to report and prioritize communication approaches using a variety of modalities with the general goal to enhance compliance and broadly support VSD activities. This will be especially important as the Veterinary Public Health Act (17/2013) is implemented; outreach will be needed to ensure that new stakeholders are identified and engaged in the process.

VSD should consider the recruitment of a full-time or part-time communication officer or contractor.

Closer cooperation is needed with the Dairy Board and NAMBoard on issues of disease prevention and control, i.e. brucellosis and tuberculosis, as well as residue detection and awareness of farmers and consumers on issues of dairy-related food safety. The VSD should support this with a framework for cooperation or memoranda especially in the priority areas of animal health and veterinary public health. The VSD should engage the Dairy Board and encourage the NAMBoard to develop more links with small scale animal production units and use these mechanisms to establish more channels of communication with other sectors.

The VSD should develop a system for formal consultation with all interested parties especially to address the development and implementation of the regulations and programmes to support the Veterinary Public Health Act (17/2013).

The Veterinary Council should develop the means to appropriately regulate veterinary para-professionals. This review should include defining various classes of veterinary para-professionals based on level of training or skills with corresponding responsibilities and identifying the necessary regulatory authority.

I.3.D Access to markets

The VSD needs to ensure that the drafting and passage of supporting regulations for the Veterinary Public Health Act (17/2013) are prioritised to allow implementation by the end of 2016. The magnitude of this requirement is such that it will be very difficult for VSD to accomplish this without extensive additional expertise and resources.

The VSD should consider doing a cost/benefit analysis of the maintenance of the cordon fence and protection zone versus the eradication of FMD support future decision-making regarding the cordon fence. This sort of analysis will also be useful in the future to rationalise resource allocation in disease control more generally.

The VSD should identify areas where additional certification is needed to support regional export of additional Swazi products (e.g. honey) and live animals through interaction with interested parties within Swaziland.

The establishment of SADC-wide or bilateral agreements is recommended to support the necessary AHS certification to facilitate movement of horses within the region in a timely manner for competition and to allow high value equids access to emergency veterinary surgery in RSA.

Finally, it is recommended that the VSD develop the capacity to monitor import/export certification electronically to ensure consistent and reliable import/export processes and include the auditing of export/import documentation in the current system of audits.

PART II: CONDUCT OF THE EVALUATION

At the request of the Government of the Kingdom of Swaziland, the Director General of the OIE appointed an independent OIE PVS team consisting of Dr Julia Punderson (Team Leader); Dr Chris Daborn and Dr Patrick Bastiaensen (as Technical experts); and, Dr Moetapele Letshwenyo (Observer) to undertake an evaluation of the veterinary services of Swaziland. The evaluation was carried out on 5 – 15 May 2015.

The evaluation was carried out with close reference to the OIE standards contained in Chapters 3.1., 3.2., 3.3. and 3.4. of the OIE *Terrestrial Animal Health Code* (the Terrestrial Code), using the OIE *PVS Tool* (6th edition, 2013) to guide the procedures. Relevant Terrestrial Code references are quoted for each critical competency in appendix 1.

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

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

To assist countries to establish their current level of performance, form a shared vision, establish priorities and carry out strategic initiatives, the OIE has developed an evaluation tool called the OIE Tool for the Evaluation of Performance of Veterinary Services (OIE PVS Tool[1]) which comprises four fundamental components:

- Human, physical and financial resources
- Technical authority and capability
- Interaction with interested parties
- Access to markets.

These four fundamental components encompass 47 critical competencies, for each of which five qualitative levels of advancement are described. For each critical competency, a list of suggested indicators was used by the OIE PVS Team to help determine the level of advancement.

A glossary of terms is provided in Appendix 2.

The report follows the structure of the OIE PVS Tool and the reader is encouraged to consult that document to obtain a good understanding of the context in which the evaluation was conducted.

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

II.2 Country information (geography, administration, agriculture and livestock)

The Kingdom of Swaziland is a small landlocked country in southern Africa sharing a 430 km border with the Republic of South Africa (RSA) and a 105 km border with Mozambique. The country is divided administratively into 4 regions: Hhohho, Lubombo, Manzini and Shiselweni.

[1] Available at http://www.oie.int/eng/oie/organisation/en_vet_eval_tool.htm?e1d2

The climate varies from tropical to near temperate with topography consisting mostly of mountains and hills with some sloping plains. The four geographic regions run from north to south. To the west is the Highveld which receives the most rainfall (1 – 2,000 mm/year) with an average altitude of 1200 meters. Middleveld has an average altitude of 700 m and is where most of the agricultural cultivation occurs; rainfall averages 5 – 900 mm/year. Lowveld is further east with sub-tropical conditions (hotter and drier) at an average altitude of 250 m with typical African bush with an average rainfall of less than 700 mm/year. The Lubombo Plateau in the east is bordered by Mozambique; the area contains the countries three main rivers with an average altitude of 600 m.

The World Bank ranks the Swazi economy as lower middle income (World Bank: http://data.worldbank.org/country/swaziland). More than 60% of the population lives in poverty; although this is an improvement over the 69% found as recently as 2006. Although agriculture contributes only 7.6% of GDP, primarily as crops dominated by sugar, 70% of the labour force is engaged in agriculture. Estimates of unemployment were as high as 40% in 2007. Overgrazing, soil depletion, drought, and floods are current and future problems. More than one quarter of the population needed emergency food aid in 2006-07 because of drought.

Swaziland has significant trade with RSA, receiving more than 90% of its imports and sending 60% of exports. The national currency (emalangeni or lilangeni; abbreviated as E, L or SZL) is maintained at parity with the RSA rand (abbreviated as R or ZAR). The government is heavily dependent on customs duties from the *Southern African Customs Union* (SACU), and worker remittances from South Africa supplement domestically earned income.

Land use in Swaziland is of two categories: Titled Deed Land (TDL) which is owned by the individual; and Swazi Nation Land (SNL) which is communal land that is either of shared use or access assigned by the local community.

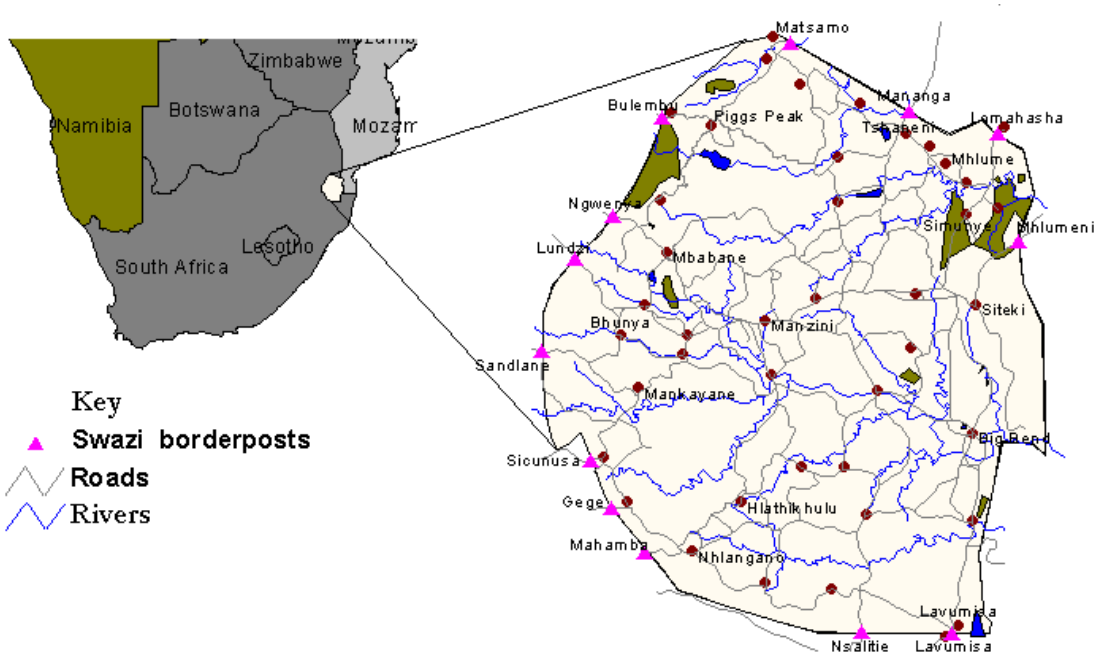

Figure 1. Map of Swaziland

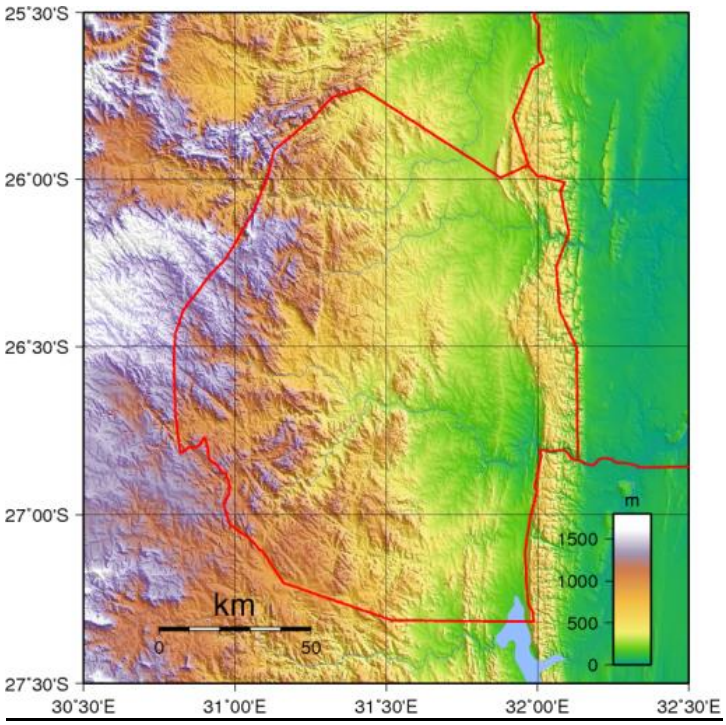

Figure 2. Topographic map of Swaziland
source: http://upload.wikimedia.org/wikipedia/commons/0/04/Swaziland_Topography.png

Table 2. Data summary for geography, agriculture and livestock

Geographic features

Climatic and/or agro-ecological zones	Rainfall (mm/year)
Highveld (west)	1-2,000
Lowveld (east)	<700
Middleveld	500-900
Lobombo Plateau	1-2,000

Topography	Km^2	%
Total area	17,364	
Pasture lands		70
Arable land		10
Forest		20

Demographic data

Human population		Livestock households/farms	
Total number	1,419,623		
Average density / km^2	82	% intensive	< 1%
% of urban	20%	% agro-pastoral (mixed)	20%
% of rural	80%	% extensive	80%

Current livestock census data (2014)

Region	Livestock population						
	Cattle	Sheep	Goats	Pigs	Poultry Chickens	Equidae	Canine
Hhohho	126 543	3 614	3 614	11 140	520 757	2 593	22 192
Lubombo	175 197	2 318	130 419	5 778	199 517	3 044	19 163
Manzini	174 686	4 855	123 686	10 778	1 612 696	1 430	31 903
Shiselweni	144 187	5 287	105 503	11 729	208 157	3 015	22 650
TOTAL	**620 613**	**16 074**	**363 222**	**39 425**	**2 541 127**	**10 082**	**95 908**

Numbers of dairy and beef cattle by region

Name of Region	Dairy production	Beef production	
		Total numbers	Total slaughtered
Hhohho	1 810	124 733	8 026
Lubombo	293	174 904	11 400
Manzini	1 897	172 789	16 037
Shiselweni	144 187	143 260	8 235
Export abattoir			6 343
TOTAL	**148 187**	**615 686**	**50 041**

Animal and animal product trade data

Animals and animal products	Average annual import		Average annual export	
	Value (SZL)	Value (USD)	Value (SZL)	Value (USD)
Beef	112.5m	9.45m	68.2m	5.7m
Lamb	6.4m	.54m	0.5m	42,000
Pork	22m	1.8m	1.6m	134,000
Chicken/turkey	26.6m	1.9m	2.5m	210,000
Dairy	285.5m	24m	20.5m	1.7m
TOTAL	**453m**	**38m**	**94.3m**	**7.9m**

Economic data

National GDP	3.7 billion USD (2013)
National budget	1.27 billion USD (2013)
Annual Budget Ministry of Agriculture	~ SZL 620m (= 52m USD)
Annual budget of the Veterinary Services	SZL 63.5 m (= 5.3m USD)

II.3 Context of the evaluation

II.3.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. All documents and pictures listed in appendix 6 are referenced to relevant critical competencies to demonstrate 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 information requirements set out in the OIE Terrestrial Code.

Table 3. 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
→ **Animal census:**			
○ at 1st administrative level		√	
○ at 2nd administrative level		√	
○ at 3rd administrative level		√	
○ per animal species		√	
○ per production systems		√	
→ **Organisations charts**			
○ Central level of the VS		√	
○ 2nd level of the VS		√	
○ 3rd level of the VS		√	
→ **Job descriptions in the VS**			
○ Central levels of the VS		√	
○ 2nd level of the VS		√	
○ 3rd level of the VS		√	
→ **Legislations, regulations, decrees …**			
○ Animal health and public health		√	
○ Veterinary practice			
○ Veterinary statutory body		√	
○ Veterinary medicines and biologicals		√	
○ Official delegation	N/A		
→ **Veterinary census**			
○ Global (public, private, veterinary, para-professional)		√	
○ Per level		√	
○ Per function		√	
→ **Census of logistics and infrastructures**		√	
→ **Activity reports**		√	
→ **Financial reports**		√	
→ **Animal health status reports**		√	
→ **Evaluation reports**		√	
→ **Procedures, registers, records, letters**		√	

II.3.B General organisation of the Veterinary Services

The *Ministry of Agriculture* (MoA) (see figure 3 below) has four Departments: the *Department of Veterinary and Livestock Services*, *Department of Agriculture* (crops and fisheries), *Department of Land Use Planning,* and the *Department of Agricultural Research and Specialized Services.*

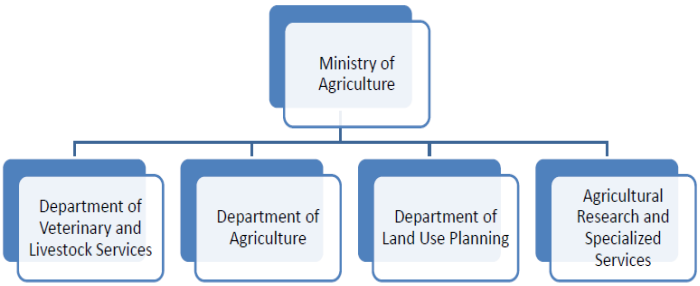

Figure 3. Organisational flowchart of the Ministry of Agriculture

The National Veterinary Services Division (VSD) is one of two divisions in the Department of Veterinary and Livestock Services within the Ministry of Agriculture.

The Director of Veterinary and Livestock Services (DVLS) currently heads both divisions, Veterinary Services Division (VSD) and Livestock Services (Animal Production and Extension). Currently the DVLS is also the Chief Veterinary Officer (CVO) and OIE Delegate and heads both divisions. The DVLS is ably assisted by two Deputies, one for each Division. The Deputy Director of Veterinary Services (DDVS) is in-charge of Veterinary Services Division (VSD).

The VSD (see figure 4) is divided into three main sections being Field Services (FS), Veterinary Public Health (VPH) and the Veterinary Epidemiology Unit (VEU). Each section is headed by a Senior Veterinary Officer. The primary legal authority comes from the Animal Disease Act 7 of 1965.

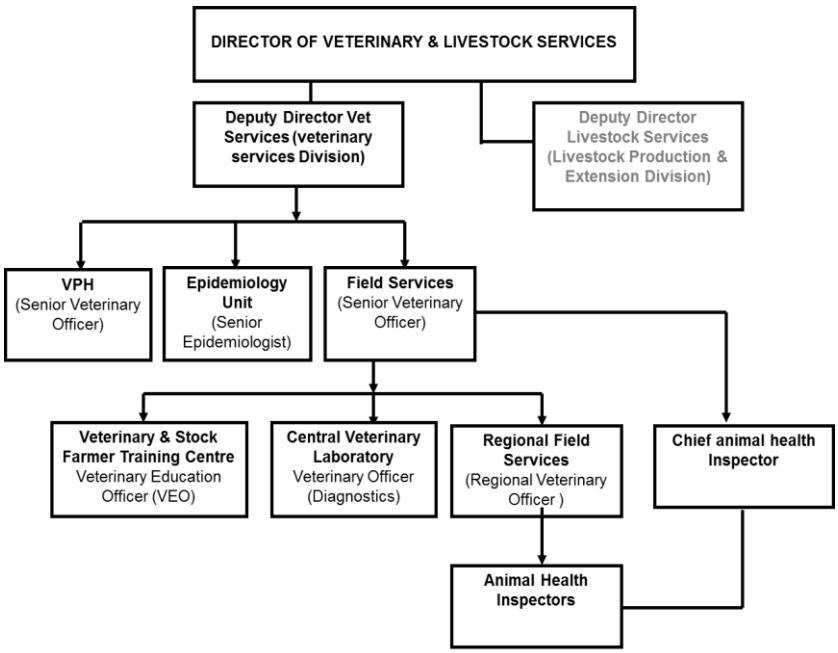

Figure 4. Organisational flowchart of the Department of Veterinary and Livestock Services

Field Services (FS)

The largest Division is Field Services (FS); it includes the four Regional Veterinary Services, the Central Veterinary Laboratory (CVL) and the Veterinary Farmer Training Centre (VFTC). FS is headed by the SVO. Under the SVO is the Chief Animal Health Inspector (CAHI) who coordinates activities of the Animal Health Inspectors (AHI) in the field. Field activities are conducted by a large cadre of Senior Animal Health Inspectors (SAHI), AHI, Assistant Animal Health Inspectors (AAHI), Veterinary Assistants (VA), Cordon Inspectors (CI) and Cordon Guards (CG)

Regional veterinary authorities share the responsibility of managing the 28 sub-regional offices divided as follows; eight in Lubombo, six in Hhohho, seven in Manzini and seven in Shiselweni. Sub-regional offices are under the jurisdiction of HI) and AAHI who report to the SAHI at the regional level. VA work under the AHIs at the subregional level and are responsible for all activities at four diptanks including animal health (AH) activities, dipping, animal identification, and control of movement permits.

At the primary animal health level the VSD is divided into diptank areas which serve as the smallest epidemiologic unit. A diptank is a physical structure on which primary animal health care activities are centred. Government diptanks are placed with an average radius of 4 km. All livestock and their owners in a diptank area are registered with a diptank. Livestock are presented to the diptank at regular intervals, generally weekly for dipping (inspection and dipping) under supervision of specially trained animal health technicians (Veterinary Assistants). Private farms may have their own diptank where the farmer is responsible for the purchase and application of acaricides but are still subject to periodic inspection by VSD personnel. Dipping is compulsory under the Animal Disease Act 7/1965.

All farms are identified by farm (kraal) and companion animals are identified by the closest public diptank area for the purposes of rabies vaccination or any other VSD activity. VAs are assisted by Dip Tank Assistants (DTA) and Dip Tank Committees (DTC). DTAs are selected based on experience and must be between 60 and 65 years of age. Although they are not government employees they do receive a monthly government stipend. The DTC members are community members elected for the purpose by the community and help with all VSD activity at their local diptank.

Central Veterinary Laboratory (CVL)

The *Central Veterinary Laboratory* (CVL) lies under the authority of the FS and serves as the national (reference) laboratory. The CVL is also available to the public for testing of samples provided directly.

CVL is also responsible for oversight of the two quarantine facilities. Mpisi Government Quarantine Station quarantines all imported live animals. The Maphiveni Quarantine Station is located at the exit point of the Lubombo Protection Zone and handles all cattle and small ruminants that are repatriated into Swaziland after recovery from theft or straying into neighbouring countries.

In 2014 the CVL handled a total of 2,470 samples; 69% of bovine origin. Bovine samples were tested for acid fast bacteria with 47 out of 75 being positive; 57 of 631 samples for brucellosis were also positive (576 of these samples were for routine surveillance).

The CVL relies on laboratories in the RSA and the UK to perform tests they do not have the capacity for and to support the requirements for the export of beef from the approved export abattoir. In 2014; 1,555 salmonella samples were submitted to the Deltamune lab in RSA and 5 found positive. Samples were also sent from the beef export abattoir for residue analysis at laboratories in RSA and UK.

Veterinary & Farmer Training Center (VFTC)

The *Veterinary & Farmer Training Center* (VFTC) at Mpisi also falls under the authority of the FS and is located adjacent to the Mpisi Government Quarantine Station. VFTC is responsible for the two-year curriculum to train veterinary para-professionals and for delivering short training courses (several days to a week-long) for farmers and Cordon Guards as needed and as funds permit.

The capacity of the Centre can reach 40 students under full accommodation but this has been limited by the number of vacancies which are to be filled. The VFTC is under the authority of the Veterinary Education Officer, a position that requires the qualification of a veterinarian; this position is currently vacant and various members of the VSD staff takes turns providing the necessary teaching and oversight. The other members of the administration and teaching staff consist of the Assistant Veterinary Education Officer as well as Lecturers.

Veterinary Epidemiology Unit

The *Veterinary Epidemiology Unit* (VEU) provides scientific support for the Field Service and coordinates disease reporting and surveillance. The VEU also maintains the SLITS database and coordinates surveillance and disease response and is responsible for supporting risk assessment. Field data is compiled in monthly and annual reports. The VEU is staffed by two veterinarians with advanced degrees, an AH technician and a data entry technician.

Veterinary Public Health

The *Veterinary Public Health Unit* (VPHU) is the custodian of the new Veterinary Public Health Act (17/2013. The Act expanded the mandate of the VSD to include food of animal origin including fresh meat, poultry meat, meat products, game meat, dairy products, and fish and related products. The Act provides VSD with authority over the approval of slaughter facilities and establishments, regulation and certification of imports and exports of food of animal origin and development of regulations, procedures and programmes. The Act provides a ‘grace period’ for the enactment and compliance that is to end in 2016.

Prior to the passage of the Act the responsibility for assuring food safety was primarily with the Ministry of Health and municipal (city council) public health inspectors under the Public Health Act (5/1965) and the only place where VSD had a role in inspection, control and certification of food safety was in the abattoirs for the export of beef.

II.3.C Animal disease occurrence

The VS of Swaziland focus on diseases affecting cattle, i.e. FMD, brucellosis, tuberculosis, lumpy skin disease and tick-borne diseases, as well as canine rabies. The information on animal disease occurrence from the OIE website is listed in table 4 below.

Table 4. Disease status of the country (WAHIS 2014 annual report Swaziland)

Diseases present in the country

	Domestic		Wild	
Disease	Notifiable	Status	Notifiable	Status
African horse sickness	✓	Clinical Disease	✓	Not reported for this Period (since Unknown)
Bovine anaplasmosis	✓	Clinical Disease	✗	No information
Bovine babesiosis	✓	Clinical Disease	✗	No information
Bovine tuberculosis	✓	Confirmed infection (no clinical disease)	✗	No information
Brucellosis (Brucella abortus)	✓	Clinical Disease	✗	No information
Echinococcus granulosus (Infection with)	✗	Confirmed infection (no clinical disease)	✓	Not reported for this Period (since Unknown)
Heartwater	✓	Clinical Disease	✓	Not reported for this Period (since Unknown)
Lumpy skin disease	✓	Clinical Disease	✗	No information
Rabies	✓	Clinical Disease	✓	Not reported for this Period (since 2006)

Diseases never reported in the country

Disease	Notifiable	Type of surveillance
African swine fever	✓	General Surveillance
Aujeszky's disease	✓	General Surveillance
Bovine spongiform encephalopathy	✓	General and targeted surveillance
Brucellosis (Brucella suis)	✓	General Surveillance
Camelpox	✓	General Surveillance
Caprine arthritis/encephalitis	✓	General Surveillance
Classical swine fever	✓	General Surveillance
Contagious bov. pleuropneumonia	✓	General Surveillance
Contagious cap. pleuropneumonia	✓	General Surveillance
Crimean Congo haemorrhagic fever	✓	General Surveillance
Epizootic haemorrhagic disease	✓	General Surveillance
Equine encephalomyelitis (Eastern)	✓	General Surveillance
Equine influenza	✓	General Surveillance
Equine viral arteritis	✓	General Surveillance
Glanders	✓	General Surveillance
Japanese encephalitis	✓	General Surveillance
Leishmaniosis	✓	General Surveillance
Maedi-visna	✓	General Surveillance
N. w. screwworm (C. hominivorax)	✓	General Surveillance
Nairobi sheep disease	✓	General Surveillance
Peste des petits ruminants	✓	General Surveillance
Salmonellosis (S. abortusovis)	✓	General Surveillance
Scrapie	✓	General Surveillance
Sheep pox and goat pox	✓	General Surveillance
Small hive beetle infestation	✓	General Surveillance

Diseases not reported in 2014

	Domestic				Wild		
Disease	Notifiable	Last occurrence	Surveillance	Note	Notifiable	Last occurrence	Surveillance
Acarapisosis of honey bees	✓	Unknown	General Surveillance				
American foulbrood of honey bees	✓	Unknown	General Surveillance				
Anthrax	✓	Unknown	General Surveillance		✓	Unknown	General Surveillance
Avian chlamydiosis	✓	Unknown	General Surveillance		✗	Unknown	
Avian infect. laryngotracheitis	✓	Unknown	General Surveillance		✓	Unknown	General Surveillance
Avian infectious bronchitis	✓	Unknown	General Surveillance		✗	Unknown	
Avian mycoplasmosis (M.synoviae)	✓	Unknown	General Surveillance		✗	Unknown	
Bluetongue	✓	Unknown	General Surveillance		✗	Unknown	
Brucellosis (Brucella melitensis)	✓	23/01/2009	General Surveillance		✗	Unknown	
Contagious agalactia	✓	Unknown	General Surveillance		✗	Unknown	
Dourine	✓	Unknown	General Surveillance		✗	Unknown	
Duck virus hepatitis	✓	Unknown	General Surveillance				
Echinococcus multilocularis (Infection with)	✓	Unknown	General Surveillance		✓	Unknown	General Surveillance
Encephalomyelitis (West.)	✓	Unknown	General Surveillance		✗	Unknown	
Enzootic abortion (chlamydiosis)	✓	Unknown	General Surveillance		✗	Unknown	
Equine infectious anaemia	✓	Unknown	General Surveillance		✗	Unknown	
Equine piroplasmosis	✓	Unknown	General Surveillance		✗	Unknown	
European foulbrood of honey bees	✓	Unknown	General Surveillance				
Foot and mouth disease	✓	2001	General Surveillance		✓	Unknown	General Surveillance
Fowl typhoid	✓	Unknown	General Surveillance		✗	Unknown	
Highly path. avian influenza	✓	Unknown	General Surveillance		✓	Unknown	General Surveillance
Infec bursal disease (Gumboro)	✓	Unknown	General Surveillance		✗	Unknown	

Diseases for which no information has been provided

Avian chlamydiosis - (Wild)

Avian infectious bronchitis - (Wild)

Avian mycoplasmosis (M.synoviae) - (Wild)

Bluetongue - (Wild)

Bov. genital campylobacteriosis - (Domestic)

Bov. genital campylobacteriosis - (Wild)

Bovine viral diarrhoea - (Domestic)

Bovine viral diarrhoea - (Wild)

Brucellosis (Brucella melitensis) - (Wild)

Contagious agalactia - (Wild)

Contagious equine metritis - (Domestic)

Contagious equine metritis - (Wild)

Crayfish plague (Aphanomyces astaci) - (Domestic)

Crayfish plague (Aphanomyces astaci) - (Wild)

Dourine - (Wild)

Encephalomyelitis (West.) - (Wild)

Enzootic abortion (chlamydiosis) - (Wild)

Enzootic bovine leukosis - (Domestic)

Enzootic bovine leukosis - (Wild)

Epizoot. haematopoietic necrosis - (Domestic)

Epizoot. haematopoietic necrosis - (Wild)

Epizootic ulcerative syndrome - (Domestic)

Epizootic ulcerative syndrome - (Wild)

Equine infectious anaemia - (Wild)

Equine piroplasmosis - (Wild)

Fowl typhoid - (Wild)

Haemorrhagic septicaemia - (Domestic)

Haemorrhagic septicaemia - (Wild)

Inf.bov.rhinotracheit. (IBR/IPV) - (Domestic)

Inf.bov.rhinotracheit. (IBR/IPV) - (Wild)

Infec bursal disease (Gumboro) - (Wild)

Infect. haematopoietic necrosis - (Domestic)

Infect. haematopoietic necrosis - (Wild)

Infection with abalone herpes-like virus - (Domestic)

Infection with abalone herpes-like virus - (Wild)

Infection with Batrachochytrium dendrobatidis - (Domestic)

Infection with Batrachochytrium dendrobatidis - (Wild)

Infection with Bonamia exitiosa - (Domestic)

Infection with Bonamia exitiosa - (Wild)

Infection with Bonamia ostreae - (Domestic)

Infection with Bonamia ostreae - (Wild)

Infection with Marteilia refringens - (Domestic)

Infection with Marteilia refringens - (Wild)

Infection with ostreid herpesvirus-1 microvariant - (Domestic)

Infection with ostreid herpesvirus-1 microvariant - (Wild)

Infection with Perkinsus marinus - (Domestic)

Infection with Perkinsus marinus - (Wild)

Infection with Perkinsus olseni - (Domestic)

Infection with Perkinsus olseni - (Wild)

Infection with ranavirus - (Domestic)

Infection with ranavirus - (Wild)

Infection with salmonid alphavirus - (Domestic)

Infection with salmonid alphavirus - (Wild)

Infection with Xenohaliotis californiensis - (Domestic)

Infection with Xenohaliotis californiensis - (Wild)

Infectious salmon anaemia virus (HPR-deleted or HPR0 genotypes) (Infection with) - (Domestic)

Infectious salmon anaemia virus (HPR-deleted or HPR0 genotypes) (Infection with) - (Wild)

Koi herpesvirus disease - (Domestic)

Koi herpesvirus disease - (Wild)

Myxomatosis - (Domestic)

Myxomatosis - (Wild)

Nipah virus encephalitis - (Domestic)

Nipah virus encephalitis - (Wild)

O. w. screwworm (C. bezziana) - (Domestic)

O. w. screwworm (C. bezziana) - (Wild)

Ovine epididymitis (B. ovis) - (Wild)

Paratuberculosis - (Domestic)

Paratuberculosis - (Wild)

Porcine cysticercosis - (Domestic)

Porcine cysticercosis - (Wild)

Porcine reproductive/respiratory syndr. - (Wild)

Pullorum disease - (Wild)

Q fever - (Domestic)

Q fever - (Wild)

Rabbit haemorrhagic disease - (Domestic)

Rabbit haemorrhagic disease - (Wild)

Red sea bream iridoviral disease - (Domestic)

Red sea bream iridoviral disease - (Wild)

Spring viraemia of carp - (Domestic)

Spring viraemia of carp - (Wild)

Taura syndrome - (Domestic)

Taura syndrome - (Wild)

Trichinellosis - (Domestic)

Trichinellosis - (Wild)

Trichomonosis - (Domestic)

Trichomonosis - (Wild)

Tularemia - (Domestic)

Tularemia - (Wild)

Turkey rhinotracheitis - (Domestic)

Viral haemorrhagic septicaemia - (Domestic)

Viral haemorrhagic septicaemia - (Wild)

West Nile Fever - (Domestic)

West Nile Fever - (Wild)

II.4 Organisation of the evaluation

II.4.A Timetable of the mission

Appendix 3 provides a list of persons met; Appendix 4 provides the timetable of the mission and details of the facilities and locations visited by the OIE PVS Team and Appendix 5 provides the international air travel itinerary of team members.

II.4.B Categories of sites and sampling for the evaluation

Table 5 lists the categories of site relevant to the evaluation and the number of each category of site in the country. It indicates how many of the sites were visited, in comparison with the suggested sampling framework (“ideal” sampling) recommended in OIE PVS Manual.

Appendix 4 provides a detailed list of sites visited and meetings conducted.

Table 5. Site sampling

	Terminology or names used in the country	Number of sites	"Ideal" sampling	Actual sampling
GEOGRAPHICAL ZONES OF THE COUNTRY				
Climatic zone	*Highveld; Lowveld, Middle level, Lubombo Plateau*	4	4	4
ADMINISTRATIVE ORGANISATION OF THE COUNTRY				
1st administrative level	*National*	1	1	1
2nd administrative level	*Regional*	4	3	3
3rd administrative level	*Sub-region*	28	4	6
4th administrative level	*Diptank*	756	4	3
Urban entities	City	1	1	1
VETERINARY SERVICES ORGANISATION AND STRUCTURE				
Central (Federal/National) VS	Veterinary Services Division (VSD)	1	1	1
Internal division of the central VS	FS, VPH, VEU	3	3	3
1st level of the VS	Region	4	4	4
2nd level of the VS	Sub-region	28	4	6
3rd level of the VS	Diptank	756	4	3
Veterinary organisations (VSB, unions…)	VCS	1	1	1
FIELD ANIMAL HEALTH NETWORK				
Private veterinary sector		5	1	1
Other sites (dip tanks, crush pens….)	Diptank	756	4	3
VETERINARY MEDICINES & BIOLOGICALS				
Production sector		0		
Import and wholesale sector	N/A	???		3
Retail sector	N/A	???		4
Other partners involved	N/A			
VETERINARY LABORATORIES				
National labs	CVL, MHL	2	2	2
Regional and local labs		0		
Associated, accredited and other labs		0		
ANIMAL AND ANIMAL PRODUCTS MOVEMENT CONTROL				
Bordering countries	RSA, Mozambique	2	2	2
Airports		2	1	1
Main terrestrial border posts	Ngwenya/Oshoek, Mahamba,Lavumisa.	3	2	2
Minor terrestrial border posts	Bulembu, Gege, Lundzi, Mananga, Mhlumeni, Matsam, Nsalitshe, Sandlane	8	1	1
Quarantine stations for import	Mpisi, Maphiveni	2	1	2
Internal check points	'Green-line'	3	1	1
Live animal markets	N/A			0
Zones, compartments, export quarantines	Lubombo Protenction Zone	1	1	1
PUBLIC HEALTH INSPECTION OF ANIMALS AND ANIMAL PRODUCTS				
Export slaughterhouse	SMI, SPP	2	1	2
National market slaughterhouses	N/A			2
Local market slaughterhouse	N/A			1
Slaughter areas/slabs/points	N/A			
On farm or butcher's slaughtering sites	N/A			
Processing sites (milk, meat, eggs, etc)	N/A			3
Retail outlets (butchers, shops, restaurants)	N/A			
Feedmills	N/A			2
TRAINING AND RESEARCH ORGANISATIONS				
Veterinary university		0		
Veterinary paraprofessional schools	VFTC	1	1	1
Veterinary research organisations		0		
STAKEHOLDERS' ORGANISATIONS				
Agricultural Chamber / organisation	National Agricultural Union, Dairy Development Board, NAMBoard	2	2	2
National livestock farmers organisations	Smallscale Fatteners Association "Power Team"	1	1	1
Local livestock farmers organisations	N/A			
Other stakeholder organisations	N/A			
Consumer organisations	Consumer Union	1	1	0

PART III: RESULTS OF THE EVALUATION & GENERAL RECOMMENDATIONS

This evaluation identifies the strengths and weaknesses of the veterinary services, and makes general recommendations.

FUNDAMENTAL COMPONENTS

1.	**HUMAN PHYSICAL AND FINANCIAL RESOURCES**
2.	**TECHNICAL AUTHORITY AND CAPABILITY**
3	**INTERACTION WITH INTERESTED PARTIES**
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**'. Accordingly, it is essential that each country acknowledges the importance of the role and responsibilities of its Veterinary Services and gives them the human and financial resources needed to fulfil their responsibilities.

This OIE PVS Evaluation examined each critical competency under the 4 fundamental components, listed strengths and weaknesses where applicable, and established a current level of advancement for each critical competency. Evidences supporting this level are listed in appendix 6. General recommendations were provided where relevant.

The current level of advancement for each critical competency is shown in cells shadowed in grey (15%) in the table.

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

This component of the evaluation concerns the institutional and financial sustainability of the VS as evidenced by the level of professional/technical and financial resources available and the capacity to mobilize these resources. It comprises fourteen critical competencies:

Critical competencies:

Section I-1	**Professional and technical staffing of the Veterinary Services**
	A. Veterinary and other professionals (university qualification)
	B. Veterinary para-professionals and other technical personnel
Section I-2	**Competencies of veterinarians and veterinary para-professionals**
	A. Professional competencies of veterinarians
	B. Competencies of veterinary para-professionals
Section I-3	**Continuing education**
Section I-4	**Technical independence**
Section I-5	**Stability of structures and sustainability of policies**
Section I-6	**Coordination capability of the VS**
	A. Internal coordination (chain of command)
	B. External coordination
Section I-7	**Physical resources**
Section I-8	**Operational funding**
Section I-9	**Emergency funding**
Section I-10	**Capital investment**
Section I-11	**Management of resources and operations**

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: “Where the Veterinary Services undergoing evaluation… than on the resource and infrastructural components of the services”.

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 9 of Article 3.2.14. on Organisation and structure of Veterinary Services / National information on human resources / Financial management information / Administration details / Laboratory services / Performance assessment and audit programmes.

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

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1, 7-8,10-11,24

Findings:

The field veterinary services are organised in four levels only (national, regional, sub-regional and field level). Veterinary staff is allocated to national and regional offices. Given the size of the country, this brings veterinary staff in close contact with the field operations. There is therefore also effective supervision of veterinary paraprofessionals (refer to CCI-1.B). The staff numbers, as provided by the Department, are shown in table 6 (2014 data).

Table 6. Staff numbers for veterinarians (2014 data).

Position/Post Description	Availability (Source)	SECTION				Totals
		HQ	FS	VPH	VEU	
Director of Veterinary and Livestock Services	Establishment register	1				1
	Available	1				1
Deputy Director of Veterinary Services	Establishment register	1				1
	Available	1				1
Senior Veterinary Officer	Establishment register		1	1	1	3
	Available		1	0	1	2
Veterinary Officer	Establishment register	1	10	1	1	13
	Available	1	8	2	1	12

The *Central Veterinary Laboratory* (CVL) and the Mpisi *Veterinary and Farmer Training Centre* (VFTC) both fall within the Field Services Section.

There are currently (2015) 18 veterinary professional staff working for the Department.

In addition there are 5 private veterinarians who provide services to the livestock and wildlife industry along with an unknown number of “cross-border” veterinarians from South Africa, advising some livestock processing industries in Swaziland (also refer to CCIII-5.). One veterinarian is working in academia (University of Swaziland). In total, there are 32 registered veterinarians in Swaziland.

Strengths:

- The absolute shortage of Swazi veterinarians has been overcome by recruiting expatriate veterinarians.
- For many professional categories in government service, terms of reference are clearly defined through *schemes of service* (SoS)
- Several Swazi students are currently undergoing training as veterinarians with the intent of recruiting them to the VSD

Weaknesses:

- Although the recruitment grid for the veterinary laboratory is almost completely filled, the Central Veterinary Laboratory is undoubtedly short on staff, both at veterinary level and at technician/technologist levels (also refer to CCII-1.). This would appear to be related in part to inadequate funding, but mostly to the difficulties in encountering qualified candidates.
- The occasional operation of non-registered veterinarians from neighbouring countries on Swazi territory needs some form of regulation, which now seems to have been resolved with some of the South African industry veterinarians, who register with the Veterinary Council upon entry and are granted a temporary authorisation to operate on Swazi territory, provided they are accompanied or supervised with a registered veterinarian from Swaziland (either public or private).

Recommendations

- Develop a long-term HR strategy (10+ years) to ensure a continued “supply” of quality veterinarians, animal scientists and university- and mid-level laboratory technicians in the next decade that needs support. Use of selected, targeted scholarships, incentives or remuneration and secondary advantages to enhance career prospects and support prospects for training through CPD.
- The new VPH mandate will require recruitment and development of specific skills to support VSD activities in this this new area of activity.

I-1. Professional and technical staffing of the Veterinary Services *The appropriate staffing of the VS to allow for veterinary and technical functions to be undertaken efficiently and effectively.* B. Veterinary para-professionals and other technical personnel	Levels of advancement
	1. The majority of technical positions are not occupied by personnel holding appropriate qualifications.
	2. The majority of technical positions at central and state / provincial levels are occupied by personnel holding appropriate qualifications.
	3. The majority of technical positions at local (field) levels are occupied by personnel holding appropriate qualifications.
	4. The majority of technical positions are effectively supervised on a regular basis.
	5. There are effective management procedures for formal appointment and performance assessment of veterinary para-professionals.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1, 7-8,10-11,24, H4-5, 23, PB11

Findings:

The field veterinary services are organised in four levels only (national, regional, sub-regional and field level). Veterinary para-professional staff is allocated to all of these levels. Administratively speaking the Veterinary Assistants (VA) –through experience – can progress to become Animal Health Inspectors (AHI), a mid-level position requiring some supervising tasks and additional reporting requirements. VAs are entrusted with extension tasks, the practical organisation of cattle dipping, the administration of veterinary drugs and some vaccines, branding, ear-tagging and recording of animal movements, the issuance (but not signature) of movement permits.

Some veterinary assistants have also progressed up through the ranks of the national administration and are currently entrusted with tasks at the (public) veterinary clinic, the veterinary epidemiology unit, the laboratory and the livestock quarantine stations.

There are currently 261 veterinary assistants and 7 laboratory technicians or technologists working for the Department. The SMI export abattoir in Matsapha is inspected by 6 meat inspectors.

The personnel grid of available positions at the CVL (laboratory) is almost filled (except for one laboratory technologist), this level of staff is insufficient to conduct all the necessary tasks that are required from a modern national reference laboratory, irrespective of the number of samples submitted (see CCII-1A). Some of the staff hold university diplomas (see the text box listing), others are veterinary para-professionals or college graduates, all have benefited from a varying number of short courses.

Main colleges and universities from which Swaziland laboratory technologists have graduated:

- *Tshwane College of Technology, Pretoria, RSA*
- *University of Swaziland (Faculty of Nursing) for Laboratory Technicians*
- *KwaZulu Natal- Mangosuthu University for Laboratory Technologist, RSA*
- *University of Nairobi, Medical Lab. Technology for Lab Technologists, Kenya*
- *Raleigh Fitkin Memorial Hospital for Laboratory Assistants, Swaziland*

The staff numbers, as provided by the Department, are provided in Table 7.

Table 7. Staff numbers for university-graduates (except veterinarians), veterinary para-professionals and unskilled labour (cordon guards, dip tank assistants)

(2014 data)

Position/Post Description	Availability (Source)	SECTION				Totals
		HQ	FS	VPH	VEU	
Chief Animal Health Inspector	Establishment register	1				1
	Available	1				1
Senior Animal Health Inspector	Establishment register		5		1	6
	Available		5		1	6
Animal Health Inspector	Establishment register	1	42		1	44
	Available		40		1	41
Veterinary Assistant	Establishment register		233	2	1	236
	Available		203	2	1	206
Cordon Guard	Establishment register		265			265
	Available		254			254
Dip tank Assistants	Establishment register					0
	Available		464			464
Assistant Veterinary Education Officer	Establishment register		1			1
	Available		1			1
Principal Meat Inspector	Establishment register			1		1
	Available			1		1
Senior Meat Inspector	Establishment register			3		3
	Available			2		2
Meat Inspector	Establishment register			8		8
	Available			4		4
Senior Lab Technologist	Establishment register		1	1		2
	Available		1	0		1
Lab Technologist	Establishment register		3	1		4
	Available		2	1		3

Cordon Guard	Establishment register		265			265
	Available		254			254
Dip tank Assistants	Establishment register					0
	Available		464			464
Assistant Veterinary Education Officer	Establishment register		1			1
	Available		1			1
Principal Meat Inspector	Establishment register			1		1
	Available			1		1
Senior Meat Inspector	Establishment register			3		3
	Available			2		2
Meat Inspector	Establishment register			8		8
	Available			4		4
Senior Lab Technologist	Establishment register		1	1		2
	Available		1	0		1
Lab Technologist	Establishment register		3	1		4
	Available		2	1		3

Source : 2014 Annual Report. The Central Veterinary Laboratory and the Mpisi Veterinary and Farmer Training Centre both fall within the Field Services Section.

Strengths:

- Uniform level of 2-year certificate training for veterinary para-professionals serving in the capacity of VAs.
- CVL personnel have a variety of qualification from recognised regional institutions.

Weaknesses:

- No mid-level training available (e.g. higher diploma level – 3 years)
- High ratio of technical personnel to veterinarians
- The Veterinary Council of Swaziland lacks the authority and capacity to regulate veterinary para-professionals.

Recommendations

- Review the types of personnel and level of staffing needed to support the new VPH mandate and identify the specific skills and training to support VSD activities in this this new area of activity.

I-2 Competencies of veterinarians and veterinary para-professionals *The capability of the VS to efficiently carry out their veterinary and technical functions; measured by the qualifications of their personnel in veterinary and technical positions.* **A. Professional competencies of veterinarians including the OIE Day 1 competencies**	Levels of advancement
	1. The veterinarians' practices, knowledge and attitudes are of a variable standard that usually allow for elementary clinical and administrative activities of the VS.
	2. The veterinarians' practices, knowledge and attitudes are of a uniform standard that usually allow for accurate and appropriate clinical and administrative activities of the VS.
	3. The veterinarians' practices, knowledge and attitudes usually allow undertaking all professional/technical activities of the VS (e.g. epidemiological surveillance, early warning, public health, etc.).
	4. The veterinarians' practices, knowledge and attitudes usually allow undertaking specialised activities as may be needed by the VS.
	5. The veterinarians' practices, knowledge and attitudes are subject to regular updating, or international harmonisation, or evaluation.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1, 7-8,10-11, 24

Internet resources :
http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/Vet_Edu_AHG/DAY_1/DAYONE-B-ang-vC.pdf

Findings:

There is no training for veterinarians available in Swaziland. The veterinarians working in public and private service delivery in Swaziland have usually been trained in neighbouring countries (mostly University of Zimbabwe) (see accompanying text box on this page), including expatriate veterinarians working for the VSD on a contract basis (eg., Zimbabwe, Ghana, Ethiopia.

The number of veterinarians, given the size of the country and the size of the livestock population, is unfortunately too limited to provide for the full scope of specialisation that would be required by the current definition of veterinary services, as described by the day-one competencies (including e.g. animal welfare, food safety, aquatic animal diseases, wildlife surveillance, etc.). This is in part absorbed by strong and dynamic networking arrangements with neighbouring countries (within the SADC context) and –for laboratory diagnosis, including residue control- frequent sub-contracting to foreign laboratories, mainly the *Onderstepoort Veterinary Institute* (ARC-OVI) in South Africa.

Main universities from which Swaziland veterinarians have graduated :

- *University of Pretoria, RSA*
- *Medical University of South Africa, RSA*
- *University of Zimbabwe, Zimbabwe*
- *University of Edinburgh. United Kingdom*
- *Royal Veterinary College. United Kingdom*
- *Murdoch University Perth, Australia*

Apiculture, the farming of honey bees and the production of honey, is an important sector in Swaziland and the VSD are fortunate to benefit from several veterinary officers (and veterinary para-professionals) who are well-trained and skilled in advising bee farmers on the sanitary risks.

The level of qualification of the veterinary and other technical staff (trained at university-level) is represented below in table 8 for all veterinary staff and a small sample of other technical staff, working at the national head office in Manzini.

Table 8. Highest qualifications of national and regional staff (veterinary and other).

University level staff	Total	Highest diploma level				
		B.Sc.	B.V.Sc.	MBA	M.Sc.	Ph.D
Veterinary professionals	16	-	7	1	8	0
Other technical skills (animal scientists, microbiologists,…)	5	3	-	0	2	0

Strengths:

- The veterinarians in Swaziland have all graduated from internationally recognised institutions

Weaknesses:

- Due to the lack of local graduates, VSD has to rely on contract veterinarians to fill key positions

Recommendations

- Develop a long-term HR strategy (10+ years) to ensure a continued "supply" of quality veterinarians, animal scientists and university- and mid-level laboratory technicians in years to come (selected, targeted scholarships, incentives in remuneration and secondary advantages, career prospects and prospect for training and CPD).

B. Competencies of veterinary para-professionals	Levels of advancement
	1. The majority of veterinary para-professionals have no formal entry-level training.
	2. The training of veterinary para-professionals is of a variable standard and allows the development of only basic competencies.
	3. The training of veterinary para-professionals is of a uniform standard that allows the development of only basic specific competencies.
	4. The training of veterinary para-professionals is of a uniform standard that allows the development of some advanced competencies (e.g. meat inspection).
	5. The training of veterinary para-professionals is of a uniform standard and is subject to regular evaluation and/or updating.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1, 7-8,10-11,24, 70, PP14-20

Internet resources : http://www.gov.bw/en/Ministries--Authorities/Ministries/MinistryofAgriculture-MOA/Tools--Services/Agricultural-Training/Meat-Inspection-Training-Centre/

Findings:

Most, if not all veterinary para-professionals in Swaziland qualified from the *Veterinary and Farming Training Centre* (VFTC) in Mpisi. This Ministry of Agriculture training centre delivers a 2-year certificate course on *"animal health and production"* and currently takes in no more than 20 – 25 students per year (selected amongst more than 800 candidates) which is estimated to be the maximum number of veterinary para-professionals the market can absorb (both in public service and in private employment).

Despite their rather broad training background, these young professionals the go through life as "veterinary assistants" (VA), many of which are employed by the VSD in surveillance and disease prevention and control tasks at field level, border checkpoints, cordon fences and identification and registration tasks. The broad training background makes these veterinary assistants flexible for the employment market, but also leads to a lack of technical skills beyond "basic specific competencies". The same applies for the employment in the animal production, where the Dairy Board requires a full –year of internship in dairy farms before considering employing these graduates as dairy inspectors or extension workers.

The VFTC, thanks to a recent rehabilitation under EU funding, offers an appropriate study environment for students, but is still lacking most of the IT equipment or connectivity and does not provide for on-site practicals. All practical tasks are organised on neighbouring farms, at diptanks, in abattoirs (SMI mostly) and in government centres (breeding, quarantine or otherwise). The VA curriculum provides approximately 1,400 hours of contact time generally with equal parts lecture and practical format, covering physiology, microbiology, parasitology, diptank management, general animal husbandry, pathology, animal health and hygiene, veterinary public health, livestock identification and livestock acts and regulations.

All but one training staff are volunteers from the VSD who – as senior (regional and national) veterinary officers - dedicate some of their valuable time to teach the various animal health (and production) topics. The resident *Veterinary Education Officer* position is currently vacant.

Most, if not all meat inspectors, whatever their initial training, have undergone technical training at the *Meat Inspection Training Centre* (MITC) in Lobatse, Botswana, offering a 24-week Meat Inspection Course.

The main concern is the absence of a properly qualified mid-level veterinary para-professional cadre and related opportunities for training at diploma or higher diploma level (usually 3 years of study). For a veterinary assistant, the prospects for furthering his or her career by additional qualifications are therefore limited, the leap towards a B.Sc or a B.Sc.vet proving too wide for many. Only in two instances did the team encounter a (private) animal health technician, trained at the (distance learning) *University of South Africa* (UNISA). The large array of courses offered at UNISA for veterinary para-professionals is compatible with full-time employment and should be considered by the Swaziland Government for scholarships.

Strengths:

- In-country training is specifically tailored to meet the needs of the VSD.
- The number of students admitted is variable and based on the needs of the VSD so that there are few graduates without employment.

Weaknesses:

- Limited in-country training options for VFTC graduates to develop additional skills

Recommendations

- Develop a long-term HR strategy (10+ years) to ensure an increasing level of technical proficiency of veterinary para-professional staff by strengthening the mid-level cadre and officering opportunities for VAs to further their careers by qualifying for such mid-level positions through training. The salary differentials are adequate motivation to ensure that many VAs will choose to pursue further education. The large array of courses offered at UNISA for veterinary para-professionals is compatible with full-time employment and should be considered by the Swaziland Government for scholarships.

I-3 Continuing education (CE)[2] *The capability of the VS to maintain and improve the competence of their personnel in terms of relevant information and understanding; measured in terms of the implementation of a relevant training programme.*	Levels of advancement
	1. The VS have no access to veterinary, professional or technical CE.
	2. The VS have access to CE (internal and/or external programmes) 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 annually and updated as necessary, but it is implemented only for some categories of the relevant personnel.
	4. The VS have access to CE that is reviewed annually and updated as necessary, and it is implemented for all categories of the relevant personnel.
	5. The VS have up-to-date CE that is implemented for all relevant personnel and is subject to regular evaluation of effectiveness.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1, 7-8,10-11,24, 46, PB24, PP14-21

Findings:

There are no formal VSB requirements / guidelines established by the *Veterinary Council of Swaziland* (VCS) for veterinarians for Continuous Professional Development (CPD) in Swaziland. As outlined in CCIII-5, veterinary para-professionals are not covered by the VCS.

Veterinary Officers have undertaken short courses on their own initiative covering management, risk assessment, SPS issues. Training is offered locally and internationally (SADC, OIE, AU-IBAR, FAO, etc.) on an irregular basis. CPD for veterinarians on topics outside of day-to-day management of the VSD is organised by the Swaziland Veterinary Association [SVA].

The SVA organised one CPD programme in 2014 delivered by the World Small Animal Veterinary Association and attended by 17 veterinarians. There is no link with outside veterinary institution for delivery of CPD.

Animal Health Inspectors (AHI) have taken locally delivered short courses on management, computer skills, SLITS, record keeping, FMD surveillance, legal documents (eg., directives, legislation), and the *Guidelines for National Veterinary Services* (GNVS, SOPs). Meat Inspectors have taken local and externally delivered trainings in VPH legislation, EU Regulations, in-service training on meat inspection, and GNVS (SOPs). Laboratory technicians/technologists have taken locally and externally delivered (SADC) training on quality standards, proficiency testing, laboratory management and diagnostics.

Veterinary Assistants (VA) have taken locally delivered training on computer skills, SLITS, record keeping, dipping, FMD surveillance, legal documents (eg., directives, legislation, GNVS). *Cordon Guards* (CG) have been given short term training at the VFTC on border post control, import/export permits, courtesy, maintenance of fences, FMD basics, and other pertinent topics. There is no training needs assessments, quality/content review of training given, or follow up to assess the impact of training.

Strengths:

- Good programme of in-service refresher training for routine VSD tasks for technical staff
- SLITS database activities have required all VSD staff to develop some computer skills

[2] Continuing education includes Continuous Professional Development (CPD) for veterinary, professional and technical personnel.

Weaknesses:

- Lack of formal VSB CPD requirements / guidelines
- There is no training needs assessment [TNA]; QC of training given; or follow up on the impact of training
- No CPD focused on subject matter specialisation / knowledge and skills in key thematic areas

Recommendations:

- Review skills gaps and projections of future needs to develop additional competencies identified in a systematic review of needs for the next 5 years and to support the implementation of the new VPH mandate.
- Develop formal CPD guidelines for veterinarians and veterinary para-professionals and encourage development of CPD options in key subject areas to develop expertise in areas of need.
- Following the establishment of CPD guidelines, establish links to regional resources and organisations that offer relevant CPD programmes.

I-4 Technical independence *The capability of the VS to carry out their duties with autonomy and free from 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).*	Levels of advancement
	1. The technical decisions made by the VS are generally not based on scientific considerations.
	2. The technical decisions take into account the scientific evidence, but are routinely modified to conform to non-scientific considerations.
	3. The technical decisions are based on scientific evidence but are subject to review and possible modification based on non-scientific considerations.
	4. The technical decisions are made and implemented in general accordance with the country's OIE obligations (and with the country's WTO SPS Agreement obligations where applicable).
	5. The technical decisions are based only on scientific evidence and are not changed to meet non-scientific considerations

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1, 7-8,10-11, 24

Findings:

There is no reason to doubt that technical decisions within the VSD are based on scientific evidence, in line with SPS principles and OIE standards.

However, there is a potential concern with respect to the activities of the marketing boards such as the Dairy Board and the NAMBoard. These boards have the mandate for the promotion of national producers and support of import substitution through tariffs and quotas. They may determine or regulate the volume of imports of some products that are deemed "in demand" for the domestic market (and not for others), with the objective of protecting local producers (mainly poultry and dairy); however, VSD has the authority to regulate imports based on health status.

At least for the Swaziland Dairy Board, which is funded by the levies on imported dairy products, there are assurances that the level of domestic dairy production is such that the country cannot afford to limit importations of dairy products from South Africa. The import of milk powder to produce reconstituted milk is – as a matter of policy – discouraged.

Strengths:

- Strong internal technical independence of the VSD

Weaknesses:

- Technical decisions on health measures may have the appearance of being unduly influenced by the commercial considerations of the Dairy Board and NAMBoard.

Recommendations:

- Review the impact of Dairy Board and NAMBoard on the health conditions applied to imported products of animal origin by the VSD with a view to ensuring that these are consistently based on science, risk assessment and OIE standards as appropriate.

I-5 Stability of structures and sustainability of policies *The capability of the VS structure and/or leadership to implement and sustain policies over time.*	Levels of advancement
	1. Substantial changes to the organisational structure and/or leadership of the public sector of the VS frequently occur (e.g. annually) resulting in lack of sustainability of policies.
	2. Sustainability of policies is affected by changes in the political leadership and/or the structure and leadership of VS
	3. Sustainability of policies is not affected or is slightly affected by changes in the political leadership and/or the structure and leadership of VS.
	4. Policies are sustained over time through national strategic plans and frameworks and are not affected by changes in the political leadership and/or the structure and leadership of VS
	5. Policies are sustained over time and the structure and leadership of the VS are stable. Modifications are based on an evaluation process, with positive effects on the sustainability of policies.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1, 7-8,10-11, 24

Findings:

The financial and fiscal crisis the country suffered between 2011 and 2012, due to the collapse of SACU revenues led Government to drastically reduce public expenditure, including at the DSLV. Despite these challenging times, the cohesion of the VSD remained intact and –though activities were prioritized and downsized – field operations and services to the communities and other stakeholders were delivered.

The appointment, in 2010, of the new director of the Department of Veterinary and Livestock Services, when his predecessor became Principal Secretary of the Ministry did not lead to any particular changes in policy or management.

Most policy and management directives are anchored in the various strategic documents, action plans and guidelines that guide the operation of the VSD, irrespective of who is in charge. The current *National Development Strategy* (NDS) runs until 2022.

Strengths:

- Long term commitments, strategies and policies in place
- Resilience and robustness of public services delivery

Weaknesses:

- Variable SACU funding arrangements impact public expenditure

I-6 Coordination capability of the Veterinary Services A. Internal coordination (chain of command) *The capability of the VS to coordinate its resources and activities (public and private sectors) with a clear chain of command, from the central level (the Chief Veterinary Officer), to the field level of the VS in order to implement all national activities relevant for the Codes (i.e. surveillance, disease control and eradication, food safety and early detection and rapid response programmes).*	Levels of advancement
	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.
	4. There are internal coordination mechanisms and a clear and effective chain of command at the national level for most activities.
	5. There are internal coordination mechanisms and a clear and effective chain of command for all activities and these are periodically reviewed/audited and updated.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1, 7-8,10-11, 13, 24, 45-46, 68

Findings:

The Director of Veterinary and Livestock Services (DVLS), as the senior (chief) veterinary officer in the country, has direct authority over public veterinary staff across the country and at every level of delegation, i.e. regional, sub-regional and field/border.

The fact that border inspection personnel operates under the authority of the regional office in which the border post is situated does not therefore represent a problem.

There is evidence of close supervision of personnel by superiors in the command chain and of formal and informal coordination and planning mechanisms at field, regional and national level, including at the level of the laboratory, the meat hygiene inspectors at the export abattoirs and the general services of the Department (i.e. epidemiology unit, SLITS, clinic, etc.). The small size and the configuration of the VSD in Swaziland enable close geographic proximity to all staff. In fact, all staff are known (in person) by their superiors.

Strengths:

- Clear operational framework / organisational flow chart
- Strong direct chain of command from national to field level
- Geographical proximity of the various operational levels

Weaknesses:

- Ascending information streams (feedback) from field to national level are not optimal
- Lack of transportation and communication tools (see CCI-7).

Recommendations:

- Regularly review operational frameworks
- Strengthen the auditing of internal coordination mechanisms

B. External coordination	Levels of advancement
The capability of the VS to coordinate its resources and activities (public and private sectors) at all levels with other relevant authorities as appropriate, in order to implement all national activities relevant for OIE Codes (i.e. surveillance, disease control and eradication, food safety and early detection and rapid response programmes). Relevant authorities include other ministries and Competent Authorities, national agencies and decentralised institutions.	1. There is no external coordination.
	2. There are informal external coordination mechanisms for some activities, 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 for some activities and/or sectors.
	4. There are formal external coordination mechanisms with clearly described procedures or agreements at the national level for most activities, and these are uniformly implemented throughout the country.
	5. There are national external coordination mechanisms for all activities and these are periodically reviewed and updated.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1, 7-8,10-11, 13, 24, 68-69, 72

Findings:

The latest disease emergencies the VSD had to deal with are the risks associated with FMD outbreaks in neighbouring countries (the 2011 FMD outbreak in Kwazulu-Natal province of South Africa) and the consecutive incursions of buffaloes from the Kwazulu-Natal and Mpumalanga provinces. These have demonstrated the capacity of the VSD to interact with the wildlife services (game parks and the *Swaziland National Trust Commission*), police and other law enforcement agencies and have been successful in preventing incursions of FMD.

Despite a lack of regulations conferring legal recognition of the identification tags and records in the SLITS database, police services regularly work together with the VSD to obtain data on lost or stolen cattle and SLITS records have been admitted as evidence in courts.

Apart from the above, rather *ad-hoc* interactions, there is little evidence of structured or routine external coordination with other competent authorities, either within the Ministry of Agriculture (e.g. the Fisheries Division within the Department of Agriculture) or outside (e.g. Ministry of Health, the City Councils).

The GNVS further provides procedures for rabies control and procedures to organise and conduct and emergency rabies vaccination campaigns, including notification of national and local level human health authorities by the CVO.

Strengths:

- Proven ability for effective external coordination in times of emergencies
- The police use the SLITS animal identification system to prosecute cases of stock theft and VSD personnel demonstrate a willingness to appear in court to support these cases
- Good cooperation with wildlife services.

Weaknesses:

- No structured external coordination mechanisms in place;
- No evidence of routine coordination with other competent authorities, notably the Ministry of Health on zoonosis.

Recommendations:

- Establish a framework for collaboration with key partners, notably MoH in areas of mutual importance, i.e. zoonotic diseases and food safety.
- Establish a framework for cooperation with municipal authorities in to help with the transition of the mandate for VPH and control of foods of animal origin.
- In view of increasing reports of TB in dairy cattle, strengthen the cooperation with the Ministry of Health.

I-7 Physical resources *The access of the VS to relevant physical resources including buildings, transport, telecommunications, cold chain, and other relevant equipment (e.g. computers).*	Levels of advancement
	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 regional levels, and maintenance and replacement of obsolete items occurs only occasionally.
	3. The VS have suitable physical resources at national, regional and some local levels and maintenance and replacement of obsolete items occurs only occasionally.
	4. The VS have suitable physical resources at all levels and these are regularly maintained.
	5. The VS have suitable physical resources at all levels (national, sub-national and local levels) and these are regularly maintained and updated as more advanced and sophisticated items become available.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1, 7-8,10-11,24, PB10, 12, 23, 40, 45, PD1, 3-4,22-27, PP35-49, 73, 78

Findings:

Whilst all is not perfect and many clinics, offices and premises could and should be cleaner, neater and better equipped and maintained, there seem to be no major constraints in terms of physical resources. The team was particularly impressed with the quality of the government IT network which links the SLITS client PC's in the various veterinary offices to the SLITS server in Mbabane.

Most refrigeration equipment is working and equipment, though old and sometimes worn, is adequate for the tasks that are expected from these offices and their technicians. One would like to see dangerous products such as anaesthetics and euthanasia products being stored in locked cabinets. The same applies of course to private surgeries and retail outlets for veterinary drugs.

Means of transport are available (double cabin pick-up trucks and motorcycles), but in insufficient numbers, especially at sub-regional and field level (which can be a serious limitation to the mobility of VA's). Staff routinely use their own two-wheel or four-wheel vehicles for which they receive a mileage allowance.

Housing for VA's in remote locations, such as the smaller border inspection posts and remote dip tanks is reportedly not always available, leading to farmers complaining about the distance the VA has to travel to assist them in times of urgency.

Power-supply and water-supply seem not to be a major concern. Where power supply is not available, VAs and cordon guards complain about the payments they have to make for the charging of their cell / mobile phones in shops and in petrol stations and the fact that their work-related communications (either voice or text messages) are made at their own expense.

The physical resources of the national reference laboratory are described in detail in critical competency CCII-1 and those pertaining to emergency preparedness and response, under CCII-6.

Strengths:

- At most of the facilities visited there was evidence of recent repair or updating; some facilities were reported to be slated for repair/updates in the near future.

Weaknesses:

- Budget allocation for routine maintenance or replacement is often lacking
- VAs without personal transportation often need to travel on foot 5 to 10 km to reach their assigned diptanks
- Staff housing in not always available in remote areas

Recommendations:

- there is need to improve the working conditions of the field staff, in particular the VA's and the dip tank assistant and cordon fence guards, in terms of staff accommodation, means of transport and telecommunication.

I-8 Operational funding *The ability of the VS to access financial resources adequate for their continued operations, independent of political pressure.*	Levels of advancement
	1. Funding for the VS is neither stable nor clearly defined but depends on resources allocated irregularly.
	2. Funding for the VS is clearly defined and regular, but is inadequate for their required base operations (i.e. disease surveillance, early detection and rapid response and veterinary public health).
	3. Funding for the VS is clearly defined and regular, and is adequate for their base operations, but there is no provision for new or expanded operations.
	4. Funding for new or expanded operations is on a case-by-case basis, not always based on risk analysis and/or cost benefit analysis.
	5. Funding for all aspects of VS activities is adequate; all funding is provided under full transparency and allows for full technical independence, based on risk analysis and/or cost benefit analysis.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1, 7-8, 10-11,24, 41, 73-80, 82, PB19

Internet resources :
http://www.centralbank.org.sz/media/speeches/BudgetSpeech2014.pdf

Findings:

The Ministry's Budget is the responsibility of the Principal Secretary, who is legally the Controlling Officer, answerable to the Auditor General and the Parliamentary Public Accounts Committee. The Controlling officer delegates the control of Departmental budgets to the Directors of those Departments.

Swaziland's economy is heavily dependent on that of South Africa and of the *South African Customs Union* (SACU) from which it generates more than 40% of its fiscal revenue. The budget for the fiscal year 2014/15 was estimated at SZL 15.3 billion (some USD 1.3 billion), representing an increase of 19 % on the fiscal year 2013/14. Overall recurrent expenditure stood at SZL 10.6 billion. Capital spending increased by 44% to SZL 3.7 billion, much of which is supported by the European Union.

In FY 2014/15 the budget allocated to the Ministry of Agriculture increased from SZL 533.9 million to 540.3 million (+1.1%) with as one of the four priority interventions the *"dipping chemicals and livestock identification".* This represents an allocation of 3.5 % of the national budget, well below the agreed AU norm of 10% (Maputo and Malabo Declaration).

The annual recurrent budget of the VSD (i.e. *Consolidated Fund,* ongoing budgetary year 2016, initiated on April 1st, 2015) is SZL 63 million or around USD 5.28 million, which represents 11% of the agricultural budget and USD 7.7 per VLU (Veterinary Livestock Unit). This must be regarded as a high per VLU allocation, even in the context of a small country and relatively small animal population. See accompanying text box for a summary of sources of revenue.

Sources of funding :

Consolidated Fund: Almost all the budget of the Veterinary Services Divisions (VSD) comes from the Government Consolidated Fund, as explained in CCI.8.

Taxes and Fines: The VSD does generate some funds from fines for non-compliance. However all that is generated goes to the Government Consolidated Fund.

Grants: The VSD has not received any grants in the past three years. The last external financial assistance to the VSD came from the FAO in 2010/2011; about three hundred thousand US dollars for the development of the *Swaziland Livestock Information and Traceability System* (SLITS) software.

Private Services: The VSD charge for private services to farmers e.g. ambulatory but not enough to be considered cost recovery

Most budgeted expenditures (75%) are linked to the payment of staff salaries and allowances (excluding the social security allowances, managed separately).

The maintenance budget for SLITS is currently budgeted at almost SZL 230,000 (or some USD 20,000 per annum). This is an illustration that the budget has been upgraded to cater for the specific roll-out of the SLITS since 2012. But there is no reason to assume that this allocation was done on the basis of a cost-benefit analysis (the development of the software having been sponsored through an FAO project).

In contrast, the operational budget (excluding salaries) for the operation of the laboratory and the quarantine stations, under its responsibility, seems rather low (estimated at SZL 25,000 for domestic analyses and SZL 90,000 for analyses conducted in foreign laboratories, though the CVL Action Plan also denotes that *"the office of the Director has greatly supported the budget shortfalls of the CVL to enable its function to run smoothly (though not enough) but there has been a significant improvement in acquiring reagents and diagnostic material".* This was confirmed by the Director of the Department of Veterinary and Livestock Services.

Table 9 provides the current VSD budget by functional centre (note some of the funding is provided by other government agencies including CTA (the Central Transport Administration within the Ministry of Works), DVLS (Department of Veterinary and Livestock Services) and SS (Social Security).

Table 9. Budget of the three technical "centres" at national level.

	Budgetary year : 2016	Programme >	Laboratory	VPH	Epidemiology	Sub-total	%
		(including >	*Quarantine*	*Meat hygiene [lab]*	*SLITS)*		
Code	Cost category	Managed by Code >	2171	2181	2175		
02	Vehicle running (fuel, lubricants, servicing)	CTA.	67 878	176 494		244 372,00	4,8%
11	Salaries	DVLS (in part)	1 532 870	2 137 522		3 670 392,00	72,4%
12	Allowances (housing, uniform,…)	DVLS	70 000	62 720		132 720,00	2,6%
13	Social Security	SS				-	0,0%
21	Travel and travel allowances (internal)	DVLS	1 894	11 655		13 549,00	0,3%
22	Travel and travel allowances (external)	DVLS	6 332	15 545		21 877,00	0,4%
23	Transportation of goods	DVLS		1 858		1 858,00	0,0%
24	Communication, telephone, fax, internet	DVLS	7 681		355 300,00	362 981,00	7,2%
25	Car mileage (mileage allowances)	DVLS	7 459	8 497		15 956,00	0,3%
41	Professional services	DVLS	90 652	84 447	17 000,00	192 099,00	3,8%
43	Contract repairs and maintenance services	DVLS	5 242	6 322	229 500,00	241 064,00	4,8%
46	Utilities (water, electricity, gas,…)	DVLS	2 431			2 431,00	0,0%
49	Sundry fees	DVLS				-	0,0%
61	Food supplies	DVLS		943		943,00	0,0%
62	Kitchen, toilet and cleaning supplies	DVLS	1 238	508		1 746,00	0,0%
63	Petroleum and coal	DVLS	2 075			2 075,00	0,0%
64	Drugs, medicines and other medical supplies	DVLS	25 821	10 806		36 627,00	0,7%
66	Uniforms, clothing and textile products	DVLS	4 199			4 199,00	0,1%
67	Consumables (stationary, cartridges)	DVLS	13 947	14 393	68 000,00	96 340,00	1,9%
68	Construction materials (poles, cement, wire)	DVLS	1 133			1 133,00	0,0%
69	Consumables (field and transport)	DVLS		28 083		28 083,00	0,6%
		SZL	**1 840 852**	**2 559 793**	**669 800,00**	**5 070 445,00**	**SZL**
		USD	**154 434**	**214 748**	**56 191**	**425 373**	**USD**
		EUR	**137 788**	**191 601**	**50 135**	**379 524**	**EUR**

Taking a closer look at salary scales, as a possible challenge for recruitment and retention of (veterinary) para-professional staff, monthly salaries vary as follows (see table 10 below). The difference between veterinary medical and non-veterinary medical salaries is around 95% which is important to provide incentives to study veterinary medicine in the first place.

Table 10. Estimated salary scales for the various professional tiers in the Department of Veterinary and Livestock Services

	Basic salary	Basic salary	Basic salary	Level
	Annual	Monthly	Monthly	
Designation	SZL	SZL	USD	
SVO	350 648	29 221	2 451	E5
VO	305 589	25 466	2 136	E4
SLT / PMI	156 452	13 038	1 094	C6
CAHI / SMI	126 179	10 515	882	C5
SAHI / LT	104 775	8 731	732	C4
AHI / MI	87 001	7 250	608	C3
VA	72 242	6 020	505	C2

Legend: SVO: Senior Veterinary Officer, VO: Veterinary Officer, SLT: Senior Laboratory Technician, PMI: Principal Meat Inspector, CAHI: Chief Animal Health Inspector, SMI: Senior Meat Inspector, SAHI: Senior Animal Health Inspector, LT: Laboratory Technician, AHI: Animal Health Inspector, MI: Meat Inspector, VA: Veterinary Assistant.

The specific budgets for activities conducted in the veterinary domain have increased by 14% between the 2015 and 2016 budgets (i.e. between 2014 and 2015): from SZL 55 million to 63 million. They decreased slightly between the 2014 and 2015 budgets (- 4%).

Strengths:

- Increasing government budgets after several years of fiscal crisis and retrenchments of staff
- Competitive salary incentives for veterinary staff

Weaknesses:

- Low allocation of Ministry funds to the VSD
- Low allocation of VSD funds to the laboratory division (Also see CCII-1 and CCII-2)
- Insufficient salary incentives for veterinary assistants and cordon guards

Recommendations:

- At field veterinary level, there is need to improve the working conditions of the field staff, in particular the VA's and the dip tank assistant and cordon fence guards, in terms of remuneration. Also see comments on CCI-3 and CCI-7.
- At laboratory level, there is need to review the budgetary allocations to address the numerous gaps that have been noted under CCII-1 and CCII-2.

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

Evidence (listed in Appendix 6): E1, 7-8,10-11,24, 73-80, 82

Findings:

There is no special contingency budget for the VSD. The provision of budget and resources for emergencies is done initially by reallocation of funds available within the Department of Veterinary and Livestock Services, then from within the MoA and if necessary followed by a request for a Supplementary Budget Allocation from national funds. While waiting for approval of this Supplementary Budget, the Controlling Officer, in consultation with the Ministry of Finance, can immediately reallocate and deploy available funds or reassign resources. Compensation may be paid but is not compulsory; nor is there a clear policy for compensation.

As a matter of principle, emergency funding is linked to the development and adoption of *emergency preparedness plans* (EPP)(also see accompanying text box) which should ideally earmark (financial or in-kind) compensation for farmers whose livestock has been affected (by the disease or by the measures taken by the VSD) in the case of an outbreak of a notifiable disease. Please refer to CCII-6 on emergency response.

Emergency preparedness plans are in place for FMD, rabies and avian influenza, but these are not associated to any standing emergency fund or compensation fund. In case of a declared emergency, funds are released through rapid consultation between the Ministry of Agriculture and the Treasury. Importantly, one of the critical decisions is to allow the VSD to immediately divert funds allocated to the Department of Veterinary and Livestock Services to the management of the emergency, while awaiting release (and reimbursement) of additional funds from other sources.

The FMD EPP states under "compensation payment" that *"if a decision to compensate livestock owners has been taken by the minister, the cost shall be voted into [budget] head[ing] 20 [and budget] activity 21, after a request for additional budget has been approved"* (see accompanying text box).

The most recent disease emergencies the VSD has had to deal with are FMD outbreaks in neighbouring countries (the 2011 FMD outbreak in Kwazulu-Natal

The Animal Diseases Act 7/1965 prescribes that "compensation may or may not be paid for any such [destroyed] animal including stock destroyed under this regulation at such rates as maybe determined by the Minister". In 2000/2001 the country implemented 'modified stamping out' to eradicate FMD. Livestock farmers were paid relief/compensation at a flat rate per animal destroyed regardless of the market value.

province of South Africa) and the consecutive incursions of buffaloes from Kwazulu-Natal and Mpumalanga provinces (2012 – 2013). These have demonstrated the capacity of the VSD to mobilise the necessary financial (and other) resources to manage these emergencies.

The national *Disaster Management Task Force* cooperates with the UN World Food Programme, but would not seem to regard animal health outbreaks as "disasters", nor would it have financial resources available (mostly stockpiling of goods).

Strengths:

- Evidence of rapid mobilisation of funds to address emergencies in the recent past.
- Authority to reallocate already allocated operational funds towards emergencies speed up the delivery of emergency assistance.

Weaknesses:

- No formalised protocol (in the emergency preparedness plans or elsewhere) to access emergency funding when and if necessary, in application of the Animal Diseases Act (1965)

Recommendations:

- Provide clear guidance, agreed in peace time, on how to access emergency funding, in application of the Animal Diseases Act (1965)
- Agree on which diseases are eligible for compensation by farmers (possibly endorsed by a Ministerial Legal Notice).

I-10 Capital investment *The capability of the VS to access funding for basic and additional investments (material and non material) that lead to a sustained improvement in the VS operational infrastructure.*	Levels of advancement
	1. There is no capability to establish, maintain or improve the operational infrastructure of the VS.
	2. The VS occasionally develops proposals and secures funding for the establishment, maintenance or improvement of operational infrastructure but this is normally through extraordinary allocations.
	3. The VS regularly secures funding for maintenance and improvements of operational infrastructure, through allocations from the national budget or from other sources, but there are constraints on the use of these allocations.
	4. The VS routinely secures adequate funding for the necessary maintenance and improvement in operational infrastructure.
	5. The VS systematically secures adequate funding for the necessary improvements in operational infrastructure, including with participation from interested parties as required.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1, 7-8,10-11,24, 73-80, 82

Findings:

The VSD regularly secures funding for maintenance and improvements of operational infrastructure, through allocations for Capital (investment) Projects. In recent years, these have often been allocated for fence construction and construction of staff housing. These funds may either be allocated under the Ministry of Agriculture budget, as was the case between 2011 and 2013 (SZL 7.0 and SZL 3.8 million respectively) or may be requested from the Ministry of Economic Planning, provided these respond to the expectations or demands of the communities. For example, many dip tanks have been constructed using this mechanism.

Currently, capital investment projects are ongoing for the construction of new regional veterinary office facilities in Mbabane (SZL 15 million) and the construction of a food safety laboratory in Manzini (cost/allocation unknown).

The construction of the VS regional veterinary office in Manzini, commissioned in 2011 and now one of the landmarks of the town, is an example of such a (major) investment project (SZL 18 million).

In some instances, funding is provided by an external source such as the National Bureau of Standards or the *Swaziland National Provident Fund* as a private-public partnership.

Strengths:

- VSD has been able to secure funding for multiple capital improvement projects over the last several years

Weaknesses:

- Some veterinary offices, border posts and ancillary staff housing need additional investment to achieve a consistent national standard

Recommendations:

- Pursue the modernisation of veterinary offices and related premises (border posts, quarantine stations) with particular emphasis on the provision of staff housing to veterinary (ancillary) staff in remote locations (refer to CCI-7).

I-11 Management of resources and operations *The capability of the VS to document and manage their resources and operations in order to analyse, plan and improve both efficiency and effectiveness.*	Levels of advancement
	1. The VS do not have adequate records or documented procedures to allow appropriate management of resources and operations
	2. The VS have adequate records and/or documented procedures but do not use these for management, analysis, control or planning.
	3. The VS have adequate records, documentation and management systems and use these to a limited extent for the control of efficiency and effectiveness
	4. The VS regularly analyse records and documented procedures to improve efficiency and effectiveness
	5. The VS have fully effective management systems, which are regularly audited and permit a proactive continuous improvement of efficiency and effectiveness.

Terrestrial Code reference(s): Appendix 1

Evidence (Appendix 6): E1, 7-8,10-11,16-20, 24, 73-80, 82, H10-12, 23, 25-27, PB15, PD9, PP2,13, 29-34

Findings:

There is abundant evidence of numerous planning and managerial systems in place, whether for the allocation of financial resources, physical resources, consumables, means of transport and human resources. Auditing and reporting are done regularly and enforced and lines of reporting (and of command) are clear and unambiguous (see reference to the schemes of service (SoS) in CCI-1A).

Most of the technical management procedures are laid down in the 2013 *Guidelines for National Veterinary Services* (GNVS) which e.g. define that Internal National Audit Inspections verify adherence of the official Veterinary Services to the laid down rules and regulations. They seek to address non-compliances, improve and harmonise service delivery in the country and are done twice a year, in April and November. Local internal audits shall also be done twice a year in February and August. The national audit team is composed of veterinary officers and senior animal health inspectors.

Various reports are generated regularly within the VSD (see accompanying textbox).

These principles are also reiterated in the 2015 work plan of the VS which states that it *: "…operates an internal audit system that is under the overall responsibility of the Director of Veterinary Services. This internal participatory audit is aimed at improving the efficiencies of the system from head office to diptank operational level. This participatory and open process also serves as a learning process for all staff members through a peer*

Reports required to be submitted at specified periods as indicated:

- *Veterinary Assistant's Monthly Report - Rendered monthly to the Animal Health Inspector.*
- *Animal Health Inspector Report -Rendered monthly to the Senior Animal Health Inspector.*
- *Senior Animal Health Inspector's Report - Rendered monthly to the Regional Veterinary Officer*
- *Regional Veterinary officer's Monthly Report - Rendered monthly to the Veterinary Epidemiology Unit.*
- *Veterinary Officer's Report (Meat Hygiene) - Rendered monthly through the Senior Veterinary Officer (VPH) to the Veterinary Epidemiology Unit.*
- *Veterinary Officer's Report (Laboratory)- Rendered monthly to the Veterinary Epidemiology Unit.*
- *Animal Health Division Monthly Report Prepared by the Veterinary Epidemiology Unit and rendered monthly to the office of the Director of Veterinary and Livestock Services.*
- *SADC and AU-IBAR Monthly reports prepared by the Veterinary Epidemiology Unit and rendered monthly to the Director of Veterinary and Livestock Services, who then sends it to the respective organizations.*
- *OIE reports- Regular reports are the six monthly notification reports due January and June, and the annual OIE questionnaire*

review approach. The approach can combine a section/function approach as well as a systems approach. There are audit forms that are designed for the purpose. The outcome of an internal audit is a report with recommendations and implementation time frames."

Forms for these *"Audit Inspections of Veterinary Field Services"* have been designed and focus on dip tank assistants, VAs, AHIs, SAHIs, cordon fence inspectors, cordon fence checkpoint inspectors/guards, personnel at ports of entry and feedlots.

The team has found evidence of rather outspoken and detailed audit reports on the non-performance of some field staff member(s) and have been informed on how the matter was followed up by the Department.

Strengths:

- Guidelines for National Veterinary Services (2013) and other documented procedures
- Extensive reporting requirement throughout the chain of command
- Commencement of structured internal auditing systems and corrective measures

Recommendations:

- Further roll-out internal auditing system and provide documented evidence of corrective measures taken to address reported problems and shortcomings.
- Strengthen the actual processing and analysis of reporting streams and provide statistics on reporting rates and the quality of reports.

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:

Section II-1	**Veterinary laboratory diagnosis**
	A. Access to veterinary laboratory diagnosis
	B. Suitability of national laboratory infrastructures
Section II-2	**Laboratory quality assurance**
Section II-3	**Risk analysis**
Section II-4	**Quarantine and border security**
Section II-5	**Epidemiological surveillance and early detection**
	A. Passive Epidemiological surveillance
	B. Active Epidemiological surveillance
Section II-6	**Emergency response**
Section II-7	**Disease prevention, control and eradication**
Section II-8	**Food safety**
	A. Regulation, authorisation and inspection of establishments for production, processing and distribution of food of animal origin
	B. Ante and post mortem inspection at abattoirs and associated premises
	C. Inspection of collection, processing and distribution of products of animal origin
Section II-9	**Veterinary medicines and biologicals**
Section II-10	**Residue testing**
Section II-11	**Animal feed safety**
Section II-12	**Identification and traceability**
	A. Animal identification and movement control
	B. Identification and traceability of products of animal origin
Section II-13	**Animal welfare**

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.
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 and 5-7 of Article 3.2.14. on National information on human resources / Laboratory services / Veterinary legislation, regulations and functional capabilities / Animal health 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 animal.

Chapter 6.2. on Control of biological hazards of animal health and public health importance through ante- and post-mortem meat inspection.
Chapter 6.3. on Control of hazards of animal health and public health importance in animal feed.

Chapters 6.6. to 6.10. on Antimicrobial resistance.
Chapter 7.1. Introduction to the recommendations for animal welfare.
Chapter 7.2. Transport of animals by sea.
Chapter 7.3. Transport of animals by land.
Chapter 7.4. Transport of animals by air.
Chapter 7.5. Slaughter of animals.

Chapter 7.6. Killing of animals for disease control purposes.

II-1 Veterinary laboratory diagnosis **A Access to veterinary laboratory diagnosis** *The authority and capability of the VS to have access to laboratory diagnosis in order to identify and record pathogenic agents, including those relevant for public health, that can adversely affect animals and animal products.*	Levels of advancement
	1. Disease diagnosis is almost always conducted by clinical means only, with no access to and use of a laboratory to obtain a correct diagnosis.
	2. For major zoonoses and diseases of national economic importance, the VS have access to and use a laboratory to obtain a correct diagnosis.
	3. For other zoonoses and diseases present in the country, the VS have access to and use a laboratory to obtain a correct diagnosis.
	4. For diseases of zoonotic or economic importance not present in the country, but known to exist in the region and/ or that could enter the country, the VS have access to and use a laboratory to obtain a correct diagnosis.
	5. In the case of new and emerging diseases in the region or world, the VS have access to and use a network of national or international reference laboratories (e.g. an OIE Reference Laboratory) to obtain a correct diagnosis.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1, 7-8,10-11,24, PB7, PD7, 11, PP40-49, 70

Findings:

The number of notifiable diseases, defined by law and listed in the WAHID interface, is extensive (102) and nowhere near matches the capabilities of the national reference laboratory, not even for the diseases present in the country (tables 4 and 134). Hence, the laboratory relies on foreign reference or service laboratories, mostly the *Onderstepoort Veterinary Institute* (ARC-OVI) in Pretoria, South Africa, a mere 300 km away and readily accessible by commercial courier services.

The overall number of samples submitted to the CVL seems rather low, as indicated in the 2014 annual report (see Table 11), but is nevertheless up 80% from 2013 (1,795 submissions).

Table 11. Total number of samples submitted to the CVL in 2014 (and tests conducted).

Region	No. of samples	No. of Tests
Manzini	1298	1500
Hhohho	396	605
Lubombo	406	917
Shiselweni	1100	1550
Total	**3200**	**4572**

The surveillance system generates a large number of blood smears for the diagnosis of tick-borne protozoan blood parasites (babesiosis, anaplasmosis, erhlichiosis/heartwater). All cattle that die or are slaughtered are required to have these ‘blood smears’ taken; often by DTA or other non-technical personnel. The quality of the smears encountered is often poor and the laboratory records show a large number of “processed” slides (laboratory staff

indicated that more than 10,000 such samples were apparently not captured in the total of submissions; many were reported to be of poor quality although no additional explanation was given), but no indication of their outcomes (positives).

On the other hand, the 2014 annual report indicates only very few positive cases out of a small number of submitted "specimens" (see Table 12).

Table 12. Total number of diagnostic samples submitted to the CVL in 2014 for tick-borne diseases (TBDs).

Region	Number of specimens submitted for examination	Positive Findings		
		Bovine babesiosis	Bovine anaplasmosis	Heartwater
Hhohho	1	0	0	0
Lubombo	24	0	0	1
Manzini	19	4	1	1
Shiselweni	4	0	0	1
Total	**48**	**4**	**1**	**3**

Although most samples are generated by the surveillance teams in the field and in the abattoirs, it would appear that the CVL occasionally oversees and conducts serological surveys e.g. Newcastle disease and avian influenza (573 samples) and brucellosis (in small scale dairy farms, 365 samples). Both these surveys were conducted in 2014.

Reflecting the EU support for the CVL and given the EU's focus on FMD freedom, the CVL's capacity to test for FMD is extensive and includes NSP (non-structural protein) testing, to differentiate infected from vaccinated animals. It also frequently relies on *Onderstepoort Veterinary Institute* (ARC-OVI), an OIE Reference Laboratory for FMD, for confirmatory diagnosis.

Previous arrangements with the ARC Vredenburg Research Center in Stellenbosch, South Africa for the testing of honey and honeybee samples have been discontinued, allegedly from South African side, leading to a lack of diagnostic information on circulating diseases in honeybees.

In addition to the diagnostic capacity for several notifiable diseases (see Table 13), the CVL conduct diagnosis of canine distemper and parvoviruses, bovine mastitis, various diarrhoeal diseases and clostridial diseases of sheep, along with the usual coprological examinations for gastro-intestinal parasites.

Two more laboratories can be mentioned here: the Meat Hygiene Laboratory at the SMI export abattoir, which performs simple disc diffusion tests for minimal inhibitory substances and –again – relies on South Africa for most of the actual residue testing (please refer to CCII-1B and CCII-10 on residue testing). Finally, the private testing laboratory of the *Swaziland Poultry Processors* (SPP) is said to conduct diagnostic testing for numerous poultry diseases (not verified; see CCII-2).

Strengths:

- Appropriate testing facilities at national level for relevant domestic and exotic diseases, in accordance with the size of the country and the relevant livestock / animal populations.
- Advanced testing methods for some reportable diseases of beef cattle.
- Satisfactory arrangements for the testing of samples and confirmation of initial diagnosis in an OIE reference laboratory.

Weaknesses:

- Low throughput of samples (on average 20 analyses per working day, 5 per analyst).
- Lacking arrangements with service providers in South Africa for the testing of honey-bee diseases.
- Possible delays in the (urgent) reporting of diseases for diagnosis entrusted to foreign laboratories. Furthermore, in case of major outbreaks (FMD, AI, etc…) South African national reference laboratories are instructed to serve the national and provincial VS first, possibly to the detriment of foreign clients.
- No in-house capacity to conduct acaricide resistance tests (see CCII.2B)
- Poor quality 'blood smears' submitted for TBDs with low level of diagnostic follow-up

Recommendations:

- Recommend that a PVS Gap Analysis be requested to provide an opportunity to link the activities of the field services and the meat inspection to the expected turnover of samples for the laboratory services in Swaziland. This should provide clear insight into the future needs in terms of financial, physical and human resources (5-year horizon).

Table 13. List of notifiable diseases, presence in the country and laboratory-based diagnostic capacity (D.C.)

Notifiable diseases	Present	D.C.
1. Acarapisosis of Honey Bees		
2. African Horse Sickness	●	
3. African Swine Fever		
4. ~~African Virus Disease of Pigs~~		
5. American Foulbrood of Honey Bees		
6. Anthrax		
7. Aujeszky's disease		
8. Avian Chlamydiosis		
9. Avian Mycoplasmosis *(M.gallisepticum)*	●	
10. Avian Mycoplasmosis *(M.synoviae)*	●	
11. Bacillary White Diarrhoea	●	
12. Bluetongue		
13. Bovine Anaplasmosis	●	●
14. Bovine Babesiosis	●	●
15. Bovine Brucellosis (Cont. Abortion)	●	●
16. Bovine Genital Campylobacteriosis		
17. Bovine Spongiform Encephalopathy		
18. Bovine Viral Diarrhoea		
19. Camel Pox		
20. Caprine Arthritis/Encephalitis		
21. Caprine Brucellosis (*B.melitensis*)	●	●
22. Classical Swine Fever		
23. CBPP		
24. Contagious Agalactia		
25. CCPP		
26. Contagious Epididymitis Vaginitis		
27. Contagious Equine Metritis		
28. Contagious Pleuropneumonia		
29. Crimean Congo Hemorrhagic Fever		
30. Dourine		
31. Duck Virus Hepatitis		
32. East Coast Fever		
33. Echinococcus/Hydatidosis	●	SMI
34. Enzootic Abortion Ewes (*Chlamydiosis*)		
35. Enzootic Bovine Leucosis		
36. Epizootic Lymphangitis		
37. Equine Encephalomyelitis		
38. Equine Infectious Anaemia		
39. Equine Influenza		
40. Equine Piroplasmosis		
41. Equine Rhinopneumonitis		
42. Equine Viral Arteritis		
43. European Foulbrood of Honey Bees		
44. Foot and Mouth Disease		●
45. Fowl Cholera	●	
46. Fowl Plague		
47. Fowl Typhoid		
48. Glanders and Farcy		
49. Heartwater *(E. ruminantium)*	●	●
50. Hemorrhagic Septicemia		
51. Infectious Bursal Disease (Gumboro)	●	
52. Infectious Laryngotracheitis	●	

Notifiable diseases *(continued)*	Present	D.C.
53. Japanese Encephalitis		
54. Johne's Disease		
55. Leishmaniosis		
56. Leptospirosis		
57. Lumpy Skin Disease	●	
58. Maedi-Visna		
59. Malignant Catarrhal Fever		
60. Mange in equines		
61. Mareks disease	●	
62. Myxomatosis		
63. Nairobi Sheep disease		
64. Newcastle disease	●	●
65. New World Screw worm		
66. Nipah Virus Encephalitis		
67. Notifiable Avian Influenza		●
68. Old World Screw worm		
69. Ovine epididymitis (*B.ovis*)		
70. *Peste des petits ruminants*		
71. Porcine cysticercosis	●	
72. PRRS		
73. Propilaelaps Infestation (bees)		
74. Psittacosis		
75. Pullorum Disease	●	
76. Rabbit Haemorrhagic Disease		
77. Rabies	●	●
78. Rift Valley Fever		
79. Rinderpest		
80. Salmonellosis of sheep		
81. Sarcoptic mange (bov, sui, can)	●	
82. Scabies in sheep and goats	●	●
83. Scrapie		
84. Sheep and Goat Pox		
85. Sheep Pox		
86. Small Hive Beetle Infestation		
87. Surra *(Trypanosoma evansi)*		
88. Swine Brucellosis *(B. suis)*		
89. Swine Erysipelas	●	
90. Swine Fever		
91. Swine Vesicular Disease		
92. Transmissible Gastroenteritis		
93. Trichinellosis		
94. Trichomonosis		
95. Trypanosomiasis - *Nagana*		●
96. Tuberculosis (bov)	●	●
97. Tularemia		
98. Turkey Rhinotracheitis		
99. Ulcerative Lymphangitis		
100. Varroosis of Honey Bees	●	
101. Venez. Equine Encephalomyelitis		
102. Vesicular Stomatitis		
103. West Nile Fever		

II-1 Veterinary laboratory diagnosis **B. Suitability of national laboratory infrastructures** *The sustainability, effectiveness and efficiency of the national (public and private) laboratory infrastructures to service the needs of the VS*	Levels of advancement
	1. The national laboratory infrastructure does not meet the need of the VS.
	2. The national laboratory infrastructure meets partially the needs of the VS, but is not entirely sustainable, as organisational deficiencies with regard to the effective and efficient management of resources and infrastructure (including maintenance) are apparent
	3. The national laboratory infrastructure generally meets the needs of the VS. Resources and organisation appear to be managed effectively and efficiently, but their regular funding is inadequate to support a sustainable and regularly maintained infrastructure
	4. The national laboratory infrastructure generally meets the needs of the VS and is subject to timely maintenance programmes but needs new investments in certain aspects (e.g. accessibility to laboratories, number or type of analyses).
	5. The national laboratory infrastructure meets the needs of the VS, and is sustainable and regularly audited.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1, 7-8,10-11,24, PD7, PP11-12, 42-49, PP51-59, 61-63, 69, 71

Findings:

The only national reference laboratory is the Central Veterinary Laboratory (CVL) situated at the Regional Veterinary Office in Manzini. The building consists of a main laboratory building, on the same campus as other administrative buildings of the RVO and national services (epidemiology unit) and a separate building for necropsies, and was commissioned in 2011. It can be qualified as a BSL- 2 facility with spacious laboratories, reception rooms, vaccine storing facilities and cold room for (small) carcasses.

The CVL was established in 1972 as a diagnostic and reference laboratory for animal disease under the Animal Diseases Act of 1965. The laboratory recognizes its responsibility as a provider of quality diagnostic and testing services. To this end, the CVL has developed and documented a quality management system to ensure client satisfaction by complying with regulatory requirements and improving management of the laboratory.

No incinerator is available on the premises. Biological materials are autoclaved or treated with caustic soda and then transported to a landfill or are incinerated in the incinerator of the Manzini City Council and effluents are chemically treated before being discharged into the municipal sewage system.

The laboratory staff consists of one veterinary officer and four laboratory technologists (see Figure 5 Organisational flow chart of the CVL).

Data management is mostly paper-based and limited IT equipment is available. The CVL uses a series of forms for the submission of samples, specific surveillance programmes (tick-borne diseases, brucellosis, FMD) and the notification of results. There seems to be no client PC for entry into the SLITS database.

In a gap-analysis exercise, conducted in early 2015, not to be confused with an OIE PVS Gap Analysis mission, the CVL management listed a number of weaknesses which need to be addressed. The limited financial allocations to the CVL have already been highlighted under CCI-8 on operational funding and are again stressed in the CVL gap-analysis exercise (see textbox on the right). The same applies to the human resources constraints, in terms of quantity, but also quality, already highlighted under CCI-1.

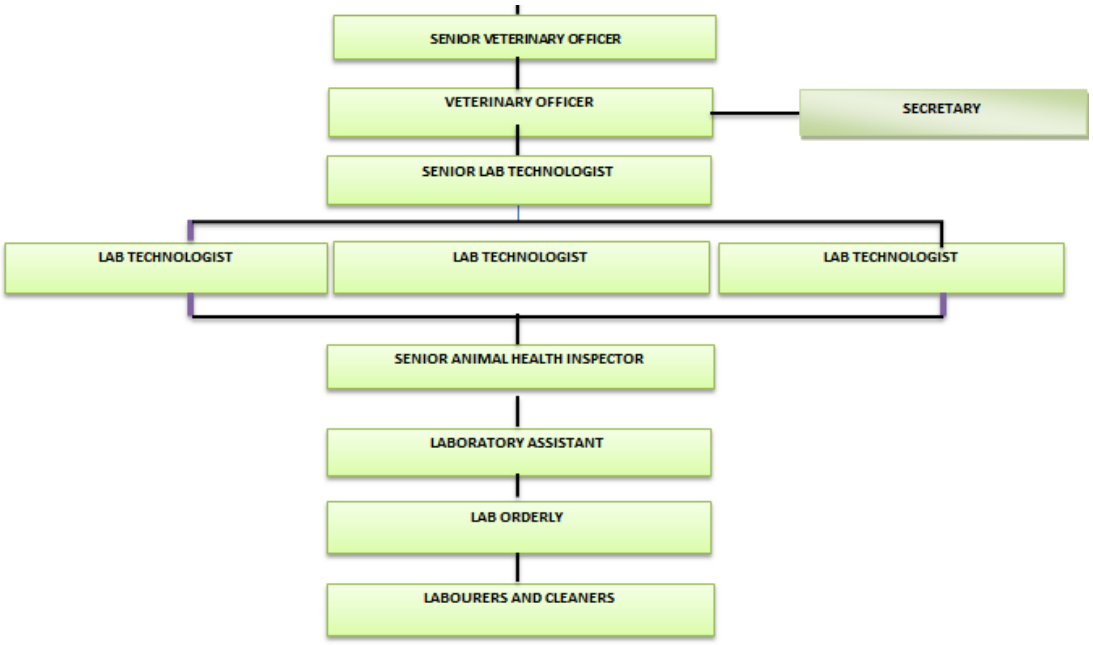

Figure 5. Organisational flowchart of the CVL in Manzini. Source : CVL gap-analysis exercise

VSD is awaiting the commissioning of a new food safety laboratory as a result of the transfer of the food safety mandate from the Ministry of Health to the Ministry of Agriculture, some food safety checks are conducted at the meat hygiene laboratory of the *Swaziland Meat Industries* (SMI) abattoir in Matsapha.

Strengths:

- Recently commissioned building with adequate biosafety level and separation of dirty and clean sections
- Evidence of appropriate personal protection used in dealing with rabies carcasses
- Qualified and motivated staff

Weaknesses:

- Paper-based data management system
- Insufficient staff numbers in the mid-to long-term
- Waste management/processing on-site inadequate
- Facilities not accredited and implementation of quality management system still in progress.
- Inadequate budget and poor procurement system hampering the ability of the laboratory to have resources available that are needed for day today's testing.
- Logistical problems, leading to lower than expected sampling and sample submission to the laboratory.
- Lack of proper maintenance of facilities
- Shortage of skilled staff and trained manpower.
- Ticks and tick borne disease are important in Swaziland, but there is no capacity to perform acaricide resistance tests.
- Need to improve levels of biosafety as per test requirement

Recommendations:

- The subsequent PVS Gap Analysis mission will provide an opportunity to link the activities of the field services and the meat inspection to the expected turnover of samples for the laboratory services in Swaziland and should provide clear insight into the future needs in terms of financial, physical and human resources (5-year horizon).

II-2 Laboratory quality assurance *The quality of laboratories (that conduct diagnostic testing or analysis for chemical residues, antimicrobial residues, toxins, or tests for, biological efficacy, etc.) as measured by the use of formal QA systems including, but not limited to, participation in relevant proficiency testing programmes.*	Levels of advancement
	1. No laboratories used by the public sector VS are using formal QA systems.
	2. Some laboratories used by the public sector VS are using formal QA systems.
	3. All laboratories used by the public sector VS are using formal QA systems.
	4. All the laboratories used by the public sector VS and most or all private laboratories are using formal QA systems.
	5. All the laboratories used by the public sector VS and most or all private laboratories are using formal QA programmes that meet OIE, ISO 17025, or equivalent QA standard guidelines.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1, 7-8,10-11,24, 27, 29-33, PP11-12, 21, 51-58, 61-63, 69

Internet resources :
http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=39883

Findings:

In 2011 and 2013, the CVL participated in OIE sponsored proficiency testing exercises for the diagnosis of rabies using the fluorescent antibody test (FAT), coordinated by the OIE Reference Laboratory for rabies at the *Onderstepoort Veterinary Institute* (ARC-OVI) in Pretoria. In 2013, the CVL was amongst the poorest performers in this test, with a mere 50% of correct diagnosis (both false positives and negatives).

The current financial allocations to the laboratory are insufficient to ensure regular calibration of equipment. Given the numbers of staff, there is no formally appointed Q/A manager.

With the support of UNIDO, the laboratory is now developing an action plan to improve services and provide staff training and purchasing of equipment, as well as maintenance. The technical staff already benefited from a short course and a workshop on ISO/IEC 17025:2005 requirements and internal auditing, as well as validation / verification of methods and measurement uncertainty.

Awaiting this accreditation, the VSD make use of foreign laboratories, such as the ARC-OVI laboratories in Pretoria, which are fully ISO/IEC 17025:2005, accredited for the following 5 sections:

- Bacteriology and Zoonotic Diseases
- Biotechnology PCR and Virology
- Residue Laboratory
- Toxicology
- Parasitology

The Institute has also been granted OIE Reference Laboratory status for 8 diseases of top priority in the region.

The status of the new private *Swaziland Poultry Processors* Ltd. (SPP) laboratory for diagnosis of poultry diseases is unknown and reporting requirements need to be developed.

Strengths:

- General awareness of, and willingness to develop Q/A
- Good access to and regular use of OIE Reference Laboratories with formal QA.

Weaknesses:

- Inadequate financial allocations and concerns surrounding cost-benefit of accreditation of Q/A systems (as opposed to sub-contracting to foreign / private labs).
- Inadequate calibration / verification checks conducted to ensure repeatability/reliability of tests. Poor track-record in proficiency testing.
- Structurally limited staff numbers and limited qualifications pertaining to Q/A.
- Paper-based data management system.

Recommendations:

- Implementation of the action plan, with UNIDO assistance and with increased financial allocations, specifically geared towards Q/A, by the Ministry / Department of Veterinary and Livestock Services. A gross estimate for this financial allocation is 5% of the (current) laboratory budget, i.e. around USD 7,500 or SZL 90,000.

II-3 Risk analysis *The authority and capability of the VS to base its risk management measures on risk assessment.*	Levels of advancement
	1. Risk management measures are not usually supported by risk assessment.
	2. The VS compile and maintain data but do not have the capability to carry out risk analysis. Some risk management measures are based on risk assessment.
	3. The VS compile and maintain data and have the capability to carry out risk analysis. The majority of risk management measures are based on risk assessment.
	4. The VS conduct risk analysis in compliance with relevant OIE standards, and base their risk management measures on the outcomes of risk assessment.
	5. The VS are consistent in basing sanitary measures on risk assessment, and in communicating their procedures and outcomes internationally, meeting all their OIE obligations (including WTO SPS Agreement obligations where applicable).

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1, 7-8,10-11, 24

Findings:

Several formal risk assessments have been performed either by the VEU alone or in collaboration with external experts. Risk assessment was used to develop the 2007 National Avian Influenza Preparedness Plans. In 2010 a qualitative risk assessment on the movement of wild game from RSA into the Big 6 Game Reserve in Swaziland was done in collaboration with external expertise. In 2013, the VSD published a risk analysis for the importation of various fish and seafood from Mozambique based on OIE methodology.

Several official veterinarians have received risk analysis training at regional and international events.

Strengths:

- VSD is aware of the value of basing decision making on risk principles
- Risk analysis is regularly used for import assessments
- 2014 SOPs for handling incursion of buffalo into Swaziland identify the higher risk of buffalo FMD, *Theileria parva* (the causative agent in Southern Africa of Corridor disease) and bovine tuberculosis caused by *M. bovis*.

Weaknesses:

- Little documentation available regarding the use of risk assessment as an integral part of decision making and policy development.

Recommendations:

- Use risk assessment to support and communicate decision supporting imports and animal health programmes
- Provide risk documents in support of programme and policy development and perhaps make them publically available on a VSD website

II-4 Quarantine and border security *The authority and capability of the VS to prevent the entry and spread of diseases and other hazards of animals and animal products.*	Levels of advancement
	1. The VS cannot apply any type of quarantine or border security procedures for animals or animal products with their neighbouring countries or trading partners.
	2. The VS can establish and apply quarantine and border security procedures; however, these are generally based neither on international standards nor on a risk analysis.
	3. The VS can establish and apply quarantine and border security procedures based on international standards, but the procedures do not systematically address illegal activities[3] relating to the import of animals and animal products.
	4. The VS can establish and apply quarantine and border security procedures which systematically address legal pathways and illegal activities.
	5. The VS work with their neighbouring countries and trading partners to establish, apply and audit quarantine and border security procedures which systematically address all risks identified.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1, 4, 7-8,10-11, 15, 24, H14, 19, 24, PB 1-2, 11, 25-26, PD5, 12, 20, 39 PP2, 25-27, 31, 50, 74-76

Findings:

The VSD has the authority for all quarantine and border security activities related to movement of animals and animal products in to Swaziland under the Animal Disease Act No 7 of 1965.

There are 12 official border crossing points into Swaziland; 2 with Mozambique and 10 with RSA (see Figure 6). Three border crossings at Lavumisa and Mahamba in Shiselweni region and Ngwenya/Oshoek in the Hhohho region (all with RSA) allow the importation of live animals and animal products. Pet animals accompanied by certification of rabies vaccination are allowed to enter at all crossings. The Lomahasha and Mhlumeni border points with Mozambique do not allow any entry of livestock or uncooked red meat but recovered livestock may be returned under quarantine to the Maphiveni Quarantine Station.

In one border post visited the VSD personnel did not inspect or record the dairy product imports, but in others, however minimal the amount, controls were stringent and unequivocal.

These border control points are manned by VSD cordon guards supported by the sub-regional VSD (i.e. sub-regional veterinary officers). These cordon guards are provided with in-service training but are not veterinary para-professionals. The procedures are provided in the *Guidelines for National Veterinary Services* (2013) and include guidelines for inspection of the different types of consignments including hay, feedstuffs, veterinary drugs, game products and arts and crafts made of grass or other potential fomites for FMD. No computers or access to databases are available at these crossing points.

For most of its circumference, the border of Swaziland is protected by cordon fences or natural barriers such as rivers and mountains. The VSD is responsible for the maintenance and repair of the fencing. Additionally, the VSD maintains in two separate double cordon fences along areas of the border with RSA and Mozambique.

The Hhohho fence runs from Mananga to Matsamo on the northern and eastern borders with RSA and Mozambique as a double fence supported by 11 cordon camps with 28 cordon guards. The southern border with to KwaZulu Natal in the Shiselweni regions runs from

[3] Illegal activities include attempts to gain entry for animals or animal products other than through legal entry points and/or using certification and/or other procedures not meeting the country's requirements.

Sicunusa to Lavumisa as a single fence supported by 8 cordon camps with 24 cordon guards.

There is an additional veterinary internal cordon fence demarcating an internal Lubombo "protection zone" running north to south in the Lubombo region. It is 130km long with a double fence supported by 44 cordon camps with 178 cordon guards.

The FMD status of the whole country was recognised as FMD-free without vaccination by OIE and reviewed in November 2013 by an OIE Expert Team to evaluate the FMD status of Swaziland. Since then, the VSD has opted to maintain a "protection zone" (previously referred to as a "buffer zone" with a neighbouring country with no FMD freedom status) and now refers to it as the 'green zone' although on maps it is often referred to as the 'red zone'.

Currently the EU does not allow the export of animals from the green zone / protection zone. The VSD is petitioning the EU to consider all animals eligible for export that are native to Swaziland based on the OIE recognition of the entire country as FMD-free without vaccination. The VSD has opted to maintain the 'green line' and protection zone because the cost of controlling the FMD outbreak introduced into this area in 2001 ran into the SZL 100 million and the cost of trying to re-establish the control area after dismantling the fences would be far more difficult and expensive to achieve.

The VSD maintains two quarantine facilities one for the import of live animals and the other for the quarantine of lost or stolen animals returned from other countries.

The Government Quarantine Station at Mpisi is the facility for the quarantine of imported live animals. It has facilities to quarantine cattle, small ruminants, and pigs and can accommodate equids and camelids when necessary It is under the responsibility of the CVL with the veterinarian in charge of the laboratory serving as Quarantine Master supported by an AHI and VA with several herders and general labourers who live on the facility. The facility is protected by a double perimeter fence.

The Maphiveni Quarantine Station is located at the exit point of the Lubombo Protection Zone to accommodate cattle and small ruminants that strayed in the neighbouring countries or were stolen and returned through a formalized and legal process. As with Mpisi it has an AHI and subordinate staff on site. The AHI reports to the Regional Veterinary Officer in Lubombo. In 2014, 78 cattle and 3 sheep were repatriated through the Maphiveni Quarantine Station; 16 cattle and 3 sheep were returned from Mozambique; 43 from KwaZulu Natal Province in RSA and 19 from Mpumalang Province in RSA.

The VSD has the authority under the Animal Disease Act No 7 of 1965 to use private quarantine facilities when appropriate; specifications include the need for a perimeter fence and adequate record keeping.

There are currently no inspection personnel present at the international airport because all flights originate from the RSA which shares the same general animal health status. However, if needed local VSD resources could cover the airport in the case of an outbreak in RSA.

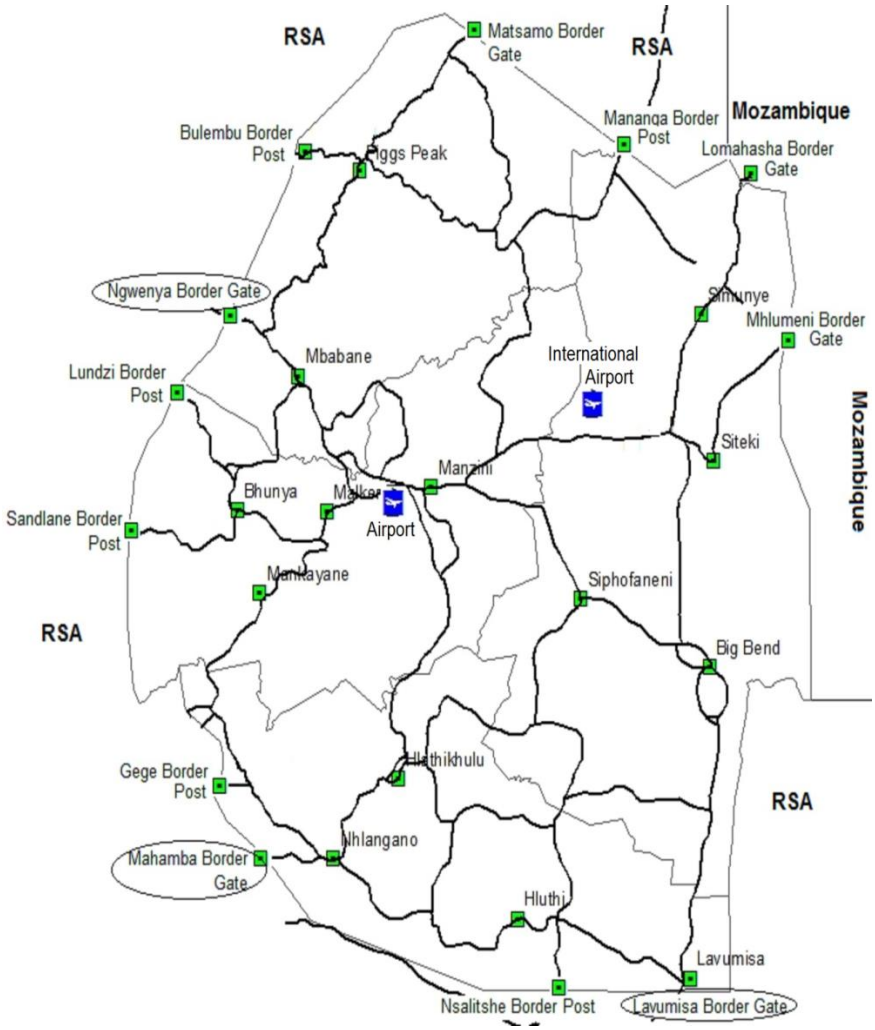

Figure 6. Border control points; border crossings that allow entry of live animals and animal products are circled

Strengths:

- Strong database and movement control for cattle are recorded in SLITS as an accessible central database but for cattle only.
- Procedures are in place and regularly updated in the *Guidelines for Veterinary Services* (GNVS, 2013); copies of the relevant sections were available at the border crossing visited.

Weaknesses:

- All import permits for animals and animal products are kept at the end point (regional, sub-regional or quarantine office) as there is no central database or document collection point.
- Border crossing cordon guards have limited technical training

Recommendations:

- Implement centralised record management for all records related to quarantine and border security procedures supported by an appropriate database
- Ensure all border crossings handle and record data in a consistent manner; update the GVNS to provide more detail and provide the necessary supporting training and supervision

II-5 Epidemiological surveillance and early detection *The authority and capability of the VS to determine, verify and report on the sanitary status of the animal populations, including wildlife, under their mandate.* **A. Passive epidemiological surveillance**	Levels of advancement
	1. The VS have no passive surveillance programme.
	2. The VS conduct passive surveillance for some relevant diseases and have the capacity to produce national reports on some diseases.
	3. The VS conduct passive surveillance in compliance with OIE standards for some relevant diseases at the national level through appropriate networks in the field, whereby samples from suspect cases are collected and sent for laboratory diagnosis with evidence of correct results obtained. The VS have a basic national disease reporting system.
	4. The VS conduct passive surveillance and report at the national level in compliance with OIE standards for most relevant diseases. Producers and other interested parties are aware of and comply with their obligation to report the suspicion and occurrence of notifiable diseases to the VS.
	5. The VS regularly report to producers and other interested parties and the international community (where applicable) on the findings of passive surveillance programmes.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1, 2, 7-8,10-11, 15, 24, 34-36, H20, 22, PB39, PD1, 8, PP5-7, 10, 29-34, 64-68

Findings:

Extensive opportunity for passive surveillance is presented by the dip tank activities for all cattle and goats in the country. However, there is no similar opportunity for such extensive passive surveillance in other species. The diptank serves as the epidemiologic unit although farmers are identified down to the farm (kraal) level even for non-ruminant species such as poultry or dogs which are associated with a public diptank number in all records.

In general, the VSD visits farms during routine inspection and extension visits (pigs, poultry).

The VSD maintain an extensive list of 102 notifiable diseases (see CCII-1A). The surveillance that is carried out is largely focused on cattle

Strengths:

- Regular reporting from the field provides opportunity for good passive surveillance
- VSD regularly notify OIE of the suspicion of disease occurrence (see table 4 OIE history)
- Good annual animal census data and presence of extension personnel within VSD
- Strong chain of command from central to local levels in place
- The SLITS database provides individual identification with uniquely numbered eartags of all cattle supported by computerized records

Weaknesses:

- Lack of communication and interaction with sectors other than ruminants is very limited.
- No formal individual identification of species other than cattle

Recommendations:

- Develop stakeholder interaction to enhance level of technical knowledge to recognise and report the presence of suspected disease in all species

II-5 Epidemiological surveillance and early detection *The authority and capability of the VS to determine, verify and report on the sanitary status of the animal populations, including wildlife, under their mandate.* **B. Active epidemiological surveillance**	Levels of advancement
	1. The VS have no active surveillance programme.
	2. The VS conduct active surveillance for some relevant diseases (of economic and zoonotic importance) but apply it only in a part of susceptible populations and/or do not update it regularly.
	3. The VS conduct active surveillance in compliance with scientific principles and OIE standards for some relevant diseases and apply it to all susceptible populations but do not update it regularly.
	4. The VS conduct active surveillance in compliance with scientific principles and OIE standards for some relevant diseases, apply it to all susceptible populations, update it regularly and report the results systematically.
	5. The VS conduct active surveillance for most or all relevant diseases and apply it to all susceptible populations. The surveillance programmes are evaluated and meet the country's OIE obligations.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1, 2, 7-8,10-11, 15, 24, 34-36, PB39, PD8, PP 29-34, 64-68, 71

Findings:

Each year the VSD conducts some active surveillance based on statistically derived sampling programmes. There is active FMD surveillance in the Lubombo Protection Zone by periodic visual inspection ("mouthing") of all cattle at diptanks and serological-sampling in diptank areas considered to be at higher risk due to their location near the risk borders. This form of active surveillance is also conducted in areas after the observation of stray buffalo.

The VSD has drafted SOPs for the clinical and serological surveillance for FMD in the areas near the Mbuluzi game reserve.

Each year the VEU develops plans for active surveillance surveys. For 2015, the VEU has plans for active surveillance for FMD, CBPP, PPR, tsetse *(Glossina* spp.), and trypanosomes. Some surveillance in poultry for ND, AI and other diseases is planned. However, in the past, surveys for diseases other than FMD have often been curtailed due to the need to reallocate resources or shortage of laboratory reagents.

Strengths:

- The DG (SANCO)/2014-7245 report found that the appropriate FMD serological surveillance to demonstrate continuous FMD freedom of the country especially following the 2011 outbreak in RSA is/was appropriate
- Serological surveillance focusing on diptanks considered to be at high risk for FMD based on their location near the border is based on statistical sampling
- Clinical and serological surveillance of cattle in specific diptank areas is conducted as mitigation response due to the entry of a stray buffalo into Swaziland territory, and found at Mbuluzi game reserve
- Regular reporting as the National Animal Health Reporting and Information Management collects information in Emergency Disease Reporting, Monthly disease reporting

Weaknesses:

- Low number of samples submitted to laboratory other than blood 'smears' from dead and slaughtered cattle. These smears, often of poor quality are intended to survey tick-borne disease such as heartwater or babesiosis (protozoan parasites).
- Laboratory resources limit the number of samples processed
- TB status unknown but appears to be increasing at the beef export slaughterhouse
- 2013 OIE Scientific Commission FMD Expert Mission found that additional active serological surveillance should be conducted in areas outside the areas identified as high risk by VSD
- Surveillance testing may not be performed if laboratory reagents are not available

Recommendations:

- Develop partnership for surveillance of wildlife through opportunistic use of sentinel animals during wildlife movement or carcass sampling
- Re-evaluate the effectiveness of the TBD surveillance done with 'blood smears'; based on case evaluation, epidemiology and risk assessment.
- Do a comprehensive evaluation of the surveillance needs for targeted diseases other than FMD; include allocation of resources to ensure collection of appropriate samples and laboratory resources to assure the samples are processed.

II-6 Emergency response *The authority and capability of the VS to respond rapidly to a sanitary emergency (such as a significant disease outbreak or food safety emergency).*	Levels of advancement
	1. The VS have no field network or established procedure to determine whether a sanitary emergency exists or the authority to declare such an emergency and respond appropriately.
	2. The VS have a field network and an established procedure to determine whether or not a sanitary emergency exists, but lack the necessary legal and financial support to respond appropriately.
	3. The VS have the legal framework and financial support to respond rapidly to sanitary emergencies, but the response is not coordinated through a chain of command. They may have national contingency plans for some exotic diseases but they are not updated/tested.
	4. The VS have an established procedure to make timely decisions on whether or not a sanitary emergency exists. The VS have the legal framework and financial support to respond rapidly to sanitary emergencies through a chain of command. They have national contingency plans for some exotic diseases that are regularly updated/tested.
	5. The VS have national contingency plans for all diseases of concern, including coordinated actions with relevant Competent Authorities, all producers and other interested parties through a chain of command. These are regularly updated, tested and audited

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1, 2, 7-8,10-11,14-15, 21, 24, 28, 45, 81, PB36-37

Findings:

The legal authority for the VSD to act during an emergency is laid down in the Animal Disease Act (7/1965) and supporting regulations.

There is a strong chain of command in place with approved contingency plans in place for FMD and avian influenza. Draft SOPs have been developed for dealing with incursions of buffalo. The 2013 FMD Contingency Plan includes strategies for control and eradiation before and after confirmation of the presence of FMD and defines the roles and responsibilities of involved VSD personnel.

The Strategic and Operations Committees includes VSD personnel as well as representatives from other supporting agencies (e.g., MoH, army, police, representative from the Attorney General's Office). The plan provides flow charts for the command both before and after laboratory confirmation of the disease. It is required to notify the Principal Secretary and the Minister immediately and send notification within 24 hours to OIE, SADC, and trading partners.

The 2013 GNVS provides procedures for FMD with the establishment of a strategic committee to estimate resource needs (eg., transport, equipment, personnel) and requires official notification to the public by publishing a notice in the official gazette. The Operational Committee provides the legal foundation for stamping out, establishment of quarantine and movement controls including control of the movement of products, and establishment of zoning as appropriate. This is to be supported by trace-back and surveillance through inspection and serologic surveys.

The GNVS further provides procedures for rabies control and procedures to organise and conduct and emergency rabies vaccination campaigns, including notification of national and local level human health authorities by the CVO.

The National Disease Reporting System provides for Emergency Disease Reporting for all notifiable diseases. This uses the OIE Immediate and follow-up report forms which are sent to the RVOs within 24 hours by the VEU and copies to the DVLS and SVO.

After stray buffalo are observed in an area (the buffalo are removed or destroyed; testing is done on all destroyed animals or any that are captured for removal) SOPs require an immediate quarantine imposed on the in-contact diptank areas by establishing a 'FMD guard area' with strict quarantine for at least 30 days with; fences are examined to see if breaks were responsible for the entry of the buffalo. Weekly visual inspection of all cattle ("mouthing") is done weekly for at least 30 days.

The 2007 National Avian Influenza Preparedness Plan developed jointly with the MoH foresees disease control options with implementation plans within a clear institutional framework. However, this was done at the Ministerial level with very little residual interaction with MoH at the VSD.

The provision of budget and resources for emergencies is done by initially by reallocation of funds available within the DLVS, then within the MoA and if necessary followed by a request for a Supplementary Budget Allocation from national funds. While waiting for approval of this Supplementary Budget, the Controlling Officer, in consultation with the Ministry of Finance, can immediately reallocate and deploy available funds or reassign resources. Compensation may be paid but is not compulsory; nor is there a clear policy for compensation.

VSD has a secure storage facility with cache of emergency supplies (e.g., power generators, disinfection products, back sprayers, boots, masks, water tanks).

Strengths:

- Clear chain of command and legal authority for emergency activities
- Adequate supplies for operational activities

Weaknesses:

- Simulation exercises are not conducted for FMD, rabies or AI
- No plans for other diseases

Recommendations:

- Clarify the compensation policy within each contingency plan
- Pre-package emergency supplies in 'go-packs' with lists of appropriate supplies for rapid deployment in an emergency
- Develop generic contingency plans to cover other diseases (eg. AHS, PPR), emerging disease (eg., acaracide resistant ticks) and ensure there are contingency plans that cover all species, including swine and horses.

II-7 Disease prevention, control and eradication *The authority and capability of the VS to actively perform actions to prevent, control or eradicate OIE listed diseases and/or to demonstrate that the country or a zone are free of relevant diseases.*	Levels of advancement
	1. The VS have no authority or capability to prevent, control or eradicate animal diseases.
	2. The VS implement prevention, control or eradication programmes for some diseases and/or in some areas with little or no scientific evaluation of their efficacy and efficiency.
	3. The VS implement prevention, control or eradication programmes for some diseases and/or in some areas with scientific evaluation of their efficacy and efficiency.
	4. The VS implement prevention, control or eradication programmes for all relevant diseases but with scientific evaluation of their efficacy and efficiency of some programmes.
	5. The VS implement prevention, control or eradication programmes for all relevant diseases with scientific evaluation of their efficacy and efficiency consistent with relevant OIE international standards.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1-2, 7-8,10-12, 14-15, 22, 24, 28, 42, 44, 51, 54-55, 57-58, 81, H6-8, PB4-5, 9, 22, 27, 35, 38, PB42, 44, PD3-4, 36, PP5-7, 29-34, 41, 64-68, 71

Findings:

Swaziland enjoys a relatively favourable health status and has long been able to effectively prevent the entry of FMD into the country. As a consequence, other than the comprehensive tick control programmes for ruminants and the maintenance of extensive border fences there are few national programmes consistently applied in the area of animal health and disease control.

Tick-borne diseases (TBDs) are present in all ecologic zones of Swaziland and include bovine babesiosis, bovine anaplasmosis and heartwater in cattle, sheep and goats (see Table 14). The control of ticks is done at communal and privately owned diptanks on a weekly or bi-weekly basis and is mandatory for all cattle and goats. Most diptanks are government run and the acaricides are provided free of charge. Tick control is a major VSD activity and takes place at 756 active diptanks of which ~23% are privately owned. The dipping process at government diptanks is coordinated by the local VAs who are generally assigned 4 diptanks to supervise along with the help of some 500 *Dip Tank Assistants* (DTA) appointed by farmers and remunerated with a small government stipend. The locally elected *Dip Tank Committee* (DTC) coordinates all activities including maintenance, diptank attendance, vaccinations and stock movement. Additional oversight of diptank activity is done by regional and subregional AHI and AAHI who are required to inspect or audit diptanks operations and inspect at least 8 diptanks in a month.

The government diptanks generally serve an area with a radius of 7.5 km or less, new government diptanks are being constructed with the aim to limit travel distances to 4 km. As with most veterinary service delivery in Swaziland, including clinical cases, are free of charge. Private farms, typically on TDL, and dairy farms are allowed to do their own tick control which they may do in their own facilities, or as in the case of dairy cattle by spray or pour-on products that limit the production of residues in milk.

TBDs are also monitored by diagnostic examination of bone marrow, spleen, and prescapular lymph node “smears” samples taken by DTA and submitted to CVL from all cattle that die of disease or are emergency-slaughtered. Farmers are required by law to submit these samples and they are reconciled against changes in the SLITS database.

Table 14. Table 14. Cases of tick borne disease (2014)

Disease	Region	No. of Foci	Cases			Deaths		
			Bovine	Caprine	Ovine	Bovine	Caprine	Ovine
Heartwater	Hhohho	10	19	4	1	10	1	0
	Lubombo	1	3	0	0	3	0	0
	Manzini	2	1	3	0	0	0	0
	Shiselweni	1	0	4	0	0	0	0
	Total	**14**	**23**	**11**	**1**	**13**	**1**	**0**
Bovine Anaplasmosis	Hhohho	5	2	0	1	0	0	1
	Manzini	2	2	0	0	2	0	0
	Shiselweni	0	0	0	0	0	0	0
	Total	**7**	**4**	**0**	**1**	**2**	**0**	**1**
Bovine Babesiosis	Hhohho	3	5	0	0	1	0	0
	Manzini	4	4	0	0	2	0	0
	Shiselweni	0	0	0	0	0	0	0
	Total	**7**	**9**	**0**	**0**	**3**	**0**	**0**

Monthly Disease Reports using the AU-IBAR reporting forms are part of the National Disease Reporting System and are compiled by the RVO to report all disease that occurred in the region for the month.

The VSD conducts a variety of annual official disease control activities including rabies vaccination, some bovine tuberculosis testing, brucellosis *(contagious abortion* or CA) testing and vaccination in cattle, *ad hoc* clostridial vaccination (blackquarter), anthrax as needed and extensive tick control for ruminants. Vaccination of cattle for *lumpy skin disease* (LSD) is generally done by farmers at their own expense.

In the small animal clinics associated with the regional VSD offices some services are charged for but at prices well below cost recovery levels; all funds generated are remitted to the general government consolidated fund and are not available to VSD or as a revolving fund.

Bovine TB lesions are detected at the export slaughterhouse but no trace backs are done to the farm of origin. In 2014 bovine TB-compatible lesions were found in a total of 387 organs and represented ~10% of all condemnations. The export beef abattoir sent 75 suspect samples to CVL for confirmation of which 47 were positive (62%). Very few cases were identified in any other slaughter facility in the country. No compensation funds for removal of the infected animals exist.

Bovine Spongiform Encephalopathy (BSE) was officially defined as notifiable disease in November 1999 by Order of the Director of the Department of Veterinary and Livestock Services. Surveillance is conducted in compliance with EU directives in support of the export requirements for boneless beef.

Stray dogs and their control are not seen as major issues, despite the number of rabies cases reported in the country annually (8 canine cases in 2014; 10 canine cases in 2013 and 2012; and 27 in 2011). According to WAHIS, there were 38 human rabies cases in 2011 (which is the last time Swaziland reported figures on human rabies cases). However, Swaziland is an active participant in the annual World Rabies Day events with successful public awareness campaigns being conducted and many dogs being vaccinated (more than 80,000 in 2014), though – according to the DVLS – still largely insufficient to attain the goal

of 80% vaccination coverage to break the transmission cycle “considering that vaccinated dogs are not marked, stray dogs are not part of the vaccinated statistic, and the dog population is not controlled” (2014 DVLS Annual Report).

Strengths:

- The VSD has done the necessary surveillance and is now seeking provisional OIE approval for PPR freedom (post-mission note: this was approved at the OIE General Session in May 2015).
- Routine activity at diptanks provides good interaction with ruminant population
- Diptank activity is reviewed by the VSD audit system on a regular basis

Weaknesses:

- No scientific evaluation of the efficacy and efficiency of disease prevention programmes except for FMD
- Lack of financial resources often curtails disease control efforts or prevents systematic implementation (eg., tuberculosis testing, brucellosis vaccination)
- Lack of compensation funding limits capacity to cull for control of tuberculosis, and brucellosis.

Recommendations:

- Prioritise disease control activities and support with scientific evaluation of their efficacy and efficiency.

II-8 Food safety **A. Regulation, authorisation and inspection of establishments for production, processing and distribution of food of animal origin** *The authority and capability of the VS to establish and enforce sanitary standards for establishments that produce, process and distribute food of animal origin*	Levels of advancement
	1. Regulation, authorisation and inspection of relevant establishments are generally not undertaken in conformity with international standards.
	2. Regulation, authorisation and inspection of relevant establishments are undertaken in conformity with international standards in some of the major or selected premises (e.g. only at export premises).
	3. Regulation, authorisation and inspection of relevant establishments are undertaken in conformity with international standards in all premises supplying throughout the national market.
	4. Regulation, authorisation and inspection of relevant establishments (and coordination, as required) are undertaken in conformity with international standards for premises supplying the national and local markets.
	5. Regulation, authorisation and inspection of relevant establishments (and coordination, as required) are undertaken in conformity with international standards at all premises (including on-farm establishments).

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1, 4, 7-8,10-11, 24, 47-48, PB28, PD16, 18-19, 28-34, PP28

Findings:

Swaziland has a single export abattoir for beef (SMI), which was successfully audited by the EU FVO in 2014 (DG(SANC0)/2014-7089).

The Veterinary Public Health Act (17/ 2013) provides broad authority to the VSD for the registration, approval and development of standards for slaughterhouses and establishments involved in further processing' (eg., 'cutting plants', milk plants, facilities handling shell eggs and fish). The Act includes the authority to approve establishments at all levels in the country and not just those involved in export. The supporting regulations and standards have not yet been fully developed.

The Act provides a 3 year grace period for compliance that will end in 2016. Provisional approval for up to 12 months may be done to give the facility time to meet the new standards.

The VSD is to maintain an updated list of approved slaughter facilities and establishments. The approval process is to include an on-site inspection with the authority for the VSD to suspend approval.

Previously the MoH had the responsibility for all inspection of foods of animal origin under the Public Health Act No. 5 of 1965 which included the authority to license and inspect food premises and dairies. The MoH delegated these inspection activities to local/municipal government environmental health inspectors (city council personnel). However, there are few if any personnel with the appropriate expertise to transfer to the VSD to perform this function under the Veterinary Public Health Act (17/2013).

The 2015 VSD Strategic Plan includes providing VPH extension services to provide education in practical skills for processing and handling of foods of animal origin to local, small scale and municipal abattoirs (including small scale poultry slaughter) to enhance compliance with the VPH Act. However, no training or SOPs have yet been developed.

Strengths:

- The VSD has legal authority for the regulation of export abattoirs.
- The Act provides VSD with the broad authority to regulate, authorise and inspect all establishments involved in the production, processing and distribution of food of animal origin
- Exports from SMI go to the EU, Norway and RSA
- SMI has been successfully audited by the FVO (DG(SANC0)/2014-7089)

Weaknesses:

- The VSD, i.e. the VPH Unit, has very limited capacity to address its new responsibilities in the area of VPH both in terms of procedures and personnel
- Regulations and procedures have not yet been drafted.

Recommendations:

- Develop a comprehensive implementation plan for the Act with timelines, supporting regulations and procedures supported by a scoping of required resources and associated costs.
- Develop appropriate standards for all classes of facilities including standards for home consumption and ritual slaughter.

B. Ante and post mortem inspection at abattoirs and associated premises (e.g. meat boning/cutting establishments and rendering plants). *The authority and capability of the VS to implement and manage the inspection of animals destined for slaughter at abattoirs and associated premises, including for assuring meat hygiene and for the collection of information relevant to livestock diseases and zoonoses.*	Levels of advancement
	1. Ante- and post mortem inspection and collection of disease information (and coordination, as required) are generally not undertaken in conformity with international standards.
	2. Ante- and post mortem inspection and collection of disease information (and coordination, as required) are undertaken in conformity with international standards only at export premises.
	3. Ante- and post mortem inspection and collection of disease information (and coordination, as required) are undertaken in conformity with international standards for export premises and for major abattoirs producing meat for distribution throughout the national market.
	4. Ante- and post mortem inspection and collection of disease information (and coordination, as required) are undertaken in conformity with international standards for export premises and for all abattoirs producing meat for distribution in the national and local markets.
	5. Ante- and post mortem inspection and collection of disease information (and coordination, as required) are undertaken in conformity with international standards at all premises (including family and on farm slaughtering) and are subject to periodic audit of effectiveness.

Terrestrial Code reference(s): Appendix 1

Evidence (see Appendix 6): E1, 4, 7-8,10-11, 24, 47-48, PB28, PD16, 18-19, 28-34, PP28, 79-86, 89-90

Findings:

Currently routine ante- and post-mortem examination by VSD personnel occurs only at the SMI export beef abattoir and processing plant in Matsapha. VSD staff based at the beef export abattoir include 2 Veterinary Officers, 6 Meat Inspectors, 1 Laboratory Technologist, 1 Laboratory Technician and a clerk. The VO's also have regional inspection and import certification duties to perform from this office. SMI was successfully audited by the EU FVO in 2014 (DG(SANC0)/2014-7089).

Ante-mortem inspection is done at some other facilities but often consists mainly of checking movement control and animal identification documents but no post-mortem inspection.

Inspection no longer occurs at the large commercial poultry slaughterhouse because they no longer export to RSA. There is no inspection by any MoH authorities there either but they do employ a HAACP plan and apply the private standards of their company group.

The proportion of animals slaughtered under inspection at the beef export facility represents only a small proportion of the number slaughtered and consumed nationally (see table 15). In addition, roughly 2.5 million chickens and 40,000 pigs are slaughtered and consumed each year without the benefit of routine ante- and post-mortem inspection.

Table 15. Number of cattle slaughtered

Year	Export abattoir	Municipal abattoir & butcheries	On-farm slaughter/home consumption
2014	6,343	17,446	26,252
2013	8,708	23,936	27,329
2012	7,696	20,233	n/a

The new Veterinary Public Health Act (17/2013) provides the VSD with a broad mandate to assume all control activities in the domain of VPH and inspection and control of food of animal origin including poultry and dairy products. The Act applies to primary production for private domestic use; domestic preparation for private domestic production; and, traditional or ritual slaughter.

The VSD may delegate or assign any of these powers to an officer under this subordination or to an 'authorized person' defined as a 'competent person who has the training, knowledge, skills and ability to perform an assigned task, and who is authorized by the competent authority to perform this task'.

With the exception of products requiring veterinary export certification, all inspection of foods of animal origin was the responsibility of the local/municipal government environmental health inspectors/officers under the MoH as per the Public Health Act (5/1965). This Act also provided the municipal government the authority for Inspection and licencing of food premises and milk dairies.

Strengths:

- The Act provides VSD with the authority to conduct ante- and post-mortem inspection at all levels

Weaknesses:

- The VSD lacks the resources (eg., human resources, expertise, procedures) to provide the inspection services under this new mandate
- Current ante- and post-mortem inspection only occurs to support export certification
- No standards or procedures are currently in place for ante- and post-mortem inspection of meat for domestic consumption.

Recommendations:

- Identify the necessary resources to provide appropriate risk based inspection procedures in facilities producing meat for domestic consumption.
- Seek outside expertise to develop appropriate regulations and procedures to support implementation of the Act including recruitment and training of personnel to conduct and oversee inspection

C. Inspection of collection, processing and distribution of products of animal origin *The authority and capability of the VS to implement, manage and coordinate food safety measures on collection, processing and distribution of products of animals, including programmes for the prevention of specific food-borne zoonoses and general food safety programmes.*	Levels of advancement
	1. Implementation, management and coordination (as appropriate) are generally not undertaken in conformity with international standards.
	2. Implementation, management and coordination (as appropriate) are generally undertaken in conformity with international standards only for export purposes.
	3. Implementation, management and coordination (as appropriate) are generally undertaken in conformity with international standards only for export purposes and for products that are distributed throughout the national market.
	4. Implementation, management and coordination (as appropriate) are generally undertaken in conformity with international standards for export purposes and for products that are distributed throughout the national and local markets.
	5. Implementation, management and coordination (as appropriate) are undertaken in full conformity with international standards for products at all levels of distribution (including on-farm establishments).

[Note: This critical competency primarily refers to inspection of processed animal products and raw products other than meat (e.g. milk, honey etc.). It may in some countries be undertaken by an agency other than the VS.]

Terrestrial Code reference(s): Appendix 1

Evidence (Appendix 6): E1, 3-4, 7-8,10-11,24, 47-48, H13-14, PB28, PD16,18-19,28-33, PP28, 79-86, 89-90

Findings:

Currently the only place where VSD has control over products of animal origin is at the beef export abattoir. It does not otherwise '*…implement, manage and coordinate food safety measures on collection, processing and distribution of products of animals, including programmes for the prevention of specific food-borne zoonoses and general food safety programmes'.*

The Veterinary Public Health Act (17/2013) provides VSD with the broad authority for control over raw and processed animal products for human consumption at the level of primary production, including products intended for private domestic use and authority over food of animal origin traded commercially including poultry and dairy products. The Act also mandates the VSD to apply 'relevant animal and public health regulations' and requirements for the identification and traceability of animal products.

Strengths:

- Broad legal authority granted in the Veterinary Public Health Act (17/2013) for VSD in this domain

Weaknesses:

- No regulations, procedures, personnel, or training currently available to support this mandate.

Recommendations:

- Seek outside expertise to develop comprehensive appropriate regulations and procedures to support implementation of the Act including recruitment and training of personnel to conduct and oversee inspection.

II-9 Veterinary medicines and biologicals *The authority and capability of the VS to regulate veterinary medicines and veterinary biologicals, in order to ensure their responsible and prudent use, i.e. the marketing authorisation, registration, import, manufacture, quality control, export, labelling, advertising, distribution, sale (includes dispensing) and use (includes prescribing) of these products.*	Levels of advancement
	1. The VS cannot regulate veterinary medicines and veterinary biologicals.
	2. The VS have some capability to exercise regulatory and administrative control over veterinary medicines and veterinary biologicals in order to ensure their responsible and prudent use.
	3. The VS exercise regulatory and administrative control for most aspects of the regulation related to the control over veterinary medicines and veterinary biologicals, including prudent use of antimicrobial agents in order to ensure their responsible and prudent use.
	4. The VS exercise comprehensive and effective regulatory and administrative control of veterinary medicines and veterinary biologicals.
	5 The control systems are regularly audited, tested and updated when necessary.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1, 7-8,10-11, 24-25, 49-50, 61, PD9, 21, PP77

Findings:

The VSD has broad authority in this domain under the Animal Diseases Act (7/1965) as amended by Legal Notice No. 6 of 2012 over the importation, exportation, use and movement of sera, vaccines or other biological or chemical products intended for the treatment of animals in compliance with international standards and obligations.

Further authority in this domain was granted under the Veterinary Public Health Act (17/2013) which includes authority over feed additives. The Act also mandates the VSD with the authority for the control and monitoring of the prudent use of products and the mandate to enforce record keeping requirements for withdrawal periods.

All veterinary medicines and veterinary biologicals used in Swaziland are imported, primarily from RSA through a process of import permits controlled by VSD. The importer is required to acquire a veterinary import permit from regional veterinary offices issued by a Veterinary Officer. All establishments or dealers selling veterinary drug and medicinal substances must have a valid license issued by the Director of Veterinary and Livestock Services.

As outlined in the regulations provided by Legal Notice No. 6 of 2012 all products must be registered with VSD based on approval in RSA or the EU; fines and penalties for violations are provided. This registration is considered a 'public good' and does not provide the applicant the sole right to import and distribute the product thus avoiding a monopoly. No VAT is charged on imported veterinary medicines and vaccines. The Director of Veterinary and Livestock Services has the final authority over whether a veterinary drug meets the criteria for registration and may revoke registration for health or other major reasons. The VSD has the authority for emergency registration of products in the case of an animal health emergency for the necessary period of time to deal with the emergency.

The VSD keep a compendium of approved products. Products are divided into four categories of drug registration based on increasing levels of control.

Category 1 includes most topical and oral medication including vitamins, oral re-hydration solutions, de-wormers, supplements without any antibiotic and/or hormonal growth stimulants, dipping chemicals, disinfectants, and equipment such as syringes, needles, gloves, etc. Import permits for these products are issued as a 6 month multiple entry permit.

Category 2 covers "Prescription and Supervised Veterinary Drugs/ Medicinal Substances" that may only be sold to the public by a veterinarian, a pharmacist, or an authorized establishment (dealer). The category includes selected antibiotics, injectable anti- parasitic and anti-protozoal medicines, anti-inflammatory drugs, topical products with antibiotics, vaccines and semen. Distribution of this category of products is to be limited to persons authorized by the Veterinary Surgeons Act (8/1997), although some may be prescribed or used by animal health technicians and others are restricted to use by veterinarians only. Import permits for these products are issued as a 3 month multiple entry permit and records must be kept of importation and distribution.

Category 3 are prescription and veterinarian-only use products and may only be sold to the public by a veterinarian, pharmacist or with a written prescription of a veterinarian or to be administered by a veterinarian only. This category includes anaesthetics, tranquilizers, and products for euthanasia; restricted use vaccines (eg. rabies, CA), some antibiotics and steroidal anti- inflammatory drugs and biologicals (eg., serum, laboratory reagents). These products are not to be sold over the counter or to non-veterinarians. Import permits for these products are for a single importation and all importers and distributors must keep records of their importation and distribution.

Category 4 is for "Generally Prohibited Drugs" which are divided into two groups: restricted use veterinary products and prohibited products. Restricted use products include FMD and AI vaccines, hormonal and other growth promoting substances as outlines in the Legal Notice No. 87 of 1990. Prohibited veterinary drugs, the use of which is totally banned include carcinogenic and teratogenic substances. Restricted use products are imported only by licensed veterinarians and reports must be made to VSD on their use.

There are also general legal requirements for the secure proper storage of these products.

The VSD Audit Form includes review of treatment and withdrawal time records at diptank level and review of the cold chain at the AHI/AAHI level.

First generation antibiotics (tetracyclines and penicillins) are widely available and are often administered by farmers themselves or by VAs in and around dip tanks. Tetracyclines and penicillins are available for retail purchase without veterinary oversight; however, given the risk of TBDs rapid access to tetracyclines is important

Strengths:

- Clear standards for drug importation and use are in place as per Legal Notice No. 6 of 2012
- High quality products are imported under a comprehensive permit process
- Results of inspections at border control points and veterinary drug sales points indicate that there is little evidence of illegal entry or use of unapproved products.

Weaknesses:

- Guidance for the prudent use of antimicrobial agents is needed to ensure their responsible and prudent use.
- It was observed that dangerous products such as anaesthetics and euthanasia products were not always stored in locked cabinets at VSD facilities, private surgeries and retail outlets for veterinary drugs.

Recommendations:

- Develop and implement prudent use of antimicrobial agents guidance with supporting educational outreach for VAs and farmers
- Develop mechanism to track and monitor the use of antimicrobials to support risk based usage control, education and guidance

II-10 Residue testing *The capability of the VS to undertake residue testing programmes for veterinary medicines (e.g. antimicrobials and hormones), chemicals, pesticides, radionuclides, metals, etc.*	Levels of advancement
	1. No residue testing programme for animal products exists in the country.
	2. Some residue testing programme is performed but only for selected animal products for export.
	3. A comprehensive residue testing programme is performed for all animal products for export and some for domestic consumption.
	4. A comprehensive residue testing programme is performed for all animal products for export and domestic consumption.
	5. The residue testing programme is subject to routine quality assurance and regular evaluation.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1-2, 7-8,10-11, 24, 49-50, PP83-88

Findings:

Residue testing is done on a systematic basis only at the beef export abattoir. This is based on the sampling plan provided by the EU. As part of this EU mandated programme samples are also collected unannounced and at random from farms unannounced and at random. Samples are taken at slaughter by the official veterinarian and Meat Inspectors; antimicrobials screening tests every kill at 3% of the total slaughter and for stilbenes, anabolic hormones, growth substances, ivermectins, pesticides, heavy metals, nitrofurans, chloramphenicol and sulphonamides as per the residue sampling plan.

The *Meat Hygiene Laboratory* (MHL) of the VSD based at the SMI export abattoir in Matsapa, is equipped to carry out only basic microbiology primarily as sanitation checks of personnel handling meat, environment hygiene, and sampling of by products, carcasses/meat cuts. The MHL is also equipped to carry out chemical tests on the abattoir water, simple screening for antibiotics (inhibitory substances), checking of effectiveness of cleaning/disinfecting and the efficiency of disinfectants. Since 1998, samples taken as part of the EU residue programme are stored at the MHL before being sent to the South African Bureau of Standards (SABS), in Pretoria, South Africa. Both Laboratories have received previous E.U approvals and audit inspections.

To comply with the E.U Directives prohibiting the use of hormones and growth promoters, the MoA promulgated regulations in 1990 on the *Prohibition of Use of Anabolic Hormones and Thyrostatic Substances*, under the Animal Disease Act, 1965 and updated them in 2006 (35/2006) with the *Prohibition of Use of Anabolic Hormones, Thyrostatic Substances and Growth Promoters Regulations*. The export carcasses or meat cuts from sampled animals are not detained pending the laboratory results. However, SMI is to recall any consignment of meat cuts whose results of analyses are positive from the shipment points to withhold it from the E.U market.

In the case of suspected positive samples containing residues above the Maximum Residue Limits (MRL) there is a plan for follow up action by the official veterinarian based at the export abattoir including contact with the farmer and re-sampling of animals from the same farm of origin as the suspect positive samples. The investigation usually entails the inspection of available farm records, farm environment and stock for traces of evidence that might suggest an existing purposeful violation of the Legislation. No farm has come up with a second case of suspect positive samples following the first laboratory results. However, if positive samples are confirmed as true positives the owner of the cattle would be subject to prosecution under the Animal Disease Act, 1965.

The Veterinary Public Health Act (17/2013) requires record keeping requirements for withdrawal periods at the farm and diptank level.

Strengths:

- Veterinary Public Health Act (17/2013) provides VSD with the authority to conduct residue testing
- VSD uses competent laboratories in RSA and UK for the testing of residues
- Draft Strategic Plan for 2015 includes residues testing programmes for both beef and poultry.

Weaknesses:

- Residue testing only done for compliance with export requirements

Recommendations:

- As part of the Veterinary Public Health Act (17/2013)implementation review options for a scientifically based residue testing plan for domestic products in a range of species

II-11 Animal feed safety *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.*	Levels of advancement
	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

Evidence (listed in Appendix 6): E1, 7-8,10-11, 24, PD10-11

Findings:

Much of the commercial feeds fed to livestock of all species is imported from RSA under VSD issued import permits and subject to inspection at the border.

The Veterinary Public Health Act (17/2013) provides the VSD with the authority to control and monitor the use of feed additives and enforce record keeping requirements for withdrawal periods. The 2015 Draft VSD Strategic Plan includes the monitoring of feed mills in the plan.

Bovine Spongiform Encephalopathy (BSE) was officially defined as notifiable disease in November 1999 by Department of Veterinary and Livestock Services Order and the feeding of ruminant protein to ruminants was prohibited and the reporting of suspect cases of BSE and scrapie became compulsory. The GVNS includes standards for the rendering for Meat and Bone Meal (MBM) or disposal by deep burial. Records of daily rendering or incinerated waste products disposed of must be kept. There are no rendering facilities in Swaziland at this time and most waste is disposed of at landfills.

The “Audit Inspections of Veterinary Field Services” include review of “availability, storage and feeding’ during routine inspections of feedlots.

Due to the often stressful growing conditions mycotoxin-contamination in feeds is a constant risk (e.g. aflatoxins). A variety of mycotoxins can be tested for at the MoA lab at the Malkerns Research Station. The large commercial feedmill visited during the evaluation routinely tested feed inputs and applied controls to ensure the level were below levels of concern.

Strengths:

- The VSD has broad authority over animal feeds under the Act
- Feed availability, storage and feeding are part of the routine auditing done by VSD of all registered feedlots

Weaknesses:

- There is a general lack of supporting / subsidiary / enabling legislation or regulation to support specific VSD activities
- GVNS provides no guidance for VSD field staff on how to conduct feed safety monitoring

Recommendations:

- Develop appropriate policies and procedures for the inspection, , control of animal feeds as part of the comprehensive implementation of the Act including updating the GNVS to support feed control activities.

II-12. Identification and traceability A Animal identification and movement control *The authority and capability of the VS, normally in coordination with producers and other interested parties, to identify animals under their mandate and trace their history, location and distribution for the purpose of animal disease control, food safety, or trade or any other legal requirements under the VS/OIE mandate.*	Levels of advancement
	1. The VS do not have the authority or the capability to identify animals or control their movements.
	2. The VS can identify some animals and control some movements, using traditional methods and/or actions designed and implemented to deal with a specific problem (e.g. to prevent robbery).
	3. The VS implement procedures for animal identification and movement control for specific animal subpopulations as required for disease control, in accordance with relevant international standards.
	4. The VS implement all relevant animal identification and movement control procedures, in accordance with relevant international standards.
	5. The VS carry out periodic audits of the effectiveness of their identification and movement control systems.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1-2, 6-8,10-11, 15, 24, 26, 56, 60, H21, PB4, 6, 32-33, 42, PD2, 22-27, 37-38, PP5-10, 29-34, 60

Findings:

The legal basis for VSD control of animal identification movement is the Animal Diseases Act (7/1965) and Livestock Identification Act (13/2001). In addition the VSD draws upon the draft Animal Disease (Animal Identification and Traceability) Regulations (2012) as guidance for activities.

The Swaziland Livestock Information and Traceability System (SLITS) was commissioned in 2012 and developed with FAO support for the purposes of disease control and surveillance, support of trade and help to prevent cross-border stock theft. The system provides unique visual identification of cattle with individually numbered bottle-shaped eartags on one side and corresponding circular tags on the other. The eartags are in addition to the mandatory national 'shield' branding on the left shoulder and diptank number on the left hind leg. Registration and tagging is done at the diptank level and all cattle; sheep and goats are registered by the farm number and address but are not individually identified.

SLITS is supported by a computerised database that tracks diptank areas, kraal owner and address, 'dipping events', livestock movements, livestock import/exports and recording of diseases, treatments, vaccination, meat hygiene etc. SLITS is designed to provide lifetime traceability on an individual animal basis with prompt removal of all animals from the database at death or slaughter.

All livestock are required to travel with internal movement controls. In the case of cattle these movement are recorded in the SLITS database including unique individual ear tag numbers. Generally the VA issues a "stock removal permit" (movement permit). For cattle, the permit is based on SLITS information regarding the farm and animals identification that is validated by visual inspection by the VA. The original document accompanies the animal(s) and the VA at the destination records the movement in SLITS. The permits for other species (sheep, goats, pigs, poultry) provide general group identification of the animals to be moved but these species are not currently registered within the SLITS or any other database.

Registration of ruminants is kept initially in the paper diptank register; information for cattle is transferred into the computer system on a weekly basis. The accuracy of the records are routinely reviewed as part of the "Audit Inspections of Veterinary Field Services". The audit includes review of movement documentation at all levels including correlation of registers, SLITS, blood smear book and permits at the diptank level, AAHI, AHI, SAHI levels.

SLITS is also helpful in the tracking of stolen and lost cattle within Swaziland and used by the police to prove ownership and prosecute cases of theft, as well as the recovery of animals from neighbouring countries. Also refer to C.C. I-6. *Coordination Capability of the Veterinary Services (B. External coordination).*

Strengths:

- SLITS is an effective system of animal identification and movement control for cattle that enjoys wide compliance by owners and good legal support
- The system is appropriate to the size of the animal population
- Good lifetime traceability with removal of cattle (eg., no 'ghost' animals in the system)

Weaknesses:

- No database to record the movement or provide for traceability of other species other than cattle
- Farmers do not perceive material benefits/returns of the system, except for the prevention and resolution of cattle theft

Recommendations:

- Expand animal identification capacity to other species

B. Identification and traceability of products of animal origin *The authority and capability of the VS, normally in coordination with producers and other interested parties, to identify and trace products of animal origin for the purpose of food safety, animal health or trade.*	Levels of advancement
	1. The VS do not have the authority or the capability to identify or trace products of animal origin.
	2. The VS can identify and trace some products of animal origin to deal with a specific problem (e.g. products originating from farms affected by a disease outbreak).
	3. The VS have implemented procedures to identify and trace some products of animal origin for food safety, animal health and trade purposes, in accordance with relevant international standards.
	4. The VS have implemented national programmes enabling them the identification and tracing of all products of animal origin, in accordance with relevant international standards.
	5. The VS periodically audit the effectiveness of their identification and traceability procedures.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1-2, 6-8,10-11, 15, 24, 26

Findings:

Currently there is no traceability system for products of animal origin traded within Swaziland.

The VSD authority and interaction is from the farm to the abattoir door for the domestic market. The MoH and local authorities (city councils) take over at that point but do not provide systematised controls.

The Veterinary Public Health Act (17/2013) provides VSD with the authority to inspect processing facilities and develop a system of identification and traceability of animal products although the supporting regulations and procedures have not yet been developed and implemented.

For the beef export abattoir there is a proprietary system of product traceability based on bar coded tags tracked by the company to provide the level of traceability required by the EU. Before loading boxes of meat into truck the system requires checking traceability codes to match the corresponding number on the carcasses deboning report with the serial numbers of the carcasses, the system also records the slaughter date, the ear tag number of the carcass, the slaughter batch number and the name of the producer and the permit number of the particular batch of animals. This traceability process allows cross-referencing with the movement permit that includes the diptank number, owners name, kraal number and signature of the issuing VSD officers.

Strengths:

- The VSD now has the legal mandate to control traceability of animal products nationally

Weaknesses:

- There is no subsidiary/enabling legislation, policies or standards.
- VSD currently lacks the resources and procedures for traceability of products

Recommendations:

- Include consideration of identification and traceability of products of animal origin in planning the implementation on the Act.

II-13 Animal welfare *The authority and capability of the VS to implement the animal welfare standards of the OIE as published in the Terrestrial Code.*	Levels of advancement
	1. There is no national legislation on animal welfare
	2. There is national animal welfare legislation for some sectors
	3. In conformity with OIE standards animal welfare is implemented for some sectors (e.g. for the export sector)
	4. Animal welfare is implemented in conformity with all relevant OIE standards.
	5. Animal welfare is implemented in conformity with all relevant OIE standards and programmes are subjected to regular audits.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1, 7-9,10-11, 24, 39-40, 44, E62-66, 69, PD35

Findings:

Animal welfare, or rather the prevention of cruelty to animals, is regulated under the Cruelty to Animals Act (43/1963), passed before Swaziland gained independence from the UK in 1968.

Even in 2015, there seems to be little awareness or knowledge about animal welfare best practices and/or the old regulations currently in force. This applies to veterinary services' staff and the public/farmers.

Since 2012, draft Animal Welfare Act and subsidiary legislation has been awaiting Parliamentary approval. It remains focused on instances on non-compliance and the powers of the courts and the accredited animal welfare organisations but does not comply with OIE guidelines.

The *Swaziland Animal Welfare Society* (SAWS) is a self-funded non-profit animal welfare society whose role is to uphold the laws of Swaziland and specifically the Cruelty to Animals Act to provide care for needy animals, including transport, accommodation and medical treatment. SAWS promotes education and awareness, holding of rural clinics country-wide and assisting local authorities in animal welfare matters; SAWS also serves as the city impoundment area for small animals.

According to the *Guidelines for National Veterinary Services* (2013) animal welfare is considered in the *"Audit Inspections of Veterinary Field Services*" at dip tanks. These same *Guidelines* also provide minimal guidance for the assessment of animal welfare in feedlots and dairies, with much more detail being provided for the offloading and rest of animals at the SMI abattoir.

As may be expected, there is full compliance with EU and OIE directives and standards, respectively, for the processing of beef cattle for export (*slaughter of animals* standards). The Veterinary Public Health Act (17/2013)013 briefly refers to any animal welfare legislation as applying to the Act. Most of the animal welfare practices and checks conducted at the export abattoir are largely self-regulated by the *Swaziland Meat Industries* (SMI) as private standard requirements.

Dogs are regulated under the Registration of Dogs Act of 1953 and – in part – the Pounds Act (24/1966). Neither of these Acts specifically refers to the welfare or wellbeing of animals, either directly or indirectly, except on the *detention of stock* under article 27 of the Pounds Act (food and water).

Strengths:

- Little or no animal welfare concerns identified related to OIE international standards
- The small size of the country limits the impact of animal transport welfare issues
- Increasing awareness of welfare issues surrounding related to intensive beef and broiler production

Weaknesses:

- There is no legal authority to fully implement the OIE animal welfare standards
- Limited awareness on behalf of veterinary (ancillary) staff and the public in general.

Recommendations:

- Review current and draft animal welfare legislation to provide a basis to improve compliance with current OIE guidelines

III.3 Fundamental component III: Interaction with interested parties

This component of the evaluation concerns the capability of the VS to collaborate with and involve stakeholders in the implementation of programmes and activities. It comprises seven critical competencies

Critical competencies:

Section III-1	**Communication**
Section III-2	**Consultation with interested parties**
Section III-3	**Official representation**
Section III-4	**Accreditation / Authorisation / Delegation**
Section III-5	**Veterinary Statutory Body (VSB)**
	A. VSB authority
	B. VSB capacity
Section III-6	**Participation of producers and other interested parties in joint programmes**

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, 7 and Sub-point g) of Point 9 of Article 3.2.14. on Administration details / Animal health and veterinary public health controls / Sources of independent scientific expertise.

Chapter 3.3. on Communication.

III-1 Communication	Levels of advancement
The capability of the VS to keep interested parties informed, in a transparent, effective and timely manner, of VS activities and programmes, and of developments in animal health and food safety. This 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	1. The VS have no mechanism in place to inform interested parties of VS activities and programmes.
	2. The VS have informal communication mechanisms.
	3. The VS maintain an official contact point for communication but it is not always up-to-date in providing information.
	4. The VS contact point for communication provides up-to-date information, accessible via the Internet and other appropriate channels, on activities and programmes.
	5. The VS have a well-developed communication plan, and actively and regularly circulate information to interested parties.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1, 7-8,10-11, 24, H2, PD6, 17

Findings:

Communication is limited.

One of the few 'formal' communication channels is the use of community radio, on the *Swaziland Broadcasting and Information Service*, the state owned broadcast and print information provider of Swaziland. For at least ten years now, weekly information slots of 30 minutes are being broadcasted, usually on Saturdays at 7 am, focusing on the information for (cattle) farmers (in Siswati, the national language)(see accompanying text box). These broadcasts are free of charge. The objective is to use the radio programmes:

- to discuss the 'why' the department is doing what it is doing and to reach out to stakeholders;
- to appeal to the public to assist where and whenever possible;
- to create awareness and educate farmers on the DVLS's disease control programmes.

Information pertains to the vaccination and treatment calendars, including rabies vaccination of dogs and Newcastle vaccination of poultry, as well as issues of animal production and reproduction.

Topics covered by the radio programmes :

- *Livestock movement permits, registers (diptank and livestock identification)*
- *Branding/ear tagging (SLITS), breeding season programmes, deworming, castration, culling of cows, calf rearing*
- *Vaccinations [anthrax, blackquarter, botulism, lumpy skin disease, contagious abortion, rabies]*
- *Nutrition, hay making*

There is no option for farmers to call-in 'live' but they have an opportunity to call in for questions after the show ends. A popular feature is the lost-and-found animals, which enables farmers to recover their lost livestock.

The only other (annual) communication event is the *World Rabies Day* event on September 28th (and the days leading up to this date), which is covered on radio and television and for which some promotional materials have been encountered (eg., posters, T-shirts).

Institutional communication is entrusted to the Director of the DVLS who regularly meets with stakeholders to discuss issues and try to convince farmers to adhere to new rules and regulations. The designated OIE focal point for communication is the Deputy-Director of the DVLS.

Regional veterinary offices and VSD vehicles are largely anonymous and are not readily identifiable by the public, let alone to promote the VSD "corporate image".

Strengths:

- Radio-based communication
- *World Rabies Day* (WRD) events

Weaknesses:

- Little or no formal communication
- Informal institutional communication
- No communication strategy
- The only 'branding' of the DVS is via the provision of staff uniforms: offices or vehicles are not identified (unless by donor requirement)
- Appointment of OIE focal point on communication is merely administrative

Recommendations:

- Seek the appointment of a full-time or part-time communication officer or contract appropriate service provider in the field of adult education and institutional communication.
- Develop a communications plan, linked to the observed shortcomings in this evaluation report, and prioritize communication approaches.

III-2 Consultation with interested parties *The capability of the VS to consult effectively with interested parties on VS activities and programmes, and on developments in animal health and food safety. This 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*	Levels of advancement
	1. The VS have no mechanisms for consultation with interested parties.
	2. The VS maintain informal channels of consultation with interested parties.
	3. The VS maintain a formal consultation mechanism with interested parties.
	4. The VS regularly hold workshops and meetings with interested parties.
	5. The VS actively consult with and solicit feedback from interested parties regarding proposed and current activities and programmes, developments in animal health and food safety, interventions at the OIE (Codex Alimentarius Commission and WTO SPS Committee where applicable), and ways to improve their activities.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1, 7-8,10-11, 24, H9

Findings:

There are limited opportunities for VSD to meet with many sectors of the public.

A local means for contact, consultation and communication are the Dip Tank Committees (DTC) which serve as conduit to cattle and goat owners/herders. The DTC are elected local groups with strong ties to the animal holders. Meetings to share information occur regularly at the diptank and the weekly or bi-weekly provided a good opportunity for exchange of information and concerns. It is unclear if there is an effective mechanism to communicate concerns raised at this level to regional or central attention within the VDS. There does not appear to be a means to further organise the DTCs in larger regional or national groups.

Swaziland does have a variety of cooperative groups (eg., diary, small scale egg and poultry producers) that are also available for information sharing and exchanges.

VSD extension officers are also available to support and interact with specific sectors (eg., poultry, swine).

The NAMBoard has sub-groups that could support animal producer organisations through entities such as the National Agricultural Union, Dairy Development Board and the Power Team Feedlotters Association.

The VSD participated in the early phase of the development of a National Livestock Policy Hubs along with a number of AU Member States as part of the EU funded AU-IBAR managed VET-GOV Programme with OIE support (see accompanying text box). Within the framework of the VET GOV programme there is the intention to establish linkages with CAADP national and regional teams.

Livestock Policy Hubs were formed in a number of AU Member States by the EU funded AU-IBAR / FAO / OIE Managed Reinforcing Veterinary Governance in Africa Programme (VET-GOV) to link national and regional policy processes and livestock initiatives (e.g. by AU-IBAR/FAO/OIE) with CAADP on a national and regional basis.

VET- GOV was launched in 2012 with the goals to establish adequate and affordable veterinary services on the national level; strengthen regional institutions to coordinate; and, harmonise policies through evidence-based advocacy, and capacity building programmes for policy formulation and implementation.

The livestock sector has been incorporated in the Comprehensive Africa Agriculture Development Programme (CAADP) and National Agriculture Investment Plans (NAIP) in COMESA of which Swaziland is a member state. .

Strengths:

- The 2015 Draft VSD Strategic Plan includes accounting to stakeholders as an area to further develop and implement.

Weaknesses:

- Limited interaction with stakeholders outside of the DTC structure (which is limited to the ruminant sector)
- Opportunities to interact with other Ministries appears limited and are not supported by a clear policy

Recommendations:

- Develop an organised system of formal consultation to use as the VSD addresses the development of the regulations and programmes to support the implementation of the Veterinary Public Health Act (17/2013). This should include separate interactions with interested parties in the impacted industries and general public as well as structured interaction with the MoH to review the current status of inspection and control for products of animal origin.

III-3 Official representation *The capability of the VS to regularly and actively participate in, coordinate and provide follow up on relevant meetings of regional and international organisations including the OIE (and Codex Alimentarius Commission and WTO SPS Committee where applicable).*	Levels of advancement
	1. The VS do not participate in or follow up on relevant meetings of regional or international organisations.
	2. The VS sporadically participate in relevant meetings and/or make a limited contribution.
	3. The VS actively participate[4] in the majority of relevant meetings.
	4. The VS consult with interested parties and take into consideration their opinions in providing papers and making interventions in relevant meetings.
	5. The VS consult with interested parties to ensure that strategic issues are identified, to provide leadership and to ensure coordination among national delegations as part of their participation in relevant meetings.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1, 7-8,10-11, 24, 72

Findings:

Swaziland is an active member of OIE, Codex, SADC, SPS, AU-IBAR, SACU and is well represented at regional and international meetings.

Strengths:

- Strong participation in document review and comment on OIE proposals within the AU

Weaknesses:

- Lack of regular or formal consultation or communication with interested parties related to relevant international meetings and organisations.

`Recommendations:

- Continue participation in international activities and develop a mechanism to communicate these activities to interested parties in-country

[4] *Active participation* refers to preparation in advance of, and contributing during the meetings in question, including exploring common solutions and generating proposals and compromises for possible adoption.

III-4 Accreditation / authorisation / delegation *The authority and capability of the public sector of the VS to accredit / authorise / delegate the private sector (e.g. private veterinarians and laboratories), to carry out official tasks on its behalf.*	Levels of advancement
	1. The public sector of the VS has neither the authority nor the capability to accredit / authorise / delegate the private sector to carry out official tasks.
	2. The public sector of the VS has the authority and capability to accredit / authorise / delegate to the private sector, but there are no current accreditation / authorisation / delegation activities.
	3. The public sector of the VS develops accreditation / authorisation / delegation programmes for certain tasks, but these are not routinely reviewed.
	4. The public sector of the VS develops and implements accreditation / authorisation / delegation programmes, and these are routinely reviewed.
	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 interested parties.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1, 7-8,10-11, 24, 46, 67, PP9

Findings:

The Stock Diseases Regulation of 1933 (under the Animal Diseases Act of 1965) defines an "official" as an officer of the Minister of Agriculture above the rank of assistant animal health inspector, a District Officer, a police officer, or *"such other person as the Minister may designate to be an official for the purposes of these regulations".* With a little bit of goodwill this latter qualification may include private veterinarians. Indeed, the more recent Veterinary Surgeons Act No. 8 of 1997 fails to more specifically address the issue of delegation of powers to private sector veterinarians.

The same Act however does allow for the authorisation of non-veterinarians, to do a variety of less technical acts including injection of non-prescription items or to *'treat an animal if the treatment does not require a surgical operation'* and may also take and submit samples for laboratory examination and penalties are provided for violations. The persons qualified to perform such acts includes animal owners, ranch managers, farm foremen and a variety of veterinary para-professionals working in the official VSD (eg., AHIs, VA, Senior Animal Husbandry Officers).

Under the Veterinary Public Health Act (17/2013)the DVS may delegate or assign any of his powers to an officer within the VSD or to an '*authorized person'* defined as a '*competent person who has the training, knowledge, skills and ability to perform an assigned task, and who is authorized by the competent authority to perform this task'.*

The authority for CITES and wildlife certification for export is done in collaboration with *Big Games Parks* (BGP), a private corporation that manages several wildlife preserves and plays a major role in conservation and wildlife management.

Currently there are no programmes of official delegation for domestic animals.

Strengths:

- Legal basis for the accreditation / authorisation / delegation may be available to the VSD by way of liberal interpretation of current (1933) legislation/regulation and is more clearly available under the Veterinary Public Health Act (2013).

Weaknesses:

- There does not seem to be a legally based framework for the delegation of official tasks in accordance with OIE recommendations.
- No clear and straightforward definition of accreditation or delegation to the private sector in current legislation or regulations.

Recommendations:

- In accordance with OIE recommendations, develop the legal framework to allow delegation of appropriate official animal health and disease control activities to the private sector as it develops within Swaziland.

III-5 Veterinary Statutory Body (VSB) A. VSB authority *The VSB is an autonomous regulatory body for veterinarians and veterinary para-professionals.*	Levels of advancement
	1. There is no legislation establishing a VSB.
	2. The VSB regulates veterinarians only within certain sectors of the veterinary profession and/or does not systematically apply disciplinary measures.
	3. The VSB regulates veterinarians in all relevant sectors of the veterinary profession and applies disciplinary measures.
	4. The VSB regulates functions and competencies of veterinarians in all relevant sectors and veterinary para-professionals according to needs.
	5. The VSB regulates and applies disciplinary measures to veterinarians and veterinary para-professionals in all sectors throughout the country.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1, 7-8,10-11, 24, 46

Findings:

The *Veterinary Council of Swaziland* (VCS) was established under the Veterinary Surgeons Act (8/1997) which specified the six member composition as:

- The Director of Veterinary Services (Chairman);
- Four Veterinary Surgeons elected by the Veterinary Association (currently two from private practice); and,
- One Government Veterinary Surgeon appointed by the Minister

The Act states that the Minister shall designate a public officer to be the Registrar of Veterinary Surgeons to maintain an up to date register of veterinary surgeons and who will act as the Secretary to the Council. Conditions for registration with the VCS, sanctioning use of the title veterinary surgeon and engagement in veterinary practice in Swaziland are laid out in the Act. The VSC is provided with sufficient disciplinary powers under the Act to penalise any transgression of codes of conduct by registered veterinarians.

The current VSC does not fully comply with OIE recommendations; *ex officio* appointment of the Director of Veterinary Services as Chairman of the Veterinary Statutory Body (VSB) is contrary to the recommendations of the OIE with regard to the “autonomous regulatory body” that the VSB is expected to be, unless it can “demonstrate autonomy from undue political and commercial interests” (Article 3.2.12. of the *TAHC*).

The VCS budget comes directly from the budget of the Director of VSD; thus the VCS is not an independent / autonomous body in compliance with the *TAHC* but within the context of the very small size of the veterinary profession in Swaziland this would not be feasible.

A professional code of conduct for veterinarians in Swaziland is in process of being drafted. Minutes of the VCS meetings held provide evidence of decisions made and disciplinary measures taken.

The Council does not register or define different categories or prescribe training, qualifications, tasks and extent of supervision for veterinary para-professionals or provide for the representation of this cadre on the Council; is no provision in the law for this to be done. This authorisation could be done by order of the Minister. There is no administration or minimum standard set for undertaking training programmes and continuing professional development by veterinarians.

A number of veterinarians from RSA provide specialised services to commercial farms in Swaziland; VSD and the VCS are developing a system of registration that entails they be sponsored or work with a veterinarian registered by the VCS.

Strengths:

- All veterinarians in Swaziland, in the public and private sector, are registered by the VCS
- The Veterinary Surgeons Act of 1997 provides a clear, concise legal framework and defines the composition and responsibility of the VSB
- Currently there are two private sector veterinarians represented in the Council
- There is evidence of disciplinary action being taken against veterinary malpractice

Weaknesses:

- The VCS is funded by Government, though – in practice – the size of the country and its veterinary sector would make sustainable member-based funding difficult to achieve.
- The Veterinary Surgeons Act of 1997 does not provide classification or regulation of veterinary para-professionals or characterise the tasks they may undertake or provide guidance as to the level of supervision required
- No formal requirement / guidelines for CPD

Recommendations:

- Review the OIE guidelines for VSB in the context of the current VCS to identify possible areas for enhanced compliance
- Review the possibility of regulating veterinary para-professionals as recommended by the OIE
- Develop and publish guidelines for CPD for both veterinarians and veterinary para-professionals

B. VSB capacity	Levels of advancement
The capacity of the VSB to implement its functions and objectives in conformity with OIE standards.	1. The VSB has no capacity to implement its functions and objectives.
	2. The VSB has the functional capacity to implement its main objectives.
	3. The VSB is an independent representative organisation with the functional capacity to implement all of its objectives.
	4. The VSB has a transparent process of decision making and conforms to OIE standards.
	5. The financial and institutional management of the VSB is submitted to external auditing.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1, 7-8,10-11, 24, 46

Findings:

The current VSC has the functional capacity to implement its main objectives. The Veterinary Surgeons Act (8/1997) provides the VSC with disciplinary powers for both registered veterinarians and “unregistered persons” performing veterinary services.

The VCS holds regular meetings well attended by Council Members. Minutes of meetings are well recorded and action points clearly signposted.

Strengths:

- In the context of Swaziland with a small veterinary profession the VSC has the capacity to function adequately

Weaknesses:

- VSC lacks the legal authority and capacity to regulate veterinary para-professionals

Recommendations:

- Consider including veterinary para-professionals in the mandate of the VSC
- Complete the drafting and publish a Code of Practice for the VSC

III-6 Participation of producers and other interested parties in joint programmes *The capability of the VS and producers and interested parties to formulate and implement joint programmes in regard to animal health and food safety. This 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*	Levels of advancement
	1. Producers and other interested parties only comply and do not actively participate in programmes.
	2. Producers and other interested parties are informed of programmes and assist the VS to deliver the programme in the field.
	3. Producers and other interested parties are trained to participate in programmes and advise of needed improvements, and participate in early detection of diseases.
	4. Representatives of producers and other interested parties negotiate with the VS on the organisation and delivery of programmes.
	5. Producers and other interested parties are formally organised to participate in developing programmes in close collaboration with the VS.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1, 7-8,10-11, 24, PB8

Findings:

In Swaziland veterinary services are primarily public and of the 32 registered veterinarians only 5 are in private practice. In addition, most small holders are not organised in groups that facilitate collaboration and exchange of information.

There has been very little collaboration with other Ministries with the exception of the Joint Preparedness Plan for Avian Influenza done in 2007; however, this was done at the upper levels of management of both Ministries and very little if any ongoing interaction and cooperation continues. In the case of human rabies there is some cooperation / communication between the VSD and MoH to facilitate the transfer of information following the identification of potential rabies following animal bites. In light of the significant level of human cases of zoonotic disease in Swaziland, strengthening the reporting of zoonotic diseases by the MoH to VSD is an area that would benefit greatly by more interaction.

The Swaziland Dairy Board and the *National Agricultural Marketing Board* (NAMBoard) are available to represent specific sectors of the agricultural community. NAMBoard is developing some additional support for emerging sectors of animal production and should be encouraged to continue and expand this effort and specifically support the emerging interest in small scale pig production.

In the area of animal health the major mechanism for interaction with the ruminant sector is at the level of the diptank or through on-farm compliance measures at private diptanks for the support of tick control. The DTC is elected by the local participants and help with the activities of dipping and serve as an advisory group and channel for the transfer of information.

Strengths:

- In the case of human rabies there is some cooperation / communication between the VSD and MoH to facilitate the transfer of information following the identification of potential rabies following animal bites.
- There is frequent local interaction between the VSD and owners of ruminants at the dip tank

Weaknesses:

- Historically is has been difficult for the VSD to interact with farmers except at the diptank during acaricide application

Recommendations:

- In the area of zoonotic disease develop a mechanism to work with MoH to encourage sharing reports and follow-up on trace backs for diseases such as TB
- Engage the Dairy Board and encourage NAMBoard to develop more links with small scale animal production units and use these are mechanisms to establish more channels of communication with other sectors
- Encourage VSD interaction with consulting foreign veterinarians to use as a link with the advancing sectors of animal production

III.4 Fundamental component IV: Access to markets

This component of the evaluation concerns the authority and capability of the VS to provide support in order to access, expand and retain regional and international markets for animals and animal products. It comprises eight critical competencies.

Critical competencies:

Section IV-1	**Preparation of legislation and regulations**
Section IV-2	**Implementation of legislation and regulations and compliance thereof**
Section IV-3	**International harmonisation**
Section IV-4	**International certification**
Section IV-5	**Equivalence and other types of sanitary agreements**
Section IV-6	**Transparency**
Section IV-7	**Zoning**
Section IV-8	**Compartmentalisation**

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 6 and 10 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 5.12. on Model international veterinary certificates.

IV-1 Preparation of legislation and regulations *The authority and capability of the VS to actively participate in the preparation of national legislation and regulations in domains that are under their mandate, in order to guarantee its quality with respect to principles of legal drafting and legal issues (internal quality) and its accessibility, acceptability, and technical, social and economical applicability (external quality). This 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*	Levels of advancement
	1. The VS have neither the authority nor the capability to participate in the preparation of national legislation and regulations, which result in legislation that is lacking or is out-dated or of poor quality in most fields of VS activity.
	2. The VS have the authority and the capability to participate in the preparation of national legislation and regulations and can largely ensure their internal quality, but the legislation and regulations are often lacking in external quality.
	3. The VS have the authority and the capability to participate in the preparation of national legislation and regulations, with adequate internal and external quality in some fields of activity, but lack formal methodology to develop adequate national legislation and regulations regularly in all domains.
	4. The VS have the authority and the capability to participate in the preparation of national legislation and regulations, with a relevant formal methodology to ensure adequate internal and external quality, involving participation of interested parties in most fields of activity.
	5. The VS regularly evaluate and update their legislation and regulations to maintain relevance to evolving national and international contexts.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1, 7-11, 24, 43, 67

Findings:

The VSD operates under a broad set of legislative texts although much of it is quite old (see accompanying text box). The VSD recently adopted the new Veterinary Public Health Act (17/2013) but has not yet developed the supporting regulations, procedures or resources for implementation. The Act gives all affected entities a 3 year grace period (2013 ─ 2016); however, this may not be realistic since as yet the supporting regulations remain in draft form only.

Swaziland adopted a new constitution on 26 July 2005 and called for the review of all existing legislation to ensure compliance with the new constitution. This has caused the timeline for development and review of new legislation and regulation to become protracted. The process for implementation of both legislation and regulation require passage by the Parliament and in the case of legislation there is the additional requirement for approval by the King.

All legislation is drafted by VSD and reviewed by the Office of the Attorney General to ensure external quality. Drafts are then presented by the Minister to the Cabinet and on to Parliament for approval. Regulations are also reviewed by Parliament through a somewhat shorter process. The Minister has the authority to sign off on legal notices and similar policy documents. In this regard, several important pieces of supporting regulation remain in draft (eg., VPH, Veterinary Surgeons, Animal Welfare).

The Veterinary Public Health Act (17/2013) established a major new mandate for the VSD but needs to be supported with implementing regulations. The Act gives all affected entities a 3 year grace period (2013- 2016); however, this may not be realistic since as yet the supporting regulations remain in draft form only.

Summary of Available Legislation and Regulation

- *Veterinary Public Health Act 8/2013*
- *Legal Notice No. 6 of 2012; Animal Disease (Regulation and Control of Veterinary Drugs and Medicinal substances No.1) Regulations, 2012*
- *Draft Animal Disease (Animal Identification and Traceability) Regulations 2012*
- *Legal Notice 140 of 2007 (list of notifiable diseases)*
- *Legal Notice No: 35 of 2006; Prohibition of Use of Anabolic Hormones, Thyrostatics and Growth Promoters*
- *The Livestock Identification Act 13/2001*
- *Veterinary Surgeons Act 8/1997*
- *Regulations on Prohibition of Use of Anabolic Hormones and Thyrostatic Substances, Livestock Act 11/1990*
- *Animal Disease Act, 7/1965*
- *The Cruelty to Animals Act 43/1962*
- *The Hides and Skins Act 65/1955*
- *Cattle Dipping Charges 56/1956*

Strengths:

- Legislation is present for most areas within the VSD mandate

Weaknesses:

- Current legislation has little supporting regulation or has very brief regulations and supporting procedures are difficult to develop and implement
- Input of interested parties, especially the small farmers, is difficult to ensure

Recommendations:

- Work to ensure that supporting regulations for the Veterinary Public Health Act (17/2013) are prioritised to ensure timely implementation and allow the process to be completed by 2016 within the grace period allowed

IV-2 Implementation of legislation and regulations and compliance thereof *The authority and capability of the VS to ensure compliance with legislation and regulations under the VS mandate.*	Levels of advancement
	1. The VS have no or very limited programmes or activities to ensure compliance with relevant legislation and regulations.
	2. The VS implement a programme or activities comprising inspection and verification of compliance with legislation and regulations and recording instances of non-compliance, but generally cannot or do not take further action in most relevant fields of activity.
	3. Veterinary legislation is generally implemented. As required, the VS have a power to take legal action / initiate prosecution in instances of non-compliance in most relevant fields of activity.
	4. Veterinary legislation is implemented in all domains of veterinary competence and the VS work to minimise instances of non-compliance.
	5. The compliance programme is regularly subjected to audit by the VS or external agencies.

Terrestrial Code reference(s): Appendix 1

Evidence *(listed in Appendix 6):* E1-4, 7-8,10-11, 15, 24

Findings:

Guidelines (GVNS, 2013) used for all VSD operations are in place and are regularly reviewed (every 2 or 3 years) but the supporting documentation does not provide much detailed information.

Regular reporting from the field to VSD HQ is done by monthly reports which are compiled and reported as comprehensive annual reports (see CCI-11).

Prosecutions (see table 16) occur on a regular basis most often overseen by the AHI acting at the sub-regional level by formally pressing charges that are then handled by the police. Fines are collected and remitted to the national treasury; this ensures that there is no direct financial benefit (and hence: no conflict of interest) for the VSD. Most fines are levied for failure to comply with dipping, animal identification and movement controls. Since these services are all provided for free there is no financial motivation for the animal owners to not comply. Table 16 shows the number of VSD related prosecutions and fines issued between 2011 and 2014. E 63,020 corresponds to approximately USD 5,300:

Table 16. List of VSD related prosecutions and fines per annum (2011 – 2014).

Categories	Years			
	2011	2012	2013	2014
Total of No of cases	1,280	807	607	746
Total of No convicted	747	461	345	381
Total of No pending	608	356	262	365
Total of Fines (E)	**E 63,020.00**	**E 51,870.00**	**E 39,770.00**	**E 44,878.00**

Source : DVLS Annual report 2014.

Strengths:

- Strong VSD chain of command ensures the capacity to implement regulations and procedures in a uniform manner throughout the country
- Internal audits done by the VSD for performance and compliance occur on a regular basis
- Simple and easily understood guidelines (GNVS) are available at all levels of the VSD hierarchy
- Diptank attendance is between 85 and 100% of livestock owners weekly (average above 90%) and contraventions are dealt with efficiently by the magistrate courts

Weaknesses:

- The Veterinary Public Health Act (17/2013) has not been implemented

Recommendations:

- Prioritize the development of VPH regulations and procedures and provide education and outreach material to ensure full understanding and cooperation of interested parties as well as the general public

	Levels of advancement
IV-3 International harmonisation *The authority and capability of the VS to be active in the international harmonisation of regulations and sanitary measures and to ensure that the national legislation and regulations under their mandate take account of relevant international standards, as appropriate.*	1. National legislation, regulations and sanitary measures under the mandate of the VS do not take account of international standards.
	2. The VS are aware of gaps, inconsistencies or non-conformities in national legislation, regulations and sanitary measures 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 legislation, regulations and sanitary measures with the aim of harmonising them, as appropriate, with international standards, but do not actively comment on the draft standards of relevant intergovernmental organisations.
	4. The VS are active in reviewing and commenting on the draft standards of relevant intergovernmental organisations.
	5. The VS actively and regularly participate at the international level in the formulation, negotiation and adoption of international standards 5 , and use the standards to harmonise national legislation, regulations and sanitary measures.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E1, 7-8,10-11, 24

Findings:

As a member of AU-IBAR, SADC and other regional organisations, Swaziland regularly participates in development of a common position for comment on OIE draft standards and guidelines. The country is also currently part of an EU-funded programme in support of SPS measures (PAN-SPSO) with funding through the end of 2017 under the VET-GOV project (AU-IBAR).

Strengths:

- Harmonisation for trade purposes is well supported by regional and international agreements and the establishment of appropriate documents and protocols

Weaknesses:

- Process to update regulations is cumbersome and makes updating to comply with international standards protracted
- The “common position” approach is very much driven by the African Union and may run out of steam when the project ends in 2017, unless counties assume the financial responsibilities for the system (i.e. the annual meetings of African CVO’s)
- Implementation of international standards is currently primarily limited to the beef export sector

Recommendations:

- Work to update regulation and other legal tools to reflect and harmonise regional and international sanitary measures

[5] A country could be active in international standard setting without actively pursuing national changes. The importance of this element is to promote national change.

IV-4 International certification[6] *The authority and capability of the VS to certify animals, animal products, services and processes under their mandate, in accordance with the national legislation and regulations, and international standards.*	Levels of advancement
	1. The VS have neither the authority nor the capability to certify animals, animal products, services or processes.
	2. The VS have the authority to certify certain animals, animal products, services and processes, but are not always in compliance with the national legislation and regulations and international standards.
	3. The VS develop and carry out certification programmes for certain animals, animal products, services and processes under their mandate in compliance with international standards.
	4. The VS develop and carry out all relevant certification programmes for any animals, animal products, services and processes 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

Evidence (listed in Appendix 6): E1, 7-8,10-11, 24, H2-4, 15, 24, PP50

Findings:

Swaziland currently exports beef to Europe and live chicks and table eggs to Mozambique on a regular basis.

The VSD has a well-developed capacity to certify and document import and export activities. As a relatively small economy Swaziland relies heavily on import of a wide variety of products and conducts a lot of trade with RSA and has a system of providing import and export certificates in a timely manner. However, all documentation is paper based and no electronic capacity exists to support this activity.

There are no existing bilateral agreements within SADC to support the necessary AHS certification to facilitate the movement of horses within the region in a timely manner for competition and to allow high value equids access to emergency veterinary surgery in RSA. Horse owners interviewed commented that RSA did not allow emergency entry of high value horses for emergencies such as surgery or medical care that is not available in Swaziland. In addition, the movement control for the general movement of horses from Swaziland into RSA for competition was considered to be difficult and somewhat capricious on the part of RSA.

Strengths:

- Can export live animals (native beef) to RSA
- Currently export beef to EU and Norway
- International certification is well understood and supported by VSD resources

Weaknesses:

- No central database and no capacity to electronically record or monitor documentation
- All import certification is paper based and remains at the local level (eg., at the quarantine station or sub-regional office) and unless it involved the movement of live cattle there is no ability to capture the documentation centrally

[6] Certification procedures should be based on relevant OIE and Codex Alimentarius standards.

Recommendations:

- Identify areas where additional certification is needed to support export of Swazi products and live animals through interaction with interested parties within Swaziland
- Work within SADC or by bilateral agreement to support the necessary AHS certification to facilitate the movement of horses within the region in a timely manner.
- Develop electronic capacity to issue and monitor import/export certification to ensure consistent and reliable import/export processes
- Include auditing of export/import documentation in the current system of audits

IV-5 Equivalence and other types of sanitary agreements *The authority and capability of the VS to negotiate, implement and maintain equivalence and other types of sanitary agreements with trading partners.*	Levels of advancement
	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.
	5. The VS actively work with interested parties 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

Evidence (listed in Appendix 6): E1, 7-8,10-11, 24

Findings:

Swaziland works in several fora to promote equivalence and support risk based equivalence agreements. The VSD participates in such fora in SADC, COMESA, EAC and AU.

Regular bilateral meetings occur with the VS of the RSA regarding the movement of live animals and products of animal origin between the countries.

Strengths:

- Bilateral agreements support trade in beef with the EU and Norway
- Export of day-old chicks occurs regularly to Mozambique
- Movement of live animals and products of animal origin occur regularly between Swaziland and RSA

Weaknesses:

- Conditions of export for Swazi animal products imposed by RSA appear to be more stringent than supported by current animal health status

Recommendations:

- Develop additional bilateral agreement to expand the export of live animals and products of animal origin to RSA
- Develop and implement appropriate measures to support the export of additional products to Mozambique
- Work with the honey industry to develop markets and supporting agreements for the export of Swazi honey within the region initially and to the world in the future.

IV-6 Transparency	Levels of advancement
The authority and capability of the VS to notify the OIE of its sanitary status and other relevant matters (and to notify the WTO SPS Committee where applicable), in accordance with established procedures.	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 inform interested parties of changes in their regulations and decisions on the control of relevant diseases and of the country's sanitary status, and of changes in the regulations and sanitary status of other countries.
	5. The VS, in cooperation with their interested parties, carries out audits of their transparency procedures.

Terrestrial Code reference(s): Appendix 1
Evidence (listed in Appendix 6): E1, 7-8,10-11, 24

Internet resources : http://spsims.wto.org/web/pages/search/notification/Search.aspx
http://www.oie.int/wahis_2/public/wahid.php/Wahidhome/Home

Findings:

The Swaziland VSD has an exemplary record on transparency in terms of notifications to both the OIE (see table 17) and the WTO/SPS (see table 18) notification systems. Anything less would jeopardize the ability of the country to access export markets. There is however no evidence that it regularly informs interested parties of changes in its regulations and decisions on the control of relevant diseases and of the country's sanitary status, and of changes in the regulations and sanitary status of other countries.

The track record for immediate notifications and scheduled reporting to the OIE over the past years is presented here. Please note that 6 reports per year indicate that the country reports every 2 months to the OIE, which is highly commendable. In addition, it reports events at the second administrative level, i.e. per region (4)

Table 17. Reporting history of the VSD (notifications to the *World Animal Health Information System).*

Type of report	2008	2009	2010	2011	2012	2013	2014
Immediate notifications	**1**	**0**	**0**	**1**	**1**	**0**	**1**
Intermediate scheduled reports	**2**	**2**	**2**	**2**	**4**	**6**	**6**

2008 : Rift Valley fever; 2011, 2012 and 2014 : African Horse Sickness

In terms of SPS notifications, these are shown in table 18.

Table 18. Reporting history of the Department of Veterinary and Livestock Services (notifications to the WTO's *SPS Information System).*

Type of report	Reference	Year	Products
Emergency notification	G/SPS/N/SWZ/1	2009	Honey Bees, honey bee products, honey and used honey equipment
Regular notification	G/SPS/N/SWZ/2	2011	All food of animal origin; Meat and edible meat offal (HS Code: 02); Fish and crustaceans (HS Code: 03); Dairy (HS Code: 04); and Products of animal origin (HS Code: 05)
Addenda/Corrigenda	G/SPS/N/SWZ/2/ Corr.1	2012	

Both SPS notifications have been submitted by the *Department of Veterinary and Livestock Services* of the Ministry of Agriculture (DVLS) and pertained (in 2009) to the *"Introduction of Import permits in order to maintain freedom from American Foul brood and other exotic diseases of bees and to comply with international sanitary requirements for trade in bees, bee products and accessories"* and (in 2011) to the circulation of the 2010 Veterinary Public Health Bill for comments.

Strengths:

- Good reporting history to both OIE and WTO

Weaknesses:

- The VSD does not have a mechanism to regularly inform interested parties of changes in their regulations and decisions on the control of relevant diseases and of the country's sanitary status

Recommendations:

- None

IV-7 Zoning	Levels of advancement
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).	1. The VS cannot establish disease free zones.7
	2. As necessary, the VS can identify animal sub-populations with distinct health status suitable for zoning.
	3. The VS have implemented biosecurity measures that enable it to establish and maintain disease free zones for selected animals and animal products, as necessary.
	4. The VS collaborate with producers and other interested parties to define responsibilities and execute actions that enable it to establish and maintain disease free zones for selected animals and animal products, as necessary.
	5. The VS can demonstrate the scientific basis for any disease free zones and can gain recognition by 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

Evidence (listed in Appendix 6): E1, 7-8,10-11, 24, PB1, 11-14

Findings:

The use of zoning is well understood and successfully implemented as an important tool in disease control and eradication. Strategic zoning is incorporated in the contingency plans for FMD and the Joint Preparedness for Plan Avian Influenza.

Swaziland also uses zoning as a strategy to maintain market access and considers it especially useful in the case where control and eradication measures may take time (containment zoning). Guidance for field staff on zoning is provided in the 2013 GVNS.

Zoning has long been used in the control and successful eradiation of FMD from Swaziland. Currently a 'protection zone' is maintained along the eastern border with Mozambique. The 'green-line' cordon fence runs internally for 130 km as an 8-strand double fence supported by 44 camps and 178 cordon guards. There is also a quarantine camp there to handle animals returned from RSA or Mozambique.

The VSD is currently working with the EU to recognise the FMD-free status of the whole country and to lift the restrictions on animals in the 'protection zone' (i.e. animals that are not eligible for the export slaughter chain, see Figure 7). Currently these animals are individually identified with blue rather than yellow eartags and identified in the SLITS database as such. The controls in place for animal movement, individual identification of cattle and control through quarantine of repatriated animals fully support the case to allow animals from the 'protection zone' to enter the export slaughter chain. This recognition is of paramount importance to keep farmers in this area (financially) interested in the identification and traceability system.

Notwithstanding these prospects, the VSD proposes to keep the protection zone fence structure in place for future use in the case of an emergency (containment zoning) and acknowledges that it would be difficult to re-establish the cordon line in the future if dismantled.

Another form of zoning or compartmentalisation is the maintenance of a closed herd of FMD-free buffaloes within the Mkhaya Game Reserve within a double fence.

[7] If the VS has the authority and capability but chooses not to implement zoning, this CC should be recorded as "not applicable at this stage"

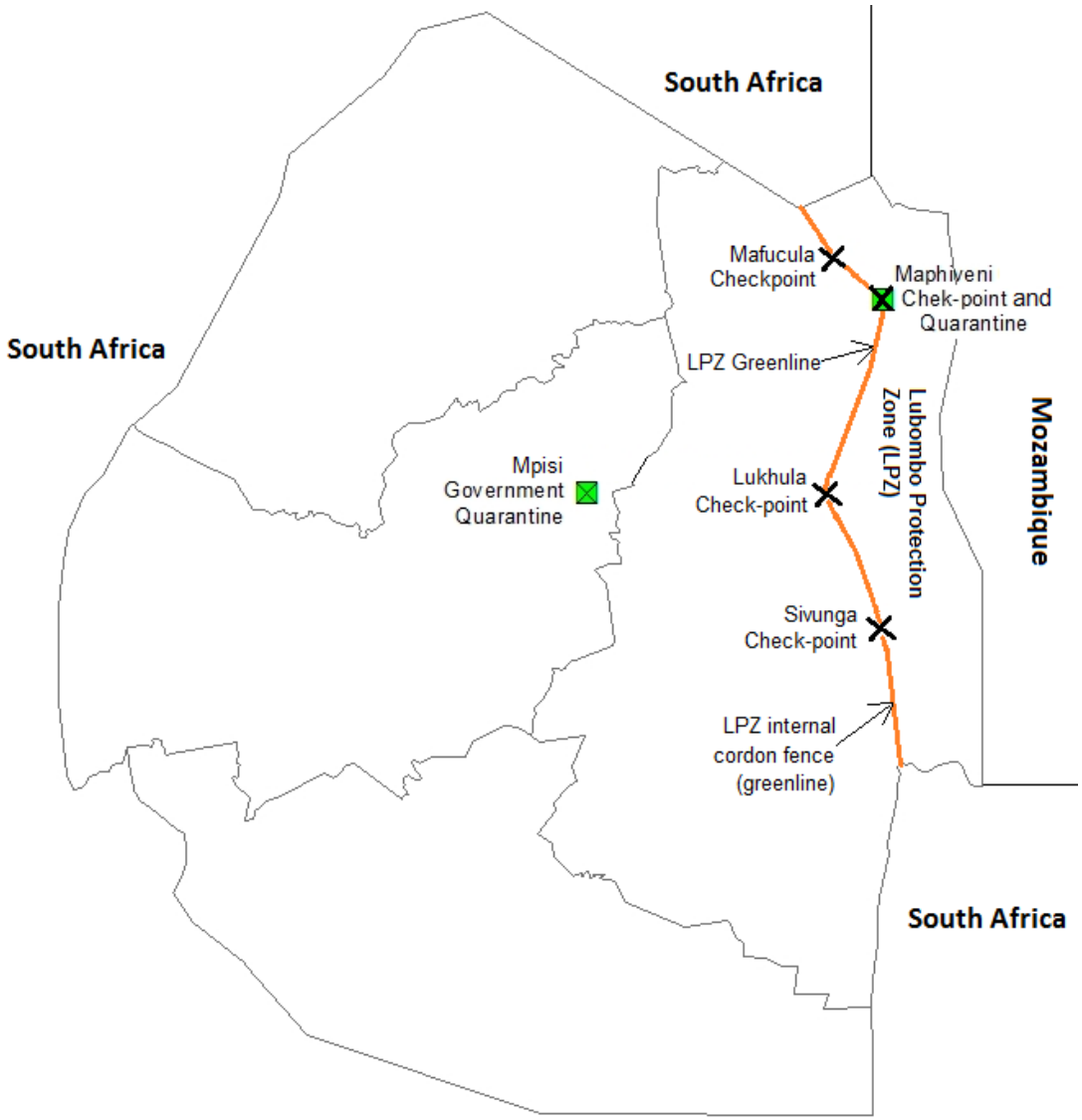

Figure 7. Map of Swaziland showing Lubombo Protection Zone (LPZ), checkpoints (LPZ exit points) and Government Quarantine Stations

Strengths:

- Good utilisation of zoning for disease control and eradication

Weaknesses:

- The cost to maintain the green-line and protection zone is high

Recommendations:

- Work with the EU to remove the 'green-line' and recognise the FMD-free status of the entire country
- Do a cost/benefit analysis of the cost of maintaining the fence balanced against the cost of FMD eradication to substantiate future decision-making regarding the cordon fence.

IV-8 Compartmentalisation *The authority and capability of the VS to establish and maintain disease free compartments as necessary and in accordance with the criteria established by the OIE (and by the WTO SPS Agreement where applicable).*	Levels of advancement
	1. The VS cannot establish disease free compartments.8
	2. As necessary, the VS can identify animal sub-populations with a distinct health status suitable for compartmentalisation.
	3. The VS ensure that biosecurity measures to be implemented enable it to establish and maintain disease free compartments for selected animals and animal products, as necessary.
	4. The VS collaborate with producers and other interested parties to define responsibilities and execute actions that enable it to establish and maintain disease free compartments for selected animals and animal products, as necessary.
	5. The VS can demonstrate the scientific basis for any disease free compartments and can gain 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

Evidence (listed in Appendix 6):

Findings:

No genuine compartments are currently recognised in Swaziland, for any disease, animals or products.

The VSD has developed a system to maintain an (allegedly) FMD-free herd of approximately 90 buffalo in a double fenced and monitored area in the middle of a large private game park in central Swaziland to control the risk of introduction of FMD by buffalo crossing the borders.

The large quarantine camps for ruminants can serve as compartments for the control of outbreaks if needed. The protection zone may be regarded as a *containment zone* for FMD in case of incursions into the country.

[8] 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: CONCLUSIONS

The OIE PVS follow-up mission was requested in the context of the desire of the VSD to have an OIE PVS Gap Analysis mission. The OIE PVS evaluation took place from 4 to 14 May 2015. The first OIE PVS Evaluation Mission was conducted in September 2007 by Drs Yehia and Mackenzie using a version of the OIE PVS Tool that was still under development.

The current mission was implemented by a team of 3 OIE accredited experts and an OIE observer from the OIE Sub-Regional Representation for Southern Africa (and SADC) in Gaborone, Botswana.

The VSD is managed by a small but dedicated group of well-qualified veterinary professionals who have demonstrated time and again that they have the technical capacity and capability to manage effectively and to be innovative, over and above the mere maintenance of the status quo. The successes achieved in accessing export markets in the past and the recent introduction of the SLITS database are testimony to this innovation and dedication. This would not have been possible without the stability and technical independence the VSD has enjoyed over many years.

The FMD surveillance (using the dip tank as an epidemiological unit), diagnostic tools, border control and movement control, (protection) zoning and identification, emergency preparedness, registration and traceability of live animals and hygienic slaughter, processing and residue testing facilities for the export beef slaughter chain are all well designed, managed, supervised, audited and consolidated and can serve as an effective platform for expansion to other species.

But more challenges requiring innovation lie ahead: the passage of the Veterinary Public Health Act (17/ 2013) was the result of Parliament expressing the concerns of the Swazi population that their foods of animal origin be safe and under the comprehensive control of a Competent Authority capable of addressing food safety at all levels from the *'farm to the fork'.* The VSD is tasked to address this major new responsibility by the end of 2016. However, at this point the supporting regulations have not yet been drafted and additional resources not allocated to fully accomplish this massive undertaking. Currently, food inspection is the responsibility of the MoH and local authorities and there is little technical expertise or field staff supporting this activity, so there is very little possibility of transferring inspector positions into VSD.

The challenges in the area of domestic animal production, animal health and safety of products derived from animals are numerous: there is an unknown but possibly high prevalence of tuberculosis and brucellosis in both dairy and beef cattle, in some cases antimicrobials are used without appropriate veterinary supervision, and veterinary public health measures, including the detection of residues and the overall risk mitigation of food-borne diseases and contaminations, including those originating from animal feeds are largely limited to export products at the present time.

Moreover, the VSD will need to develop appropriate regulations, procedures, training and outreach to a new set of stakeholders as well as provide education and communication support to the undertaking. The cooperation and exchange of information between cattle farmers and the field veterinary services against the backdrop of the weekly or bi-weekly dipping operations is well-established and would deserve to be escalated to the regional and national levels, which is not the case at present.

The VSD will need to resource the enterprise that is the Veterinary Authority basically from the ground up, requiring a comprehensive strategic plan with multiple short, medium and long term phases. These will include a more ambitious vision for the national reference laboratory, the CVL, as well as a long – term vision for the strengthening of human resources

at all levels, especially the mid-level technical cadre, which – except for the meat inspectors and some of the laboratory technicians – is today largely lacking.

Given the extent of future challenges, notably the implementation of the VPH mandate, it is recommended to conduct an OIE PVS Gap Analysis mission to provide information on the resource implications of the changes to be addressed during the next 5 years and to help ensure the allocation of resources needed by VSD to progress to the desired levels of achievement. With respect to the longstanding need for subsidiary/enabling legislation in some key areas including VPH and animal welfare the VSD will need to secure Ministerial and Cabinet level support, particularly to achieve the implementation of the Veterinary Public Health Act (2013) within the statutory deadlines.

PART V: APPENDICES

Appendix 1: Terrestrial Code references for critical competencies

Critical Competences	Terrestrial Code references
I.1.A **I.1.B** **I.2.A** **I.2.B**	➢ Points 1-5 of Article 3.1.2. on Fundamental principles of quality: Professional judgement / Independence / Impartiality / Integrity / Objectivity. ➢ Points 7 and 14 of Article 3.1.2. on Fundamental principles of quality: General organisation / Human and financial resources. ➢ Article 3.2.5. on Evaluation criteria for human resources. ➢ Article 3.2.12. on Evaluation of the veterinary statutory body. ➢ Points 1-2 and 5 of Article 3.2.14. on Organisation and structure of Veterinary Services / National information on human resources / Laboratory services.
I.3	➢ Points 1, 7 and 14 of Article 3.1.2. on Fundamental principles of quality: Professional judgement / General organisation / Human and financial resources. ➢ Article 3.2.5. on Evaluation criteria for human resources. ➢ Sub-point d) of Point 4 of Article 3.2.10. on Veterinary Services administration: In-service training and development programme for staff. ➢ Point 9 of Article 3.2.14. on Performance assessment and audit programmes.
I.4	➢ Point 2 of Article 3.1.2. on Fundamental principles of quality: Independence.
I.5	➢ Point 1 of Article 3.2.3. on Evaluation criteria for the organisational structure of the Veterinary Services. ➢ Point 9 of Article 3.2.14. on Performance assessment and audit programmes.
I.6.A **I.6.B**	➢ Points 6, 7 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / General organisation / Procedures and standards. ➢ 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 4 of Article 3.2.10. on Performance assessment and audit programmes: Veterinary Services administration.
I.7	➢ 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”. ➢ Points 2 and 3 of Article 3.2.6. on Evaluation criteria for material resources: Administrative / Technical. ➢ Point 3 of Article 3.2.10. on Performance assessment and audit programmes: Compliance. ➢ Point 4 of Article 3.2.14. on Administration details.
I.8 **I.9** **I.10**	➢ Points 6 and 14 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / Human and financial resources. ➢ Point 1 of Article 3.2.6. on Evaluation criteria for material resources: Financial. ➢ Point 3 of Article 3.2.14. on Financial management information.
I.11	➢ Points 7, 11 and 14 of Article 3.1.2. on Fundamental principles of quality: General organisation / Documentation / Human and financial resources. ➢ Point 4 of Article 3.2.1. on General considerations. ➢ Point 1 of Article 3.2.2. on Scope. ➢ Article 3.2.6. on Evaluation criteria for material resources. ➢ Article 3.2.10. on Performance assessment and audit programmes.
II.1A **II.1B** **II.2**	➢ Point 9 of Article 3.1.2. on Fundamental principles of quality: 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. ➢ Point 5 of Article 3.2.14. on Laboratory services.
II.3	➢ Chapter 2.1. on Import risk analysis
II.4	➢ Points 6 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / Procedures and standards. ➢ Point 2 of Article 3.2.7. on Legislation and functional capabilities: Export/import inspection. ➢ Points 6 and 7 of Article 3.2.14. on Veterinary legislation, regulations and functional capabilities / Animal health and veterinary public health controls.
II.5.A	➢ Points 6, 7 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / General organisation / Procedures and standards.

Critical Competences	Terrestrial Code references
II.5.B	➢ Points 1-3 of Article 3.2.8. on Animal health controls: Animal health status / Animal health control / National animal disease reporting systems. ➢ Sub-points a) i), ii) and iii) of Point 7 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. ➢ Chapter 1.4. on Animal health surveillance. ➢ Chapter 1.5. on Surveillance for arthropod vectors of animal diseases.
II.6	➢ Points 6, 7 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / General organisation / Procedures and standards. ➢ Points 1-3 of Article 3.2.8. on Animal health controls: Animal health status / Animal health control / National animal disease reporting systems. ➢ Sub-point a) of Point 7 of Article 3.2.14. on Animal health and veterinary public health controls: Animal health.
II.7	➢ Points 6, 7 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / General organisation / Procedures and standards. ➢ Points 1-3 of Article 3.2.8. on Animal health controls: Animal health status / Animal health control / National animal disease reporting systems. ➢ Sub-point a) of Point 7 of Article 3.2.14. on Animal health and veterinary public health controls: Animal health. ➢ Chapter 4.12. on Disposal of dead animal.
II.8.A **II.8.B** **II.8.C**	➢ Points 6, 7 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / General organisation / Procedures and standards. ➢ Article 3.4.12. on Human food production chain. ➢ 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. ➢ Points 2, 6 and 7 of Article 3.2.14. on National information on human resources / Veterinary legislation, regulations and functional capabilities / Animal health and veterinary public health controls. ➢ Chapter 6.2. on Control of biological hazards of animal health and public health importance through ante- and post-mortem meat inspection. 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).
II.9	➢ Points 6 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / Procedures and standards. ➢ Points 3 and 4 of Article 3.2.9. on Veterinary public health controls: Chemical residue testing programmes / Veterinary medicines. ➢ Sub-point a) ii) of Point 6 of Article 3.2.14. on Animal health and veterinary public health: Assessment of ability of Veterinary Services to enforce legislation. ➢ Chapters 6.6. to 6.10. on Antimicrobial resistance.
II.10	➢ Points 3 and 4 of Article 3.2.9. on Veterinary public health controls: Chemical residue testing programmes / Veterinary medicines. ➢ Sub-points b) iii) and iv) of Point 7 of Article 3.2.14. on Veterinary public health: Chemical residue testing programmes / Veterinary medicines.
II.11	➢ Chapter 6.3. on Control of hazards of animal health and public health importance in animal feed.
II.12.A **II.12.B**	➢ Point 6 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation. ➢ 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.
II.13	➢ Section7 on Animal Welfare
III.1	➢ Point 13 of Article 3.1.2. on Fundamental principles of quality: Communication. ➢ Sub-point b) of Point 2 of Article 3.2.6. on Administrative resources: Communications. ➢ Point 4 of Article 3.2.14. on Administration details. ➢ Chapter 3.3. on Communication.

Critical Competences	Terrestrial Code references
III.2	➢ Point 13 of Article 3.1.2. on Fundamental principles of quality: Communication. ➢ Point 2 of Article 3.2.3. on Evaluation criteria for the organisational structure of the Veterinary Services. ➢ Point 4 and Sub-point g) of Point 9 of Article 3.2.14. on Administration details and on Sources of independent scientific expertise. ➢ Chapter 3.3. on Communication.
III.3	➢ Article 3.2.11. on Participation on OIE activities. ➢ Point 4 of Article 3.2.14. on Administration details.
III.4	➢ Points 6, 7 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / General organisation / Procedures and standards. ➢ Point 7 of Article 3.2.3. on Evaluation criteria for the organisational structure of the Veterinary Services. ➢ Article 3.4.5. on Competent Authorities.
III.5.A **III.5.B**	➢ Point 6 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation. ➢ Point 9 of Article 3.2.1. on General considerations. ➢ Article 3.2.12. on Evaluation of the veterinary statutory body. ➢ Article 3.4.6. on Veterinarians and veterinary para-professionals.
III.6	➢ Points 6 and 13 of Article 3.1.2. Fundamental principles of quality: Veterinary legislation / Communication. ➢ Points 2 and 7 of Article 3.2.3. on Evaluation criteria for the organisational structure of the Veterinary Services. ➢ Point 7 of Article 3.2.14. on Animal health and veterinary public health controls. ➢ Point 4 of Article 3.4.3. on General principles: Consultation.
IV.1	➢ 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. ➢ Point 6 of Article 3.2.14. on Veterinary legislation, regulations and functional capabilities. ➢ Chapter 3.4. on Veterinary legislation.
IV.2	➢ 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. ➢ Point 6 of Article 3.2.14. on Veterinary legislation, regulations and functional capabilities.
IV.3	➢ Point 6 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation. ➢ Article 3.2.11. on Participation in OIE activities. ➢ Points 6 and 10 of Article 3.2.14. on Veterinary legislation, regulations and functional capabilities / Membership of the OIE.
IV.4	➢ Points 6, 7 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / General organisation / Procedures and standards. ➢ Point 2 of Article 3.2.7. on Legislation and functional capabilities: Export/import inspection. ➢ Sub-point b) of Point 6 of Article 3.2.14. on Veterinary legislation, regulations and functional capabilities: Export/import inspection. ➢ Chapter 5.2. on Certification procedures. ➢ Chapters 5.10. to 5.12. on Model international veterinary certificates.
IV.5	➢ Points 6 and 7 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / General organisation. ➢ Sub-point g) of Point 4 of Article 3.2.10. on Veterinary Services administration: Trade performance history. ➢ Chapter 5.3. on OIE procedures relevant to the Agreement on the Application of Sanitary and Phytosanitary Measures of the World Trade Organization.
IV.6	➢ Point 6 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation. ➢ Points 1 and 3 of Article 3.2.8. on Animal health controls: Animal health status / National animal disease reporting systems. ➢ Chapter 5.1. on General obligations related to certification.
IV.7 **IV.8**	➢ Point 6 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation. ➢ Chapter 4.3. on Zoning and compartmentalisation. ➢ Chapter 4.4. on Application of compartmentalisation.

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, 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/owners, the person(s) responsible for the animal(s), movements and other records with animal identification.

Animal welfare

means how an animal is coping with the conditions in which it lives. An animal is in a good state of welfare if (as indicated by scientific evidence) it is healthy, comfortable, well nourished, safe, able to express innate behaviour, and if it is not suffering from unpleasant states such as pain, fear and distress. Good animal welfare requires disease prevention and veterinary treatment, appropriate shelter, management, nutrition, humane handling and humane slaughter/killing. Animal welfare refers to the state of the animal; the treatment that an animal receives is covered by other terms such as animal care, animal husbandry, and humane treatment.

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.

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.

Disease

means the clinical and/or pathological manifestation of infection.

Emerging disease

means a new infection or infestation resulting from the evolution or change of an existing pathogenic agent, a known infection or infestation spreading to a new geographic area or population, or a previously unrecognised pathogenic agent or disease diagnosed for the first time and which has a significant impact on animal or public health.

Equivalence of sanitary measures

means the state wherein the sanitary measure(s) proposed by the exporting country as an alternative to those of the importing country, achieve(s) the same level of protection.

International veterinary certificate

means a certificate, issued in conformity with the provisions of Chapter 5.2., 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.

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 control programme

means a programme which is approved, and managed or supervised by the Veterinary Authority of a country for the purpose of controlling a vector, pathogen or disease by specific measures applied throughout that country, or within a zone or compartment of that country.

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.

Official veterinary control

means the operations whereby the Veterinary Services, knowing the location of the animals and after taking appropriate actions to identify their owner or responsible keeper, are able to apply appropriate animal health measures, as required. This does not exclude other responsibilities of the Veterinary Services e.g. food safety.

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 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 an OIE Member, comprising veterinarians, other professionals and para-professionals, 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 in the whole territory.

(Veterinary) legislation

means the collection of specific legal instruments (primary and secondary legislation) required for the governance of the veterinary domain.

Veterinary para-professional

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 para-professional) in a territory, and delegated to them under the responsibility and direction of a veterinarian. The tasks for each category of veterinary para-professional 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 para-professionals.

Wildlife

means feral animals, captive wild animals and wild animals.

Zoonosis

means any disease or infection which is naturally transmissible from animals to humans.

Appendix 3. List of persons met or interviewed

Date	Name	Position	Institution	Location
5th May	Moses Vilakati	Minister of Agriculture		
Opening meeting				
See attached pdf file				
Field visits, meetings and interviews				
6th May	Dr Noel Chikuni	Regional Veterinary Officer	DLVS Lubombo Regional Office	Lubombo Region
	Mr Manana	Chief Animal Health Inspector	DLVS Lubombo Regional Office	Lubombo Region
	Mr Dube	Animal Health Inspector	DLVS Lubombo Regional Office	Lubombo Region
	Mr Bhembe	Animal Health Inspector	DLVS Lubombo Regional Office	Lubombo Region
	Mr Aaron Nilane	Foot and Mouth Inspector	DLVS Lubombo Regional Office	Lubombo Region
	Ms Susan Matsebula	Controlling Veterinary Assistant	DLVS	Sibabaweni Dip Tank T/A 234
	Lofana Gamedze	Chairman	Dip Tank Committee	Sibabaweni Dip Tank T/A 234
	Lusekwane Lukhele	Vice-Chairman	Dip Tank Committee	Sibabaweni Dip Tank T/A 234
	Sanele Mbulu	Cordon Line Guard	DLVS Gate Cordon Line Camp	Mcozaneni Cordon Line Camp
	Nhlanhla Gwamanda	Cordon Line Guard	DLVS Gate Cordon Line Camp	Mcozaneni Cordon Line Camp
	Xcabe Vilane	Cordon Line Guard	DLVS Dvubane Cordon Line Camp	Mcozaneni Cordon Line Camp
	Vusi Manana	Cordon Line Guard	DLVS Dvubane Cordon Line Camp	Mcozaneni Cordon Line Camp
	Nhlanhla Magagula	Cordon Line Guard	DLVS Dvubane Cordon Line Camp	Mcozaneni Cordon Line Camp
	Ms Khangezile C.Bhembe	VA Data SLITS Recorder	DLVS Lubombo Regional Veterinary Office	Lubombo
	Magagula Zakhele	VA Clinic Assistant	DLVS Lubombo Regional Veterinary Office	Lubombo
	Smorden Mlophe	Cordon Guard	DLVS Lebelula Green Line Check Point	Lebelula
	Mcolis Mlophe	Cordon Guard	DLVS Lebelula Green Line Check Point	Lebelula
7th May	Thembinkosi Zwane	Veterinary Assistant	Gangakhulu dip tank	Hhohho Region
	Mfanukhona Magongo	Veterinary Assistant	Gangakhulu dip tank	Hhohho Region
	Nhlanhla Magagula	Cordon Line Guard	DLVS Dvubane Cordon Line Camp	Mcozaneni Cordon Line Camp
	Gilbert Mnisi	Dip Tank Assistant	Gangakhulu dip tank	Hhohho Region
	Stephen Maseko	Chair	Gangakhulu dip tank	Hhohho Region

Date	Name	Position	Institution	Location
7th May	Daniel Shabangu	Treasurer	Gangakhulu dip tank	Hhohho Region
	Majahonke Mnisi	Member	Gangakhulu dip tank	Hhohho Region
	Robert Maseko	Member	Gangakhulu dip tank	Hhohho Region
	Bhejisa Mnisi	Deputy Chair	Gangakhulu dip tank	Hhohho Region
	Ms Masilela	Secretary	Gangakhulu dip tank	Hhohho Region
	Siboniso Mavuso	Community Police	Gangakhulu dip tank	Hhohho Region
	Sipho Shabangu	Community Police	Gangakhulu dip tank	Hhohho Region
	Martin Maseko	Member	Gangakhulu dip tank	Hhohho Region
	Sonnyboy Dlamini	Farm Manager	Bulembo Dairy	Hhohho Region
	Ouba Anderson	Veterinary Assistant	Bulembo Dairy	Hhohho Region
	Bongumenzi Dlamini	Dairy Board Intern	Bulembo Dairy	Hhohho Region
	Moses Dlamini	Cordon Inspector	Matamo border Post	Hhohho Region
	Vusi Fakubee	Owner	Feedlot Farm 54	Hhohho Region
	Lukhetfu Lulane	Manager	Feedlot Farm 54	Hhohho Region
	Nonhlanhla Vilakati	Veterinary Assistant	Feedlot Farm 54	Hhohho Region
	Dr Barry Spencer	Private veterinarian		Mbane
8th May	Wendy Williams	Farm owner	Nyanza Dairy	Mbane
	Anne Davis	Farm manager	Nyanza Dairy	Mbane
11th May	Richard Dube	Ranch Manager	DLVS Mpisi Government Ranch	Manzini Region
	Ms Safisa Sitholec	1st Year Student	DLVS Mpisi Training Centre	Manzini Region
	Simengele Dlamini	2nd Year Student	DLVS Mpisi Training Centre	Manzini Region
	Barbara Magagul	Pig Breeding Farm Manager	Mpisi Gov Farm	Manzini Region
	Nellie Motsa	Veterinary Technician and Manager	V & H AgriVet	Manzini Region
12th May	Duncan MacLeod	Manager	SMI	Matsapha
	Dr Courage Mudyanavant	RVO	DVLS	Matsapha
	Dr G Phillip Dlamini	VO	DVLS	Matsapha
	Sandile Dlamini		DVLS	Matsapha
	Mhwanga Nombuleo	Cattle procurement	SMI	Matsapha
	Pinkie Tsabedaw	Lab tech	DVLS	Matsapha
	Mhwanga Nombuleo	Cattle procurement	SMI	Matsapha
	Pinkie Tsabedaw	Lab tech	DVLS	Matsapha
Closing meeting				
See attached pdf file				

Appendix 4: Timetable of the mission and sites/ facilities visited

Date	Assessor	Time	Location	Activities
4 May	JP, CD, ML	11:00	Manzini Airport	Team arrival and transit to hotel
		14:00	Mbabane VS HQ	Discuss mission, itinerary and exchange documents
		17:00		Return to hotel
5 May	PB	18:00	Manzini Airport	Arrival and transit to hotel
	JP, CD, ML	08:30	Mbabane	Courtesy meeting with Minister of Agriculture
		09:00-13:00	Mbabane VS HQ	Discussion and information exchange- programmes, resources and document exchange with CVO and Seniors
		14:00-15:30	Mbabane VS HQ	Stakeholders meeting
		15.30-17.00		Veterinary Council
		15:30-18:00	Mbabane VS HQ	Discussion and information exchange- programmes, resources and document exchange
6 May	JP/ML	05:30	Lubombo	Dip tank and inspection
		07.30		Hlane Royal National Park
		08.30	Lomahasha	Cordon border double fence and camp, informal crossing with South Africa
		09.00	Lomahasha	Border crossing with Mozanbique VS subregional office
		11.00	Lubombo	Maphiveni Quarantine camp
		12.30	"	IYSIS cattle and wild game ranch, feed mixer, beef herd and feedlot
		14.00	Manzini	Mbalba farm store/veterinary drugs seller
		15.00		Butcher shop and abattoir
	CD/PB	05.30	Lubombo	Dip tank and inspection Sibabaweni Dip Tank T/A 234
		10.00	Lubombo	Mcozaneni Cordon Line Camp and Cordon Line Fence
		11.30	Lubombo	Regional Veterinary Office
		14.00	Lubombo	Lebelula Check Point – Green Line
		15.00	Lubombo	Bar Circle Private Quarantine
7 May	JP/ML	07.30	Mbabane	Mbabane Regional VO
		08.30	Ngwenya	Border with RSA
		09.00		Sub-regional VO
		10.00		Swaziland Meat Wholesalers
		10.30	Mbabane	Private veterinary clinic, SVC member interview
		11.30		New RVO facility
		12.00		SAWS- Swaziland Animal Welfare Society
		12.45		Mbabane Sub-regional VO
		14.00	Malkranz	Egg laying farm and egg exporter
		15.00	Nyanza	Dairy farm and raw milk sales, horse facilty
	CD/PB	05.00	Hhohho Region	Gangakhulu dip tank
		13.00	Hhohho Region	Bulembo Dairy
		14.00		Matamo border Post
		16.00		Feedlot Farm 54

Date	Assessor	Time	Location	Activities
8 May	JP/ML/ CD/PB	08.30	Manzini	VS VEU/Manzini RVO
		13.00		CVL
		15.30		VS storage facility and emergency supplies
11 May	All	08.00	Manzini	ROV- budget review
		08.45		National Agricultural Union and Power Team Feedlotters Association
		09.46		Dairy Development Board
		10.45	Mpisi	Mafuteni Ranch and feedlot
	JP/PB	12.00	Mpisi	Government Pig Breeding Facility
	CD	12.00	Mpisi	Government Ranch
	All	13.00		VFTC
		14.00		Mpisi Government Quarantine Station
		15.30		V & H AgriVet Service
		16.45		National Chicks Hatchery
12 May	JP/CD	08.00	Matsapha	Export abattoir
		08.45		VS Food Hygiene Laboratory
		11.00		Swazi Poultry Producers Abattoir
		12.00		Southern Trading Company
		13.45		FeedMaster Milling
		15.00		Parmalat Milk Processing and importer
13 May	All	15.00	Manzini	Presentation of preliminary findings to DLVS staff
14 May	All		Ezulwini	Drafting of preliminary report
15 May				CD departs flight 8.10 hrs JP departs flight 11.05 hrs
16 May				PB departs flight 14.10 hrs

Appendix 5: Air travel itinerary

ASSESSOR	DATE	From	To	Flight No.	Departure	Arrival
J Punderson	2 May	Washington DC, USA	Johannesburg, RSA	SA0208	17:40	16:55 (3 May)
	4 May	Johannesburg, RSA	Manzini, Swaziland	SA8082	10:05	10:55
	15 May	Manzini, Swaziland	Johannesburg, RSA	SA8083	11:25	12:25
		Johannesburg, RSA	Washington DC, USA	SA0207	17:05	06:25 (16 May)
C Daborn	3 May	Nairobi, Kenya	Johannesburg, RSA	SA0185	16:05	19:20
	4 May	Johannesburg, RSA	Manzini, Swaziland	SA8082	10:05	10:55
	15 May	Manzini, Swaziland	Johannesburg, RSA	SA8081	09:10	09:15
		Johannesburg, RSA	Nairobi, Kenya	KQ0761	12:35	17:40
P Bastiaensen	5 May	Johannesburg, RSA	Manzini, Swaziland	SA8086	16:06	16:55
	16 May	Manzini, Swaziland	Johannesburg, RSA	SA8085	14:10	15:10
M Letshwenyo	4 May	Gaborone, Botswana	Johannesburg, RSA	BP 209	06:30	07:30
		Johannesburg, RSA	Manzini, Swaziland	SA 8082	10:05	10:55
	9 May	Manzini, Swaziland	Johannesburg, RSA	SA8081	08:10	09:15
		Johannesburg, RSA	Gaborone, Botswana	SA1767	11:55	12:24

Appendix 6: List of documents used in the PVS evaluation

E = Electronic version H = Hard copy version P= Digital picture

Ref	Title	Author / Date / ISBN / Web	Related critical competences
	PRE-MISSION DOCUMENTS		
E1	Baseline documentation	DVLS 2015	All
E2	Final Report - Audit To Evaluate The AHC System with particular ref to FMD for Export to the EU (DG(SANCO) 2014-7089)	FVO-EU 2014	II.3, II.4, II.5A&B, II.6, II.7, II.12A&B, IV.2, IV.4
E3	Final Report - Audit To Evaluate The Operation Of Controls Over The Production Of Fresh Bovine Meat Destined For Export To The EU (AP-2014-7089)	FVO- EU 2014	II.8-C, IV.2, IV.4
E4	Final Report - Audit To Evaluate The Operation Of Controls Over The Production Of Fresh Bovine Meat Destined For Export To The EU	FVO-EU 2011	II.8A-C, IV.2, IV.4
E5	2013 VS Annual Report	DLVS, 2014	
E6	Guidelines Swaziland Livestock Identification and Traceability System [SLITS]	DLVS 2014	II.12A&B
E7	OIE PVS Swaziland - 2007	OIE 2007	All
	MISSION DOCUMENTS		
E8	2014 VS Annual Report (Draft)	DVLS 2014	All
E9	The destruction of sick or injured animals regulations (under section 7 of the act) [DRAFT]	DVLS 2012	II.13, IV.1
E10	2012 VS Annual Report	DVLS 2012	All
E11	2011 VS Annual Report	DVLS 2011	All
E12	Standard Methods and Procedures (SMPs) for Control of Foot and Mouth Disease (FMD) in the Greater Horn of Africa (tmt_20141128_smp_fmd_ne)	USAID/AU-IBAR, 2014	II.7
E13	Guidelines for National Veterinary Services [GNVS]	DVLS 2013	I.6A&B, I.11
E14	Swaziland National Avian flu Preparedness Plan Draft 5	MOAC & MoH/SW 2007	II.6, II.7
E15	OIE Expert Mission Report- FMD in Swaziland	OIE, 2014	II.3, II.4, II.5A&B, II.6, II.7, II.12A&B, IV.2, IV.4
E16	Schemes of service for the Veterinary Surgeons	DVLS 2014	I.IA
E17	Schemes of service for Animal Production	DVLS 2014	I.IB
E18	Scheme of service for the animal health inspectorate cadre review	DVLS 2014	I.IB, I.11

Ref	Title	Author / Date / ISBN / Web	Related critical competences
E19	Schemes of service for meat inspectorate cadre	DVLS 2014	I.IB, I.11
E20	Schemes of service for the Veterinary Laboratory Technicians submission	DVLS 2014	I.IB, I.11
E21	2015 National Residue Control Plan	MoA 2015	II.10
E22	Contingency Plan Swaziland Foot and Mouth Disease (2013)	DVLS 2103	II.6, II.7
E23	Animal Health Strategic Plan	DVLS 2015	
E24	Presentation for the OIE PVS	DVLS 2015	All
E25	Compendium of Vet Products	DVLS 2015	II.9
E26	Swaziland Livestock Identification and Traceability presentation	DVLS 2015	II.12A&B
E27	Action Plan : Central Veterinary Laboratory (CVL)	Undated	II.1A&B, II.2.
E28	FMD-Diagnostic and Sampling protocol	Undated	II.1B, II.6, II.7
E29	(Self) Gap Analysis of the Central Veterinary Laboratory (CVL)	2014	II.1B, II.2.
E31	Regional inter-laboratory proficiency testing for rabies diagnosis. Southern Africa, Congo basin and other selected African countries. April 2013. Technical and financial report (confidential)	CDC / ARC / OIE 2013	II.2.
E32	CVL Annual Report 2014	CVL 2014	II.1, II.2
E33	Monthly Report March 2015	CVL 2015	II.1, II.2
E34	The Wildlife Situation in Swaziland	DLVS 2015	II.3, II.5A&B
E35	Standard Operating Procedure for Buffaloes in Swaziland	DLVS 2014	II.3, II.5A&B
E36	Draft Standard Operating Procedures for the Regulation of Wildlife Management for Purposes of Monitoring Wildlife Health and Health Interactions at the Wildlife-Domestic Animals and Human Interface in Swaziland.	DLVS 2014	II.3, II.5A&B
E37	Qualitative risk assessment for wildlife translocation into Jozini Game Reserve	TAD Scientific / DVLS 2010	II.3
E38	Import of fish from Mozambique 97-2003 doc	DVLS 2013	II.3
E39	Cox, Janice [editor] (2011) Report: Status of animal welfare in SADC countries. October 2011, OIE. Gaborone, Botswana.	OIE, Gaborone. 2011	II.13
E40	Animal Welfare SoPs	SMI - Undated	II.13
E41	Budget Speech 2014 presented by Martin G. Dlamini, the Minister of Finance, to the Parliament of the Kingdom of Swaziland (21st	MoFin 2014	I.8, I.10.

Ref	Title	Author / Date / ISBN / Web	Related critical competences
	February, 2014).		
E42	Bastiaensen P., Diaz F. , Allsopp M., Mapitse N.J. & Mtei B.J. [editors] (2011) Proceedings of the OIE sub-regional training seminar for OIE Focal points on diseases of honey-bees, June 14 - 17th, 2011, Ezulwini, Swaziland. English and French. OIE, Paris.	OIE, Paris. 2011	II.7
E43	Standard Setting Process of the World Organisation for Animal Health (OIE) African Union Interafrican Bureau for Animal Resources - A Handbook for Guidance of Participation of African Countries (tmt-20140627)	OIE/AU-IBAR, 2014	IV.1
E44	The dog regulations (under section 7 of the act) [DRAFT]	DVLS 2012	II.7, II.13, IV.1
E45	Animal Diseases Act	MoA 1965	I.6A, II.6, IV.1
E46	Veterinary Surgeons Act of 1997 [Act no.8/1997]	MoA 1997	I.3, I.6A, III.4, III.5, IV.1
E47	Veterinary Public Health Act_ 2013	MoA 2013	II.8A,B&C, IV.1
E48	VPH Red Meat [Beef]Regulations – (Draft)	DLVS 2015	II.8A,B&C, IV.1
E49	Regulations under the Animal Diseases Act- -Prohibition of the use of Anabolic Hormones, Thyrostatic Substances and Growth Promoters	MoA 2006	II.9, II.10 IV.1
E50	Regulation under the Animal Diseases Act -Control of Veterinary drugs and medicinal substances	MoA 2012	II.9, II.10 IV.1
E51	The Stock Diseases Amendment Regulation 2007 (Legal Notice 140 of 2007)	MoA 2007	II.7, IV.1
E52	The Cattle Dipping Charges Act	MoA 1950	I.11, IV.1
E53	The Cattle Routes Act	MoA 1918	I.11, IV.1
E54	The Game Control Act	MoA 1947	II.7, IV.1
E55	Game Act	MNR 1953	II.7, IV.1
E56	The Livestock Identification Act	MoA 2001	II.12A, IV.1
E57	The Pounds Act	MoA 1966	II.7, IV.1
E58	The Pounds Regulations	MoA 1932	II.7, IV.1
E59	The Registration of Dogs Act	MoA 1953	11.12A, IV.1
E60	The Registration of Pedigree Livestock Act	MoA 1921	II.12A, IV.1
E61	Legal Notice 6/2012: Animal Disease (Regulation and Control of Veterinary Drugs and Medicinal Substances No.1)	MoA 2012	II.9, IV.1
E62	The Cruelty to Animals Act	MoA 1962	II.13, IV.1
E63	Animal Welfare Act/Regulations (DRAFT)	DVLS 2015	II.13, IV.1

Ref	Title	Author / Date / ISBN / Web	Related critical competences
E64	The animal research, testing, teaching and experimentation regulations (under section 7 of the act) [DRAFT]	DVLS 2012	II.13, IV.1
E65	The animal welfare general offences regulations (under sections 4(3) and 7 of the act) [DRAFT]	DVLS 2012	II.13, IV.1
E66	The animal welfare inspectors regulation (under sections 6 and 7 of the act) [DRAFT]	DVLS 2012	II.13, IV.1
E67	The approved organisations regulations (under sections 6 and 7 of the act) [DRAFT]	DVLS 2012	III.4, IV.1
E68	VSD General Audit Form	DVLS, undated	I.6A&B, I.11
E69	SAWS Animal Welfare Brochure w/ siSwati	SAWS, undated	I.6B, II.13
E70	VFTC Student Field Attachment Evaluation	VFTC, undated	I.2B
E71	List of OIE Focal Points	DVLS, 2015	II.3
E72	Livestock Development Strategy for Africa 2015-2035	AU, 2014	I.6B, III.3, IV.3
E73	Budget allocation 2015 : Veterinary epidemiology centre	DVLS 2015	I.8, I.9, I.10, I.11
E74	Budget allocation 2015 : Meat hygiene and veterinary public health	DVLS 2015	I.8, I.9, I.10, I.11,
E75	Budget allocation 2015 : Field services : laboratory and quarantine stations centre	DVLS 2015	I.8, I.9, I.10, I.11
E76	Budget allocation 2015 : Field services : Manzini region centre	DVLS 2015	I.8, I.9, I.10, I.11
E77	Budget allocation 2016 : Veterinary epidemiology centre	DVLS 2015	I.8, I.9, I.10, I.11
E78	Budget allocation 2016 : Meat hygiene and veterinary public health centre	DVLS 2015	I.8, I.9, I.10, I.11
E79	Budget allocation 2016 : Field services : laboratory and quarantine stations centre	DVLS 2015	I.8, I.9, I.10, I.11
E80	Budget allocation 2016 : Field services : Manzini region centre	DVLS 2015	I.8, I.9, I.10, I.11
E81	Swaziland Support Program to Integrated Action Plans for Avian & Human Influenza (SPINAP-AHI)	DVLS/EU 2011	II.6, II.7
H1	2015 and 2016 Budget allocations central services (laboratory, quarantine, epidemiology and VPH “centres”)	DVLS 2014, 2015	I.8, I.9, I.10, I.11
H2	Cattle vaccination calendar	DVLS 2015	III.1.
H3	Stock Removal Permit	OIE PVS 2015	II.7
H4	VA Examination timetable.	OIE PVS 2015	I.1B
H5	VA Training timetable.	OIE PVS 2015	I.1B

Ref	Title	Author / Date / ISBN / Web	Related critical competences
H6	Import Permit - Pigs	OIE PVS 2015	II.7
H7	AHC - Pigs	OIE PVS 2015	II.7
H8	AHC -Cattle	OIE PVS 2015	II.7
H9	SVA Certificate	OIE PVS 2015	III.2
H10	VS audit form.	OIE PVS 2015	I.11
H11	VS audit form.	OIE PVS 2015	I.11
H12	VS audit form.	OIE PVS 2015	I.11
H13	AHC- Chilled frozen Meats	OIE PVS 2015	II.8C
H14	AHC- Aquatic Products	OIE PVS 2015	II.8C
H15	Import / Export of Veterinary Products - notification	OIE PVS 2015	II.4
H16	VSD Stock Removal Permit	OIE PVS 2015	
H17	VFTC curriculum and class schedule	OIE PVS 2015	
H18	VSD import- sheep	OIE PVS 2015	
H19	Border Post control	OIE PVS 2015	II.4
H20	Blood smear Form	OIE PVS 2015	II.5A
H21	Movement of Stolen Cattle - authorisation	OIE PVS 2015	II.12A
H22	VA Monthly report	OIE PVS 2015	II.5A
H23	Audit Report Madubula Dip Tank	OIE PVS 2015	I.1B I.11
H24	RSA import certificate- meat	OIE PVS 2015	II.4, II.8C, IV.4
H25	VSD Audit report-VA individual performance	OIE PVS 2015	
H26	VSD- audit follow-up action plan	OIE PVS 2015	
H27	VSD audit report	OIE PVS 2015	
PB01	(outer) Veterinary cordon fence on the border with Mozambique (protection zone).	P.Bastiaensen (oie) 2015	II.4, IV.7
PB02	Border crossing with the Rep of South Africa at Matsamo.	P.Bastiaensen (oie) 2015	II.4
PB03	Curriculum of the two-year certificate course at the VFTC.	P.Bastiaensen (oie) 2015	I.2.B.
PB04	Diptank register.	P.Bastiaensen (oie) 2015	II.7, II.12A
PB05	Disinfection of government vehicle upon entry of broiler hatchery “National Chicks” in the vicinity of Manzini.	P.Bastiaensen (oie) 2015	II.7
PB06	Ear tagging of a new born calf at a diptank.	P.Bastiaensen (oie) 2015	II.12A
PB07	Entrance of the CVL at the DVLS head office in Manzini.	P.Bastiaensen (oie) 2015	II.1
PB08	Entrance to the LFTC, one of the farmers' training facilities in Swaziland (focusing on apiculture and dairy production).	P.Bastiaensen (oie) 2015	III.6
PB09	Evidence of brucellosis vaccination in Hhohho region.	P.Bastiaensen (oie) 2015	II.7
PB10	Floorplan of the DVLS head office in Manzini.	P.Bastiaensen (oie) 2015	I.7

Ref	Title	Author / Date / ISBN / Web	Related critical competences
PB11	FLTR - Cordon guards (2), sub-regional AHI and RVO.	P.Bastiaensen (oie) 2015	I.1B, I.2, II.4, IV.7
PB12	Government vehicles used by national and regional veterinary offices.	P.Bastiaensen (oie) 2015	I.7
PB13	Green Line checkpoint (FMD Protection Zone) on MR16 .	P.Bastiaensen (oie) 2015	IV.7
PB14	Green Line double fencing (intra-country) along the MR16.	P.Bastiaensen (oie) 2015	IV.7
PB15	Instructions for management of government vehicles outside working hours .	P.Bastiaensen (oie) 2015	I.11
PB16	Main block of the Veterinary & Farmers Training Centre (VFTC) in Mpisi.	P.Bastiaensen (oie) 2015	I.2.B.
PB17	Page four of a veterinary import certificate form (quarantine centre) sanitary conditions.	P.Bastiaensen (oie) 2015	
PB18	Page one of a veterinary import certificate form (quarantine centre).	P.Bastiaensen (oie) 2015	
PB19	Part of the 2015 (2014) budget for a regional veterinary office.	P.Bastiaensen (oie) 2015	I.8
PB20	Pig pens at the recently refurbished government livestock quarantine centre in Mpisi.	P.Bastiaensen (oie) 2015	
PB21	Private veterinary pharmacy in Manzini.	P.Bastiaensen (oie) 2015	
PB22	Public veterinary clinic at the regional veterinary office in Siteki (Lubombo region).	P.Bastiaensen (oie) 2015	II.7
PB23	Regional Veterinary Office in Siteki (Lubombo region).	P.Bastiaensen (oie) 2015	I.7
PB24	Register of short courses attended by regional veterinary staff (Lubombo region).	P.Bastiaensen (oie) 2015	I.3
PB25	Registry of rejected commodities brought in by travellers from the RSA (detail).	P.Bastiaensen (oie) 2015	II.4
PB26	Registry of rejected commodities brought in by travellers from the RSA.	P.Bastiaensen (oie) 2015	II.4
PB27	Roster of brucellosis vaccination in Hhohho region.	P.Bastiaensen (oie) 2015	II.7
PB28	Rural butchery in Hhohho region.	P.Bastiaensen (oie) 2015	II.8
PB29	Sample reception register at the CVL Manzini (with positive BTB results).	P.Bastiaensen (oie) 2015	II.1
PB30	Sample submission form of the CVL Manzini (post-mortem).	P.Bastiaensen (oie) 2015	II.1
PB31	Selection of injectable antibiotic compounds for sale in a private veterinary pharmacy in Manzini.	P.Bastiaensen (oie) 2015	

Ref	Title	Author / Date / ISBN / Web	Related critical competences
PB32	SLITS Register (handwritten) cover.	P.Bastiaensen (oie) 2015	II.12A
PB33	SLITS Register (handwritten) detail.	P.Bastiaensen (oie) 2015	II.12A
PB34	Sow boxes at the Mpisi pig breeding and multiplication centre (government facility).	P.Bastiaensen (oie) 2015	
PB35	Stocks of amitraz (dipping chemical) at the DVLS warehouse in Manzini.	P.Bastiaensen (oie) 2015	II.7
PB36	Stocks of disinfection handsprayers and masks at the DVLS warehouse in Manzini.	P.Bastiaensen (oie) 2015	II.6
PB37	Stocks of electrical generators at the DVLS warehouse in Manzini.	P.Bastiaensen (oie) 2015	II.6
PB38	Stocks of rabies vaccine at the regional veterinary office in Siteki (Lubombo region).	P.Bastiaensen (oie) 2015	II.7
PB39	Submission of a blood smear for microscopic examination (protozoa).	P.Bastiaensen (oie) 2015	II.5
PB40	Subregional Veterinary Office in Hhohho region.	P.Bastiaensen (oie) 2015	I.7
PB41	Swaziland Dairy Board levies (%) for imported dairy products (honey not applied).	P.Bastiaensen (oie) 2015	
PB42	VA registering incoming cattle at a diptank.	P.Bastiaensen (oie) 2015	II.7, II.12A
PB43	VA with motorcycle.	P.Bastiaensen (oie) 2015	
PB44	Vaccination by a VA of cattle against LSD at a diptank.	P.Bastiaensen (oie) 2015	II.7
PB45.	Veterinary surgery at the DVLS head office in Manzini.	P.Bastiaensen (oie) 2015	I.7
PD1	Blood Smear and Form	C.Daborn 2015	II.5A
PD2	CA Register - Hhohho	C.Daborn 2015	II.12A
PD3	Cattle Dipping 1	C.Daborn 2015	II.7
PD4	Cattle Dipping 2	C.Daborn 2015	II.7
PD5	Cordon Line Outer Fence	C.Daborn 2015	II.4
PD6	CVL 1 - Reception	C.Daborn 2015	III.1
PD7	CVL 2 PM Room	C.Daborn 2015	1.7, II.1A&B
PD8	CVL 3 - Sample submission form	C.Daborn 2015	II.5A&B
PD9	Dip Tank Attendance Register - AHI Endorsed	C.Daborn 2015	I.11
PD10	Feedmaster 1 - Feed samples for residue testing	C.Daborn 2015	II.11
PD11	FeedMaster 2 - Records of Analysis done	C.Daborn 2015	II.11
PD12	Game Fencing and Guard - Mkhaya Game Reserve	C.Daborn 2015	II.4
PD13	Government Clinic - Manzini 1	C.Daborn 2015	1.7
PD14	Government Clinic - Manzini 2	C.Daborn 2015	1.7
PD15	Mafuteni Pvt Ranch 1 -Treatment records	C.Daborn 2015	II.9
PD16	Mafuteni Pvt Ranch 2 Withdrawal Period Regimes -	C.Daborn 2015	II.8

Ref	Title	Author / Date / ISBN / Web	Related critical competences
PD17	National Chicks Logo	C.Daborn 2015	III.1
PD18	Parmalat 1. Food Safety Quality Control Laboratory	C.Daborn 2015	II.8
PD19	Parmalat 2. Milk processing record	C.Daborn 2015	II.8
PD20	Private Quarantine - Bar Circle, Lubombo	C.Daborn 2015	II.4
PD21	Rabies vaccine stock at Lubombo Regional Office	C.Daborn 2015	II.9
PD22	SLITS 1.Double tagging and bell	C.Daborn 2015	II.12A
PD23	SLITS 2.Tag detail	C.Daborn 2015	II.12A
PD24	SLITS 3.HQ number brand	C.Daborn 2015	II.12A
PD25	SLITS 4.FQ shield brand	C.Daborn 2015	II.12A
PD26	SLITS 5.data record book	C.Daborn 2015	II.12A
PD27	SLITS 6.database	C.Daborn 2015	II.12A
PD28	SMI Export Abattoir 1 - Veterinary Certification	C.Daborn 2015	II.8A,B&C
PD29	SMI 2 - HACCP notice	C.Daborn 2015	II.8A,B&C
PD30	SMI 3. Changing Area	C.Daborn 2015	II.8A,B&C
PD31	SMI 4 - E-PIN & fingerprint recognition	C.Daborn 2015	II.8A,B&C
PD32	SMI 5 - SOPs	C.Daborn 2015	II.8A,B&C
PD33	SMI 6 - Metal Detector	C.Daborn 2015	II.8A,B&C
PD34	SMI 6 Isolation Pen - Lairage	C.Daborn 2015	II.8A&B
PD35	SMI 7 Water in Lairage Pens	C.Daborn 2015	II.13
PD36	Spray Race - Private	C.Daborn 2015	II.7
PD37	Stock Movement Permit 1	C.Daborn 2015	II.12A
PD38	Stock Movement Permit 2	C.Daborn 2015	II.12A
PD39	Stock Movement Register - Control Zone Green Line Gate	C.Daborn 2015	II.4
PP1	VS HQ Mbabane	J.Punderson 2015	I.7
PP2	Quarantine logbook- Maphiveni	J.Punderson 2015	I.11, II.4,
PP3	VS HQ Mbabane	J.Punderson 2015	I.7
PP4	main office reception area	J.Punderson 2015	I.7
PP5	dip tank chute	J.Punderson 2015	II.5A, II.7, II.12
PP6	dip tank crush	J.Punderson 2015	II.5A, II.7, II.12
PP7	dip tank logbook	J.Punderson 2015	II.5A, II.7, II.12
PP8	dip tank attendant	J.Punderson 2015	III.4
PP9	cow at diptank with ID	J.Punderson 2015	II.12A
PP10	diptank record keeping	J.Punderson 2015	II.5A, II.12A
PP11	CVL logbook- FMD NSP testing	J.Punderson 2015	II.1B, II.2
PP12	CVL logbook- FMD	J.Punderson 2015	II.1B, II.2
PP13	Employee assessment	J.Punderson 2015	I.11
PP14	CVL certificate of CE	J.Punderson 2015	I.2B, I.3
PP15	CVL certificate of CE	J.Punderson 2015	I.2B, I.3
PP16	CVL certificate of CE	J.Punderson 2015	I.2B, I.3
PP17	CVL certificate of CE	J.Punderson 2015	I.2B, I.3
PP18	CVL certificate of CE	J.Punderson 2015	I.2B, I.3
PP19	CVL certificate of CE	J.Punderson 2015	I.2B, I.3
PP20	CVL certificate of CE	J.Punderson 2015	I.2B, I.3
PP21	CVL certificate of CE- TQM & QA	J.Punderson 2015	I.2B, I.3, II.2

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PP22	VS storage facility	J.Punderson 2015	I.7
PP23	VS storage facility	J.Punderson 2015	I.7
PP24	VS storage facility	J.Punderson 2015	I.7
PP24	VS storage facility	J.Punderson 2015	I.7
PP25	Cordon fence- RSA border	J.Punderson 2015	I.7, II.4
PP26	Cordon fence- RSA border	J.Punderson 2015	I.7, II.4
PP27	Cordon fence- RSA border	J.Punderson 2015	I.7, II.4
PP28	Butcher shop and small scale S/H	J.Punderson 2015	II.8A-C
PP29	Regional VS logbooks	J.Punderson 2015	I.11, II.5A, II.5B, II.7, II.12A
PP30	Regional VS logbooks	J.Punderson 2015	I.11, II.5A, II.5B, II.7, II.12A
PP31	border records	J.Punderson 2015	I.11, II.4, II.5A, II.5B, II.7, II.12A
PP32	Regional VS logbooks	J.Punderson 2015	I.11, II.5A, II.5B, II.7, II.12A
PP33	Regional VS drug import permits	J.Punderson 2015	I.11, II.5A, II.5B, II.7, II.12A
PP34	Regional VS monthly reports	J.Punderson 2015	I.11, II.5A, II.5B, II.7, II.12A
PP35	Regional VS building	J.Punderson 2015	I.7
PP36	Regional VS building	J.Punderson 2015	I.7
PP37	VS Manzini building	J.Punderson 2015	I.7
PP38	VS Manzini building	J.Punderson 2015	I.7
PP39	VS Manzini building	J.Punderson 2015	I.7
PP40	CVL building	J.Punderson 2015	I.7, II.1A
PP41	CVL building- post mortem	J.Punderson 2015	I.7, II.1A, II.7
PP42	CVL facilities	J.Punderson 2015	I.7, II.1A, II.1B
PP43	CVL facilities	J.Punderson 2015	I.7, II.1A, II.1B
PP44	CVL facilities	J.Punderson 2015	I.7, II.1A, II.1B
PP45	CVL facilities	J.Punderson 2015	I.7, II.1A, II.1B
PP46	CVL facilities	J.Punderson 2015	I.7, II.1A, II.1B
PP47	CVL facilities	J.Punderson 2015	I.7, II.1A, II.1B
PP48	CVL facilities	J.Punderson 2015	I.7, II.1A, II.1B
PP49	CVL facilities	J.Punderson 2015	I.7, II.1A, II.1B
PP50	CVL live animal import cert	J.Punderson 2015	II.4, IV.4
PP51	CVL documentation	J.Punderson 2015	II.1B, II.2
PP52	CVL documentation	J.Punderson 2015	II.1B, II.2
PP53	CVL documentation	J.Punderson 2015	II.1B, II.2
PP54	CVL documentation	J.Punderson 2015	II.1B, II.2
PP55	CVL documentation	J.Punderson 2015	II.1B, II.2
PP56	CVL documentation	J.Punderson 2015	II.1B, II.2
PP57	CVL documentation	J.Punderson 2015	II.1B, II.2
PP58	CVL documentation	J.Punderson 2015	II.1B, II.2

Ref	Title	Author / Date / ISBN / Web	Related critical competences
PP59	CVL documentation	J.Punderson 2015	II.1B, II.2
PP60	VSD animal movement permit	J.Punderson 2015	II.12A
PP61	CVL documentation	J.Punderson 2015	II.1B, II.2
PP61	CVL documentation	J.Punderson 2015	II.1B, II.2
PP62	CVL documentation	J.Punderson 2015	II.1B, II.2
PP63	CVL documentation	J.Punderson 2015	II.1B, II.2
PP64	CVL surveillance records	J.Punderson 2015	II.5A, II.5B, II.7
PP65	CVL surveillance records	J.Punderson 2015	II.5A, II.5B, II.7
PP66	CVL surveillance records- Bruc	J.Punderson 2015	II.5A, II.5B, II.7
PP67	CVL surveillance records- bruc	J.Punderson 2015	II.5A, II.5B, II.7
PP68	CVL- BSE surveillance	J.Punderson 2015	II.5A, II.5B, II.7
PP69	CVL- SOPs	J.Punderson 2015	II.1B, II.2
PP70	CVL- samples to OVI	J.Punderson 2015	II.1A
PP71	CVL- ND AI serosurv report	J.Punderson 2015	II.1B, II.5B, II.7
PP72	Mpisi Pig Breeding Station	J.Punderson 2015	I.7
PP73	Mpisi Pig Breeding Station	J.Punderson 2015	I.7
PP74	Mpisi Quarantine Station records	J.Punderson 2015	II.4
PP75	Mpisi Quarantine Station records	J.Punderson 2015	II.4
PP76	Mpisi Quarantine Station records	J.Punderson 2015	II.4
PP77	Veterinary Supply retailer	J.Punderson 2015	II.9
PP78	Meat hygiene lab	J.Punderson 2015	I.7
PP79	Meat hygiene lab records	J.Punderson 2015	II.8B, II.8C
PP80	Meat hygiene lab records	J.Punderson 2015	II.8B, II.8C
PP81	Meat hygiene lab records	J.Punderson 2015	II.8B, II.8C
PP82	Meat hygiene lab records	J.Punderson 2015	II.8B, II.8C
PP83	Meat hygiene lab records- residues	J.Punderson 2015	II.8B, II.8C, II.10
PP84	Meat hygiene lab records	J.Punderson 2015	II.8B, II.8C
PP85	Meat hygiene lab residue screening	J.Punderson 2015	II.8B, II.8C, II.10
PP86	Meat hygiene lab records	J.Punderson 2015	II.8B, II.8C
PP87	Residue sample storage	J.Punderson 2015	II.10
PP88	Residue sample storage	J.Punderson 2015	II.10
PP89	Meat hygiene lab records	J.Punderson 2015	II.8B, II.8C
PP90	Meat hygiene lab records	J.Punderson 2015	II.8B, II.8C

Appendix 7: Organisation of the OIE PVS evaluation of the VS of Swaziland

Assessors Team:

- Team leader: Dr Julia Punderson
- Technical expert: Dr Chris Daborn
- Facilitator: Dr Patrick Bastiaensen
- Observer: Dr Moetapele Letshwenyo

References and Guidelines:

- Terrestrial Animal Health Code (especially Chapters 3.1. and 3.2.)
- OIE PVS Tool for the Evaluation of Performance of VS
  - → Human, financial and physical resources,
  - → Technical capability and authority,
  - → Interaction with stakeholders,
  - → Access to markets.

Dates: 5 – 14 May 2015

Language of the audit and reports:

Subject of the evaluation: VS as defined in the Terrestrial Animal Health Code

- Not Inclusive of aquatic animals
- Not inclusive of other institutions / ministries responsible for activities of VS

Activities to be analysed: All activities related to animal and veterinary public health:

- Field activities:
  - → Animal health (epidemiological surveillance, early detection, disease control, etc)
  - → quarantine (all country borders),
  - → veterinary public health (food safety, veterinary medicines and biological, residues, etc)
  - → control and inspection,
  - → others
- Data and communication
- Diagnostic laboratories
- Research
- Initial and continuous training
- Organisation and finance
- Other to be determined…

Persons to be present: see provisional Appendix 3

Sites to be visited: see provisional Appendix 4

Procedures:

- Consultation of data and documents
- Comprehensive field trips
- Interviews and meetings with VS staff and stakeholders,
- Analyse of practical processes

Provision of assistance by the evaluated country

- Completion of missing data as possible
- Translation of relevant document if required
- Administrative authorisation to visit designated sites
- Logistical support if possible

Reports:

- a fact sheet or powerpoint will be presented at the closing session
- a report will be sent to the OIE for peer-review no later than one month after the mission
- the current levels of advancement with strengths, weaknesses and references for each critical competence will be described,
- general recommendations may be made in agreement with the VS.

Confidentiality and publishing of results

The results of the evaluation are confidential between the country and the OIE and may only be published with the written agreement of the evaluated country.